



Alcatel-Lucent 5620

SERVICE AWARE MANAGER | RELEASE 6.1

Alcatel-Lucent 5650

CONTROL PLANE ASSURANCE MANAGER | RELEASE 2.0

INSTALLATION AND UPGRADE GUIDE

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- 8.10 This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario. The application of the United Nations Convention on Contracts for the International Sale of Goods is hereby expressly excluded.

Preface

About this document

The 5620 SAM | 5650 CPAM Installation and Upgrade Guide contains configuration information and procedures for:

- installing the 5620 SAM on a Windows or Solaris platform
- installing database, server, and client components in a standalone configuration on a Windows or Solaris platform
- installing database, server, and client components in a redundant configuration on a Solaris platform
- configuring non-5620 SAM software, such as the 5620 NM, for interaction with the 5620 SAM



Note 1 – Previous versions of the *5620 SAM* | *5650 CPAM Installation and Upgrade Guide* contain information about setting up an HTTP or HTTPS connection on the 5620 SAM server for OSS communication. This information is now in the SSL security configuration chapter of the *5620 SAM User Guide*.

Note 2 – Previous versions of the *5620 SAM* | *5650 CPAM Installation and Upgrade Guide* contain information about restoring a database. This information is now in the database troubleshooting chapter of the *5620 SAM Troubleshooting Guide*.

About related documentation

There are several documents that describe the 5620 SAM and the managed devices.

- See the *5620 SAM Planning Guide* for information about 5620 SAM scalability and recommended hardware configurations.
- See the *5620 SAM* | *5650 CPAM Installation and Upgrade Guide* for information about installing the 5620 SAM database, server, and client software.
- See the *5620 SAM User Guide* for information about using the client GUI to perform network management functions.
- See the *5620 SAM Parameter Guide* for definitions, ranges, dependencies, and default values for configurable 5620 SAM client GUI parameters.
- See the *5620 SAM-O OSS Interface Developer Guide* for information about using the XML OSS interface to create OSS applications, for example, to perform alarm monitoring and inventory control.
- See the *5620 SAM Routine Maintenance Procedures Guide* for information about developing and scheduling regular maintenance activities.
- See the *5620 SAM System Architecture Guide* for information about software component interaction.
- See the *5620 SAM NE Compatibility Guide* for release-specific information about the compatibility of managed-device features with different 5620 SAM releases.
- See the *5620 SAM Statistics Management Guide* for information about managing 5620 SAM statistics collection and to view a list of the MIB counters that are available for collection using the 5620 SAM.
- See the index file in the User_Documentation directory on the application DVD for additional documentation information.

See the 7750 SR, 7450 ESS, 7710 SR, 7705 SAR, 7250 SAS, 7250 SAS-ES, 7250 SAS-ESA, OS 6400, OS 6850, OS 6855, and Telco user documentation for information about device-specific CLI commands, parameters, and installation. Contact your Alcatel-Lucent support representative for information about specific network or facility considerations.

Procedure 1 To find the 5620 SAM user documentation

The user documentation is available from the following sources:

- The User_Documentation directory on the product DVD-ROM
- Help \rightarrow 5620 SAM User Documentation in the 5620 SAM client GUI main menu

Multiple PDF document search

You can use Adobe Reader Release 6.0 and later to search multiple PDF files for a common term. Adobe Reader displays the results in a single display panel. The results are grouped by PDF file, and you can expand the entry for each file.



Note – The PDF files in which you search must be in the same folder.

Procedure 2 To search multiple PDF files for a common term

- 1 Open Adobe Acrobat Reader.
- 2 Choose Edit→Search from the Acrobat Reader main menu. The Search PDF panel appears.
- 3 Enter the search criteria.
- 4 Click on the All PDF Documents In radio button.
- 5 Select the folder in which to search using the drop-down menu.
- 6 Click on the Search button.

Acrobat Reader displays the search results. You can expand the entries for each document by clicking on the + symbol.

Conventions used in this guide

The following table lists the conventions that are used throughout the documentation.

Convention	Description	Example
Key name	Press a keyboard key	Delete
Italics	Identifies a variable	hostname
Key+Key	Type the appropriate consecutive keystroke sequence	CTRL+G
Кеу-Кеу	Type the appropriate simultaneous keystroke sequence	CTRL-G
با	Press the Return key	<u>م</u> ا
_	An em dash in a table cell indicates there is no information.	_
\rightarrow	Indicates that a cascading submenu results from selecting a menu item	Policies→Routing

Table 1 Documentation conventions

Procedures with options or substeps

When there are options in a procedure, they are identified by letters. When there are substeps in a procedure, they are identified by roman numerals.

Example of options in a procedure

At step 1, you can choose option a or b. At step 2, you must do what the step indicates.

- 1 This step offers two options. You must choose one of the following:
 - a This is one option.
 - **b** This is another option.
- 2 You must perform this step.

Example of substeps in a procedure

At step 1, you must perform a series of substeps within a step. At step 2, you must do what the step indicates.

- 1 This step has a series of substeps that you must perform to complete the step. You must perform the following substeps:
 - i This is the first substep.
 - ii This is the second substep.
 - iii This is the third substep.
- 2 You must perform this step.

Important information

The following conventions are used to indicate important information:



Warning – Warning indicates that the described activity or situation may, or will, cause equipment damage or serious performance problems.



Caution – Caution indicates that the described activity or situation may, or will, cause service interruption.



Note – Notes provides information that is, or may be, of special interest.

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1.1 Overview

This chapter contains general and OS-specific information about the deployment of the Alcatel-Lucent 5620 SAM software components in a network.



Caution 1 – The upgrade or conversion to redundancy of the Alcatel-Lucent 5620 SAM software components in a network requires a thorough understanding of 5620 SAM system administration and OS-specific requirements. The conversion or upgrade must be planned, documented, and tested in advance on a lab system that is representative of the target live network.

Contact your Alcatel-Lucent support representative to assess the upgrade requirements for your network implementation of the 5620 SAM software. Alcatel-Lucent offers an upgrade service that should be engaged for upgrades and conversions to redundancy.

Caution 2 – Alcatel-Lucent supports 5620 SAM software deployment only under the conditions described in this guide, the *5620 SAM Planning Guide*, and the *5620 SAM Release Notice*.

General installation and upgrade application information

A 5620 SAM, Release 6.0 R1 or later software DVD-ROM is platform-specific. Check the label to confirm that you have the correct DVD-ROM for your platform.

The typical or default value for a parameter is shown in the text and figures where appropriate. The default parameter values in a 5620 SAM software installation or upgrade are acceptable in most deployment environments, but should be validated against your specific requirements, for example, firewall constraints. See the 5620 SAM Planning Guide and the current 5620 SAM Release Notice for more information, or consult your Alcatel-Lucent technical-support representative.

An installer panel field that has a colored background is a mandatory field that must contain a valid entry before you can proceed to the next panel.

The 5620 SAM installer prompts the user before it creates a folder or directory.

Automatic 5620 SAM client updates

The 5620 SAM, Release 5.0 R5 and later, uses a function called auto-client update for the central management and automatic distribution of client software upgrades and configuration changes.

During startup, a Release 5.0 R5 or later 5620 SAM client checks for available updates on a 5620 SAM server. If a configuration change is available, the client automatically applies it. If a 5620 SAM client software upgrade is available, the client applies the upgrade in response to a user prompt.

Client software installation

You can use the 5620 SAM auto-client update functionality to install the 5620 SAM client software. An operator provides minimal input when installing the auto-client update utility, and the utility installs the 5620 SAM client software.

Client software upgrade

After a 5620 SAM server software upgrade to a release later than Release 5.0 R5, a Release 5.0 R5 or later client that connects to the upgraded server automatically detects the release-level mismatch and attempts an upgrade to the release level of the server.

A 5620 SAM client downloads and installs only the files required for a software upgrade. The upgrade process removes previously downloaded local files that are not required by the new client software.

Client configuration changes

When the Release 5.0 or later clients that connect to a 5620 SAM server require a configuration change, a server administrator must only update the client configuration stored on the server. The clients detect the update when they open, and automatically download and apply the required files from the server. See the Device commissioning configurations chapter of the *5620 SAM User Guide* for information about updating 5620 SAM client configurations.

By default, the client configuration after an automatic update matches the server configuration, but this behavior is configurable using client application startup options. For example, when a client has specific configuration requirements, you can specify that it does not apply any files from the server to the local configuration. When the client requires an update that affects the files, you can force the file update and then manually reapply the specific configuration entries. See the 5620 SAM GUI chapter of the 5620 SAM User Guide for a description of the client startup options.

Considerations and restrictions

Consider the following before you attempt to use the automatic 5620 SAM client update functionality.

- The 5620 SAM client and server versions must both be Release 5.0 R5 or later.
- When a client detects an error during an automatic upgrade attempt, for example, when the client is unable to connect to a download server, it displays a message about the error.
- An automatic client update proceeds only when there is sufficient disk space on the client station. Otherwise, the client displays an appropriate message and exits.
- When a 5620 SAM Release 5.0 R5 or later client attempts to connect to a server that is at an earlier 5620 SAM release than the download server, the client displays a message to this effect, restarts, and attempts to connect to the download server.
- An automatic client update backs up the existing configuration files before it proceeds with a configuration change.
- You can configure a client to use secure communication for automatic update activity. See the SSL configuration chapter of the *5620 SAM User Guide* for information about secure client communication.
- The user documentation location is configurable during a 5620 SAM server installation. By default, the clients retrieve the documents from a URL, but you can specify a location such as the client file system.

1.2 General 5620 SAM deployment information

Review the information in this section before you attempt to install or upgrade a 5620 SAM system, regardless of the platform type.



Note – It is important to record all information that you provide when performing a 5620 SAM software configuration procedure in this guide. This information may be required for a future operation. Store the recorded information in a secure location for later use.

Platform

The following are general 5620 SAM platform requirements and restrictions. See the appropriate section in this chapter for information about installing or upgrading the 5620 SAM on a specific platform.

- The 5620 SAM installation platform must meet the minimum requirements described in the 5620 SAM Planning Guide for the 5620 SAM release.
- The system locale must be C or POSIX.
- The 5620 SAM platform must be dedicated to the 5620 SAM application only. 5620 SAM operation may be adversely affected by the activity of another application on the same platform. Alcatel-Lucent does not support the sharing of the 5620 SAM platform with another application.
- The 5620 SAM server and database components in a 5620 SAM system must be installed on stations that use the same OS at the same patch level.
- Alcatel-Lucent does not support the installation of a 5620 SAM database or server on a workstation that is connected to a SAN.
- A 5620 SAM client on a station that runs Windows, Solaris, or Linux can interact with a 5620 SAM server that runs on any OS in a standalone or redundant configuration.
- A 5620 SAM client cannot be installed on the same station as a 5620 SAM server or database.
- The 5620 SAM client and server real-time clocks must always be synchronized.

Table 1-1 lists the platforms that each 5620 SAM component supports.

5620 SAM component	Solaris 9 on Sun SPARC station	Solaris 10 on Sun SPARC station	Solaris 10 on Sun x86 station	Linux	Microsoft Windows
Main server (distributed)	1	1	1	-	1
Database (distributed)	1	1	1	_	1
Collocated main server and database	1	1	1	-	-
Auxiliary server	1	1	1	_	_

Table 1-1 Platforms supported by 5620 SAM components

(1 of 2)

5620 SAM component	Solaris 9 on Sun SPARC station	Solaris 10 on Sun SPARC station	Solaris 10 on Sun x86 station	Linux	Microsoft Windows
Client delegate	~	✓	1	-	-
Client	✓	✓	1	1	1

(2 of 2)

Software

The following are general 5620 SAM software requirements and restrictions.

- The 5620 SAM server and database installers are available in English only.
- The prompts and descriptive text displayed during a client installation are in English; subsequent client upgrades use the language associated with the locale configured for the client on the server.
- An Alcatel-Lucent 5620 SAM license key is required during an 5620 SAM installation or upgrade. Before you install or upgrade a 5620 SAM system, confirm that your license key enables the functionality that you require and is configured for the number of network objects that you want to manage.
- The 5620 SAM supports the upgrade of a 5620 SAM component that is no more than two major releases older than the current release. For example, you can upgrade a 5620 SAM Release 4.0 or Release 5.0 system to Release 6.1, but you cannot upgrade a Release 3.0 system directly to Release 6.1; you must first upgrade the Release 3.0 components to at least Release 4.0.
- You cannot share an existing Oracle installation with the 5620 SAM.
- No other application can use the 5620 SAM Oracle installation.
- The Oracle software installation files must be in the same directory as the database installation executable file, for example, the directory on the product DVD-ROM.
- A 5620 SAM redundant database upgrade requires the new 5620 SAM software DVD-ROM and the 5620 SAM software DVD-ROM used to install the existing 5620 SAM system.
- The time required to perform a 5620 SAM database upgrade depends on the platform type, database complexity and tablespace configuration. Ensure that there is sufficient time to complete a 5620 SAM database upgrade during a low-activity maintenance window. Consult the *5620 SAM Planning Guide* for database upgrade time guidelines.



Note – A 5620 SAM system upgrade from Release 6.0 R1 or earlier may remove older NE backups. If the purge mode in the associated backup policy is set to manual, the upgrade disables the manual purge mode and enables an automatic purge scheme that limits the number of retained NE backups. See the *5620 SAM User Guide* for more information about NE backup schemes.

Network

The following are general 5620 SAM network requirements and restrictions.

- Before you upgrade a 5620 SAM system, confirm that the new 5620 SAM software release supports the release levels of the 5620 SAM-managed devices. If this is not the case, you must perform one of the following actions before you attempt the upgrade, or service disruption may occur.
 - Upgrade the devices to a release that the new 5620 SAM release supports.
 - Use a 5620 SAM client to unmanage the devices and remove them from the 5620 SAM-managed network.
- The DNS configuration on a 5620 SAM server station must not interfere with the operation of the 5620 SAM server software.
- Specifying a TCP or UDP port other than the default during an installation or upgrade can affect firewall configuration; ensure that you note changes to default port numbers and make the ports available through firewalls.
- When you are prompted to provide an IP address during a 5620 SAM component installation or upgrade, the following conditions apply:
 - You cannot use "localhost" or an alias instead of an IP address.
 - An IP address must be an IPv4 address in dotted-decimal format, for example, 192.168.25.110.
 - You must use an IP address to identify a database station.
 - You can use a canonical hostname that is visible to clients and auxiliary servers, instead of an IP address, to identify a 5620 SAM server. However, you must first define the local host entries and configure local hostname resolution.

Alcatel-Lucent recommends using local hostname resolution instead of a network service like DNS or NIS. Consult your Alcatel-Lucent technical-support representative for information about configuring 5620 SAM server hostname resolution.



Note 1 – If you have a Release 5.0 R4 or earlier 5620 SAM system that manages one or more 7250 SAS-ES, Release 2.0 devices, you must unmanage the 7250 SAS-ES, Release 2.0 devices in your network before you attempt to upgrade the 5620 SAM software.

You can resume management of the devices when the 5620 SAM upgrade is complete.

You do not need to unmanage a 7250 SAS-STD device before you upgrade the 5620 SAM software.

Note 2 – If you have a 5620 SAM system that manages one or more OmniSwitch devices as generic NEs, you must unmanage and delete the OmniSwitch generic NEs before you upgrade the 5620 SAM software.

You can manage the devices directly, rather than as generic NEs, when the 5620 SAM upgrade is complete.

1.3 5620 SAM deployment on Windows

This section describes the 5620 SAM 6.1 deployment requirements and restrictions that apply to a Microsoft Windows platform. Ensure that you review and comply with the information in this section before you attempt to perform a procedure in chapter 2 of this guide.

The following components comprise a 5620 SAM system on Windows:

- one server
- one database
- one or more clients

Platform

The following are 5620 SAM platform requirements and restrictions for Windows.

- Alcatel-Lucent supports the installation or upgrade of a 5620 SAM component on an x86-based station that runs one of the following Windows OSs:
 - Windows 2000 Professional, 32-bit edition
 - Windows 2003, 32-bit edition
 - Windows XP Professional, 32-bit edition
 - Windows Vista Business, 32-bit edition
 - Windows Vista Ultimate, 32-bit edition
- Before you attempt to install or upgrade a component on Windows 2003, you must enable Windows XP compatibility for the installer utility executable file. See the appropriate Microsoft product documentation for more information.
- Alcatel-Lucent supports 5620 SAM system deployment on Windows in a distributed standalone configuration only; the server and database must be installed on separate stations.
- The 5620 SAM does not support the installation of a 5620 SAM auxiliary server on Windows or the use of an auxiliary server with a Windows 5620 SAM system.



Note – You cannot install a 5620 SAM server or database on Windows Vista; only 5620 SAM client installation is supported.

Security

The following are 5620 SAM security requirements and restrictions for Windows.

- The user that installs or upgrades a 5620 SAM server or database requires local administrator account privileges.
- The user that installs a 5620 SAM client requires local user privileges only.
- The user that starts an installed 5620 SAM client must be the user that installed the client software, or a user with sufficient permissions on the client files and directories, such as a local administrator.
- The user that uninstalls the 5620 SAM client software must be the user that installed the client software, or a user with local administrative privileges.

1.4 5620 SAM deployment on Linux

This section describes the 5620 SAM 6.1 deployment requirements and restrictions that apply to a Linux platform. Ensure that you review and comply with the information in this section before you attempt to perform the client installation procedure in chapter 3 or the client upgrade procedure in chapter 4 of this guide.

Platform

The following are 5620 SAM platform requirements and restrictions for Linux.

- Alcatel-Lucent supports only the installation or upgrade of a 5620 SAM client.
- The supported Linux release is Red Hat Enterprise 3.0 WS.

Security

The following are 5620 SAM security requirements and restrictions for Linux.

- The user that installs a 5620 SAM client requires local user privileges only.
- The user that starts an installed 5620 SAM client must be the user that installed the client software, or another user that has read, write, and execute privileges on the client files and directories.

1.5 5620 SAM deployment on Solaris

This section describes the 5620 SAM 6.1 deployment requirements and restrictions that apply to a Solaris platform. Ensure that you review and comply with the information in this section before you attempt to perform the procedures in the Solaris-specific chapters of this guide.

The following components comprise a 5620 SAM system on Solaris:

- One main server in a standalone deployment, or two in a redundant deployment
- One database in a standalone deployment, or two in a redundant deployment
- Up to two auxiliary servers (optional)
- One or more clients



Note – A redundant 5620 SAM system upgrade involves a network-management outage and must be performed only during a scheduled maintenance window of sufficient duration for the upgrade.

Platform

The following are 5620 SAM platform requirements and restrictions for Solaris. See the *5620 SAM Release Notice* for a list of the required Solaris patches.



Caution – If you intend to use a Sun Fire T1000 Server or Sun Fire T2000 Server station, ensure that the Solaris OS is at patch level 118833-18 or greater. Consult Sun Microsystems for information about obtaining the required patch software.

- 5620 SAM deployment on Solaris in a live network requires a station that has at least two hard disks. Alcatel-Lucent supports a one-disk layout only for lab trials or for demonstration purposes.
- You can deploy a collocated or distributed 5620 SAM system in a standalone or a redundant configuration.
- If the 5620 SAM is expected to collect statistics on a large scale, as defined in the 5620 SAM Planning Guide, Alcatel-Lucent requires the use of a disk array with the 5620 SAM database to increase system performance.
- 5620 SAM component installation is supported for Solaris 9 and 10 in 64-bit mode on a Sun SPARC station, and for Solaris 10 in 64-bit mode on a Sun x86-based station.
- The Solaris release and patch levels on all main server, auxiliary server, and database components in a 5620 SAM deployment must be identical.
- The 5620 SAM does not support the use of Solaris zones.
- The Solaris TFTP server must not be enabled on a 5620 SAM server, as it conflicts with the 5620 SAM TFTP server that is used to manage Telco devices.
- Alcatel-Lucent recommends installing a 5620 SAM database on a station that has more than one hard disk. See Tables 1-2 through 1-8 for the 5620 SAM disk-partitioning guidelines.
- When a 5620 SAM database station has multiple CPUs, a 5620 SAM database upgrade uses Oracle parallel processing to speed the upgrade.
- If you plan to move the 5620 SAM server to a different station during the conversion from a standalone to a redundant 5620 SAM system, ensure that you reconfigure the managed devices to send traps to the new server station.
- If you plan to convert a standalone 5620 SAM system to a redundant system and plan to upgrade the system, you must perform the upgrade before the conversion.
- You must relink the Oracle executable files after you apply a Solaris OS patch or after a Solaris OS upgrade. See the *5620 SAM Routine Maintenance Procedures Guide* for more information.
- The Solaris packages required by the 5620 SAM in addition to a Solaris core installation are listed in Table 1-9. If a required Solaris package is missing, the installer cannot continue until the package is installed. The 5620 SAM may also

be installed on a Solaris Entire Distribution installation with the OEM Support option. See the appropriate Solaris OS documentation for more information about package installation.

- An auxiliary server requires a dedicated station. Alcatel-Lucent does not support the sharing of an auxiliary server station with another 5620 SAM component.
- An auxiliary server must be accessible to each main server and database in a redundant 5620 SAM deployment. Optimally, all components in a deployment are in the same LAN and have high-quality network interconnection.

Security

The following are 5620 SAM security requirements and restrictions for Solaris.

- On Solaris 9, only a root-equivalent user can start a 5620 SAM server, edit 5620 SAM configuration files, or run 5620 SAM scripts.
- On Solaris 10, a 5620 SAM server installation, or a server upgrade from Release 6.0 or earlier, creates a user account called samadmin that is required for subsequent 5620 SAM operation and administration. The samadmin account has the following characteristics:
 - The account home directory is the 5620 SAM server installation directory; the samadmin user is the owner of this directory. The samadmin user owns most of the files and directories in the installation directory; the root user owns a small number of the files.
 - A root-equivalent user must assign a password to the samadmin user after an installation or upgrade creates the account.
 - Only the samadmin user can start or stop a 5620 SAM server.
 - Only the root and samadmin users can modify the server configuration and run server scripts on Solaris 10.
 - Server uninstallation does not remove the samadmin account.
 - Root-equivalent privileges are required for some low-level administrative functions.
- The Oracle management user requires full read and write permissions to the 5620 SAM database installation directory and any specifically created partitions, for example, /opt/5620sam.
- The user that installs a 5620 SAM client requires local user account privileges only.
- The user that starts a 5620 SAM client must be the user that installs the client software, or another user that has read, write, and execute privileges on the client files and directories.
- A 5620 SAM domain name defines the network-management domain to which a 5620 SAM component belongs and must be unique to a network. A 5620 SAM component can interact only with other 5620 SAM components in the same 5620 SAM domain. During 5620 SAM installation, you must specify the same domain name for the components in a deployment.

Upgrading from Solaris 9 to Solaris 10

You can upgrade a 5620 SAM deployment from Solaris 9 to Solaris 10 at the following times:

- after you upgrade the 5620 SAM software on an entire standalone or redundant 5620 SAM system
- during a 5620 SAM software upgrade

The following is the sequence of high-level actions required to upgrade Solaris on a 5620 SAM system.

- 1 Upgrade the 5620 SAM software.
- 2 Upgrade Solaris.
- 3 Perform the following on each 5620 SAM main and auxiliary server to enable the samadmin user account:
 - Start the server installer as the root user.
 - Choose the "Main Server Configuration" or "Auxiliary Server Configuration" option, as required.
 - Step through the installer prompts; accept the parameter values on each panel.

You can upgrade from Solaris 9 to Solaris 10 at the following points in a 5620 SAM software upgrade:

- standalone upgrade:
 - on the database station—after upgrading the database.
 - on the server station—after upgrading the server.
 - on a client station—after upgrading the client.
- redundant upgrade:
 - on the standby database station—after upgrading the standby database.
 - on the standby server station—after upgrading the standby server.
 - on the primary database station—after upgrading the primary database.
 - on the primary server station—after upgrading the primary server.
 - on a client station—after upgrading the client.



Note 1 – In a redundant 5620 SAM deployment, Alcatel-Lucent does not support multiple OS release levels. For example, a 5620 SAM server on Solaris 9 cannot operate with a 5620 SAM database on Solaris 10.

Note 2 – After you upgrade a 5620 SAM system to Solaris 10, only the samadmin user can start a 5620 SAM server.

Note 3 – You must relink the Oracle executable files after a Solaris OS upgrade. See the *5620 SAM Routine Maintenance Procedures Guide* for more information.

Disk configurations and partitioning

This section describes the hard-disk configuration requirements and restrictions that apply to 5620 SAM software components on Solaris stations. The partitioning guidelines are based on the use of 73-Gbyte and 146-Gbyte hard disks. You may need to adjust the partition-size values in the tables in this section to accommodate disks of a different capacity.

If a 5620 SAM system is expected to collect statistics on a large scale, Alcatel-Lucent requires that you include a disk array in the database disk layout. See the 5620 SAM Planning Guide for system scaling guidelines regarding statistics processing. Consult your Alcatel-Lucent support representative for information about disk arrays and the 5620 SAM.

Using RAID

Alcatel-Lucent supports the use of RAID technologies, for example, disk mirroring, on Sun Solaris workstations. Disk mirroring requires the use of identical physical disks with the same logical structure. Consult the appropriate Sun workstation documentation for further information about configuring redundant disk arrays.



Caution 1 – Sun Microsystems recommends that you apply disk mirroring only to partitions that are not configured for direct I/O using the "forcedirectio" mount option. Alcatel-Lucent does not support the use of this option in a mirrored disk configuration because the use of unbuffered disk data transfer in a RAID deployment can degrade system performance.

Caution 2 – Oracle recommends that you do not mount the archivelog partition using the "forcedirectio" mount option, or system performance may be degraded.

Partitioning guidelines for a collocated 5620 SAM server and database deployment using one disk

Table 1-2 lists the recommended partition configuration for a single disk on a Solaris workstation that is to host the 5620 SAM server and database applications. The recommendations in the table apply when only one disk is available for use by the 5620 SAM server and database or when two disks are available but one disk is used as a physical mirror of the other disk.



Caution – Alcatel-Lucent does not support the use of a one-disk layout for a collocated 5620 SAM system deployment in a live network. A one-disk layout is supported only for lab trials or for demonstration purposes.



Note 1 – Alcatel-Lucent recommends 146-Gbyte hard disks for a new 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends upgrading to 146-Gbyte disks to accommodate future system expansion.

Note 2 – For the configuration described in Table 1-2, the home directory of the Oracle management user account specified by the ORACLE_HOME environment variable is /opt/5620sam/oracle10r2.

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
1	root, including /usr	10	15
-	swap	8	8
/var	var	3	3
/opt/5620sam	5620 SAM server and database software	10	20
/opt/5620sam/dbbackup	Database backups	9	33
/opt/5620sam/samdb/tablespace (see Note below table)	Database tablespaces and database redo logs	20	40
/opt/5620sam/samdb/archivelog	Database archive logs	8	16

Table 1-2 One-disk partitioning recommendations for collocated 5620 SAM system



Note – Alcatel-Lucent strongly recommends that you mount the /opt/5620sam/samdb/tablespace partition using the "forcedirectio" option. See Procedure 1-1 for more information.

Partitioning guidelines for a collocated 5620 SAM server and database deployment using two disks

Table 1-3 lists the recommended partition configuration for two disks on a Solaris workstation that is to host the 5620 SAM server and database applications. The recommendations in the table apply when only two disks are available for use by the 5620 SAM server and database or when two pairs of disks are available but one disk pair is used as a physical mirror of the other disk pair.



Note 1 – Alcatel-Lucent recommends 146-Gbyte hard disks for a new 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends upgrading to 146-Gbyte disks to accommodate future system expansion.

Note 2 – For the configuration described in Table 1-2, the home directory of the Oracle management user account specified by the ORACLE_HOME environment variable is /opt/5620sam/oracle10r2.

Table 1	-3	Two-disk	partitioning	recommendations	for	collocated	5620 SA	M svstem
I apre i		I WO GION	pareierer	recommendations		conocatea	0020 0/1	

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1			
1	root, including /usr	10	15
_	swap	8	8

(1 of 2)

Partition	Content	Size (O	Gbytes)
		73-Gbyte disk	146-Gbyte disk
/var	var	3	3
/opt/5620sam	5620 SAM server and database software	15 (10 minimum)	41
/opt/5620sam/dbbackup	Database backups	24	60
/opt/5620sam/samdb/redolog (see Note below table)	Database redo logs	8	8
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 2			
/opt/5620sam/samdb/archivelog	Database archive logs	15	40
/opt/5620sam/samdb/tablespace (see Note below table)	Database tablespaces	40	80
/opt/5620sam/samdb/tablespace/statstbs01	Accounting statistics tablespace (optional)	10	10
/opt/5620sam/dbbackup/staging	Accounting statistics staging directory (optional)	_	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

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Note – Alcatel-Lucent strongly recommends that you mount the /opt/5620sam/samdb/tablespace and /opt/5620sam/samdb/redolog partitions using the "forcedirectio" option. See Procedure 1-1 for more information.

Partitioning guidelines for a 5620 SAM main or auxiliary server

Table 1-4 lists the recommended partition configuration for disks on a Solaris workstation that is to host the 5620 SAM main or auxiliary server application.

The recommendations in Table 1-4 apply regardless of the number of available disks on the station; the available disk space on a 5620 SAM server station typically exceeds the 5620 SAM application requirements. Because the partitioning recommendations do not consume all of the available disk space on a station, the remaining disk space is available for partitioning according to operator discretion.



Note 1 – Alcatel-Lucent recommends 146-Gbyte hard disks for a new 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends upgrading to 146-Gbyte disks to accommodate future system expansion.

Note 2 – Alcatel-Lucent strongly recommends using at least a two-disk layout for a 5620 SAM main or auxiliary server installation because a single-disk configuration greatly limits the 5620 SAM system performance, managed-network size, and data storage capacity. Alcatel-Lucent discourages the use of a single-disk configuration in a 5620 SAM server deployment.

Partition	Content	Size (C	Gbytes)
		73-Gbyte disk	146-Gbyte disk
1	root, including /usr	10	15
-	swap	8	8
/var	var	3	3
/opt/5620sam	5620 SAM main or auxiliary server software	45 (25 minimum)	45 (25 minimum)
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

Table 1-4 Disk partitioning recommendations for main or auxiliary 5620 SAM server

Partitioning guidelines for a 5620 SAM database deployment using one disk

Table 1-5 lists the recommended partition configuration for a single disk on a Solaris workstation that is to host the 5620 SAM database application. The recommendations in the table apply when only one disk is available for use by the 5620 SAM or when two disks are available but one disk is used as a physical mirror of the other disk.



Caution – Alcatel-Lucent does not support the use of a one-disk layout for a 5620 SAM database deployment in a live network. A one-disk layout is supported only for lab trials or for demonstration purposes.



Note 1 – Alcatel-Lucent recommends 146-Gbyte hard disks for a new 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends upgrading to 146-Gbyte disks to accommodate future system expansion.

Note 2 – For the configuration described in Table 1-5, the home directory of the Oracle management user account specified by the ORACLE_HOME environment variable is /opt/5620sam/oracle10r2.

Table 1-5 One-di	partitioning recommendations for 5620 SAM database	ڊ

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
1	root, including /usr	10	15
-	swap	4	8
/var	var	3	3
/opt/5620sam	5620 SAM database software	5	20
/opt/5620sam/dbbackup	Database backups	12	33

(1 of 2)

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
/opt/5620sam/samdb/tablespace (see Note below table)	Database tablespaces and redo logs	26	40
/opt/5620sam/samdb/archivelog	Database archive logs	8	16

(2 of 2)



Note – Alcatel-Lucent strongly recommends that you mount the /opt/5620sam/samdb/tablespace partition using the "forcedirectio" option. See Procedure 1-1 for more information.

Partitioning guidelines for a 5620 SAM database deployment using two disks

Table 1-6 lists the recommended partition configuration for two disks on a Solaris workstation that is to host the 5620 SAM database application. The recommendations in the table apply when only two disks are available for use by the 5620 SAM database or when two pairs of disks are available but one disk pair is used as a physical mirror of the other disk pair.

The recommendations in Table 1-6 apply regardless of the number of available disks on the station. The available disk space on a 5620 SAM database station using two disks typically exceeds the 5620 SAM application requirements. Because the partitioning recommendations do not consume all of the available disk space on a station, the remaining disk space is available for partitioning according to operator discretion.



Note 1 – Alcatel-Lucent recommends 146-Gbyte hard disks for a new 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends upgrading to 146-Gbyte disks to accommodate future system expansion.

Note 2 – For the configuration described in Table 1-6, the home directory of the Oracle management user account specified by the ORACLE_HOME environment variable is /opt/5620sam/oracle10r2.

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1		•	•
1	root, including /usr	10	15
-	swap	4	8
/var	var	3	3

(1 of 2)
Partition	Content	Size (C	Gbytes)
		73-Gbyte disk	146-Gbyte disk
/opt/5620sam	5620 SAM database software	18 (10 minimum)	41
/opt/5620sam/dbbackup	Database backups	25	60
/opt/5620sam/samdb/redolog (see Note below table)	Database redo logs	8	8
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 2			
/opt/5620sam/samdb/archivelog	Database archive logs	15	40
/opt/5620sam/samdb/tablespace (see Note below table)	Database tablespaces	40	80
/opt/5620sam/samdb/tablespace/statstbs01	Accounting statistics tablespace (optional)	10	10
/opt/5620sam/dbbackup/staging	Accounting statistics staging directory (optional)	_	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

(2 of 2)



Note – Alcatel-Lucent strongly recommends that you mount the /opt/5620sam/samdb/tablespace and /opt/5620sam/samdb/redolog partitions using the "forcedirectio" option. See Procedure 1-1 for more information.

Partitioning guidelines for a 5620 SAM database deployment using four disks

Table 1-7 lists the recommended partition configuration for four disks on a Solaris workstation that is to host the 5620 SAM database application. The recommendations in the table apply when four disks are available for use by the 5620 SAM database or when eight disks are available but four disks are used as a physical mirror of the other disk four.

The recommendations in Table 1-7 apply regardless of the number of available disks on the station. The available disk space on a 5620 SAM database station using four disks typically exceeds the 5620 SAM application requirements. Because the partitioning recommendations do not consume all of the available disk space on a station, the remaining disk space is available for partitioning according to operator discretion.



Note 1 – Alcatel-Lucent recommends 146-Gbyte hard disks for a new 5620 SAM installation. Existing 73-Gbyte disks are sufficient for a 5620 SAM upgrade, but Alcatel-Lucent recommends upgrading to 146-Gbyte disks to accommodate future system expansion.

Note 2 – For the configuration described in Table 1-7, the home directory of the Oracle management user account specified by the ORACLE_HOME environment variable is /opt/5620sam/oracle10r2.

Partition	Content	Size (Gbytes)	
		73-Gbyte disk	146-Gbyte disk
Disk 1	1	<u>.</u>	
/	root, including /usr	10	15
_	swap	8	8
/var	var	3	3
/opt/5620sam	5620 SAM database software	29 (15 minimum)	45
/opt/5620sam/samdb/redolog	Database redo logs	8	8
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 2			ľ
/opt/5620sam/samdb/tablespace (see Note below table)	Database tablespaces	40 minimum	80 minimum
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 3			ŀ
/opt/5620sam/dbbackup	Database backups	60	60 minimum
/opt/5620sam/dbbackup/staging	Accounting statistics staging directory (optional)	5	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder
Disk 4		1	
/opt/5620sam/samdb/archivelog	Database archive logs	30	60
/opt/5620sam/samdb/tablespace/statstbs01	Accounting statistics tablespace (optional)	10	35
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder	Remainder

Table 1-7 Four-disk partitioning recommendations for 5620 SAM database



Note – Alcatel-Lucent strongly recommends that you mount the /opt/5620sam/samdb/tablespace and /opt/5620sam/samdb/redolog partitions using the "forcedirectio" option. See Procedure 1-1 for more information.

Partitioning guidelines for a 5620 SAM client deployment

Table 1-8 lists the recommended partition configuration for disks on a Solaris workstation that is to host the 5620 SAM client application.

The recommendations in Table 1-8 apply regardless of the number of available disks on the station because the available disk space on a 5620 SAM client station typically exceeds the 5620 SAM application requirements. Because the partitioning recommendations do not consume all of the available disk space on a station, the remaining disk space is available for partitioning according to operator discretion.

Partition	Content	Size (Gbytes)
1	root, including /usr	10
/tmp	swap	4
/var	var	3
/opt/5620sam	5620 SAM client software	5
At operator discretion	Customer data (can be partitioned according to customer requirements)	Remainder

Table 1-8 Disk configuration recommendations for 5620 SAM client

Procedure 1-1 To enable the "forcedirectio" partitioning option

Perform this procedure to determine whether the "forcedirectio" option is enabled on a disk partition, and to enable the option on the partition, if required.



Caution 1 — Sun Microsystems recommends that you enable the "forcedirectio" mount option only on partitions that are not part of a RAID configuration. Alcatel-Lucent does not support the use of this option in a mirrored disk configuration because the use of unbuffered disk data transfer in a RAID deployment can degrade system performance.

Caution 2 — Oracle recommends that you do not mount the archivelog partition using the "forcedirectio" mount option, or system performance may be degraded.



Note — Alcatel-Lucent strongly recommends that you mount the /opt/5620sam/samdb/tablespace and /opt/5620sam/samdb/redolog partitions using the "forcedirectio" option.

Determine whether "forcedirectio" option is enabled

- 1 Log in to the Solaris station as a user with root privileges.
- 2 Open a console window.
- **3** To determine whether the "forcedirectio" option is enabled for a partition, enter the following CLI command as the root user:

mount -v

The output of the command for a single partition entry is similar to the following:

/dev/dsk/c0t0d0s5 on /opt/5620sam/samdb/tablespace type ufs

read/write/setuid/intr/forcedirectio/largefiles/onerror=panic/de v=2200005 on Wed Jan 2 12:06:03 2008

4 If "forcedirectio" is displayed as part of the entry, as shown in the example, the "forcedirectio" option is enabled on the partition. Go to step 8.

Enable "forcedirectio" option on partition

5 Make a backup copy of the /etc/vfstab file by entering the following at the CLI prompt:

```
# cp /etc/vfstab /etc/vfstab.backup
```

6 To enable the "forcedirectio" option on a partition, edit the /etc/vfstab file using a plain text editor and append a tab and the term "forcedirectio" without quotation marks to the partition entry. The result should resemble the following:

```
/dev/dsk/c0t0d0s5 /dev/rdsk/c0t0d0s5
/opt/5620sam/samdb/tablespace ufs 2 yes forcedirectio
```



Caution — Do not include cylinder 0 in a partition that is to be mounted with the "forcedirectio" option.

- 7 Save the file.
- 8 Close the console window.

Required Solaris packages

If you perform only a core Solaris installation instead of the Entire Distribution + OEM Support installation, you must install additional Solaris packages. If a required package is missing, the installation cannot continue until the packages are installed. Table 1-9 lists the additional Solaris packages required on a station in advance of a 5620 SAM database, server, client, or collocated server and database installation on a station that runs Solaris 9 or Solaris 10.

Package name	Solaris 9	Solaris 10	Description
For database inst	allations, c	ore install	+ these packages
SUNWadmfw	Yes	Yes	System and Network Administration Framework
SUNWarc	Yes	Yes	Archive Libraries
SUNWarcx	Yes	No	Archive Libraries (64-bit)
SUNWbash	Yes	Yes	GNU Bourne-Again shell (bash)
SUNWbtool	Yes	Yes	CSS tools bundled with SunOS
SUNWbtoox	Yes	No	CSS libraries bundled with SunOS (64-bit)

Table 1-9 Required Solaris packages for 5620 SAM component installation

(1 of 3)

Package name	Solaris 9	Solaris 10	Description
SUNWcpp	Yes	No	Solaris CPP
SUNWctpls	Yes	Yes	Portable Layout services for Complex Test
SUNWeurf	Yes	Yes	European codeset fonts
SUNWgzip	Yes	Yes	The GNU Zip (gzip) compression utility
SUNWhea	Yes	Yes	SunOS Header Files
SUNWi15cs	Yes	Yes	X11 ISO8859-15 Codeset Support
SUNWi1cs	Yes	Yes	X11 ISO8859-1 Codeset Support
SUNWi1of	Yes	Yes	ISO-8859-1 (Latin-1) Optional Fonts
SUNWi15rf	Yes	Yes	X11 fonts for ISO8859-15 character set (required fonts)
SUNWj2rt	Yes	No	Java virtual machine and core class libraries
SUNWj5rt	No	Yes	JDK 5.0 Runtime Env. (1.5.0_07)
SUNWlibC	Yes	No	Sun Workshop Compilers Bundled libC
SUNWlibCx	Yes	No	Sun Workshop Bundled 64-bin libC
SUNWlibm	Yes	Yes	Forte Developer Bundled libm
SUNWlibmr	No	Yes	Math Library Lint Files (Root)
SUNWlibms	Yes	Yes	Math Library Lint Files (Usr)
SUNWmfrun	Yes	Yes	Motif Run Time Kit
SUNWpool	No	Yes	Resource Pools
SUNWpoolr	No	Yes	Resource Pools (Root)
SUNWsprot	Yes	Yes	Solaris Bundled tools
SUNWsprox	Yes	No	Sun WorkShop Bundled 64-bit make library
SUNWscpr	Yes	No	Source Compatability, (Root)
SUNWscpu	Yes	No	Source Compatability, (User)
SUNWtoo	Yes	Yes	Truss and other troubleshooting tools
SUNWtoox	Yes	No	Programming Tools (64-bit)
SUNWuiu8	Yes	Yes	Iconv modules for UTF-8 Locale
SUNWxcu4	Yes	Yes	XCU4 Utilities
SUNWxcu4t	Yes	Yes	XCU4 make and sccs utilities
SUNWxwfnt	Yes	Yes	X Window System platform required fonts
SUNWxwice	Yes	Yes	X Window System Inter-Client Exchange (ICE)
SUNWxwicx	Yes	No	X Window System ICE library (64-bit)
SUNWxwopt	Yes	Yes	X Window System Optional Clients
SUNWxwplr	No	Yes	X Window System platform software configuration
SUNWxwplt	Yes	Yes	X Window System platform software
SUNWxwplx	Yes	No	X Window System library software (64-bit)
SUNWxwrtl	Yes	Yes	X Window System & Graphics Runtime Library

(2 of 3)

Package name	Solaris 9	Solaris 10	Description
SUNWzlib	Yes	No	The Zip compression library
For server or clie	ent installat	ion, core S	olaris install + these packages
SUNWadmfw	Yes	Yes	System and Network Administration Framework
SUNWbash	Yes	Yes	GNU Bourne-Again shell (bash)
SUNWcpp	Yes	No	Solaris CPP; in Solaris core distribution
SUNWctpls	Yes	Yes	Portable Layout services for Complex Test
SUNWgzip	Yes	Yes	The GNU Zip (gzip) compression utility
SUNWlibC	Yes	No	Sun Workshop Compilers Bundled libC; in Solaris 10 core distribution
SUNWlibCx	Yes	No	Sun Workshop Bundled 64-bit libC
SUNWmfrun	Yes	Yes	Motif RunTime Kit
SUNWxcu4	Yes	Yes	XCU4 Utilities
SUNWxwfnt	Yes	Yes	X Windows System platform required fonts
SUNWxwice	Yes	Yes	X Windows System Inter-Client Exchange (ICE)
SUNWxwicx	Yes	No	X Window System ICE library (64-bit)
SUNWxwopt	No	Yes	X Window System Optional Clients
SUNWxwplr	No	Yes	X Window System platform software configuration
SUNWxwplt	Yes	Yes	X Windows System platform software
SUNWxwplx	Yes	No	X Windows System library software (64-bit)
SUNWxwrtl	No	Yes	X Windows System & Graphics Runtime Library
SUNWzlib	Yes	No	The Zip compression library; in Solaris 10 core distribution
For collocated server and database installation, core Solaris install + all packages listed			

(3 of 3)

5620 SAM for Windows

2 - 5620 SAM installation, upgrade, and uninstallation on Windows

2 – 5620 SAM installation, upgrade, and uninstallation on Windows

- 2.1 5620 SAM installation, upgrade, and uninstallation on Windows overview 2-2
- 2.2 5620 SAM installation, upgrade, and uninstallation on Windows procedures list 2-2
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2.1 5620 SAM installation, upgrade, and uninstallation on Windows overview

This chapter describes how to perform an installation, upgrade, or uninstallation of a 5620 SAM network management system on a Windows platform. The following components comprise a 5620 SAM system on Windows:

- one server
- one database
- one or more clients

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



Caution – Alcatel-Lucent supports 5620 SAM software configuration only under the conditions described in chapter 1.

2.2 5620 SAM installation, upgrade, and uninstallation on Windows procedures list

Table 2-1 lists the procedures required to perform 5620 SAM software installation, upgrade, and uninstallation activities on a Windows platform.

Table 2-1 5620 SAM installation, upgrade, and uninstallation on Windows procedures list

Procedure	Purpose
To install a 5620 SAM database on Windows	Install the 5620 SAM database software on a Windows station.
To install a 5620 SAM server on Windows	Install the 5620 SAM server software on a Windows station.
To install a 5620 SAM client on Windows	Install the 5620 SAM client software on a Windows station.
To perform the pre-upgrade tasks	Prepare a 5620 SAM system on Windows for a software upgrade by ensuring the correct conditions are in place, backing up the database and configuration files, and gathering the required system information.
To upgrade a 5620 SAM database on Windows	Upgrade the 5620 SAM database software on a Windows station.
To upgrade a 5620 SAM server on Windows	Upgrade the 5620 SAM server software on a Windows station.
To upgrade a 5620 SAM Release 5.0 R4 or earlier client on Windows	Upgrade the 5620 SAM client software on a Windows station from Release 5.0 R4 or earlier.
To upgrade a 5620 SAM Release 5.0 R5 or later client on Windows	Upgrade the 5620 SAM client software on a Windows station from Release 5.0 R5 or later.

(1 of 2)

Procedure	Purpose
To uninstall the 5620 SAM client software on Windows	Remove the 5620 SAM client software from a Windows station.
To uninstall the 5620 SAM server software on Windows	Remove the 5620 SAM main server software from a Windows station.
To uninstall the 5620 SAM database software on Windows	Remove the 5620 SAM database software from a Windows station.

(2 of 2)

2.3 Workflow for 5620 SAM installation on Windows

The following is the sequence of high-level actions required to install a 5620 SAM system on a Windows platform.

- 1 Install the 5620 SAM database. See Procedure 2-1 for more information.
- 2 Install the 5620 SAM server. See Procedure 2-2 for more information.
- 3 Install a 5620 SAM client.
 - a See Procedure 2-3 for information about installing a client on a Windows station.
 - b See Procedure 3-2 for information about installing a client on a Solaris or Linux station.
- 4 Install a client delegate, if required. See Procedure 3-3 for more information.

2.4 5620 SAM installation on Windows procedures

This section describes how to install the software components of a 5620 SAM system on Windows.

Procedure 2-1 describes how to install the 5620 SAM database software.

Procedure 2-2 describes how to install the 5620 SAM server software.

Procedure 2-3 describes how to install the 5620 SAM client software.

Procedure 2-1 To install a 5620 SAM database on Windows

Perform this procedure to install the 5620 SAM database software on a Windows station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note — You require local administrative user privileges to install a 5620 SAM database on Windows.

1 Navigate to the Windows directory on the 5620 SAM software DVD-ROM.

2 Begin the installation by double-clicking on DBConfig_SAM_6_1_revision_ID.exe where revision_ID is the revision identifier, such as R1, R3, or another descriptor The installer prepares by extracting files, as shown in Figure 2-1.



InstallAnywh	ere	
1	InstallAnywhere is preparing to install Extracting	
	26%	
		Cancel
(C) 2002-2006	Macrovision Europe Ltd. and/or Macrovision Corporation	

When the counter reaches 100%, a splash screen appears, as shown in Figure 2-2, and the installation process begins.

Figure 2-2 5620 SAM Installer



3 The 5620 SAM Database Configurator opens, as shown in Figure 2-3. The left pane indicates installation progress. The right pane displays release information about the database software being installed. Click on the Next button.

🖳 5620 SAM Database Configura	tor 📃 🔀
	Introduction
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This program will create and configure an Oracle database to be used by a 5620 SAM Server system. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision Cancel	Previous

Figure 2-3 Introduction

4 Review and accept the terms of the license agreement shown in Figure 2-4. Click on the Next button.



堰 5620 SAM Database Configurat	or 💶 🗙
	Software License Agreement
 Introduction License Agreement Installation Type Installation In Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).
Installation Completed	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved.
InstallAnywhere by Macrovision – Cancel	Previous Next

5 Select Install and Configure a Standalone Database, as shown in Figure 2-5. Click on the Next button.

🖳 5620 SAM Database Configurato	r _ 🗌 🗙
_	Choose Installation Type
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Install & Configure a Standalone Database Image: Standalone Database Image: Upgrade a Database
InstallAnywhere by Macrovision —	Providuo
Cancer	

Figure 2-5 Choose Installation Type

6 Select Install Oracle Software, as shown in Figure 2-6. Click on the Next button.

🐙 5620 SAM Database Configurat	cor 📃 📃 🗙
	Install Oracle Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	You can choose to install Oracle 10g Software first if it is not already installed. Install Oracle Software Do not install Oracle Software
InstallAnywhere by Macrovision -	Provious
Cancer	

Figure 2-6 Install Oracle Software

7 Specify a base directory in which to install the 5620 SAM database software (typically C:\5620sam\samdb\install), as shown in Figure 2-7. Click on the Install button to begin the database software installation.

🐙 5620 SAM Database Configural	tor 📃 🗆 🗙
Sp	ecify the Base Directory for 5620 SAM Database Files
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	The directory specified here will be the base directory for all 562D SAM database related files [C:\5620sam\samdb\install Restore Default Folder Choose
InstallAnywhere by Macrovision - Cancel	Previous Install

Figure 2-7 Specify the Base Directory for 5620 SAM Database Files

The installer prepares to install the database, as shown in Figure 2-8.



Figure 2-8 Installing 5620 SAM Database Configurator

8 Specify a base directory in which to install the Oracle software (typically C:\5620sam\oracle), as shown in Figure 2-9. Click on the Next button.

🐙 5620 SAM Database Configurat	or 📃 🕹
	Specify the Base Directory for Oracle Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all Oracle software. C:\5620sam\oracle Restore Default Folder Choose
InstallAnywhere by Macrovision —	
Cancel	Previous

Figure 2-9 Specify the Base Directory for Oracle Software

9 You are prompted to install Oracle software, as shown in Figure 2-10. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.



🖳 5620 SAM Database Configurat	or 📃 🗙
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Please press the start button to install Oracle software. This process will take some time.
InstallAnywhere by Macrovision -	·
Cancel	Previous Next

10 As shown in Figure 2-11, Oracle installation details are displayed as the installation progresses. When the installation is complete, click on the Next button.

🐙 5620 SAM Database Configurat	or 📃 🖂 🕹
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	 [15.29.41.077] Oracle Installation starts. [15.29.41.212] Prepare Oracle installation files [15.30.09.470] Install Oracle Software [15.39.14.052] Install Oracle Patch Set [15.54.09.765] Oracle Patch Installation was successful. [15.54.09.765] Oracle installation has succeeded.
	Start Oracle Installation
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 2-11 Install Oracle Database Management Software

- 11 Configure the following parameters shown in Figure 2-12, then click on the Next button:
 - Database Server IP Address
- User Name (typically samuser)
- Database Name (typically samdb)
- User Password
- Instance Name (typically samdb)



🖳 5620 SAM Database Configurat	or 📃 🗌 🗙
	General Database Configuration Info
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify the database's private IP address. Database Server IP Address Database Name samdb Instance Name samdb User Name samuser User Password ********* Confirm User Password ******
InstallAnywhere by Macrovision — Cancel	Previous Next

- 12 Configure the following parameters shown in Figure 2-13, then click on the Next button:
 - Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)

Figure 2-13 General Database Configuration Info (continued)

🖳 5620 SAM Database Configurator 📃 🗖 🗙	
	General Database Configuration Info (cont.)
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Database Listener Port 1523 Database Proxy Port 9002 Database File Server Port 9003
InstallAnywhere by Macrovision - Cancel	Previous Next

13 Enter and confirm the Oracle SYS password, as shown in Figure 2-14, then click on the Next button.

Figure 2-14 Oracle SYS Password

🖳 5620 SAM Database Configura	tor 📃 🔀
	Oracle SYS Password
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	IMPORTANT: the password needs to be known to the 5620 SAM administrator for future reference. SYS Password ********** Confirm SYS Password
InstallAnywhere by Macrovision · Cancel	Previous Next

14 If the "Enable 5620 SAM Server IP Validation" parameter is selected, as shown in Figure 2-15, only the specified IP address can connect to the database. If required, select this parameter and enter the IP address of the 5620 SAM server. Click on the Next button.

🐙 5620 SAM Database Configurat	or _ 🗌 🗙
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	If NAT (network address translation) is to be used, enter the 5620 SAM main server public IP address as known to this 5620 SAM database. If IP address validation is enabled, the database will allow only connections from the specified server. The Enable 5620 SAM Server IP Validation Server IP Address
InstallAnywhere by Macrovision	
Cancel	Previous Next

Figure 2-15 Main Server IP Validation

15 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 2-16 and enter the public IP address of the database. Click on the Next button.



💂 5620 SAM Database Configurat	or 📃 🔍
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address.
InstallAnywhere by Macrovision – Cancel	Previous

Specify a directory as the archive log destination (typically C:\5620sam\samdb\archivelog), as shown in Figure 2-17. Click on the Next button.

🐙 5620 SAM Database Configural	tor 📃 🗌 🗙
	Archive Log Destination
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	To enable online database backups, the database must be run in archive log mode. Specify the directory where the archived logs are to be located. For best performance, choose a low-activity device for the archive log directory. C:\5620sam\samdb\archivelog Restore Default Folder Choose
InstallAnywhere by Macrovision	·
Cancel	Previous

Figure 2-17 Archive Log Destination

17 Specify a directory for the continuous statistics tablespace backup, as shown in Figure 2-18. Click on the Next button.

🐙 5620 SAM Database Configurat	or 📃 🗙
	Staging Destination
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify a staging directory for the files created by the continuous statistics tablespace backup. The directory must be located on a low-activity device, such as a disk that is dedicated to this function only. C:\5620sam\dbbackup\staging Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 2-18 Staging Destination

18 Specify a directory for the Redo logs (typically C:\5620sam\samdb\redolog), as shown in Figure 2-19. Click on the Next button.

📲 5620 SAM Database Configurat	or 📃 🗆 🗙
	Choose the Redo Log Directory
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify the directory where the online redo logs are to be located. For best performance, choose a device for the redo logs that is separate from the 5620 SAM database tablespaces. C:\5620sam\samdb\redolog C:\5620sam\samdb\redolog C:\5620sam\samdb\redolog
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 2-19 Choose the Redo Log Directory

19 Configure the "Accounting Statistic Database Retention Period" parameter shown in Figure 2-20. Click on the Next button.

🐙 5620 SAM Database Configurat	or 📃 🛛 🗙
	Accounting Statistics Database Retention Period
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the accounting statistics retention period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space. Accounting Statistic Data Retention Period
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 2-20 Accounting Statistics Database Retention Period

20 Select one of the data layouts shown in Figure 2-21. Click on the Next button.

Data Layout Option
Please specify a layout option for the database tables. To meet the performance requirements of a large network, you must use multiple tablespaces. Multiple Tablespace mapping of Stats and Alarm tablespaces Multiple Tablespace mapping of all tablespaces Single Tablespace
Previous Next

Figure 2-21 Data Layout Option

- 21 Specify the tablespace directories.
 - i Click on the Add button shown in Figure 2-22. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii If the option selected in step 20 is Single Tablespace, go to step 23.
 - iv Repeat steps 21 i and ii to specify an additional tablespace directory, if required.

Figure 2-22 Data File Directories

🐙 5620 SAM Database Configurato	or 📃 🗙
	Data File Directories
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify the directories that will be used in Tablespace distribution. Please make sure enough disk space is available for each of the directories allocated for the corresponding Tablespace. Refer to the installation guide for more information Directory Name Type C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default
InstallAnywhere by Macrovision — Cancel	Previous Next

- 22 Associate tablespaces with the directories specified in step 21.
 - i Click on the Configure Tablespaces button. The tablespace configuration form opens, as shown in Figure 2-23.



Note – The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 2-22 reappears.

Directories	Type Default e	Associations Name ALARMS ALARM_HISTORY CURRENT_DATA_STRUCT_1 CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_1 SAM_SYSTEM_3	Drive C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Directory Name 1/5620sam\samdb\tablespace Oracle Tablespaces Tablespace Name NDX YSAUX	Type Default e	Name ALARMS ALARM_HISTORY CURRENT_DATA_STRUCT_1 CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_RELATIONS_1 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	Drive C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
(5620sam\samdb\tablespace t Oracle Tablespaces Tablespace Nam NDX YSAUX	Default e	ALARMS ALARM_HISTORY CURRENT_DATA_STRUCT_1 CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Oracle Tablespaces Tablespace Nam NDX YSAUX	e	ALARM_HISTORY CURRENT_DATA_STRUCT_1 CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Oracle Tablespaces	e	CURRENT_DATA_STRUCT_1 CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_SYSTEM_1 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Oracle Tablespaces ———— Tablespace Nam NDX YSAUX	e	CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Oracle Tablespaces Tablespace Nam NDX YSAUX	e	CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Oracle Tablespaces — Tablespace Nam NDX YSAUX	e	CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Oracle Tablespaces Tablespace Nam NDX YSAUX	e	INDX SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Oracle Tablespaces — Tablespace Nam Tablespace Nam NDX YSAUX	e	SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Oracle Tablespaces	e	SAM_RELATIONS_2 SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace C\5620sam\samdb\tablespace
Oracle Tablespaces Tablespace Nam NDX YSAUX	e	SAM_SYSTEM_1 SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace C:\5620sam\samdb\tablespace
Tablespace Nam NDX YSAUX	e	SAM_SYSTEM_2 SAM_SYSTEM_3	C:\5620sam\samdb\tablespace
NDX YSAUX		SAM_SYSTEM_3	CUE620com/comdbitablectate
YSAUX			c;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
1511011		SAM_SYSTEM_4	C:\5620sam\samdb\tablespace
YSTEM		STATS_CURRENT	C:\5620sam\samdb\tablespace
EMP		STATS_HISTORY	C:\5620sam\samdb\tablespace
INDOTES1		STATS_POLICY	C:\5620sam\samdb\tablespace
		SYSAUX	C:\5620sam\samdb\tablespace
		SYSTEM	C:\5620sam\samdb\tablespace
		TEMP	C:\5620sam\samdb\tablespace
		TIMS_SYSTEM	C:\5620sam\samdb\tablespace
5620 SAM Tablespaces		TIMS_SYS_INDX	C:\5620sam\samdb\tablespace
		UNDOTB51	C:\5620sam\samdb\tablespace
I ablespace Name		USERS	C:\5620sam\samdb\tablespace
LARMS			
URRENI_DATA_STRUCT_1		Add as	sociations from the left
UKRENI_DATA_STRUCT_2		Deneu	- Calastad Associations
URRENI_DATA_STRUCT_3		Remov	e pelecced Associations
UKRENT_DATA_STRUCT_4		Sat	Default Associations
AM_RELATIONS_1			Derault Associations
AM_RELATIONS_2			Select All

Figure 2-23 Configure Tablespaces

23 Click on the Next button.

24 Specify a directory for the accounting statistics tablespace files, as shown in Figure 2-24. Click on the Next button.

堀 5620 SAM Database Configurat	or 📃 🔀
	Accounting Statistics Data File Directory
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify a directory for the accounting statistics tablespace files. For the best performance, locate the directory on a low-activity device, such as one that is dedicated to the accounting statistics tablespaces only. C:\5620sam\samdb\statstbs01 Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous



As shown in Figure 2-25, the installer prepares to install the database software.

🐙 5620 SAM Database Configurat	or 📃 🗶
	Please Wait
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment
InstallAnywhere by Macrovision –	1
Cancel	Previous

Figure 2-25 Please Wait

25 You are prompted to begin database creation, as shown in Figure 2-26. Database creation can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin database creation.

🐙 5620 SAM Database Configurat	or 📃 🛛 🕹
	Database Creation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The database creation process takes some time. Do not interrupt this process once it has started. If cancelled, the application exits and the result is an incomplete database installation.
InstallAnywhere by Macrovision – Cancel	Previous

Figure 2-26 Database Creation

The next panel displays database creation progress, as shown in Figure 2-27.

	X
Database Creation	on
 Introduction License Agreement Installation Type Installation In Progress Installation Completed Database creation in progress	
InstallAnywhere by Macrovision	

Figure 2-27 Database Creation

26 When database creation is complete, as shown in Figure 2-28, click on the Done button to close the installer.

堰 5620 SAM Database Configurator			_ 🗆 🗙
		Installation Com	plete
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Database creation was successful		
InstallAnywhere by Macrovision —			
Cancel	F	Previous Dor	ne

Figure 2-28 Installation Complete

27 Reboot the 5620 SAM database station.

The 5620 SAM database starts automatically during Windows initialization.

Procedure 2-2 To install a 5620 SAM server on Windows

Perform this procedure to install the 5620 SAM server software on a Windows station. The 5620 SAM server software must be installed on a station other than the one on which the 5620 SAM database software is installed. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note — You require local administrative user privileges to install a 5620 SAM server on Windows.

- 1 Navigate to the Windows directory on the 5620 SAM software DVD-ROM.
- 2 Begin the installation by double-clicking on ServerInstall_SAM_6_1_revision_ID.exe

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The installer prepares by extracting files, as shown in Figure 2-29.

Figure 2-29 Installer preparation

InstallAnywi	here	
1	InstallAnywhere is preparing to install Extracting	
	26%	
		Cancel
(C) 2002-2006	6 Macrovision Europe Ltd. and/or Macrovision Corporation	

When the counter reaches 100%, a splash screen appears, as shown in Figure 2-30, and the installation process begins.

Figure 2-30 5620 SAM Installer



3 The Introduction panel appears, as shown in Figure 2-31. The left pane indicates installation progress. The right pane displays release information about the server software being installed. Click on the Next button.



Figure 2-31 Introduction

4 Review and accept the terms of the license agreement shown in Figure 2-32. Click on the Next button.





5 Select Main Server Installation, as shown in Figure 2-33. Click on the Next button.

Figure 2-33 Choose Installation Type

堰 5620 SAM/5650 CPAM Server	Installer			_ 🗆 🗡
			Choose Inst	allation Type
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	M Ins M Ch	lain Server Installation stall or upgrade a 6620 SAM Main Server lain Server Configuration hange parameters of an existing 6620 SAM Main Server	installation	
Cancel			Previous	Next

6 Specify a base directory in which to install the 5620 SAM server software (typically C:\5620sam\server), as shown in Figure 2-34. Click on the Next button.

	Specify the Base Directory for 5620 SAM Main Server Files
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM main server related files. C:\\$620sam\server Restore Default Folder Choose
Cancel	Previous

Figure 2-34 Specify the Base Directory for 5620 SAM Main Server Files

7 As shown in Figure 2-35, the installer displays the release of the 5620 SAM server software that is to be installed. Verify the information. Click on the Next button.

🛿 5620 SAM/5650 CPAM Server II	istaller 📃 🛛 🚬
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision –	
Cancel	Previous

Figure 2-35 Checking Build Compatibility

8 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 2-36. Click on the Next button.

🖳 5620 SAM/5650 CPAM Server In	nstaller 📃 🛛 🗙
	License Information for 5620 SAM Main Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Customer Name License Key 100-00000-00000-00000-00000-00000-00000-0000
InstallAnywhere by Macrovision -	Provinue
Cancer	Previous INEXL

Figure 2-36 License Information for 5620 SAM Main Server

- **9** Configure the following parameters, shown in Figure 2-37, using the recorded values from the database installation, then click on the Next button.
 - Database Server IP Address
 - Database Server Port (typically 1523)
 - Database Instance Name (typically samdb)
 - Database User Name (typically samuser)
 - Database User Password
 - Database Proxy Port (typically 9002)



Note — The Database Server Port value is the Database Listener Port value specified during database installation, in step 12 of Procedure 2-1.

🖳 5620 SAM/5650 CPAM Server I	nstaller
	Database Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Server Port [1523 Database Instance Name [samdb Database User Name [samdb Database Ver Nort [1523 Database Ver Nort [1523 Database User Name [samdb Database Ver Nort [1523 Database Ver Nort [1523
InstallAnywhere by Macrovision -	
Cancel	Previous Next

Figure 2-37 Database Configuration

- **10** Configure the following parameters shown in Figure 2-38, then click on the Next button:
 - Online Database Backup Interval (Hours) (typically 24)
 - Online Backup Destination (typically C:\5620sam\dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 9.

🐙 5620 SAM/5650 CPAM Server 1	nstaller 📃 🗆 🗙
	Online Database Backup
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination C:\5620sam\dbbackup Number Of Backup Sets 3
InstallAnywhere by Macrovision	,
Cancel	Previous

Figure 2-38 Online Database Backup

- 11 Configure the following parameters shown in Figure 2-39:
 - Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and configure the "Private IP" parameter. Click on the Next button.

	Main Server Address Configuration for Clier
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients. Server Domain Name [5620sam Public IP (visible to clients)
	EJB JNDI Server port 1099 EJB JNDS Server port 8093 INAT (network address translation) Used Private IP (accessible only by this server)
nstallAnywhere by Macrovision	

Figure 2-39 Main Server Address Configuration for Clients

- **12** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 2-40.
 - ii If you want to accept the default user documentation location that is displayed, go to step 13.



Note – If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation directory on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

🖳 5620 SAM/5650 CPAM Server 🛛	Installer 💶 🔀
	User Documentation
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select "Install User Documentation at Central Location Below" if you want the documentation to be centrally accessible to clients. You must specify an absolute file path or a URL. If the location is a URL and NAT is used, ensure that the URL contains the public address of the server. Select "Install User Documentation to Client File System" to install user documentation on the clients. The file path that you specify is relative to the client installation directory. Image: Install User Documentation at Central Location Below Image: Install User Documentation to Client File System Image: Im
InstallAnywhere by Macrovision · Cancel	Previous Next

Figure 2-40 User Documentation

- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 2-40.
 - Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a directory under the base 5620 SAM client installation directory. The path must not contain a leading backslash. For example, if the installation directory is C:\5620sam\client and you specify Documents as the location, the documentation is installed in the C:\5620sam\client\Documents directory.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms directory in the base 5620 SAM client installation directory, for example, C:\5620sam\client\nms\Documents.

- 13 Click on the Next button.
- 14 Configure the following parameters shown in Figure 2-41, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)



🖫 5620 SAM/5650 CPAM Server I	Installer
	SNMP Configuration
 Introduction License Agreement Choose Installation Type Install Directory 	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.
Configuration	SNMP Trap Receiving IP Address
 Install Complete 	SNMP Trap Receiving Port 162
	Trap Log Id 98
InstallAnowhere by Macrovision	I
Cancel	Previous Next

15 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 2-42 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

5620 SAM/5650 CPAM Server 1	Installer
	Navigation from External Systems
Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	Select this option to enable GUI navigation from a 5620 NM system.
stallAnywhere by Macrovision	Province I Newt

Figure 2-42 Navigation from External Systems

16 Specify a directory for OSS XML output (typicallyC:\5620sam\server\xml_output), as shown in Figure 2-43. Click on the Install button to begin the server installation.

Figure 2-43 XML Output Directory

XML Ou	tput Directory
The output of the OSSI file exports will be stored under this directory C:\5620sam\server\xml_output Restore Default Folder	Choose
Previous	
	The output of the OSSI file exports will be stored under this directory [C:\5620sam\server\xml_output Restore Default Folder
The next panel displays installation progress, as shown in Figure 2-44.

Figure 2-44	Installing 562	0 SAM Server
-------------	----------------	--------------

🖫 5620 SAM/5650 CPAM Server I	nstaller 📃 🖾 🔀
	Installing 5620 SAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢
	Installing jms
InstallAnywhere by Macrovision - Cancel	

17 As shown in Figure 2-45, the 5620 SAM server is installed as a Windows service. Click on the Next button.

5620 SAM/ 3630 LPAM Server 1	Installing the server as an automatic startup service
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The 5620 SAM server has been successfully installed as an automatic startup service
InstallAnywhere by Macrovision –	
Cancel	Previous Next

Figure 2-45 Installing the server as an automatic startup service

18 When the server installation is complete, as shown in Figure 2-46, configure the the "Start the 5620 SAM Main Server" parameter to specify whether you want the server to start immediately after the installation.

🐙 5620 SAM/5650 CPAM Server II	nstaller 💶 🖾 🗶
	Installation Complete
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	CongratulationsI 5620 SAM Main Server has been successfully installed inside directory C:\5620sam\server. Once the server is started for the first time it can take up to an hour for the server to initialize the database. Attempts to login to the server via the 5620 SAM client will fail until the server is completely up.
InstallAnywhere by Macrovision – Cancel	Previous.

Figure 2-46 Installation Complete

19 Click on the Done button to close the installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.

Procedure 2-3 To install a 5620 SAM client on Windows

Perform this procedure to install the 5620 SAM client software on a Windows station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.

You can also install a 5620 SAM client on Solaris or Linux for use with a 5620 SAM system on Windows. See chapter 3 for information about installing a 5620 SAM client on a Solaris or Linux station.



Note – You require local user privileges to install the 5620 SAM client software on Windows.

Install auto-client update utility

- 1 Navigate to the Windows directory on the 5620 SAM software DVD-ROM.
- 2 Double-click on ClientInstall_SAM_6_1_revision_ID.exe

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The installer prepares by extracting files, as shown in Figure 2-47.

Figure 2-47 Installer preparation



When the counter reaches 100%, a splash screen appears, as shown in Figure 2-48, and the installation process begins.



Figure 2-48 5620 SAM Installer

3 The 5620 SAM installer opens, as shown in Figure 2-49. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

🖳 5620 SAM Client Installer	
	Introduction
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM Client. The version of the 5620 SAM Client software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision	Previous Next

Figure 2-49 Introduction

4 Review and accept the terms of the license agreement shown in Figure 2-50. Click on the Next button.



Figure 2-50 Software License Agreement

5 Select Client Installation and Configuration, as shown in Figure 2-51. Click on the Next button.

🖫 5620 SAM Client Installer	
	Choose Installation Type
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Client Installation and Configuration
	Client Configuration Change parameters of an existing Client installation
InstallAnywhere by Macrovision —	
<u>C</u> ancel	Previous Next

Figure 2-51 Choose Installation Type

6 Specify a base directory in which to install the 5620 SAM client software (typically C:\5620sam\client) as shown in Figure 2-52. Click on the Next button.

🖫 5620 SAM Client Installer	
 5620 SAM Client Installer Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Specify the Base Directory for 5620 SAM Client Files
Install Complete	C:\5620sam\client Restore Default Folder Choose
InstallAnywhere by Macrovision	·
<u>C</u> ancel	Previous Next

Figure 2-52 Specify the Base Directory for 5620 SAM Client Files

7 As shown in Figure 2-53, the installer displays the release of the client software that is to be installed. Verify the information. Click on the Next button.

🖳 5620 SAM Client Installer	n de la companya de l
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision · <u>C</u> ancel	Previous Next

Figure 2-53 Checking Build Compatibility

- 8 Perform one of the following:
 - a Configure the 5620 SAM client for use with a standalone 5620 SAM server and database.
 - i Ensure that the "Redundancy Support" parameter is disabled, as shown in Figure 2-54.
 - ii Configure the "Server IP Address" parameter using the IP address that the client uses to address the 5620 SAM server.
 - **b** Configure the 5620 SAM client for use with a redundant 5620 SAM server and database pair.
 - i Select the "Redundancy Support" parameter shown in Figure 2-54.
 - ii Configure the "Server IP Address" parameter using the IP address that the client uses to reach the primary 5620 SAM server.
 - iii Configure the "Server Two IP Address" parameter using the IP address that the client uses to reach the standby 5620 SAM server, then click on the Install button to begin the auto-client update utility installation.

🖳 5620 SAM Client Installer	
	Main Server Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM server's public IP address as known to the 5620 SAM clients. Server IP Address Redundancy Support Server Two IP Address
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Install

Figure 2-54 Main Server Configuration

9 When the installation is complete, as shown in Figure 2-55, click on the Done button to close the installer.

Installation Complet	🐙 5620 SAM Client Installer	×
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 		Installation Complete
	 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Congratulations! 5620 SAM Client has been successfully installed inside directory C:\5620sam1\client.
InstallAnywhere by Macrovision Qancel Previous Done	InstallAnywhere by Macrovision	Previous Done

Figure 2-55 Installation Complete

Install 5620 SAM client software using auto-client update utility

10 Start the 5620 SAM auto-client update utility by double-clicking on the 5620 SAM Client App desktop icon. The utility detects the available client software on the 5620 SAM server, begins downloading files, and presents the panel shown in Figure 2-56. The panel displays the installation progress using separate indicators for the overall and current task progress.



Figure 2-56 Installation progress

When the installation is complete, the auto-client update utility closes and the newly installed 5620 SAM client opens.

11 Log in to the 5620 SAM client GUI to ensure that the client and server are communicating properly.

2.5 Workflow for 5620 SAM upgrade on Windows

The following is the sequence of high-level actions required to upgrade a 5620 SAM system on a Windows platform.

- 1 Perform the pre-upgrade tasks. See Procedure 2-4 for more information.
- 2 Upgrade the 5620 SAM database. See Procedure 2-5 for more information.
- 3 Upgrade the 5620 SAM server. See Procedure 2-6 for more information.
- 4 Upgrade or install a 5620 SAM client.
 - **a** See Procedure 2-3 for information about installing a client on a Windows station.
 - **b** See Procedure 2-7 for information about upgrading a Release 5.0 R4 or earlier client on a Windows station.
 - c See Procedure 2-8 for information about upgrading a Release 5.0 R5 or later client on a Windows station.
 - d See Procedure 3-2 for information about installing a client on a Solaris or Linux station.
 - e See Procedure 4-3 for information about upgrading a Release 5.0 R4 or earlier client on a Solaris or Linux station.
 - f See Procedure 4-4 for information about upgrading a Release 5.0 R5 or later client on a Solaris or Linux station.
- 5 Upgrade or install a client delegate, if required. See Procedure 3-3 for more information.

2.6 5620 SAM upgrade on Windows procedures

This section describes how to upgrade the software components of a 5620 SAM system on Windows.

Before you begin a 5620 SAM system upgrade, you must collect the required information and ensure that the proper conditions are in place. Procedure 2-4 describes how to perform the required tasks to prepare for a 5620 SAM system upgrade.

Procedure 2-5 describes how to upgrade the 5620 SAM database software. Procedure 2-6 describes how to upgrade the 5620 SAM server software. Procedure 2-7 describes how to upgrade Release 5.0 R4 or earlier 5620 SAM client software. Procedure 2-8 describes how to upgrade Release 5.0 R5 or later 5620 SAM client software.

Procedure 2-4 To perform the pre-upgrade tasks

Perform this procedure to prepare a 5620 SAM system on Windows for a 5620 SAM software upgrade.

Back up database

1 Alcatel-Lucent strongly recommends that you perform a database backup using one of the following methods before you upgrade a 5620 SAM database.



Caution — When backing up a 5620 SAM database, you must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. A typical 5620 SAM database installation directory is C:\5620sam\samdb.

- **a** Use the 5620 SAM client GUI. See the 5620 SAM User Guide for information about how to perform a database backup using the client GUI.
- b Use a CLI script. Perform the following steps.
 - i Log in to the database station as a user with local administrator privileges.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt to begin the database backup:

path\SAMbackup.bat backup_directory ...

where *path* is the location of the 5620 SAM database backup script file, typically C:\5620sam\samdb\install\config\samdb *backup_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

iv Close the console window.

Verify managed-device compatibility

- 2 Confirm that the new 5620 SAM software release supports the software release of each 5620 SAM-managed device. Perform one of the following for each unsupported device before you attempt the upgrade, or a service disruption may occur. See the 5620 SAM NE Compatibility Guide for information about managed-device release and 5620 SAM release compatibility.
 - a Upgrade the device to a software release that the new 5620 SAM software supports. See the appropriate device documentation for information about device software upgrades.

- **b** Remove the device from the 5620 SAM managed network. See the 5620 SAM *User Guide* for information about performing the following steps.
 - i Use a 5620 SAM client to unmanage the device.
 - ii When the device is unmanaged, use the 5620 SAM client to remove the device from the 5620 SAM network.



Note 1 — If you have a Release 5.0 R4 or earlier 5620 SAM system that manages one or more 7250 SAS-ES, Release 2.0 devices, you must unmanage the 7250 SAS-ES, Release 2.0 devices in your network before you attempt to upgrade the 5620 SAM software.

You can resume management of the devices when the 5620 SAM upgrade is complete.

You do not need to unmanage a 7250 SAS-STD device before you upgrade the 5620 SAM software.

Note 2 - If you have a 5620 SAM system that manages one or more OmniSwitch devices as generic NEs, you must unmanage and delete the OmniSwitch generic NEs before you upgrade the 5620 SAM software.

You can manage the devices directly, rather than as generic NEs, when the 5620 SAM upgrade is complete.

Close client sessions

- **3** Close the 5620 SAM client session on each station that connects to the 5620 SAM server.
 - i Open a 5620 SAM client session using an account with security management privileges, such as admin.
 - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security - Security Management (Edit) form opens with the General tab displayed.
 - iii Click on the Sessions tab button.
 - iv Click on the Search button. The form displays a list of the active 5620 SAM client sessions.
 - v Using the IP addresses in the Client IP column, identify the GUI or OSS clients that are currently logged in.



Note – One of the listed sessions is the session that you are using to list the client sessions.

- vi Close each listed 5620 SAM client application session, except for the one you are using, by choosing File \rightarrow Exit from the 5620 SAM main menu.
- vii Click on the Search button again to refresh the list of open client sessions.
- viii Confirm that only one client session remains open.
- 4 Close the 5620 SAM client by choosing File \rightarrow Exit from the 5620 SAM main menu.

Close 5620 SAM LogViewer

5 If you are upgrading a Release 6.1 R1 or later 5620 SAM system, close the 5620 SAM LogViewer application if it is open.



Caution — If the 5620 SAM LogViewer is running during a 5620 SAM upgrade, the upgrade fails.

Open port for client/server communication

6 Confirm that the firewalls between the 5620 SAM main server and client allow traffic to the HTTP or HTTPS port used for performing automatic client updates. Otherwise, you cannot perform a client installation. By default, the auto-update utility uses HTTP. See the SSL configuration for secure messaging chapter of the *5620 SAM User Guide* for information about configuring HTTP and HTTPS for client/server communication.

Shut down server

- 7 Stop the 5620 SAM server application.
 - i Log in to the 5620 SAM server station using an account with local administrator user privileges.
 - ii Click on Start \rightarrow Settings \rightarrow Control Panel \rightarrow Administrative Tools \rightarrow Services. The Services window opens.

- iii Select the 5620SAMServer entry, as shown in Figure 2-57. Click on the Stop the service link on the left.
- iv Close the Services window.

vice
vic

Services						_ 🗆 ×
File Action View	Help					
) 🖪 🛿 😫 📄 🖉 🔳 🗉 💷					
Services (Local)	🍇 Services (Local)	_				
	56205AMServer	Name 🛆	Descrip	Status	Startup Type	Log On 🔺
		🍓 .NET Runtime Optim	Microso		Manual	Local S
	Stop the service	56205AMOracleProxy	Alcatel	Started	Automatic	Local S
	Restart the service	5620SAMServer	Alcatel	Started	Automatic	Local S
		🎇 Alerter	Notifies		Disabled	Local S
	Description:	Application Layer G	Provide		Manual	Local S
	processing server. The 5620 SAM allows	Application Manage	Provide		Manual	Local S
	network operators to manage their	ASP.NET State Serv	Provide		Manual	Networ
	networks at the service, customer, and	🍓 Automatic Updates	Enables	Started	Automatic	Local S
	subscriber levels.	🎇 Background Intellig	Transfe		Manual	Local S
		🎇 ClipBook	Enables		Disabled	Local S
		🆏 COM+ Event System	Support	Started	Manual	Local S
		🍓 COM+ System Appli	Manage		Manual	Local S
		🍓 Computer Browser	Maintai		Manual	Local S
		🍓 Cryptographic Servi	Provide	Started	Automatic	Local S
		🏶 DCOM Server Proce	Provide	Started	Automatic	Local S
		🍓 DHCP Client	Manage	Started	Automatic	Local S 🖵
		<u>۱</u>				
	Extended Standard					

- 8 Verify that the 5620 SAM server application is stopped.
 - i Open a console window.
 - ii Navigate to the 5620 SAM server installation directory. Enter the following at the CLI prompt:

cd *path*\nms\bin ↓

where *path* is the 5620 SAM server installation location, typically C:\5620sam\server

iii Enter the following at the CLI prompt:

nmsserver.bat appserver_status \dashv

iv The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 8 iii. Do not proceed unless the console displays the above text.

v Close the console window.

Back up configuration files

9 Make a backup copy of the *path*\nms\config\nms-server.xml configuration file on the server.

where *path* is the 5620 SAM server installation location, typically C:\5620sam\server

Store the file in a location that is unaffected by 5620 SAM upgrade activity, for example, on a non-5620 SAM station.

10 If you are upgrading a 5620 SAM system older than Release 5.0 R1, make a backup copy of the device backup files collected by the 5620 SAM in the *path*\nms\sr-backup directory on the server station.

where *path* is the 5620 SAM server installation location, typically C:\5620sam\server

Store the files in a location that is unaffected by 5620 SAM upgrade activity, such as on a non-5620 SAM station. You can import the files to the 5620 SAM database after the upgrade. See the *5620 SAM User Guide* for information about importing device backup files to the 5620 SAM database.

11 If you are upgrading a 5620 SAM system older than Release 5.0 R1, make a backup copy of the device software image files stored by the 5620 SAM in the *path*\nms\sr-images directory on the server station.

where *path* is the 5620 SAM server installation location, typically C:\5620sam\server

Store the files in a location that is unaffected by 5620 SAM upgrade activity, such as on a non-5620 SAM station. You can import the files to the 5620 SAM database after the upgrade. See the *5620 SAM User Guide* for information about importing device software image files to the 5620 SAM database.

12 Make a copy of any custom XML configuration files in the *path*\nms\jboss directory on the server station

where *path* is the 5620 SAM server installation location, typically C:\5620sam\server

Store the files in a secure location, such as on a non-5620 SAM station.



Note — The upgrade process re-installs and potentially modifies the format of the XML files in the jboss directory. You can use the copy of the pre-upgrade XML files as a reference for restoring your custom configuration, but you cannot use the files as part of the upgraded server installation. Copying the files into the new jboss directory after the upgrade is ineffective.

Procedure 2-5 To upgrade a 5620 SAM database on Windows

Perform this procedure to upgrade the 5620 SAM database software on a Windows station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note – You require local administrative user privileges to upgrade a 5620 SAM database on Windows.

- 1 Navigate to the Windows directory on the new 5620 SAM software DVD-ROM.
- 2 Double-click on DBConfig_SAM_6_1_revision_ID.exe to open the 5620 SAM installer

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The installer prepares by extracting files, as shown in Figure 2-58.

InstallAnywhere		
1	InstallAnywhere is preparing to install Extracting	
	26%	
		Cancel
(C) 2002-2006	6 Macrovision Europe Ltd. and/or Macrovision Corporation	

Figure 2-58 Installer preparation

When the counter reaches 100%, the splash screen shown in Figure 2-59 appears and the installation process begins.





3 The 5620 SAM installer opens, as shown in Figure 2-60. The left pane indicates upgrade progress. The right pane displays release information about the software being upgraded. Click on the Next button.

🐙 5620 SAM Database Configural	tor 📃 🔍
	Introduction
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This program will create and configure an Oracle database to be used by a 5620 SAM Server system. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 2-60 Introduction

4 Review and accept the terms of the license agreement shown in Figure 2-61. Click on the Next button.



📱 5620 SAM Database Configurator 📃 🔲 🗙	
	Software License Agreement
 Introduction License Agreement Installation Type Installation In Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).
Installation Completed	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2003 Alcatel-Lucent. All rights reserved.
InstallAnywhere by Macrovision	Previoue

5 Select Upgrade a Database, as shown in Figure 2-62. Click on the Next button.

Figure 2-	62 Choose	Installation	Туре
-----------	-----------	--------------	------

🐙 5620 SAM Database Configurato	r 💶 🛛 🗙
	Choose Installation Type
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	 Install & Configure a Standalone Database Restore a Database Upgrade a Database
InstallAnywhere by Macrovision — Cancel	Previous Next

6 Specify the location of the existing 5620 SAM database installation (typically C:\5620sam\samdb\install), as shown in Figure 2-63. Click on the Install button to begin the database upgrade.

Figure 2-63 Specify the Installation Root Directory of the 5620 SAM Database

Specify the	Installation Root Directory of the 5620 SAM Database
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This is the installation root directory of the database to be upgraded. This directory will be populated with upgraded configuration scripts, readme and license files.
	C:\5620sam\samdb\install Restore Default Folder Choose
InstallAnywhere by Macrovision	Previous

The installer prepares to upgrade the database, as shown in Figure 2-64.



Figure 2-64 Installing 5620 SAM Database Configurator

7 Specify the base directory of the Oracle software after the upgrade, as shown in Figure 2-65. Click on the Next button.

📮 5620 SAM Database Configurator 📃 🔲 🗙		
	Specify the Base Directory for Oracle Software	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all Oracle software. C:\5620sam\oracle Restore Default Folder Choose	
InstallAnywhere by Macrovision —		
Cancel	Previous Next	

Figure 2-65 Specify the Base Directory for Oracle Software

User Password

- 8 Configure the following parameters shown in Figure 2-66 using information from the existing 5620 SAM installation, then click on the Next button:
 - Database Server IP Address
- User Name (typically samuser)
- Database Name (typically samdb)
- Instance Name (typically samdb)

Figure 2-66 Get Upgrade Database Info

📲 5620 SAM Database Configurator 📃 🔲 🗙	
	Get Upgrade Database Info
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Enter the network interface the Database will use to communicate with the Servers. If Network Address Translation (NAT) is used, specify the Database's private IP address. Database Server IP Address Database Name samdb Instance Name samdb User Name samuser User Password *********
InstallAnywhere by Macrovision -	Previous Next
<u></u>	

- **9** Configure the following parameters shown in Figure 2-67 using information from the existing 5620 SAM installation, then click on the Next button:
 - Database Listener Port (typically 1523)
 - Database Proxy Port Number (typically 9002)
 - Database File Server Port (typically 9003)



🐙 5620 SAM Database Configurat	or 📃 🗌 🗙
	Get Upgrade Database Info (cont.)
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Database Listener Port 1523 Database Proxy Port Number 9002 Database File Server Port 9003
InstallAnywhere by Macrovision – Cancel	Previous

10 If the "Enable SAM Server IP Validation" parameter shown in Figure 2-68 is selected, only the specified server can connect to the database. If required, select this parameter and enter the 5620 SAM server IP address. Click on the Next button.



🖳 5620 SAM Database Configurat	or 💶 🛛 🗙
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). Enable SAM Server IP Validation SAM Server IP Address
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

11 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 2-69 and enter the public IP address of the database. Click on the Next button.

📲 5620 SAM Database Configurator	
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address.
InstallAnywhere by Macrovision	
Cancel	Previous Next

Figure 2-69 Public IP of the Database Server

12 If the panel in Figure 2-70 is displayed, specify a directory for the continuous statistics tablespace backup. Click on the Next button.

🖳 5620 SAM Database Configurat	or 📃 🗙
Staging Destination	
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify a staging directory for the files created by the continuous statistics tablespace backup. The directory must be located on a low-activity device, such as a disk that is dedicated to this function only. C:\5620sam\dbbackup\staging Restore Default Folder Choose
InstallAnywhere by Macrovision –	
Cancel	Previous Next

13 Configure the "Accounting Statistic Database Retention Period" parameter shown in Figure 2-71. Click on the Next button.

🐙 5620 SAM Database Configurat	or 📃 🖬 🗙	
Accounting Statistics Database Retention Perio		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the accounting statistics retention period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space. Accounting Statistic Data Retention Period	
InstallAnywhere by Macrovision -		
Cancel	Previous	

Figure 2-71 Accounting Statistics Database Retention Period

- 14 To speed the database upgrade, you can purge the statistics data that the 5620 SAM currently stores. Configure the following parameters shown in Figure 2-72, then click on the Next button:
 - Purge All Accounting Statistics
 - Purge All MIB Statistics



Note – The statistics data for the specified statistics types are permanently deleted from the 5620 SAM.

🖳 5620 SAM Database Configural	or _ [] ×
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Purge Statistics Specify whether you wish to purge statistics records from the database. The statistics will not be available post upgrade. Purge All Accounting Statistics Purge All MIB Statistics
InstallAnuwhara ky Magrovician -	
Cancel	Previous

Figure 2-72 Purge Statistics

15 Depending on the 5620 SAM release that you are upgrading from, the panel shown in Figure 2-73 appears. Configure the "Retention Time (hours) parameter to specify how long the 5620 SAM retains accounting statistics after server startup. Click on the Next button.

🖫 5620 SAM Database Configurator		
	Keep Accounting Statistics	
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify the amount of accounting statistics you wish to keep in the database. Accounting statistics older than the retention time will not be available post upgrade. Retention Time (hours) 24	
InstallAnywhere by Macrovision	Previous	

Figure 2-73 Keep Accounting Statistics

- **16** If the panel in Figure 2-74 is displayed, the new database contains at least one tablespace that is not defined in the previous database and you must perform the following steps to specify the tablespace directories. Otherwise, go to step 15.
 - i Click on the Add button shown in Figure 2-74. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii Repeat steps 16 i and ii to specify an additional tablespace directory, if required.

堰 5620 SAM Database Configurato	r 🔤 🛛 🗙
	Data File Directories
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify the directories that will be used in Tablespace distribution. Please make sure enough disk space is available for each of the directories allocated for the corresponding Tablespace. Refer to the installation guide for more information Directory Name Type C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default C:\5620sam\samdb\tablespace Default
InstallAnywhere by Macrovision — Cancel	Previous Next

Figure 2-74 Data File Directories

- 17 Associate tablespaces with the directories specified in step 16.
 - i Click on the Configure Tablespaces button. The tablespace configuration form opens, as shown in Figure 2-75.



Note – The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 2-74 reappears.
- iv Click on the Next button.

Directories		Associations	
Directory Name	Туре	Name	Drive
:\5620sam\samdb\tablespace	Default	ALARMS	C:\5620sam\samdb\tablespace
		ALARM_HISTORY	C:\5620sam\samdb\tablespace
		CURRENT_DATA_STRUCT_1	C:\5620sam\samdb\tablespace
		CURRENT_DATA_STRUCT_2	C:\5620sam\samdb\tablespace
		CURRENT_DATA_STRUCT_3	C:\5620sam\samdb\tablespace
		CURRENT_DATA_STRUCT_4	C:\5620sam\samdb\tablespace
		INDX	C:\5620sam\samdb\tablespace
		SAM_RELATIONS_1	C:\5620sam\samdb\tablespace
0 T		SAM_RELATIONS_2	C:\5620sam\samdb\tablespace
Oracle Tablespaces		SAM_SYSTEM_1	C:\5620sam\samdb\tablespace
Tablespace Na	ame	SAM_SYSTEM_2	C:\5620sam\samdb\tablespace
		SAM_SYSTEM_3	C:\5620sam\samdb\tablespace
		SAM_SYSTEM_4	C:\5620sam\samdb\tablespace
		STATS_CURRENT	C:\5620sam\samdb\tablespace
		STATS_HISTORY	C:\5620sam\samdb\tablespace
		STATS_POLICY	C:\5620sam\samdb\tablespace
		SYSAUX	C:\5620sam\samdb\tablespace
		SYSTEM	C:\5620sam\samdb\tablespace
		TEMP	C:\5620sam\samdb\tablespace
		TIMS_SYSTEM	C:\5620sam\samdb\tablespace
5620 SAM Tablespaces ———		TIMS_SYS_INDX	C:\5620sam\samdb\tablespace
Tableconce Nor		UNDOTB51	C:\5620sam\samdb\tablespace
		USERS	C:\5620sam\samdb\tablespace
CURRENT_DATA_STRUCT_1			
CURRENT_DATA_STRUCT_2			statute a firmer that laft
CURRENT_DATA_STRUCT_3		Add asso	clacions from the left
SAM RELATIONS 1		Remove	elected Associations
SAM RELATIONS 2		- ixembye -	211 (211) (212) (212) (212) (212) (212) (212)
SAM_SYSTEM_1		Set De	fault Associations

Figure 2-75 Configure Tablespaces

18 Depending on the 5620 SAM release that you are upgrading from, the panel in Figure 2-76 is displayed. Specify a directory for the accounting statistics tablespace files. Click on the Next button.

📲 5620 SAM Database Configurator		
Accounting Statistics Data File Director		
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify a directory for the accounting statistics tablespace files. For the best performance, locate the directory on a low-activity device, such as one that is dedicated to the accounting statistics tablespaces only. C:\5620sam\samdb\statstbs01 Restore Default Folder Choose	
InstallAnywhere by Macrovision – Cancel	Previous Next	

Figure 2-76 Accounting Statistics Data File Directory

19 You are prompted to begin the database upgrade, as shown in Figure 2-77. A database upgrade can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database upgrade.



堰 5620 SAM Database Configurat	or 📃 🗌 🗙
	Database Upgrade
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The Database Configurator will now upgrade the 5620 SAM database to the current 5620 SAM version. The database upgrade process takes some time. Do not interrupt this process once it has started. If cancelled, the application exits and the result is an incomplete database upgrade. Start Process
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

As shown in Figure 2-78, the installer prepares to upgrade the database software.

🖳 5620 SAM Database Configurat	or 📃 📃 🔀
	Please Wait
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment
InstallAnywhere by Macrovision – Cancel	Previous

Figure 2-78 Please Wait

The next panel displays upgrade progress, as shown in Figure 2-79.

🐙 5620 SAM Database Configurate	or 📃 🛛 🔪
	Database Upgrade
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Database upgrade in progress
	Upgrading database
InstallAnywhere by Macrovision – Cancel	

Figure 2-79 Database Upgrade

20 When the database upgrade is complete, as shown in Figure 2-80, click on the Done button to close the installer.

🐙 5620 SAM Database Configurat	or 🔤 🗖 🗙
	Installation Complete
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Database upgrade was successful
InstallAnywhere by Macrovision -	
Cancel	Previous Done

Figure 2-80 Installation Complete

21 Reboot the 5620 SAM database station.

The 5620 SAM database starts automatically during Windows initialization.

Procedure 2-6 To upgrade a 5620 SAM server on Windows

Perform this procedure to upgrade the 5620 SAM server software on a Windows station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note – You require local administrative user privileges to upgrade a 5620 SAM server on Windows.

- 1 Navigate to the Windows directory on the new 5620 SAM software DVD-ROM.
- 2 Begin the upgrade by double-clicking on ServerInstall_SAM_6_1_revision_ID.exe

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The installer prepares by extracting files, as shown in Figure 2-81.

InstallAnywhere				
1	InstallAnywhere is preparing to install Extracting			
	26%			
		Cancel		
(C) 2002-2006	Macrovision Europe Ltd. and/or Macrovision Corporation			

Figure 2-81 Installer preparation

When the counter reaches 100%, a splash screen appears, as shown in Figure 2-82, and the installation process begins.

Figure 2-82 5620 SAM Installer



3 The 5620 SAM installer opens, as shown in Figure 2-83. The left pane indicates upgrade progress. The right pane displays release information about the software being upgraded. Click on the Next button.

🖳 5620 SAM/5650 CPAM Server 1	Installer 📃 🛛 🗐
	Introduction
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM Server. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision - Cancel	Previous

Figure 2-83 Introduction

4 Review and accept the terms of the license agreement shown in Figure 2-84. Click on the Next button.



🖫 5620 SAM/5650 CPAM Server II	nstaller
	Software License Agreement
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Server software or installing the hardware unit with pre-enabled 5620 SAM Server software (each of which is referred to as "Software" in this Agreement). Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved.
InstallAnywhere by Macrovision – Cancel	Previous Next

5 Select Main Server Installation and Configuration, as shown in Figure 2-85. Click on the Next button.

🖳 5620 SAM/5650 CPAM Server I	nstaller	
		Choose Installation Type
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 		Main Server Installation and Configuration Use this option when installing or upgrading the Main Server
		Main Server Configuration Use this option if you need to change parameters of an existing Main Server installation
InstallAnywhere by Macrovision	,	
Cancel		Previous Next

Figure 2-85 Choose Installation Type

6 Specify the base directory in which the existing 5620 SAM main server software is installed (typically C:\5620sam\server), as shown in Figure 2-86. Click on the Next button.



🖫 5620 SAM/5650 CPAM Server I	installer 📃 🖂 🔀
Spec	ify the Base Directory for 5620 SAM Main Server Files
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files. C:\5620sam\server Restore Default Folder Choose
InstallAnywhere by Macrovision - Cancel	Previous Next

7 As shown in Figure 2-87, the installer displays the release of the 5620 SAM server software that is currently installed and the release to which it is being upgraded. Verify the information. Click on the Next button.

📲 5620 SAM/5650 CPAM Server Installer		
	Checking Build Compatibility	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	You are about to perform an installation on an already installed directory Installed on disk: 5620 SAM Version 5.0 R5.0 - Built on Fri Aug 17 04:37:11 EST 2007 Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision		
Cancel	Previous	

Figure 2-87 Checking Build Compatibility

8 The 5620 SAM Installer displays the License Key specified during the existing installation. Enter the License Key information for the new 5620 SAM release exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 2-88. Click on the Next button.

rigure 2-66 License information for 5620 SAM Main Serve	Figure 2-88	License	Information	for	5620	SAM	Main	Server
---	-------------	---------	-------------	-----	------	-----	------	--------

💂 5620 SAM/5650 CPAM Server Installer 📃 🖂 🗶			
	License Information for 5620 SAM Main Server		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Customer Name License Key 00000-00000-00000-00000-00000-00000-0000		
InstallAnywhere by Macrovision - Cancel	Previous Next		

- **9** Configure the following parameters, shown in Figure 2-89, using the recorded values from the database installation. Click on the Next button.
 - Database Server IP address
 - Database Server Port (typically 1523)
 - Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Database Proxy Port (typically 9002)



📲 5620 SAM/5650 CPAM Server I	installer 📃 🗔 🗙
	Database Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Server Port 1523 Database Instance Name samdb Database User Name Samuser Database Vser Porx Port 19002
InstallAnywhere by Macrovision -	
Cancel	Previous Next

- 10 Depending on the existing configuration. the panel shown in Figure 2-90 appears. If required, configure the following parameters, then click on the Next button:
 - Online Database Backup Interval (Hours) (typically 24)
 - Online Backup Destination (typically C:\5620sam\dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 9.

5620 SAM/5650 CPAM Server I	nstaller 📃 🖬 🕹
	Online Database Backup
Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination C:\5620sam\dbbackup Number Of Backup Sets 3
stallAnywhere by Macrovision -]
Cancel	Previous

Figure 2-90 Online Database Backup

- 11 Configure the following parameters shown in Figure 2-91, then click on the Next button:
 - Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "Network Address Translation Used" parameter and enter the private IP address of the server. Click on the Next button.

🖳 5620 SAM/5650 CPAM Server I	nstaller 📃 🖾 🗶
	Main Server Address Configuration for Clients
 Introduction License Agreement Choose Installation Type Install Directory Configuration 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients.
Install Complete	Public IP (visible to clients) EJB JNDI Server port EJB JMS Server port 8093 NAT (network address translation) Used Private IP (accessible only by this server)
InstallAnywhere by Macrovision -	Enable 5670 RAM
Cancel	Previous
12 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 2-92. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

🖳 5620 SAM/5650 CPAM Server I	nstaller 📃 🖂
	License Information for 5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Include 5650 CPAM Server License Information D0-00000-00000-000000-000000-000000-00000
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 2-92 License Information for 5650 CPAM Server

- **13** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 2-93.
 - ii If you want to accept the default user documentation location that is displayed, go to step 9.



Note — If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation directory on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

🐙 5620 SAM/5650 CPAM Server In	istaller 📃 🔀
	User Documentation
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select "Install User Documentation at Central Location Below" if you want the documentation to be centrally accessible to clients. You must specify an absolute file path or a URL. If the location is a URL and NAT is used, ensure that the URL contains the public address of the server. Select "Install User Documentation to Client File System" to install user documentation on the clients. The file path that you specify is relative to the client installation directory. Install User Documentation at Central Location Below Install User Documentation to Client File System Install User Documentation at Central Location Below Install User Documentation to Client File System Install User Documentation to Client File System Restore Default
InstallAnywhere by Macrovision — Cancel	Previous Next

Figure 2-93 User Documentation

- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 2-93.
 - Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a directory under the base 5620 SAM client installation directory. The path must not contain a leading backslash. For example, if the installation directory is C:\5620sam\client and you specify Documents as the location, the documentation is installed in the C:\5620sam\client\Documents directory.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms directory in the base 5620 SAM client installation directory, for example, C:\5620sam\client\nms\Documents.

- 14 Click on the Next button.
- **15** Configure the following parameters shown in Figure 2-94, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)



📱 5620 SAM/5650 CPAM Server II	nstaller
	SNMP Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network. SNMP Trap Receiving IP Address SNMP Trap Receiving Port 162 Trap Log Id 98
InstallAnywhere by Macrovision – Cancel	Previous Next

16 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 2-95 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

5620 SAM/ 5650 LPAM Server I	nstaller
	Navigation from External Systems
Introduction License Agreement Choose Installation Type Install Directory Configuration	Select this option to enable GUI navigation from a 5620 NM system.
Install Complete	TCP port for accepting GUI navigation requests
stallAnywhere by Macrovision -	

Figure 2-95 Navigation from External Systems

17 Specify a directory for OSS XML output (typically C:\5620sam\server\xml_output), as shown in Figure 2-96. Click on the Install button to begin the server upgrade.

Figure 2-96 XML Output Directory

nstaller 📃 🔼
XML Output Directory
The output of the OSSI file exports will be stored under this directory C:\5620sam\server\xml_output Restore Default Folder Choose
Brovious

The next panel displays upgrade progress, as shown in Figure 2-97.

Figure 2-97 Installing 5620 SAM Serve	gure 2-97	Installing	5620	SAM	Server
---------------------------------------	-----------	------------	------	-----	--------

🖳 5620 SAM/5650 CPAM Server 1	installer 💶 🖬 🗐
	Installing 5620 SAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢
	Installing jms
InstallAnywhere by Macrovision - Cancel	

18 As shown in Figure 2-98, the 5620 SAM server is installed as a Windows service. Click on the Next button.

🖳 5620 SAM/5650 CPAM Server 🗄	Installer 📃 🔍
	Installing the Server as an automatic startup Service
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Main Server has been successfully installed as an automatic startup NT Service
InstallAnywhere by Macrovision - Cancel	Previous

Figure 2-98 Installing the Server as an automatic startup Service

19 When the server upgrade is complete, as shown in Figure 2-99, configure the "Start the 5620 SAM Main Server" parameter to specify whether you want the server to start immediately after the upgrade.





20 Click on the Done button to close the installer. If you specified that the server is to start after the upgrade, the server starts. Initial server startup can take twenty minutes or more.

Procedure 2-7 To upgrade a 5620 SAM Release 5.0 R4 or earlier client on Windows

Perform this procedure to upgrade the 5620 SAM client software on a Windows station when the currently installed client software release is 5.0 R4 or earlier.

A 5620 SAM client software upgrade from Release 5.0 R4 or earlier consists of a client uninstallation and a subsequent client installation because of the introduction of the auto-client update functionality in Release 5.0 R5.



Note — The 5620 SAM server to which the 5620 SAM client connects must be upgraded before you can upgrade the client.

- 1 Close the 5620 SAM client, if it is open.
 - i Choose Application \rightarrow Exit from the 5620 SAM main menu. A dialog box appears.
 - ii Click on the Yes button. The 5620 SAM client closes.

- 2 Perform Procedure 2-9 to uninstall the existing 5620 SAM client software.
- 3 Perform Procedure 2-3 to install the new 5620 SAM client software.

Procedure 2-8 To upgrade a 5620 SAM Release 5.0 R5 or later client on Windows

This procedure describes how to upgrade the 5620 SAM client software on a Windows station when the currently installed client software release is 5.0 R5 or later. You cannot use this procedure to upgrade an older release of the client software.

A Release 5.0 R5 or later 5620 SAM client attempts to upgrade itself automatically when the client and the server to which it connects are at different 5620 SAM software releases.



Note 1 - The 5620 SAM server to which the 5620 SAM client connects must be upgraded before you can upgrade the client.

Note 2 - The user that upgrades the 5620 SAM client software must be the user that installed the client software.

- 1 Close the 5620 SAM client, if it is open.
 - i Choose Application \rightarrow Exit from the 5620 SAM main menu. A dialog box appears.
 - ii Click on the Yes button. The 5620 SAM client closes.
- 2 Start the 5620 SAM auto-client update utility by double-clicking on the 5620 SAM Client App desktop icon. The utility detects the available client software on the 5620 SAM server and presents the panel shown in Figure 2-100.



Figure 2-100 Upgrade prompt

3 Click on the Yes button to begin the 5620 SAM client software upgrade. As shown in Figure 2-101, the next panel displays the installation progress using separate indicators for overall progress and current task progress.





When the upgrade is complete, the auto-client update utility closes and the 5620 SAM client login form is displayed.

- 4 Log in to the 5620 SAM client GUI.
- 5 If the 5620 SAM server is at Release 6.0 R1 or later, and the 5620 SAM client is being upgraded from a Release 5.0 maintenance release of R5 or greater, the auto-update functionality prompts you to keep or remove the older JRE version, as shown in Figure 2-102. Perform one of the following.



Figure 2-102 SAM Auto Update Client

- a If there is no longer a need for the client to connect to a 5620 SAM Release 5.0 server, click on the Yes button. The older JRE version is removed.
- **b** If the client is to be used later to connect to a Release 5.0 server, click on the No button. The older JRE version is retained.

If you have trouble opening the GUI, see the Troubleshooting 5620 SAM clients chapter of the 5620 SAM Troubleshooting Guide.

2.7 Workflow for 5620 SAM uninstallation on Windows

The following is the sequence of high-level actions required to uninstall a 5620 SAM system on a Windows platform.

- 1 Uninstall the clients.
 - **a** If a client is installed on a Windows station, see Procedure 2-9 for more information.
 - **b** If a client is installed on a Solaris or Linux station, see Procedure 7-1 for more information.
- 2 Uninstall the server. See Procedure 2-10 for more information.
- 3 Uninstall the database. See Procedure 2-11 for more information.

2.8 5620 SAM uninstallation on Windows procedures

This section describes how to remove the software components of a 5620 SAM system on Windows.

Procedure 2-9 describes how to uninstall the 5620 SAM client. Procedure 2-10 describes how to uninstall the 5620 SAM server. Procedure 2-11 describes how to uninstall the 5620 SAM database.

Procedure 2-9 To uninstall the 5620 SAM client software on Windows

Perform this procedure to remove the 5620 SAM client software from a Windows station.



Note – The Windows user that uninstalls the 5620 SAM client software must be the same user that installed the 5620 SAM client.

- 1 Log in to the 5620 SAM client station as the user that installed the 5620 SAM client software.
- 2 Close the 5620 SAM client, if it is active, by choosing File \rightarrow Exit from the 5620 SAM main menu.
- 3 Perform one of the following, based on the release of Windows that is running.
 - a Perform the following substeps for Windows Vista.
 - i Click on Start \rightarrow Control Panel. The Control Panel window opens.
 - ii Under the Programs category, click on Uninstall a Program. The Uninstall or change a program window opens.
 - iii Right-click on 5620 SAM Client and select Uninstall/Change.

- iv If a security dialog box appears, click on the Continue button.
- b Perform the following substeps for a Windows release other than Vista.
 - i Click on Start \rightarrow Settings \rightarrow Control Panel. The Control Panel window opens.
 - ii Double-click on Add or Remove Programs. The Add or Remove Programs window opens.
 - iii Select 5620 SAM Client, as shown in Figure 2-103. Click on the Change/Remove button to begin the uninstallation.

👸 Add or Rer	nove Programs		
5	Currently installed programs:	Sort by: Name	•
C <u>h</u> ange or Remove	💤 5620 SAM Version 6.1.R 3.0 Client - Installed on 2008-11-25 13:21:51.773	Size	416.00MB
Programs	Click here for support information.	Used	rarely
1		Last Used On	11/25/2008
Add New	To change this program or remove it from your computer, click Change/Remove.	Chang	je/Remove
Programs	Adobe Acrobat 5.0	Size	20.52MB
5	Adobe FrameMaker v7.0	Size	145.00MB
Add/Remove	📕 Adobe Reader 8	Size	78.83MB
omponents	📿 Adobe Type Manager 4.1	Size	0.96MB
	🔁 Dell ResourceCD	Size	2.73MB
Set Program	🔂 Google Earth	Size	21.83MB
Access and	😹 Google Toolbar for Internet Explorer	Size	22.93MB
Deraults	🔀 Intel(R) Extreme Graphics Driver	Size	2.16MB
	🔀 Intel(R) PRO Network Adapters and Drivers		
	👙 J2SE Runtime Environment 5.0 Update 6	Size	119.00MB 🖵

Figure 2-103 Add or Remove Programs - client

4 The splash screen in Figure 2-104 appears and the uninstallation process begins.



Figure 2-104 5620 SAM Uninstaller

You are notified that the utility uninstalls the specified application but does not remove any files or directories added after the installation, as shown in Figure 2-105. Click on the Uninstall button to begin the uninstallation.



Figure 2-105 Uninstall 5620 SAM Client

5 As shown in Figure 2-106, a warning appears. Ensure that the conditions are true, then click on the "Continue with the uninstall process" button.





6 As shown in Figure 2-107, the uninstallation process removes the 5620 SAM client software.

🖳 Uninstall 5620 SAM Client	L 🗌 💶
	Uninstall 5620 SAM Client
 Introduction Uninstalling Uninstall Complete 	Please wait while InstallAnywhere's uninstaller removes the following features Preparing Files Shortcuts LaunchAnywhere Folders Registry
	Uninstalling
InstallAnywhere by Macrovision	
<u>C</u> ancel	

Figure 2-107 Uninstall 5620 SAM Client

7 When the 5620 SAM client uninstallation is complete, as shown in Figure 2-108, click on the Done button to close the uninstaller.

Introduction All items were successfully uninstalled. Uninstall Complete Image: All items were successfully uninstalled.	🖫 Uninstall 5620 SAM Client	
 Introduction Uninstalling Uninstall Complete 		Uninstall Complete
	 Introduction Uninstalling Uninstall Complete 	All items were successfully uninstalled.
InstallAnywhere by Macrovision	InstallAnywhere by Macrovision	Previous

Figure 2-108 Uninstall Complete

- 8 Close the Add/Remove Programs window or the Uninstall or change a program window, as appropriate.
- 9 Close the Control Panel window.

Procedure 2-10 To uninstall the 5620 SAM server software on Windows

Perform this procedure to remove the 5620 SAM server software from a Windows station.



Note – You require local administrator user privileges on the server station to uninstall the server software.

- 1 Perform the following substeps to close the active 5620 SAM client sessions.
 - i Open a 5620 SAM client session to the server using an account with security management privileges, such as admin.
 - ii Click on Administration \rightarrow Security \rightarrow 5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security Security Management (Edit) form opens with the General tab displayed.
 - iii Click on the Sessions tab button.
 - iv Click on the Search button. The form displays a list of the active 5620 SAM client sessions.
 - v Using the IP addresses in the Client IP column, identify the GUI or OSS clients that are currently logged in.



Note – One of the listed sessions is the session that you are using to list the client sessions.

- vi Close each listed 5620 SAM client application session, except for the one you are using, by choosing File \rightarrow Exit from the 5620 SAM main menu on each client station.
- vii Click on the Search button again to refresh the list of open client sessions.
- viii Confirm that only one client session remains open. This is the client session that you are using.
- ix Close the 5620 SAM client that you are using by choosing File \rightarrow Exit from the 5620 SAM main menu.
- **2** Log in to the 5620 SAM server station using an account with local administrator privileges.
- **3** Perform the following substeps on the 5620 SAM server station to stop the 5620 SAM server service.
 - i Click on Start \rightarrow Settings \rightarrow Control Panel \rightarrow Administrative Tools \rightarrow Services. The Services window opens.

ii Select the 5620SAMServer entry, as shown in Figure 2-109. Click on the Stop the service link.

Services	U.S.					_ 🗆 ×
Services (Local)	Services (Local)					
	5620SAMServer	Name 🛆	Descrip	Status	Startup Type	Log On
	Stop the service	NET Runtime Optim 56205AMOracleProxy	Microso Alcatel	Started	Manual Automatic	Local S Local S
	Restart the service	56205AMServer	Alcatel Notifies	Started	Automatic Disabled	Local S Local S
	Description: Alcatel 5620 SAM network management processing server. The 5620 SAM allows	Application Layer G	Provide Provide		Manual Manual	Local S Local S
	network operators to manage their networks at the service, customer, and subscriber levels.	ASP.NET State Serv Automatic Updates Background Intellig	Enables Transfe	Started	Manuai Automatic Manual	Local S Local S
		ClipBook	Enables Support	Started	Disabled Manual	Local S Local S
		COM+ System Appli Computer Browser	Manage Maintai		Manual Manual	Local S Local S
		Cryptographic Servi	Provide	Started	Automatic	Local S
		DHCP Client	Manage	Started	Automatic	Local S
		Ĩ	-			l D
	Extended Standard					

Figure 2-109 Services - 5620SAMServer service

- 4 Perform the following substeps to verify that the 5620 SAM server application is stopped.
 - i Open a console window.
 - ii Navigate to the 5620 SAM server installation directory. Enter the following at the CLI prompt:

cd *path*\nms\bin ↓

where *path* is the 5620 SAM server installation location, typically C:\5620sam\server

iii Enter the following at the CLI prompt:

<code>nmsserver.bat</code> <code>appserver_status</code> \dashv

iv The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 4 iii. Do not proceed unless the console displays the appropriate text.

- v Close the console window.
- 5 Close the Services window.
- 6 Click on Start \rightarrow Settings \rightarrow Control Panel. The Control Panel window opens.

- 7 Double-click on Add or Remove Programs. The Add or Remove Programs window opens.
- 8 Select 5620 SAM Server, as shown in Figure 2-110. Click on the Change/Remove button to begin uninstallation.

🕉 Add or Re	move Programs			
5	Currently installed programs:	Show up <u>d</u> ates	Sort by: Name	•
C <u>h</u> ange or Remove	🕞 5620 SAM Version 6.1.R3.0 Main Server - Installe	d on 2008-11-25 03:14:1	5.926 Size	559.00MB
Programs	Click here for support information.		Used	rarely
			Last Used On	11/25/2008
Add <u>N</u> ew Programs	To change this program or remove it from your computer,	click Change/Remove.	Chang	ge/Remove
1	🚮 Adobe Reader 7.0.5		Size	64.32MB
. 🤤	B Dell ResourceCD		Size	2.73MB
.dd/Remove <u>W</u> indows	🛃 Intel(R) PRO Network Adapters and Drivers			
omponents	😻 McAfee VirusScan Enterprise		Size	18.50MB
	🔀 Microsoft .NET Framework 2.0		Size	88.36MB
et Pr <u>o</u> gram	📴 Microsoft Office Outlook 2003		Size	324.00MB
Access and Defaults	Microsoft Office XP Professional		Size	407.00MB
	間 MSXML 4.0 SP2 (KB927978)		Size	2.56MB
	MSXML 6.0 Parser (KB927977)		Size	1.30MB
	🌮 MWSnap 3		Size	0.98MB —
	🛃 NVIDIA Drivers			
	😹 Oracle Data Provider for .NET Help		Size	1.04MB
	🔁 RealPlayer Basic			
	SAP Front End			-

Figure 2-110 Add or Remove Programs - server

The splash screen in Figure 2-111 appears and the uninstallation process begins.

Figure 2-111 5620 SAM Uninstaller



9 You are notified that the utility uninstalls the specified application but does not remove any files or directories added after the installation, as shown in Figure 2-112. Click on the Uninstall button to begin the uninstallation.

🖳 Uninstall 5620 SAM Server Main		
	Uninstall 5620 SAM Server	
 Introduction Uninstalling Uninstall Complete 	About to uninstall 5620 SAM Server This will remove features installed by InstallAnywhere. It will not remove files and folders created after the installation.	
InstallAnywhere by Macrovision — Cancel	Previous	

Figure 2-112 Uninstall 5620 SAM Server

10 As shown in Figure 2-113, a warning appears. Ensure that the conditions are true, then click on the "Continue with the uninstall process" button.

Figure 2-113 Warning



As shown in Figure 2-114, the uninstallation process removes the 5620 SAM server software.

📲 Uninstali 5620 SAM Server Mali	
	Uninstall 5620 SAM Server
 Introduction Uninstalling Uninstall Complete 	Please wait while InstallAnywhere's uninstaller removes the following features Files Shortcuts LaunchAnywhere Folders Registry
InstallAnywhere by Macrovision -	
Cancel	

Figure 2-114 Uninstall 5620 SAM Server

11 When uninstallation is complete, as shown in Figure 2-115, click on the Done button to close the uninstaller.

📲 Uninstall 5620 SAM Server Main 📃 🔲 🛛		
	Uninstall Complete	
 Introduction Uninstalling Uninstall Complete 	All items were successfully uninstalled.	
InstallAnywhere by Macrovision –		
Cancel	Previous Done	

Figure 2-115 Uninstall Complete

- 12 Close the Add/Remove Programs window.
- 13 Close the Control Panel Window.

Procedure 2-11 To uninstall the 5620 SAM database software on Windows

Perform this procedure to remove the 5620 SAM database software from a Windows station.



Note 1 — Before you uninstall the 5620 SAM database software, you must uninstall the 5620 SAM server software. See Procedure 2-10 for more information.

Note 2 - You require local administrator user privileges on the database station to uninstall the database software.

- 1 Perform the following substeps on the 5620 SAM database station to stop the database services.
 - i Click on Start \rightarrow Settings \rightarrow Control Panel \rightarrow Administrative Tools \rightarrow Services. The Services window opens.
 - ii Select the OracleServicedbname entry

where dbname is the name of the 5620 SAM database instance, typically samdb

- iii Click on the Stop the service link.
- iv Click on the OK button to acknowledge that stopping the OracleServicedbname service also stops the 5620SAMOracleProxy service. The 5620 SAM database services are stopped.
- 2 Close the Services window.
- 3 Click on Start-Settings-Control Panel. The Control Panel window opens.
- 4 Double-click on Add or Remove Programs. The Add or Remove Programs window opens.

5 Select 5620 SAM Database Configurator, as shown in Figure 2-116. Click on the Change/Remove button to begin uninstallation.

🐻 Add or Ren	nove Programs			_ 🗆 2
5	Currently installed programs:	Show up <u>d</u> ates	Sort by: Name	•
C <u>h</u> ange or Remove Programs	620 SAM Version 6.1.R 3.0 Database Co 00:01:37.363	onfigurator - Installed on 20	08-11-25 Size	140.00MB
	<u>Click here for support information.</u>		Used Last Used On	rarely 11/25/2008
Add <u>N</u> ew Programs	To change this program or remove it from your	r computer, click Change/Remove	- Chang	je/Remove
<i>~</i>	🚮 Adobe Reader 7.0.5		Size	64.08MB
.	🔂 Dell ResourceCD		Size	2.73MB
Add/Remove Windows	🛃 Intel(R) PRO Network Adapters and Drivers			
Components	関 McAfee VirusScan Enterprise		Size	17.98MB
<u> </u>	🛃 Microsoft .NET Framework 2.0		Size	88.36MB
Set Program	🚼 Microsoft Office Outlook 2003		Size	324.00MB
Access and Defaults	Microsoft Office XP Professional		Size	407.00MB
20120103	🔀 MSXML 4.0 SP2 (KB927978)		Size	2.56MB 🖵

Figure 2-116 Add or Remove Programs - database

The splash screen in Figure 2-117 appears and the uninstallation process begins.



Figure 2-117 5620 SAM Uninstaller

6 You are notified that the utility uninstalls the specified application but does not remove any files or directories added after the installation, as shown in Figure 2-118. Click on the Next button.

🖳 Uninstall 5620 SAM Database Configurator		
	Uninstall 5620 SAM Database Configurator	
 Introduction Uninstalling Uninstall Complete 	About to uninstall 5620 SAM Database Configurator This will remove features installed by InstallAnywhere. It will not remove files and folders created after the installation. For large databases, this could take several minutes.	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 2-118 Uninstall 5620 SAM Database Configurator

7 Select Uninstall Oracle software, as shown in Figure 2-119. Click on the Uninstall button to begin the uninstallation.



💂 Uninstall 5620 SAM Database Configurator 📃 🔲 🗙		
	Uninstall Oracle Software	
 Introduction Uninstalling Uninstall Complete 	Please specify if Oracle software is to be uninstalled.	
InstallAnywhere by Macrovision		
Cancel	Previous Uninstall	

As shown in Figure 2-120, the uninstallation process removes the 5620 SAM database software.

🖳 Uninstall 5620 SAM Database Configurator 📃 🔲 🗙		
	Uninstall 5620 SAM Database Configurator	
 Introduction Uninstalling Uninstall Complete 	Please wait while InstallAnywhere's uninstaller removes the following features Preparing Files LaunchAnywhere Folders Registry	
	Uninstalling	
InstallAnywhere by Macrovision		

Figure 2-120 Uninstall 5620 SAM Database Configurator

8 When the database uninstallation is complete, as shown in Figure 2-121, click on the Done button to close the uninstaller.

🖳 Uninstall 5620 SAM Database Co		
	L	Ininstall Complete
 Introduction Uninstalling Uninstall Complete 	All items were successfully uninstalled. Please restart this workstation.	
InstallAnywhere by Macrovision – Cancel	Previo	JS Done

Figure 2-121 Uninstall Complete

- 9 Close the Add/Remove Programs window.
- 10 Close the Control Panel window.

5620 SAM for Solaris

- 3 5620 SAM installation on Solaris
- 4 5620 SAM upgrade on Solaris
- 5 5620 SAM conversion to redundancy
- 6 5620 SAM platform migration
- 7 5620 SAM uninstallation on Solaris

3 – 5620 SAM installation on Solaris

- 3.1 5620 SAM installation on Solaris overview 3-2
- 3.2 5620 SAM installation on Solaris procedures list 3-2
- 3.3 Workflow for standalone 5620 SAM installation on Solaris 3-2
- 3.4 Standalone 5620 SAM installation on Solaris procedures 3-3
- 3.5 Workflow for redundant 5620 SAM installation on Solaris 3-49
- 3.6 Redundant 5620 SAM installation on Solaris procedures 3-49
- 3.7 5620 SAM auxiliary server installation procedures 3-125

3.1 5620 SAM installation on Solaris overview

This chapter describes how to perform an installation of a 5620 SAM network management system on a Solaris platform. The following components comprise a 5620 SAM system on Solaris:

- one or two main servers
- one or two databases
- one or two auxiliary servers
- one or more clients

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



Caution – Alcatel-Lucent supports 5620 SAM software configuration only under the conditions described in chapter 1.

3.2 5620 SAM installation on Solaris procedures list

Table 3-1 lists the procedures required to perform 5620 SAM software installation activities on a Solaris platform.

Procedure	Purpose
To install a standalone 5620 SAM system on Solaris	Install the 5620 SAM database and server software in a standalone configuration on one or more Solaris stations.
To install a 5620 SAM client on Solaris or Linux	Install the 5620 SAM client software on a Solaris or Linux station.
To install a 5620 SAM client delegate	Install an additional instance of the 5620 SAM client software on a Solaris or Linux station for a different user.
To install a redundant 5620 SAM system on Solaris	Install the 5620 SAM database and server software in a redundant configuration on Solaris stations.
To install a 5620 SAM auxiliary server	Install the 5620 SAM auxiliary-server software on a Solaris station as part of a standalone or redundant 5620 SAM system.

Table 3-1	5620 SAM	installation	on Solaris	procedures	list
-----------	----------	--------------	------------	------------	------

3.3 Workflow for standalone 5620 SAM installation on Solaris

The following is the sequence of high-level actions required to install a standalone 5620 SAM system on a Solaris platform. A section heading in quotation marks is a reference to a section in Procedure 3-1.

- 1 Install the database. See "Install standalone database" for more information.
- 2 Install the main server. See "Install standalone server" for more information.
- 3 Install one or more auxiliary servers, if required. See Procedure 3-5 for information about installing an auxiliary server.
- 4 Install one or more 5620 SAM clients. See "Install client" for more information.
- 5 Install a client delegate, if required. See Procedure 3-3 for more information.

3.4 Standalone 5620 SAM installation on Solaris procedures

This section describes how to install the software components of a standalone 5620 SAM system on Solaris.

Procedure 3-1 describes how to install the 5620 SAM server and database software. Procedure 3-2 describes how to install the 5620 SAM client software. Procedure 3-3 describes how to install a 5620 SAM client delegate.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- # represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 3-1 To install a standalone 5620 SAM system on Solaris

Perform this procedure to install the 5620 SAM main server and database software in a standalone 5620 SAM system on one or more Solaris stations. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require the following user privileges to perform this procedure:

on the main server station:

root or root-equivalent

on the database station:

- root or root-equivalent
- Oracle management

Note 2 — The samadmin user account is created on the main server station during this procedure.

Note 3 – The Oracle management user account is created on the database station during this procedure.

Run Oracle pre-installation script

1 Before you perform a 5620 SAM database installation on Solaris, you must run the Oracle10g_PreInstall.sh script. This script creates and configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Log in as a user with root-equivalent privileges on the station that is to be the database station.

- 2 Open a console window.
- 3 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

4 Enter the following at the CLI prompt to run the pre-installation script:

```
# ./Oracle10g_PreInstall.sh install 斗
```

- 5 The script prompts you to enter the following:
 - group name (default is dba)
 - user name (default is oracle)
 - Oracle user home directory name (default is /opt/5620sam/oracle10r2)



Note — To reduce the complexity of subsequent software upgrades and technical-support activities, Alcatel-Lucent recommends that you press \dashv to accept the default value for each parameter.

If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

The script updates the system configuration.



Note — If you receive a "failed to create group" message, confirm that NIS is disabled and re-run the pre-installation script. For information about NIS, contact your Alcatel-Lucent customer support representative.

6 When the script execution is complete, enter the following at the CLI prompt to reboot the database station:

shutdown -y -i6 -g0 ↓

The station reboots.

Before database installation can occur, the Oracle management user and group created by the pre-installation script require ownership of the directory that is to hold the database. The next section of the procedure describes how to configure the directory ownership.

Set directory ownership for database installation

- 7 After the database station reboots, log in to the database station as a user with root-equivalent privileges.
- 8 Open a console window.
- 9 Enter the following at the CLI prompt to change the current directory to /opt:

```
# cd /opt ↓
```

10 Enter the following at the CLI prompt to specify the required user and group ownership of the 5620sam directory and subdirectories:

```
\# chown -R user:group 5620sam \dashv
```

where user is the user name value specified in step 5, typically oracle group_name is the group name value specified in step 5, typically dba

- 11 Navigate to the 5620sam directory below /opt. Enter the following at the CLI prompt:
 - # cd 5620sam ↓
- 12 Confirm that the Oracle management user home directory has the correct user and group ownerships. Enter the following at the CLI prompt:

1s -1 .⊣

If the command output is not as shown below, repeat steps 9 to 12. Do not proceed unless the output is as shown.

drwxr-xr-x 2 user group 512 Apr 11 11:15 directory

where

user is the user name value specified in step 5, typically oracle

group is the group name value specified in step 5, typically dba

directory is the Oracle management user home directory name value specified in step 5, typically /opt/5620sam/oracle10r2

Install standalone database

- **13** Log in as a user with root-equivalent privileges on the station that is to be the database station.
- 14 Open a console window.
- **15** Switch to the Oracle management user created by the pre-installation script. Enter the following at the CLI prompt:

```
# su - Oracle_management_user_name ...
```

where *Oracle_management_user_name* is the name of the UNIX account with Oracle management privileges, typically oracle

16 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 🚽

17 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
bash$ ./DBConfig_SAM_6_1_revision_ID.bin .
```

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-1 appears and the installation process begins.

Figure 3-1 5620 SAM Installer



18 The 5620 SAM installer opens, as shown in Figure 3-2. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

- 5620	SAM Database Configurator
	Introduction
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This program will create and configure an Oracle database to be used by a 5620 SAM Server system. It also provides the option of restoring a database from backups. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision —	Previous

Figure 3-2 Introduction

19 Review and accept the terms of the license agreement shown in Figure 3-3. Click on the Next button.

- 5620 SAM Database Configurator		
	Software License Agreement	
 Introduction License Agreement Installation Type Installation In Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).	
Installation Completed	S620 SAM Software License Agreement NOTICE: Please carefully read this license agreement before copying or using the accompanying S620 SAM software or installing the hardware unit with pre-enabled S620 SAM software (each of which is referred to as	
InstallAnywhere by Macrovision	Previous Next	

Figure 3-3 Software License Agreement

20 Select Install and Configure a Standalone Database, as shown in Figure 3-4. Click on the Next button.

- 5620) SAM Database Configurator
	Choose Installation Type
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Install & Configure a Standalone Database Restore a Database
	Upgrade a Database
	Install & Configure Primary/Standby Database
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 3-4 Choose Installation Type

21 Select Install Oracle Software, as shown in Figure 3-5. Click on the Next button.

- 5620) SAM Database Configurator
	Install Oracle Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	You can choose to install Oracle 10g Software first if it is not already installed. Install Oracle Software Do not install Oracle Software
InstallAnywhere by Macrovision – Cancel	Previous

Figure 3-5 Install Oracle Software

22 Specify a base directory in which to install the 5620 SAM database (typically /opt/5620sam/samdb/install), as shown in Figure 3-6. Click on the Install button to begin the database software installation.

- 5620) SAM Database Configurator	•
Sp	ecify the Base Directory for 5620 SAM Database File	s
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	The directory specified here will be the base directory for all 5620 SAM database related files /opt/5620sam/samdb/install Restore Default Folder Choose]
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Install	

Figure 3-6 Specify the Base Directory for 5620 SAM Database Files

The installer prepares to install the database, as shown in Figure 3-7.

- 5620	9 SAM Database Configurator	•
	Installing 5620 SAM Database Configurate	or
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Alcatel·Lucent 🕢	
	Installing Java Runtime Environment	
InstallAnywhere by Macrovision -		

Figure 3-7 Installing 5620 SAM Database Configurator

23 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 3-8. Click on the Next button.

-	5620 SAM Database Configurator		
		Specify the Base Directory for Oracle Software	
	Introduction License Agreement Installation Type Installation in Progress Installation Completed	The directory specified here will be the base directory for all Oracle software. /opt/5620sam/oracle10r2 Restore Default Folder Choose	
In	stallAnywhere by Macrovision –	· · · · · · · · · · · · · · · · · · ·	
	<u>C</u> ancel	Previous	

Figure 3-8 Specify the Base Directory for Oracle Software

24 You are prompted to run an Oracle pre-installation script, as shown in Figure 3-9. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Next button.

– 5620 SAM Database Configurator 🔹		
	Oracle Pre-Install Script	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	A configuration script needs to be run as root to create the inventory pointer file. Please run /opt/5620sam/samdb/install/config/orainstRoot.sh as root in a separate window now.	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 3-9 Oracle Pre-Install Script

25 You are prompted to install Oracle software, as shown in Figure 3-10. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.



- 5620	SAM Database Configurator
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	SAM Database Configurator Install Oracle Database Management Software Please press the start button to install Oracle software. This process will take some time.
InstallAnywhere by Macrovision – Cancel	Start Oracle Installation

26 As shown in Figure 3-11, Oracle installation details are displayed as the installation progresses. When the installation is complete, click on the Next button.

- 5620 SAM Database Configurator		
Install Oracle Database Management Software		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	[15.29.41.077] Oracle Installation starts. [15.29.41.212] Prepare Oracle installation files [15.30.09.470] Install Oracle Software [15.34.10.52] Install Oracle Patch Set [15.54.09.755] Oracle Patch Installation was successful. [15.54.09.765] Oracle installation has succeeded.	
	Start Oracle Installation	
InstallAnywhere by Macrovision –	Previous Next	

Figure 3-11 Install Oracle Database Management Software

27 You are prompted to run an Oracle post-installation script, as shown in Figure 3-12. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Next button.

Figure	3-12	Oracle	Post-Install	Scrint
i igui e	J-12	Ulacie	r ust-mstall	JUIPU

- 562	5620 SAM Database Configurator		
	Oracle Post-Install Script		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	A configuration script needs to be run as root to complete the installation. Please run /opt/5620sam/oracle10r2/root.sh as root in a separate window now.		
InstallAnywhere by Macrovision	Previous		

- **28** Configure the following parameters shown in Figure 3-13, then click on the Next button:
 - Database Server IP Address
- User Name (typically samuser)

• User Password

- Database Name (typically samdb)
- Instance Name (typically samdb)

Figure 3-13 General Database Configuration Info

5620 SAM Database Configurator		
General Database Configuration Info		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify the database's private IP address. Database Server IP Address Database Name samdb Instance Name samdb User Name samuser User Password *********	
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous Next	
- 29 Configure the following parameters in Figure 3-14, then click on the Next button:
 - Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)

Figure 3-14 General Database Configuration Info (continued)

= 5620 SAM Database Configurator			
	General Database Configuration Info (cont.)		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Database Listener Port 1523 Database Proxy Port 9002		
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next		

30 Enter and confirm the Oracle SYS password, as shown in Figure 3-15. Click on the Next button.

Figure 3-15 Oracle SYS Password

- 5620	5620 SAM Database Configurator		
Oracle SYS Password			
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	IMPORTANT: the password needs to be known to the 5620 SAM administrator for future reference SYS Password Confirm SYS Password		
InstallAnywhere by Macrovision – Cancel	Previous Next		

31 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 3-16. Click on the Next button.

– 5620 SAM Database Configurator -				
	Determine Memory Requirements			
 Introduction License Agreement Installation Type Installation In Progress 	Specify whether a 5620 SAM server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load.			
Installation Completed	☑ Database co-exists with a 5620 SAM server			
InstallAnywhere by Macrovision - <u>C</u> ancel	, Previous Next			

Figure 3-16 Determine Memory Requirements

32 If the "Enable SAM Server IP Validation" parameter shown in Figure 3-17 is selected, only the specified server can connect to the database. If required, select this parameter and enter the IP address of the 5620 SAM server. Click on the Next button.



- 5620	SAM Database Configurator
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). Enable SAM Server IP Validation SAM Server IP Address
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

33 The panel in Figure 3-18 is displayed If the "Enable SAM Server IP Validation" parameter in step 32 is selected. Otherwise, go to step 35.

If the 5620 SAM system includes an auxiliary server, perform the following steps.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

i Click on the Add button shown in Figure 3-18. The Auxiliary Server Configuration form shown in Figure 3-19 opens.

- 5620) SAM Database Configurator
	Auxiliary Server IP Validation
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). IP Address Add Remove Edit
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 3-18 Auxiliary Server IP Validation

ii Enter the IP Address of the auxiliary server.

Figure 3-19 Auxiliary Servers

-	Auxiliary Servers		
IP /	Address		
	OK Cancel		

- iii Click on the OK button to save the information and close the form.
- iv Repeat steps 33 i to iii to specify an additional auxiliary server, if required.
- 34 Click on the Next button.

35 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 3-20 and enter the public IP address of the database. Click on the Next button.

– 5620 SAM Database Configurator				
Public IP of the Database Serv				
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. Image: NAT (network address translation) Used Public IP (visible to servers)			
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next			

Figure 3-20 Public IP of the Database Server

36 Specify a directory as the archive log destination (typically /opt/5620sam/samdb/archivelog), as shown in Figure 3-21. Click on the Next button.



- 5620) SAM Database Configurator
	Archive Log Destination
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	To enable online database backups, the database must be run in archive log mode. Specify the directory where the archived logs are to be located. For best performance, choose a low-activity device for the archive log directory. /opt/5620sam/samdb/archivelog Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous

37 Specify a directory for the continuous statistics tablespace backup, as shown in Figure 3-22. Click on the Next button.

- 5620 SAM Database Configurator				
	Staging Destination			
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify a staging directory for the files created by the continuous statistics tablespace backup. The directory must be located on a low-activity device, such as a disk that is dedicated to this function only. /opt/5620sam/dbbackup/staging Restore Default Folder Choose			
InstallAnywhere by Macrovision -	Previous Next			

Figure 3-22 Staging Destination

38 Specify a directory for the Redo logs (typically /opt/5620sam/samdb/redolog), as shown in Figure 3-23. Click on the Next button.

	Figure 3-23 Choose the Redo Log Directory					
-	5620) SAM Database Configurator		•		
		Choose the Redo L	og Directo	ry		
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	Specify the directory where the online redo logs a located. For best performance, choose a device fo logs that is separate from the 5620 SAM database tablespaces.	re to be ır the redo e			
		/opt/5620sam/samdb/redolog		j		
		Restore Default Folder	Choose	1		
				-		

<u>P</u>revious

<u>N</u>ext

InstallAnywhere by Macrovision

<u>C</u>ancel

39 Configure the "Accounting Statistic Database Retention Period" parameter shown in Figure 3-24. Click on the Next button.

Figure 3-24	Accounting	Statistics	Database	Retention	Period
-------------	------------	------------	----------	-----------	--------

- 5620	– 5620 SAM Database Configurator				
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	SAM Database Configurator Accounting Statistics Database Retention Period Enter the accounting statistics retention period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space.	= 			
	Accounting Statistic Data Retention Period 1				
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous				

40 Select one of the data layout options shown in Figure 3-25. Click on the Next button. Contact your Alcatel-Lucent support representative for information about data layout options.



– 5620 SAM Database Configurator -				
	Data Layout Option			
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please specify a layout option for the database tables. To meet the performance requirements of a large network, you must use multiple tablespaces. Multiple Tablespace mapping of Stats and Alarm tablespaces Multiple Tablespace mapping of all tablespaces Single Tablespace			
InstallAnywhere by Macrovision — Cancel	Previous Next			

- 41 Choose the tablespace directories.
 - i Click on the Add button shown in Figure 3-26. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii If the option chosen in step 40 is Single Tablespace, go to step 43.
 - iv Repeat steps 41 i and ii to specify an additional tablespace directory, if required.

Figure 3-26 Data File Directories

5620 SAM Database Configurator				
Data File Directories				
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify the directories that will be used in Tablespace distribution. Please make sure enough disk space is available for each of the directories allocated for the corresponding Tablespace. Refer to the installation guide for more information Directory Name Type /opt/5620sam/samdb/table Add Remove Selected Set As Default			
InstallAnywhere by Macrovision	Previous Next			

- 42 Associate tablespaces with the directories specified in step 41.
 - i Click on the Configure Tablespaces button. The tablespace configuration form shown in Figure 3-27 opens.



Note – The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with the directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 3-26 reappears.

— Configur	e Tal	blespaces		· -		
Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the						
'Add associations from the left' button.						
You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces						
- Directories	As	sociations				
Directories		Nama	Drivo			
Interiory Name Type	AL A	ARMS	(ont/5620sam/sam	dhítahl		
10000000000000000000000000000000000000	AL	RM HISTORY	/opt/5620sam/sam	db/tabl		
	CU	RRENT DATA STRUCT 1	/opt/5620sam/sam	db/tabl		
	CU	RRENT DATA STRUCT 2	/opt/5620sam/sam	db/tabl		
	CU	RRENT_DATA_STRUCT_3	/opt/5620sam/sam	db/tabl		
	CU	RRENT_DATA_STRUCT_4	/opt/5620sam/sam	db/tabl		
	INE	X	/opt/5620sam/sam	db/tabl		
	SAI	/_RELATIONS_1	/opt/5620sam/sam	db/tabl		
	SAI	A_RELATIONS_2	/opt/5620sam/sam	db/tabl		
Oracle Tablespaces	SAI	M_SYSTEM_1	/opt/5620sam/sam	db/tabl		
Tablaanaaa blama	SAI	M_SYSTEM_2	/opt/5620sam/sam	db/tabl		
	SAI	M_SYSTEM_3	/opt/5620sam/sam	db/tabl		
SYSALIX	SAI	/_SYSTEM_4	/opt/5620sam/sam	db/tabl		
SYSTEM	ST/	ATS_CURRENT	/opt/5620sam/sam	db/tabl		
TEMP	ST/	ATS_HISTORY	/opt/5620sam/sam	db/tabl		
UNDOTBS1	817	ATS_POLICY	/opt/562Usam/sam	db/tabl		
	8m	SAUX	lopt/562Usam/sam	db/tabl		
			/opt/5620sam/sam	db/tabl		
		O OVOTEM	/opt/5620sam/sam	db/tabl		
	TIM	S SYS INDY	(ont/5620sam/sam	dhitahl		
- 5620 SAM Tablesnaces		DOTBS1	(ont/5620sam/sam	dhitahl		
	US	FRS	/opt/5620sam/sam	db/tabl		
ALARMS						
CUBRENT DATA STRUCT 1		Add association	s from the left			
CURRENT DATA STRUCT 2	100	Demons Calasta	1.4			
CURRENT DATA STRUCT 3		Remove Selected	a Associations			
CURRENT_DATA_STRUCT_4	200	Set Default As	ssociations			
SAM_RELATIONS_1						
SAM_RELATIONS_2		Select	t All			
			OK Ca	ncol		
				ncei		

Figure 3-27 Configure Tablespaces

43 Click on the Next button.

44 Specify a directory for the accounting statistics tablespace files, as shown in Figure 3-28. Click on the Next button.

- 5620) SAM Database Configurator
	Accounting Statistics Data File Directory
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify a directory for the accounting statistics tablespace files. For the best performance, locate the directory on a low-activity device, such as one that is dedicated to the accounting statistics tablespaces only. /opt/5620sam/tablespace/statstbs01 Restore Default Folder Choose
InstallAnywhere by Macrovision –	Previous

Figure 3-28 Accounting Statistics Data File Directory

45 You are prompted to begin database creation, as shown in Figure 3-29. Database creation can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database creation.



-	5620 SAM Database Configurator					
	Database Creation					
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	The database creation process takes some time. Do not interrupt this process once it has started. If cancelled, the application exits and the result is an incomplete database installation.				
In	stallAnywhere by Macrovision - <u>C</u> ancel	Previous Next				

The next panel displays database creation progress, as shown in Figure 3-30.

— 562	0 SAM Database Configurator	•		
Database Creation				
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Database creation in progress Executing CreateDB10g.sql (5%)			
InstallAnywhere by Macrovision				

Figure 3-30 Database Creation

46 When 5620 SAM database installation is complete, you are prompted to run a script that enables automatic database startup during Solaris initialization, as shown in Figure 3-31. Open a separate console window and run the script as a user with root-equivalent privileges.



5620 SAM Database Configurator				
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	SAM Database Configurator Installation Complete			
InstallAnywhere by Macrovision –	Previous			

47 When the script execution is complete, click on the Done button to close the installer.

The next section of the procedure describes the installation of the standalone 5620 SAM server. You can install the server on the same station as the database, or on another station. Server installation requires root-equivalent privileges.

Install standalone server

- **48** Log in as a user with root-equivalent privileges on the station that is to be the server station.
- 49 Open a console window.
- **50** Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

51 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .
```

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-32 appears and the installation process begins.



Figure 3-32 5620 SAM Installer

52 The 5620 SAM installer opens as shown in Figure 3-33. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Introduction
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM/5650 CPAM Server. The version of the 5620 SAM/5650 CPAM Server software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision -	Previous

Figure 3-33 Introduction

53 Review and accept the terms of the license agreement shown in Figure 3-34. Click on the Next button.





54 Select Main Server Installation, as shown in Figure 3-35. Click on the Next button.

5620 SAM/5650 CPAM Server Installer				
	Choose Installation Type			
Introduction License Agreement Choose Installation Type Install Directory Confouration	Main Server Installation Install or upgrade a 6620 SAM Main Server Image parameters of an existing 6620 SAM Main Server Installation			
Install Complete	Auxiliary Server Installation Install or upgrade a 5620 SAM Auxiliary Auxiliary Server Configuration Change parameters of an existing 5620 SAM Auxiliary Server Installation			
	CPAM Server Installation Install or upgrade a 6650 CPAM Server Installation Change parameters of an existing 5650 CPAM Server Installation			
InstallAnywhere by Macrovision -	Previous			

Figure 3-35 Choose Installation Type

55 Specify a base directory in which to install the 5620 SAM main server software (typically /opt/5620sam/server), as shown in Figure 3-36. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer					
Specify the Base Directory for 5620 SAM Main Server Files					
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM main server related files. /opt/5620sam/server Restore Default Folder Choose				
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous				

Figure 3-36 Specify the Base Directory for 5620 SAM Main Server Files

56 As shown in Figure 3-37, the installer displays the release of the 5620 SAM main server software that is to be installed. Verify the information. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision – Cancel	Previous

Figure 3-37 Checking Build Compatibility

57 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 3-38. Click on the Next button.

Figure 3-38	License	Information	for 5620) SAM	Main	Server
-------------	---------	-------------	----------	-------	------	--------

-	5620 SAM/5650 CPAM Server Installer
	License Information for 5620 SAM Main Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key 2000-00000-00000-00000-00000-00000-00000-0000
InstallAnywhere by Macrovision – Cancel	Previous Next

- **58** Configure the following parameters shown in Figure 3-39, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported



Note – You must leave the Redundancy Supported parameter unselected.

	5620 SAM/5650 CPAM Server Installer
	Additional Server Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration Redundancy Supported Auxillary Server Supported
InstallAnywhere by Macrovision –	
<u>C</u> ancel	Previous Next

Figure 3-39 Additional Server Configuration

- **59** Configure the following parameters, shown in Figure 3-40, using the recorded values from the database installation. Click on the Next button.
 - Database Server IP address
 - Database Server Port (typically 1523)
 - Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Database Proxy Port (typically 9002)

Figure 3-40 Database Configuration

-	5620 SAM/5650 CPAM Server Installer
	Database Configuration
 Introduction License Agreement Choose Installation Type Install Directory 	If NAT (network address translation) is to be used, enter the 5620 SAM database's public IP address as known to the 5620 SAM server.
Configuration	Database Server IP Address
Install Complete	Database Server Port 1523
	Database Instance Name samdb
	Database User Name samuser
	Database User Password
	Database Proxy Port 9002
InstallAnywhere by Macrovision	
<u>C</u> ancel	Previous Next

- **60** Configure the following parameters shown in Figure 3-41, then click on the Next button:
 - Online Database Backup Interval (hours) (typically 24)
 - Online Backup Destination (typically /opt/5620sam/dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 59.

Figure 3-41	Online	Database	Backup
-------------	--------	----------	--------

	5620 SAM/5650 CPAM Server Installer	•
	Online Database Back	up
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Specify the interval between backups, the backup directory, and the number of backups to retain. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination /opt/5620sam/dbbackup Number Of Backup Sets 3]
InstallAnywhere by Macrovision -	Previous	

- 61 Configure the following parameters shown in Figure 3-42:
 - Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Main Server Address Configuration for Clients
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients. Server Domain Name 5620sam Public IP (visible to clients)
InstallAnywhere by Macrovision - Cancel	Previous

Figure 3-42 Main Server Address Configuration for Clients

62 The panel in Figure 3-43 is displayed if you select "Auxiliary Server Supported" in step 58. Otherwise, go to step 64.

Perform the following steps to specify an auxiliary server, if required.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 3-43:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

Figure 3-43	Main Server	Configuration	for	∆ uxiliarv	Servers
i igule J-4J	Main Server	Configuration	101	Auxilialy	201 401 3

	5620 SAM/5650 CPAM Server Installer				
	Main Server Configuration for Auxiliary Servers				
 Introduction License Agreement Choose Installation Type Install Directory Configuration 		Enter the IP address of the network interface the 5620 SAM main server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address.			
 Configuration Install Complete 	Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server)				
In	stallAnywhere by Macrovision	Previous Next			

- ii If NAT is to be used between the 5620 SAM main and auxiliary servers, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server in the "Private IP" field.
- iii Click on the Next button.

iv Click on the Add button shown in Figure 3-44 to specify an auxiliary server. The form shown in Figure 3-45 opens.

-	5620 SAM/5650	CPAM Server I	nstaller	
			4	uxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration 	Specify all the 5620 SA be at least one preferrer used, enter the 5620 S/ server.	M auxiliary servers th d auxiliary server. If N AM auxiliary server(s)	at this server connects AT (network address tra public IP address(es) a	to. There must nslation) is to be s known to this
 Configuration Install Complete 	IP Address	Port	јТуре	Add Remove Edit
InstallAnywhere by Macrovision - Cancel	,		Previous	Next

Figure 3-44 Auxiliary Servers

Figure 3-45 Auxiliary Server Configuration

Auxiliary Ser	ver Configuration	•
IP Address Port	12800	
Туре	Preferred -	
	OK Cancel	

- v Configure the following parameters:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- vi Click on the OK button to save the information and close the form.
- vii Repeat steps 62 iv to vi to specify an additional auxiliary server, if required.
- 63 Click on the Next button.

- **64** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 3-46.
 - ii If you want to accept the default user documentation location that is displayed, go to step 65.



Note – If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation folder on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 3-46 User Documentation



- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 3-46.
 - ii Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a folder under the base 5620 SAM client installation folder. The path must not contain a leading slash. For example, if the installation folder is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents folder.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms folder in the base 5620 SAM client installation folder, for example, /opt/5620sam/client/nms/Documents.

- 65 Click on the Next button.
- **66** Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 3-47. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	License Information for 5650 CPAM Server
 Introduction License Agreement Chosse Installation Type Install Directory Configuration Install Complete 	Include 5650 CPAM Server License Information
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous

Figure 3-47 License Information for 5650 CPAM Server

- **67** Configure the following parameters shown in Figure 3-48, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)



-	5620 SAM/5650 CPAM Server Installer
	SNMP Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network. SNMP Trap Receiving IP Address SNMP Trap Receiving IP Address SNMP Trap Receiving Port 162 Trap Log Id
InstallAnywhere by Macrovision -	Previous Next

68 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 3-49 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 3-49	Navigation	from	External S	ystems
-------------	------------	------	------------	--------

-	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Image: Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision	
Cancel	Previous Next

69 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 3-50. Click on the Install button to begin the server installation.

-	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xml_output Restore Default Folder Choose
InstallAnywhere by Macrovision - Cancel	Previous Install

Figure 3-50 XML Output Directory

The next panel displays installation progress, as shown in Figure 3-51.

-	5620 SAM/5650 CPAM Server Installer
	Installing 5620 SAM/5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕖
InstallAnywhere by Macrovision -	Installing Java Runtime Environment
Cancel	

Figure 3-51 Installing 5620 SAM/5650 CPAM Server

70 The 5620 SAM server is installed as a UNIX daemon, as shown in Figure 3-52. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Installing the server as a Unix Daemon
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The 5620 SAM server has been successfully installed as a Unix Daemon.

Figure 3-52 Installing the Server as a Unix Daemon

71 When the server installation is complete, as shown in Figure 3-53, configure the "Start the 5620 SAM Main Server" parameter to specify whether you want the server to start immediately after the installation.

Figure 3-53	Installation	Complete
-------------	--------------	----------

5620 SAM/5650 CPAM Server Installer		
	Installation Comp	lete
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	CongratulationsI 5620 SAM Main Server has been successfully installed inside directory /opt/5620sam/server. Please assign a password for samadmin using 'passwd samadmin' command. Once the server is started for the first time it can take up to an hour for the server to initialize the database. Attempts to login to the server via the 5620 SAM client will fail until the server is completely up.	
InstallAnywhere by Macrovision -	Previous Done	

72 Click on the Done button to close the installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.

73 The installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press 4.

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.
- 74 If you specified that the server is to start after installation, perform one of the following to verify that the 5620 SAM server is operational.
 - a If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Enter the following at the CLI prompt:
 - # ./nmsserver.bash appserver_status 斗
 - ii The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 74 a i. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Enter the following at the CLI prompt to switch to the samadmin user:

su - samadmin ↓

ii Enter the following at the CLI prompt:

<code>bash\$</code> ./nmsserver.bash appserver_status \dashv

iii The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 74 b ii. Do not proceed unless the console displays the above text.

- **75** If you specified not to start the server immediately after the installation, perform one of the following later to start the 5620 SAM main server manually.
 - a If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Log in as a user with root-equivalent privileges on the main server station.
 - ii Navigate to the server configuration directory. Enter the following at the CLI prompt:

cd path/nms/bin 🕹

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iii Enter the following at the CLI prompt:

```
# ./nmsserver.bash start \dashv
```

The 5620 SAM main server starts. Initial server startup can take twenty minutes or more.

iv Enter the following at the CLI prompt to verify that the 5620 SAM main server is operational:

./nmsserver.bash appserver_status 斗

v The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 75 a iv. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Log in as the samadmin user on the main server station.
 - ii Navigate to the server configuration directory. Enter the following at the CLI prompt:

```
# cd path/nms/bin .
```

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iii Enter the following at the CLI prompt:

```
bash$ ./nmsserver.bash start .
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

The 5620 SAM main server starts. Initial server startup can take twenty minutes or more.

iv Enter the following at the CLI prompt to verify that the 5620 SAM main server is operational:

<code>bash\$</code> ./nmsserver.bash appserver_status \dashv

v The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 75 b iv. Do not proceed unless the console displays the above text.

76 Close the console window.

Install client

- 77 Perform one of the following to install a 5620 SAM client.
 - a Perform Procedure 2-3 to install a 5620 SAM client on a Windows station.
 - **b** Perform Procedure 3-2 to install a 5620 SAM client on a Solaris or Linux station.

Procedure 3-2 To install a 5620 SAM client on Solaris or Linux

Perform this procedure to install the 5620 SAM client software on a Solaris or Linux station.

You can also install a 5620 SAM client on Windows for use with a 5620 SAM system on Solaris. See chapter 2 for information about installing a 5620 SAM client on a Windows station.



Note 1 — You require local user privileges to install the 5620 SAM client software on Solaris or Linux.

Note 2 — If you are installing a client delegate to enable more than one 5620 SAM client GUI on one station, see Procedure 3-3 for additional information before performing this procedure.

Install auto-client update utility

1 Log in as a user with local privileges on the station that is to be the client station.

- 2 Open a console window.
- 3 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

- 4 Enter the following at the CLI prompt to open the 5620 SAM installer:
 - # ./ClientInstall_SAM_6_1_revision_ID.bin .]

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-54 appears and the installation process begins.



Figure 3-54 5620 SAM Installer

5 The 5620 SAM installer opens, as shown in Figure 3-55. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

- 5620 SAM Client Installer 🕐		
	Introduction	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM Client. The version of the 5620 SAM Client software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision - Cancel	Previous	

Figure 3-55 Introduction

6 Review and accept the terms of the license agreement shown in Figure 3-56. Click on the Next button.



- 5620 SAM Client Installer		
	Software License Agreement	
Introduction License Agreement Choose Installation Type Install Directory Configuration	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Client software or installing the hardware unit with pre-enabled 5620 SAM Client software (each of which is referred to as "Software" in this Agreement).	
 Install Complete 	Alcatel-Lucent assumes no responsibility for the alculacy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved I gocept the terms of the License Agreement I do NOT accept the terms of the License Agreement	
InstallAnywhere by Macrovision – Cancel	Previous Next	

7 Select Client Installation and Configuration, as shown in Figure 3-57. Click on the Next button.

- 562	0 SAM Client Installer
	Choose Installation Type
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Client Installation and Configuration
	Client Configuration Change parameters of an existing Client installation
InstallAnywhere by Macrovision	Previous Next

Figure 3-57 Choose Installation Type

8 Specify a base directory in which to install the 5620 SAM client software (typically /opt/5620sam/client) as shown in Figure 3-58. Click on the Next button.

- 5	620 SAM Client Installer
	Specify the Base Directory for 5620 SAM Client Files
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM client related files. /opt/5620sam/client Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 3-58 Specify the Base Directory for 5620 SAM Client Files

9 As shown in Figure 3-59, the installer displays the release of the 5620 SAM server software that is to be installed. Verify the information. Click on the Next button.

- 5620 SAM Client Installer	
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous

Figure 3-59 Checking Build Compatibility

- 10 Perform one of the following.
 - a Configure the 5620 SAM client for use with a standalone 5620 SAM server and database.
 - i Ensure that the "Redundancy Support" parameter is disabled, as shown in Figure 3-60.
 - ii Configure the "Server IP Address" parameter using the IP address that the client uses to address the 5620 SAM server.
 - **b** Configure the 5620 SAM client for use with a redundant 5620 SAM server and database pair.
 - i Select the "Redundancy Support" parameter shown in Figure 3-60.
 - ii Configure the "Server IP Address" parameter using the IP address that the client uses to reach the primary 5620 SAM server.
 - iii Configure the "Server Two IP Address" parameter using the IP address that the client uses to reach the standby 5620 SAM server.
 - iv Click on the Install button to begin the auto-client update utility installation.

- 5	620 SAM Client Installer
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contract Configuration Main Server Configuration If NAT (network address translation) is to be used, enter the 5620 SAM server's public IP address as known to the 5620 SAM clients. Server IP Address Redundancy Support Server Ture IP Address
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

Figure 3-60 Main Server Configuration

The next panel displays installation progress, as shown in Figure 3-61.

-	5620 SAM Client Installer	•
	Installing 5620 SAM Clier	ıt
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢	
	Installing Java Runtime Environment	
InstallAnywhere by Macrovision		0

Figure 3-61 Installing 5620 SAM Client

11 When the client installation is complete, as shown in Figure 3-62, click on the Done button to close the installer.



Figure 3-62 Installation Complete

Install 5620 SAM client software using auto-client update utility

12 As the same user that installed the auto-client update utility, start the 5620 SAM auto-client update utility by entering the following at the CLI prompt:

```
# path/nms/bin/nmsclient.bash ...
```

where path is the 5620 SAM client installation location, typically /opt/5620sam/client

The utility detects the available client software on the 5620 SAM server, begins downloading files, and presents the panel shown in Figure 3-63. The panel displays the installation progress using separate indicators for the overall and current task progress.



Figure 3-63 Installation progress

When the installation is complete, the auto-client update utility closes and the newly installed 5620 SAM client opens.

13 Log in to the 5620 SAM client GUI to ensure that the client and server are communicating properly.

Procedure 3-3 To install a 5620 SAM client delegate

Perform this procedure to install a 5620 SAM client delegate. A client delegate is a 5620 SAM client that shares a Solaris or Linux station with another 5620 SAM client and whose display is redirected to another station. Consider the following before you install a client delegate.

- A separate terminal using X.11 or native X can display a 5620 SAM client GUI.
- You cannot use X emulation software to display a 5620 SAM client GUI.
- Each intended 5620 SAM client GUI user on a client delegate station requires a separate installation of the 5620 SAM client software.



Note – You require local user privileges to install a 5620 SAM client delegate on Solaris or Linux.

1 Define a directory structure for each user that is to run a 5620 SAM client GUI from the client delegate station.

For example:

- /users/username_1/5620sam/client
- /users/username_2/5620sam/client
- /users/username_3/5620sam/client
- 2 Perform Procedure 3-2 once for each user directory defined in step 1. Specify the user directory as the installation directory.
- **3** Perform the following steps for each installed client to confirm that anti-aliasing is disabled.
 - i Open the *path*/nms/config/nms-client.xml file with a plain-text editor

where *path* is the 5620 SAM client installation location, for example, /users/username_1/5620sam/client

ii Search for the following XML tag that marks the beginning of the topologyMaps section:

<topologyMaps

iii Edit the antiAliasActive entry in the topologyMaps section to read "false" as shown below.

<topologyMaps

iconReductionThreshold="40"

labelHideThreshold="35"

snapToGridInterval="25"

```
antiAliasActive="false" />
```
3.5 Workflow for redundant 5620 SAM installation on Solaris

The following is the sequence of high-level actions required to install a redundant 5620 SAM system on a Solaris platform. A section heading in quotation marks is a reference to a section in Procedure 3-4.

- 1 Prepare the primary database station for the installation. See "Run Oracle pre-installation script for primary database" and "Set directory ownership for database installation" for more information.
- 2 Install the primary database. See "Install primary database" for more information.
- 3 Prepare the standby database station for the installation. See "Run Oracle pre-installation script for standby database" and "Set directory ownership for database installation" for more information.
- 4 Install the standby database. See "Install standby database" for more information.
- **5** Install the primary server. See "Install primary server" in Procedure 3-4 for more information.
- 6 Reinstantiate the primary database on the standby database station. See "Reinstantiate database on standby station" for more information.
- 7 Install the standby server. See "Install standby server" for more information.
- 8 Install one or more auxiliary servers, if required. See Procedure 3-5 for more information.
- 9 Install 5620 SAM clients. See "Install client" for more information.
- 10 Install a client delegate, if required. See Procedure 3-3 for more information.

3.6 Redundant 5620 SAM installation on Solaris procedures

This section describes how to install the software components of a redundant 5620 SAM system on Solaris.

Procedure 3-4 describes how to install the 5620 SAM database and main server software. Procedure 3-2 describes how to install the 5620 SAM client software. Procedure 3-3 describes how to install a 5620 SAM client delegate.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- *#* represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 3-4 To install a redundant 5620 SAM system on Solaris

Perform this procedure to install the 5620 SAM primary and standby main server and database software on Solaris stations. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require the following user privileges to perform this procedure:

on the server stations:

root or root-equivalent

on the database stations:

- root or root-equivalent
- Oracle management

Note 2 — The samadmin user account is created on each main server station during this procedure.

Note 3 - The Oracle management user account is created on each database station during this procedure.

Run Oracle pre-installation script for primary database

1 Before you perform a 5620 SAM database installation on Solaris, you must run the Oracle10g_PreInstall.sh script. This script creates and configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Log in as a user with root-equivalent privileges on the station that is to be the primary database station.

- 2 Open a console window.
- 3 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris 🕹

- 4 Enter the following at the CLI prompt to run the pre-installation script:
 - # ./Oracle10g_PreInstall.sh install ...
- 5 The script prompts you to enter the following:
 - group name (default is dba)
 - user name (default is oracle)
 - Oracle user home directory name (default is /opt/5620sam/oracle10r2)



Note — To reduce the complexity of subsequent software upgrades and technical-support activities, Alcatel-Lucent recommends that you press \downarrow to accept the default value for each parameter.

If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

The script updates the system configuration.



Note — If you receive a "failed to create group" message, confirm that NIS is disabled and re-run the pre-installation script. For information about NIS, contact your Alcatel-Lucent customer support representative.

6 When the script execution is complete, enter the following at the CLI prompt to reboot the primary database station:

```
# shutdown -y -i6 -g0 斗
```

The station reboots.

Before database installation can occur, the Oracle management user and group created by the pre-installation script require ownership of the directory that is to hold the database. The next section of the procedure describes how to configure the directory ownership.

Set directory ownership for database installation

- 7 After the primary database station reboots, log in to the primary database station as a user with root-equivalent privileges.
- 8 Open a console window.
- 9 Enter the following at the CLI prompt to change the current directory to /opt:

cd /opt .⊣

10 Enter the following at the CLI prompt to specify the required user and group ownership of the 5620sam directory and subdirectories:

chown -R user:group 5620sam \dashv

where

```
user is the user name value from step 5, typically oracle group_name is the group name value from step 5, typically dba
```

11 Navigate to the 5620sam directory below the /opt directory. Enter the following at the CLI prompt:

cd 5620sam ↓

12 Confirm that the Oracle management user home directory has the correct user and group ownerships. Enter the following at the CLI prompt:

1s -1 .J

If the command output is not as shown below, repeat steps 9 to 12. Do not proceed unless the output is as shown.

drwxr-xr-x 2 user group 512 Apr 11 11:15 directory

where

user is the user name value specified in step 5, typically oracle

group is the group name value specified in step 5, typically dba

directory is the Oracle management user home directory name value specified in step 5, typically /opt/5620sam/oracle10r2

Install primary database

- 13 Log in as a user with root-equivalent privileges on the station that is to be the primary database station.
- 14 Open a console window.
- **15** Switch to the Oracle management user created by the pre-installation script. Enter the following at the CLI prompt:

```
# su - Oracle_management_user_name .]
```

where *Oracle_management_user_name* is the name of the UNIX account with Oracle management privileges, typically oracle

16 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 🚽

17 Enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./DBConfig_SAM_6_1_revision_ID.bin ↓

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-64 appears and the installation process begins.



Figure 3-64 5620 SAM Installer

18 The 5620 SAM installer opens, as shown in Figure 3-65. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 3-65 Introduction

— 5620 SAM Database Configurator r	
	Introduction
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	This program will create and configure an Oracle database to be used by a 5620 SAM Server system. It also provides the option of restoring a database from backups. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision - Cancel	Previous

19 Review and accept the terms of the license agreement shown in Figure 3-66. Click on the Next button.

- 5620 SAM Database Configurator	
	Software License Agreement
 Introduction License Agreement Installation Type Installation In Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).
Installation Completed	S620 SAM Software License Agreement NOTICE: Please carefully read this license agreement before copying or using the accompanying S620 SAM software or installing the hardware unit with pre-enabled S620 SAM software (each of which is referred to as is incompanying the license Agreement I do NOT accept the terms of the license Agreement
InstallAnywhere by Macrovision	Previous <u>N</u> ext

Figure 3-66 Software License Agreement

20 Select Install & Configure Primary/Standby Database, as shown in Figure 3-67. Click on the Next button.





21 Select Primary Database Install, as shown in Figure 3-68. Click on the Next button.

- 5620	SAM Database Configurator
	Install & Configure Primary/Standby Database
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Choose among the following options: Primary Database Install Convert Standalone Database to Primary Standby Database Install
InstallAnywhere by Macrovision —	Previous Next

Figure 3-68 Install & Configure Primary/Standby Database

22 Select Install Oracle Software, as shown in Figure 3-69. Click on the Next button.

Figure 3-69 Install Oracle software

- 562	0 SAM Database Configurator
	Install Oracle Software
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	You can choose to install Oracle 10g Software first if it is not already installed. Install Oracle Software Do not install Oracle Software
InstallAnywhere by Macrovision	Previous Next

23 Specify a base directory in which to install the primary 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 3-70. Click on the Install button to begin the database software installation.

- 5620) SAM Database Configurator
Specify the Base Directory for 5620 SAM Database Files	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all 5620 SAM database related files /opt/5620sam/samdb/install Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous

Figure 3-70 Specify the Base Directory for 5620 SAM Database Files

The installer prepares to install the database, as shown in Figure 3-71.

- 5620) SAM Database Configurator
	Installing 5620 SAM Database Configurator
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Alcatel·Lucent 🕢
InstallAnywhere by Macrovision	Installing Java Runtime Environment

Figure 3-71 Installing 5620 SAM Database Configurator

24 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 3-72. Click on the Next button.

- 5620	SAM Database Configurator
	Specify the Base Directory for Oracle Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all Oracle software. /opt/5620sam/oracle10r2 Restore Default Folder Choose
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

Figure 3-72 Specify the Base Directory for Oracle Software

25 You are prompted to run an Oracle pre-installation script, as shown in Figure 3-73. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Next button.

Figure 3-73 Oracle Pre-Install Script

- 5620) SAM Database Configurator
	Oracle Pre-Install Script
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	A configuration script needs to be run as root to create the inventory pointer file. Please run /opt/5620sam/samdb/install/config/orainstRoot.sh as root in a separate window now.
InstallAnywhere by Macrovision – Cancel	Previous

26 You are prompted to install Oracle software, as shown in Figure 3-74. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

- 5620	SAM Database Configurator
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please press the start button to install Oracle software. This process will take some time.
InstallAnywhere by Macrovision — Cancel	Previous Next

Figure 3-74 Install Oracle Database Management Software

27 Oracle installation details are displayed as the installation progresses. When Oracle installation is complete, as shown in Figure 3-75, click on the Next button.

- 5620) SAM Database Configurator
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	 [10.20.51.473] Oracle Installation starts. [10.20.51.490] Prepare Oracle installation files [10.21.15.520] Install Oracle Software [10.26.27.205] Install Oracle Patch Installation was successful. [10.37.02.134] Oracle Patch Installation was successful. [10.37.02.146] Oracle installation has succeeded.
	Start Oracle Installation
InstallAnywhere by Macrovision –	Previous Next

Figure 3-75 Install Oracle Database Management Software

28 You are prompted to run an Oracle post-installation script, as shown in Figure 3-76. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Next button.

- 562	0 SAM Database Configurator
	Oracle Post-Install Script
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	A configuration script needs to be run as root to complete the installation. Please run /opt/5620sam/oracle10r2/root.sh as root in a separate window now.
InstallAnywhere by Macrovision	Previous

Figure 3-76 Oracle Post-Install Script

- **29** Configure the following primary database installation parameters shown in Figure 3-77, then click on the Next button:
 - Database Server IP Address
- User Name (typically samuser)

• User Password

- Database Name (typically samdb)
 - Instance Name (typically samdb1)



- 5620) SAM Database Configurator
	Primary Database Configuration Info
 Introduction License Agreement Installation Type Installation In Progress 	Enter the IP address of the network interface the primary database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify the primary database's private IP address.
Installation Completed	Database Server IP Address Database Name samdb
	User Name samuser
	User Password ********
	Confirm User Password
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

- **30** Configure the following parameters shown in Figure 3-78, record the information for use later in the procedure, then click on the Next button.
 - Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)

-	5620) SAM Database Configurator	•
	Primary Database Configuration Info (cont.)		
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	Database Listener Port 1623 Database Proxy Port 9002 Database File Server Port 9003	
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous	

31 Enter and confirm the Oracle SYS password, as shown in Figure 3-79. Click on the Next button.

Figure 3-79 Oracle SYS Password

_	5620) SAM Database Configurator
	Oracle SYS Password	
8	Introduction License Agreement Installation Type Installation In Progress Installation Completed	IMPORTANT: the password needs to be known to the 5620 SAM administrator for future reference SYS Password ************ Confirm SYS Password
Inst	allAnywhere by Macrovision – Cancel	Previous Next

32 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 3-80. Click on the Next button.

- 5620	SAM Database Configurator
	Determine Memory Requirements
 Introduction License Agreement Installation Type Installation In Progress 	Specify whether a 5620 SAM server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load.
Installation Completed	✓ Database co-exists with a 5620 SAM server
InstallAnywhere by Macrovision — Cancel	Previous

Figure 3-80 Determine Memory Requirements

- **33** If the "Enable SAM Server IP Address Validation" parameter shown in Figure 3-81 is selected, only the specified servers can connect to the database. If required, select it and configure the following parameters. Click on the Next button.
 - Primary SAM Server IP Address
 - Peer SAM Server IP Address

- 5620) SAM Database Configurator
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). Enable SAM Server IP Validation Primary SAM Server IP Address Peer SAM Server IP Address
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 3-81 Main Server IP Validation

34 The panel in Figure 3-82 is displayed If the "Enable SAM Server IP Validation" parameter in step 33 is selected. Otherwise, go to step 36.

If the 5620 SAM system includes an auxiliary server, perform the following steps.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

i Click on the Add button shown in Figure 3-82. The form shown in Figure 3-83 opens.

- 5620	SAM Database Configurator	
	Auxiliary Server IP Validatio	n
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s).	
	IP Address Add Remove Edit	
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next	

Figure 3-82 Auxiliary Server IP Validation

Figure 3-83 Auxiliary Servers

-	Auxiliary Servers
IP Addr	ess
	OK Cancel

- ii Enter the IP Address of the auxiliary server.
- iii Click on the OK button to save the information and close the form.
- iv Repeat steps 34 i to iii to specify an additional auxiliary server, if required.
- 35 Click on the Next button.

36 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 3-84 and enter the public IP address of the database. Click on the Next button.

- 5620) SAM Database Configurator
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address.
	NAT (network address translation) Used
	Public IP (visible to servers)
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous <u>N</u> ext

Figure 3-84 Public IP of the Database Server

37 Specify an archive log destination (typically /opt/5620sam/samdb/archivelog) as shown in Figure 3-85. The archive log destination must be the same for the primary and standby databases. Click on the Next button.



- 5620) SAM Database Configurator
Archive Log Destination	
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	The primary database has to be run in archive log mode. Specify the directory where the archived logs are to be located. For best performance, choose a low-activity device for the archive log directory. /opt/5620sam/samdb/archivelog Restore Default Folder Choose
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

38 Specify a directory for the continuous statistics tablespace backup, as shown in Figure 3-86. Click on the Next button.

- 5620) SAM Database Configurator	•
	Staging Destination	n
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify a staging directory for the files created by the continuous statistics tablespace backup. The directory must be located on a low-activity device, such as a disk that is dedicated to this function only. /opt/5620sam/dbbackup/staging Restore Default Folder Choose	_
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next	

Figure 3-86 Staging Destination

39 Specify a directory for the Redo logs (typically /opt/5620sam/samdb/redolog), as shown in Figure 3-87. Click on the Next button.

- 5620) SAM Database Configurator
	Choose the Redo Log Directory
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify the directory where the online redo logs are to be located. For best performance, choose a device for the redo logs that is separate from the 5620 SAM database tablespaces.
	/opt/5620sam/samdb/redolog
	Restore Default Folder Choose
InstallAnywhere by Macrovision - Cancel	Previous

Figure 3-87 Choose the Redo Log Directory

40 Configure the "Accounting Statistic Database Retention Period" parameter shown in Figure 3-88. Click on the Next button.

Figure 3-88 Accounting Statistics Database Retention Period	Figure 3-88	Accounting Statistics Database Retention Period
---	-------------	---

- 562	0 SAM Database Configurator	
	Accounting Statistics Database Retention Perio	bd
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the accounting statistics retention period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space. Accounting Statistic Data Retention Period 1]
InstallAnywhere by Macrovision	·	_
<u>C</u> ancel	Previous Next	

41 Choose a data layout option, as shown in Figure 3-89. Click on the Next button. Contact your Alcatel-Lucent support representative for information about data layout options.



- 5620	SAM Database Configurator
	Data Layout Option
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Please specify a layout option for the database tables. To meet the performance requirements of a large network, you must use multiple tablespaces. Multiple Tablespace mapping of Stats and Alarm tablespaces Multiple Tablespace mapping of all tablespaces Single Tablespace
InstallAnywhere by Macrovision – Cancel	Previous Next

- 42 Choose the tablespace directories.
 - i Click on the Add button shown in Figure 3-90. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii If the option chosen in step 41 is Single Tablespace, go to step 44.
 - iv Repeat steps 42 i and ii to specify an additional tablespace directory, if required.

Figure 3-90 Data File Directories

- 5620 SAM Database Configurator		
	Data File Directories	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify the directories that will be used in Tablespace distribution. Please make sure enough disk space is available for each of the directories allocated for the corresponding Tablespace. Refer to the installation guide for more information Directory Name Type /opt/5620sam/samdb/tableDefa Remove Selected Set As Default	
InstallAnywhere by Macrovision	Previous Next	

- 43 Associate tablespaces with the directories specified in step 42.
 - i Click on the Configure Tablespaces button. The tablespace configuration form shown in Figure 3-91 opens.



Note – The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with the directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 3-90 reappears.

- Configure	e Tablespaces	r [
Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button. You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces			
Directories Directory Name Type /opt/5620sam/samdb/tables Default	Associations Name ALARMS ALARM_HISTORY CURRENT_DATA_STRUCT_1 CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_2	Drive /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl	
Oracle Tablespaces	CURRENT_DATA_STRUCT_4 INDX SAM_RELATIONS_1 SAM_RELATIONS_2 SAM_SYSTEM_1	/opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl	
Tablespace Name INDX SYSAUX SYSTEM TEMP UNDOTBS1	SAM_SYSTEM_2 SAM_SYSTEM_3 SAM_SYSTEM_4 STATS_CURRENT STATS_HISTORY STATS_POLICY SYSAUX	/opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl	
5620 SAM Tablespaces	SYSTEM TEMP TIMS_SYSTEM TIMS_SYS_INDX UNDOTBS1	/opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl	
Tablespace Name ALARMS ALARM_HISTORY CURRENT_DATA_STRUCT_1 CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 SAM_RELATIONS_1 SAM_RELATIONS_2	Add associations Remove Selected Set Default As Select	/opt/5620sam/samdb/tabl	
		OK Cancel	

Figure 3-91 Configure Tablespaces

44 Click on the Next button.

45 Specify a directory for the accounting statistics tablespace files, as shown in Figure 3-92. Click on the Next button.

- 5620) SAM Database Configurator
	Accounting Statistics Data File Directory
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify a directory for the accounting statistics tablespace files. For the best performance, locate the directory on a low-activity device, such as one that is dedicated to the accounting statistics tablespaces only. /opt/5620sam/tablespace/statstbs01 Restore Default Folder Choose
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 3-92 Accounting Statistics Data File Directory

- **46** Configure the following parameters shown in Figure 3-93, record the information for use later in the procedure, then click on the Next button:
 - Standby IP Address
 - Standby Instance Name (typically samdb2)
 - Standby Oracle Home (typically /opt/5620sam/oracle10r2)
 - Standby Archive Log Destination (typically /opt/5620sam/samdb/archivelog)

Figure 3-93 Standby Database Info

- 5620) SAM Database Configurator
	Standby Database Info
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server. Standby IP Address Standby IP Address Standby Instance Name samdb2 Standby Oracle Home /opt/5620sam/oracle10r2 Standby Archive Log Destination /opt/5620sam/samdb/archivelog
InstallAnywhere by Macrovision -	Previous Next

47 You are prompted to begin primary database creation, as shown in Figure 3-94. Database creation can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database creation.

- 5620	SAM Database Configurator
	Database Creation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The database creation process takes some time. Do not interrupt this process once it has started. If cancelled, the application exits and the result is an incomplete database installation. Start Process
InstallAnywhere by Macrovision — Cancel	Previous Next

Figure 3-94 Database Creation

The next panel displays database creation progress, as shown in Figure 3-95.

- 562	0 SAM Database Configurator
	Database Creation
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Database creation in progress
	Executing LoadCatCreateTbs.sql (20%)
InstallAnywhere by Macrovision	
<u>C</u> ancel	

Figure 3-95 Database Creation

48 When the database installation is complete, as shown in Figure 3-96, you are prompted to run a script that enables automatic database startup during system startup. Open a separate console window and run the script as a user with root-equivalent privileges.

- 5620) SAM Database Configurator
	Installation Complete
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/5620sam/samdb/install/config/samdb/solaris_root.sh Database creation was successful
InstallAnywhere by Macrovision – Cancel	Previous

Figure 3-96 Installation Complete

49 When the script execution is complete, click on the Done button to close the installer.

The next section of the procedure describes the installation of the standby 5620 SAM database. The standby database must be installed on a station other than the one on which the primary database is installed. Database installation requires root-equivalent privileges.

Run Oracle pre-installation script for standby database

50 Before you perform a 5620 SAM database installation on Solaris, you must run the Oracle10g_PreInstall.sh script. This script creates and configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.

Log in as a user with root-equivalent privileges on the station that is to be the standby database station.

- 51 Open a console window.
- **52** Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

53 Enter the following at the CLI prompt to run the pre-installation script:

```
# ./Oracle10g_PreInstall.sh install ...
```

- 54 The script prompts you to enter the following:
 - group name (default is dba)
 - user name (default is oracle)
 - Oracle user home directory name (default is /opt/5620sam/oracle10r2)



Note — To reduce the complexity of subsequent software upgrades and technical-support activities, Alcatel-Lucent recommends that you press \downarrow to accept the default value for each parameter.

If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

The script updates the system configuration.



Note — If you receive a "failed to create group" message, confirm that NIS is disabled and re-run the pre-installation script. For information about NIS, contact your Alcatel-Lucent customer support representative.

55 When the script execution is complete, enter the following at the CLI prompt to reboot the standby database station:

```
# shutdown -y -i6 -g0 🗐
```

The station reboots.

Before database installation can occur, the Oracle management user and group created by the pre-installation script require ownership of the directory that is to hold the database. The next section of the procedure describes how to configure the directory ownership.

Set directory ownership for database installation

- **56** After the standby database station reboots, log in to the standby database station as a user with root-equivalent privileges.
- 57 Open a console window.
- 58 Enter the following at the CLI prompt to change the current directory to /opt:

cd /opt .⊣

59 Enter the following at the CLI prompt to specify the required user and group ownership of the 5620sam directory and subdirectories:

chown -R user:group 5620sam ↓

where

user is the user name value from step 5, typically oracle *group_name* is the group name value from step 5, typically dba

60 Navigate to the 5620sam directory below the /opt directory. Enter the following at the CLI prompt:

cd 5620sam →

61 Confirm that the Oracle management user home directory has the correct user and group ownerships. Enter the following at the CLI prompt:

1s -1 .⊣

If the command output is not as shown below, repeat steps 9 to 12. Do not proceed unless the output is as shown.

drwxr-xr-x 2 user group 512 Apr 11 11:15 directory

where

user is the user name value specified in step 5, typically oracle

group is the group name value specified in step 5, typically dba

directory is the Oracle management user home directory name value specified in step 5, typically /opt/5620sam/oracle10r2

Install standby database

- **62** Log in as a user with root-equivalent privileges on the station that is to be the standby database station.
- 63 Open a console window.
- 64 Switch to the Oracle management user created by the pre-installation script. Enter the following at the CLI prompt:

```
# su - Oracle_management_user_name .
```

where *Oracle_management_user_name* is the name of the UNIX account with Oracle management privileges, typically oracle

65 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris \dashv

66 Enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./DBConfig_SAM_6_1_revision_ID.bin ↓

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-97 appears and the installation process begins.



Figure 3-97 5620 SAM Installer

67 The 5620 SAM installer opens, as shown in Figure 3-98. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 3-98 Introduction



68 Review and accept the terms of the license agreement shown in Figure 3-99. Click on the Next button.

- 562	0 SAM Database Configurator
	Software License Agreement
 Introduction License Agreement Installation Type Installation In Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).
Installation Completed	5620 SAM Software License Agreement
	 I accept the terms of the License Agreement I do NOŢ accept the terms of the License Agreement
InstallAnywhere by Macrovision	Previous Next

Figure 3-99 Software License Agreement

69 Select Install & Configure Primary/Standby Database, as shown in Figure 3-100. Click on the Next button.

- 562	0 SAM Database Configurator
	Choose Installation Type
 Introduction License Agreement Installation Type 	Install & Configure a Standalone Database
 Installation In Progress Installation Completed 	Restore a Database
	Upgrade a Database
	Install & Configure Primary/Standby Database
InstallAnywhere by Macrovision	Previous Next

Figure 3-100 Choose Installation Type

70 Select Standby Database Install, as shown in Figure 3-101. Click on the Next button.

- 5620 SAM Database Configurator		
	Install & Configure Primary/Standby Database	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Choose among the following options: Primary Database Install Convert Standalone Database to Primary Standby Database Install	
InstallAnywhere by Macrovision -	Previous Next	

Figure 3-101 Install & Configure Primary/Standby Database

71 Select Install Oracle Software, as shown in Figure 3-102. Click on the Next button.

-	5620) SAM Database Configurator	
		Install Oracle Software	e
	 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	You can choose to install Oracle 10g Software first if it is not already installed. Install Oracle Software Do not install Oracle Software	
In	stallAnywhere by Macrovision - <u>C</u> ancel	Previous	

Figure 3-102 Install Oracle Software

72 Specify a base directory in which to install the standby 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 3-103. Click on the Install button to begin the database software installation.

- 5620) SAM Database Configurator
Spo	ecify the Base Directory for 5620 SAM Database Files
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all 5620 SAM database related files /opt/5620sam/samdb/install Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous

Figure 3-103 Specify the Base Directory for 5620 SAM Database Files

The installer prepares to install the database, as shown in Figure 3-104.



Figure 3-104 Installing 5620 SAM Database Configurator

73 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 3-105. Click on the Next button.

- 5620	0 SAM Database Configurator
	Specify the Base Directory for Oracle Software
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	The directory specified here will be the base directory for all Oracle software. /opt/5620sam/oracle10r2 Restore Default Folder Choose
InstallAnywhere by Macrovision -	Previous

Figure 3-105 Specify the Base Directory for Oracle Software

74 You are prompted to run an Oracle pre-installation script, as shown in Figure 3-106. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Next button.



- 5620) SAM Database Configurator
	Oracle Pre-Install Script
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	A configuration script needs to be run as root to create the inventory pointer file. Please run /opt/62Dsam/samdb/install/config/orainstRoot.sh as root in a separate window now.
InstallAnywhere by Macrovision - Cancel	Previous Next

75 You are prompted to install Oracle software, as shown in Figure 3-107. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

- 5620) SAM Database Configurator
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please press the start button to install Oracle software. This process will take some time.
InstallAnywhere by Macrovision -	Previous Next

Figure 3-107 Install Oracle Database Management Software

76 Oracle installation details are displayed as the installation progresses, as shown in Figure 3-108. When installation is complete, click on the Next button.

- 5620) SAM Database Configurator
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	 [10.20.51.473] Oracle Installation starts. [10.20.51.490] Prepare Oracle installation files [10.21.15.520] Install Oracle Software [10.26.27.205] Install Oracle Patch Set [10.37.02.134] Oracle Patch Installation was successful. [10.37.02.146] Oracle installation has succeeded.
	Start Oracle Installation
InstallAnywhere by Macrovision –	Previous Next

Figure 3-108 Install Oracle Database Management Software

77 You are prompted to run an Oracle post-installation script, as shown in Figure 3-109. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Next button.

- 5620) SAM Database Configurator
	Oracle Post-Install Script
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	A configuration script needs to be run as root to complete the installation. Please run /opt/5620sam/oracle10r2/root.sh as root in a separate window now.
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

Figure 3-109 Oracle Post-Install Script

- 78 Configure the parameters shown in Figure 3-110, then click on the Next button.
 - Database Server IP Address
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)



- 5620) SAM Database Configurator
	Standby Database Configuration Info
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the IP address of the network interface the standby database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify the standby database's private IP address. Database Server IP Address Database Proxy Port 9002 Database File Server Port 9003
InstallAnywhere by Macrovision – Cancel	Previous Next

79 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 3-111. Click on the Next button.

- 562	0 SAM Database Configurator
	Determine Memory Requirements
 Introduction License Agreement Installation Type Installation In Progress 	Specify whether a 5620 SAM server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load.
Installation Completed	✓ Database co-exists with a 5620 SAM server
InstallAnywhere by Macrovision · <u>C</u> ancel	Previous Next

Figure 3-111 Determine Memory Requirements

- **80** If IP-address validation is required, select the "Enable SAM Server IP Validation" parameter and configure the following parameters shown in Figure 3-112. Click on the Next button.
 - Primary SAM Server IP Address
 - Peer SAM Server IP Address

- 5620	SAM Database Configurator
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). Enable SAM Server IP Validation Primary SAM Server IP Address Peer SAM Server IP Address
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 3-112 Main Server IP Validation

81 The panel in Figure 3-113 is displayed If the "Enable SAM Server IP Validation" parameter in step 80 is selected. Otherwise, go to step 83.

If the 5620 SAM system includes an auxiliary server, perform the following steps.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

i Click on the Add button shown in Figure 3-113. The form shown in Figure 3-114 opens.

5620) SAM Database Configurator
	Auxiliary Server IP Validation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5520 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). IP Address Add Remove Edit
InstallAnywhere by Macrovision -	Previous Next

Figure 3-113 Auxiliary Server IP Validation

Figure 3-114 Auxiliary Servers

 Auxiliary Servers 	
IP Address	
OK Cancel	
OK Cancel	

- ii Enter the IP Address of the auxiliary server.
- iii Click on the OK button to save the information and close the form.
- iv Repeat steps 81 i to iii to specify an additional auxiliary server, if required.
- 82 Click on the Next button.

83 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 3-115 and enter the public IP address of the database. Click on the Next button.

- 5620 SAM Database Configurator		
Public IP of the Database Server		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. Image: NAT (network address translation) Used Public IP (visible to servers)	
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next	

Figure 3-115 Public IP of the Database Server

- **84** Configure the following parameters, shown in Figure 3-116, using the recorded values from the primary database installation. Click on the Next button.
 - Primary IP Address
 - Primary Instance Name (typically samdb1)
 - Primary SYS Password
- Primary Database Listener Port (typically 1523)
- Primary Database Proxy Port (typically 9002)

Figure 3-116 Primary Database Info

5620 SAM Database Configurator		
	Primary Database Info	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the IP address of the network interface the primary database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify the primary database's public IP address. Primary IP Address Primary Instance Name samdb1 Primary SYS Password #******** Primary Database Listener Port 1523 Primary Database Proxy Port	
InstallAnywhere by Macrovision – Cancel	Previous <u>N</u> ext	

85 You are prompted to begin standby database creation, as shown in Figure 3-117. Click on the Start Process button to begin.

- 5620 SAM Database Configurator		
	Standby Database Configuration	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The database config process is short. Once the configuration files are in place, you can create the standby database later using Standby Re-instantiation. Start Process	
InstallAnywhere by Macrovision -	·	
Cancel	Previous Next	

Figure 3-117 Standby Database Configuration

86 When the database installation is complete, you are prompted to run a script that enables automatic database startup during system startup, as shown in Figure 3-118. Open a separate console window and run the script as a user with root-equivalent privileges.

Figure 3-118 Installation Complete

- 5620) SAM Database Configurator	
Installation Complete		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/5620sam/samdb/install/config/samdb/solaris_root.sh Database creation was successful You will need to re-instantiate the Standby database to restore database redundancy.	
InstallAnywhere by Macrovision – Cancel	Previous Done	

87 When the script execution is complete, click on the Done button to close the installer.

The next section of the procedure describes the installation of the primary 5620 SAM server. You can install the primary server on the same station as the primary database or on another station. Server installation requires root-equivalent privileges.

Install primary server

- **88** Log in as a user with root-equivalent privileges on the station that is to be the primary server station.
- 89 Open a console window.
- **90** Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

91 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .]
```

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-119 appears and the installation process begins.



Figure 3-119 5620 SAM Installer
92 The 5620 SAM installer opens, as shown in Figure 3-120. The left pane indicates the installation progress. The right pane displays release information about the software being installed. Click on the Next button.

— 5620 SA	M/5650 CPAM Server Installer
	Introduction
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM/5650 CPAM Server. The version of the 5620 SAM/5650 CPAM Server software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous

Figure 3-120 Introduction

93 Review and accept the terms of the license agreement shown in Figure 3-121. Click on the Next button.



Figure 3-121 Software License Agreement



94 Select Main Server Installation, as shown in Figure 3-122. Click on the Next button.

-	5620 SAM/5650 CPAM Serve	er Installer
		Choose Installation Type
 Introduction License Agreement Choose Installation Type Install Directory Confouration 	Main Server Installation Install or upgrade the 6620 SAM Main Server	Main Server Configuration Change parameters of an existing 6620 SAM Main Server installation
Install Complete	Auxiliary Server Installation Install or upgrade the 5620 SAM Auxiliary Server	Auxiliary Server Configuration Change parameters of an existing 5620 SAM Auxiliary Server installation
	CPAM Server Installation Install or upgrade the 5850 CPAM Server	CPAM Server Configuration Change parameters of an existing 5650 CPAM Server Installation
InstallAnywhere by Macrovision -		
<u>C</u> ancel		Previous Next

Figure 3-122 Choose Installation Type

95 Specify a base directory in which to install the primary 5620 SAM main server software (typically /opt/5620sam/server), as shown in Figure 3-123. Click on the Next button.

Figure 3-123	Specify the Base Directory for 5620 SAM Main Server Files

-	5620 S	AM/5650 CPAM Server Installer	•
	Specify the Base Directory for 5620 SAM Main Server Files		
	 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files. /opt/5620sam/server Restore Default Folder Choose	
In	stallAnywhere by Macrovision - <u>C</u> ancel	Previous Next	

96 As shown in Figure 3-124, the installer displays the release of the 5620 SAM server software that is to be installed. Verify the information. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer	
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision — Cancel	Previous Next

Figure 3-124 Checking Build Compatibility

97 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 3-125. Click on the Next button.

– 5620 SAM/5650 CPAM Server Installer 🔹		
	License Information for 5620 SAM Main Server	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key >-00000-00000-00000-00000-00000-00000-0000	
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next	

Figure 3-125 License information for 5620 SAM Main Server

- **98** Configure the following parameters shown in Figure 3-126, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported



Note - You must select the Redundancy Supported parameter.

- 5620 S	AM/5650 CPAM Serve	r Installer	
	Addi	tional Server	Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration Image: Configuration of the server supported Image: Configuration of the server support of the server se		
InstallAnywhere by Macrovision - Cancel		<u>P</u> revious	Next

Figure 3-126 Additional Server Configuration

- **99** Configure the following parameters, shown in Figure 3-127, using the recorded values from the primary database installation. Click on the Next button.
 - Primary Database IP Address
 - Primary Database Server Port (typically 1523)
 - Primary Database Instance Name (typically samdb1)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

- 5620 SAM/5650 CPAM Server Installer		
	Primary Database Configuration	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server. Primary Database IP Address Primary Database IP Address Primary Database Server Port 1523 Primary Database Instance Name samdb1 Database User Name Database User Password ********** Primary Database Provy Port	
InstallAnywhere by Macrovision –		
Cancel	Previous Next	

Figure 3-127 Primary Database Configuration

- **100** Configure the following database backup parameters shown in Figure 3-128, then click on the Next button:
 - Online Database Backup Interval (hours) (typically 24)
 - Online Backup Destination (typically /opt/5620sam/dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 99.

5620 SAM/5650 CPAM Server Installer		
	Online Database Backup	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Specify the interval between backups, the backup directory, and the number of backups to retain. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination /opt/5620sam/dbbackup Number Of Backup Sets 3	
InstallAnywhere by Macrovision -	Previous Next	

Figure 3-128 Online Database Backup

- **101** Configure the following parameters shown in Figure 3-129, then click on the Next button:
 - Database Server IP Address
 - Database Instance Name (typically samdb2)
 - Database Proxy Port (typically 9002)

Figure 3-129 Standby Database Configuration

-	5620 SAM/5650 CPAM Server Installer		
	Standby Database Configuration		
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Instance Name samdb2 Database Proxy Port	
Ins	stallAnywhere by Macrovision – Cancel	Previous	

102 Configure the following parameters shown in Figure 3-130:

- Server Domain Name (typically 5620sam)
- Public IP (visible to clients)
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)
- Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

	Main Server Address Configuration for Clier
 Introduction License Agreement Choose Installation Type 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients.
Configuration Install Complete	Server Domain Name 5620sam Public IP (visible to clients)
nstallAnywhere by Macrovision	

Figure 3-130 Main Server Address Configuration for Clients

- **103** Configure the following parameters shown in Figure 3-131:
 - Public IP (visible to peer server)
 - High Available JNDI Port (typically 1100)
 - TCP Port Cluster Number (typically 11800)

If NAT is used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

Introduction Enter the the network interface information that the main server will use to communicate with the peer server. Choose Installation Type Enter the the network interface information that the main server will use to communicate with the peer server. Configuration Public IP (visible to peer server) Install Complete High Available JNDI Port 1100 TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server) InstallAnywhere by Macrovision	- 5620 S	AM/5650 CPAM Server Installer	•
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete High Available JNDI Port 1100 TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server) 		Main Server Configuration for Peer Serve	er
InstallAnywhere by Macrovision	 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the main server will use to communicate with the peer server. Public IP (visible to peer server) High Available JNDI Port TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server)	
Consol	InstallAnywhere by Macrovision		

Figure 3-131 Main Server Address Configuration for Peer Server

104 The panel in Figure 3-132 is displayed if you select "Auxiliary Server Supported" in step 98. Otherwise, go to step 106.

Perform the following steps to specify an auxiliary server, if required.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 3-132:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

	5620 SAM/5650 CPAM Server Installer
	Main Server Configuration for Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the IP address of the network interface the 5620 SAM main server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address. Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server)
InstallAnywhere by Macrovision -	Previous Next

Figure 3-132 Main Server Configuration for Auxiliary Servers

- ii If NAT is to be used between this 5620 SAM main server and the auxiliary servers, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server in the "Private IP" field.
- iii Click on the Next button.

iv Click on the Add button shown in Figure 3-133. The form shown in Figure 3-134 opens.

- 5620 SA	AM/5650 CPAM Server Installer
 Introduction Listense Amount and 	Auxiliary Servers Specify all the 5620 SAM Auxiliary Servers that this Main
Choose Installation Type Install Directory Configuration Install Complete	Server connects to. There must be at least one Preferred auxiliary server. If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Main Server.
	IP Address Port Type Add Remove Edit
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 3-133 Auxiliary Servers

Figure 3-134 Auxiliary Server Configuration

– Auxiliary Ser	ver Configuration 🕝 🗌
IP Address	
Port	12800
Туре	Preferred 💌
	OK Cancel
_	

- v Configure the following parameters shown in Figure 3-134:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- vi Click on the OK button to save the information and close the form.
- vii Repeat steps 104 iv to vi to specify an additional auxiliary server, if required.
- 105 Click on the Next button.
- **106** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.

- i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 3-135.
- ii If you want to accept the default user documentation location that is displayed, go to step 107.



Note – If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation folder on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 3-135 User Documentation

-	5620 SAM/5650 CPAM Server Installer
	User Documentation
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select "Install User Documentation at Central Location Below" if you want the documentation to be centrally accessible to clients. You must specify an absolute file path or a URL. If the location is a URL and NAT is used, ensure that the URL contains the public address of the server. Select "Install User Documentation to Client File System" to install user documentation on the clients. The file path that you specify is relative to the client installation directory. Install User Documentation at Central Location Below Install User Documentation to Client File System Install User Documentation to Client File System Mttp://192.168.200.222.8085 Restore Default Choose
InstallAnywhere by Macrovision	Previous

- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 3-135.
 - ii Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a folder under the base 5620 SAM client installation folder. The path must not contain a leading slash. For example, if the installation folder is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents folder.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms folder in the base 5620 SAM client installation folder, for example, /opt/5620sam/client/nms/Documents.

- 107 Click on the Next button.
- **108** Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 3-136. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

— 5620 SA	M/5650 CPAM Server Installer	
	License Information for 5650 CPAM Server	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	□ Include 5650 CPAM Server License Information >-00000-00000-00000-00000-00000-00000-0000	
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous	

Figure 3-136 License Information for 5650 CPAM Server

- **109** Configure the following parameters shown in Figure 3-137, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)



-	5620 SA	AM/5650 CPAM Server Installer
	SNMP Configuration	
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network. SNMP Trap Receiving IP Address SNMP Trap Receiving Port 162 Trap Log Id 98
	stallAnywhere by Macrovision — <u>C</u> ancel	Previous

- **110** Configure the following parameters shown in Figure 3-138, then click on the Next button:
 - Peer Server IP Address
 - Peer Server Trap Log Id (typically 98)
 - Peer Server SNMP Trap Receiving IP Address
 - Peer Server SNMP Port Number (typically 162)
 - Peer Server TCP Port Cluster Number (typically 11800)

Figure 3-138 Peer Main Server Configurations

- 5620 Si	AM/5650 CPAM Server Installer
	Peer Main Server Configurations
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public address, as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public address, as known to the devices within the managed network. Peer Server IP Address Peer Server Trap Log Id 98 Peer Server SNMP Trap Receiving IP Address Peer Server SNMP Trap Receiving Port 162 Peer Server TCP Port Cluster Number
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

- **111** Configure the following parameters shown in Figure 3-139, then click on the Next button:
 - 5620 SAM Peer Server IP Address
 - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
 - 5620 SAM JNDI Peer Server Port (typically 1099)



-	5620 S/	AM/5650 CPAM Server Installer	
	Peer Main Server Configurations (cont.))
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	Enter the IP address of the network interface the GUI and OSS clients will use to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients. 5620 SAM Peer Server IP Address 5620 SAM JNDI High Available Peer Server Port 1100 5620 SAM JNDI Peer Server Port 1099	-
In	stallAnywhere by Macrovision – Cancel	Previous <u>N</u> ext	

112 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 3-140 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Image: Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision	Previous Next

Figure 3-140 Navigation from External Systems

113 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 3-141. Click on the Install button to begin the server installation.

	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xml_output Restore Default Folder Choose
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous

Figure 3-141 XML Output Directory

The next panel displays installation progress, as shown in Figure 3-142.

-	5620 SAM/5650 CPAM Server Installer
	Installing 5620 SAM/5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢
InstallAnywhere by Macrovision	Installing Java Runtime Environment
Cancel	

Figure 3-142 Installing 5620 SAM/5650 CPAM Server

114 As shown in Figure 3-143, the 5620 SAM server is installed as a UNIX daemon. Click on the Next button.

— 5620 SA	AM/5650 CPAM Server Installer
	Installing the Server as a Unix Daemon
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Server has been successfully installed as a Unix Daemon
InstallAnywhere by Macrovision — Cancel	Previous

Figure 3-143 Installing the Server as a Unix Daemon

115 When the primary server installation is complete, as shown in Figure 3-144, select the "Start the 5620 SAM Main Server" parameter to specify that the server is to start immediately after the installation.



5620 SAM/5650 CPAM Server Installer		
	Installation Complete	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	CongratulationsI 5620 SAM Main Server has been successfully installed inside directory /opt/5620sam/server. Please assign a password for samadmin using 'passwd samadmin' command. Once the server is started for the first time it can take up to an hour for the server to initialize the database. Attempts to login to the server via the 5620 SAM client will fail until the server is completely up.	
InstallAnywhere by Macrovision –	Previous	

116 Click on the Done button to close the installer. The server starts. Initial server startup can take twenty minutes or more.

117 The installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press 4.

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.
- **118** Perform one of the following to verify that the 5620 SAM server is operational.
 - **a** If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Enter the following at the CLI prompt:
 - # ./nmsserver.bash appserver_status \lrcorner
 - ii The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 118 a i. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Enter the following at the CLI prompt to switch to the samadmin user:

su - samadmin ↓

ii Enter the following at the CLI prompt:

<code>bash\$</code> ./nmsserver.bash appserver_status \dashv

iii The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 118 b ii. Do not proceed unless the console displays the above text.

119 Close the console window.

The next section of the procedure describes the reinstantiation of the database on the standby database station.

Reinstantiate database on standby station

- 120 Log in to a 5620 SAM client as the admin user.
- 121 Choose Administration \rightarrow System Information from the 5620 SAM main menu. The System Information form opens with the General tab displayed.
- 122 Click on the Re-Instantiate Standby button. A dialog box appears.
- 123 Click on the Yes button. The database reinstantiation begins.

You can view the reinstantiation status on the client GUI status bar or on the System Information form. The Standby Re-instantiation State changes from In Progress to Success when reinstantiation is complete. The start time of the reinstantiation is shown by the Last Attempted Standby Re-instantiation Time indicator.



Note – Database reinstantiation can take a long time when there is a large amount of statistics information to transfer.

124 When the reinstantiation is complete, close the System Information form.

The next section of the procedure describes the installation of the standby 5620 SAM server. You can install the standby server on the same station that contains the standby database, or on another station. Server installation requires root-equivalent privileges.

Install standby server

- **125** Log in as a user with root-equivalent privileges on the station that is to be the standby server station.
- 126 Open a console window.
- 127 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:
 - # cd Solaris \lrcorner
- 128 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .
```

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-145 appears and the installation process begins.



Figure 3-145 5620 SAM Installer

129 The 5620 SAM installer opens, as shown in Figure 3-146. The left pane indicates the installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 3-146 Introduction



130 Review and accept the terms of the license agreement shown in Figure 3-147. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer		
Software License Agreement		
 Introduction License Agreement Choose Installation Type Install Directory 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Server software or installing the hardware unit with pre-enabled 5620 SAM Server software (each of which is referred to as "Software" in this Agreement).	
 Configuration Install Complete 	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All chatel-Lucent. All rights reserved © I gocept the terms of the License Agreement 0 1do NOT accept the terms of the License Agreement	
InstallAnywhere by Macrovision	Previous Next	

Figure 3-147 Software License Agreement

131 Select Main Server Installation, as shown in Figure 3-148. Click on the Next button.



Figure 3-148 Choose Installation Type

132 Specify a base directory in which to install the standby 5620 SAM main server software (typically /opt/5620sam/server), as shown in Figure 3-149. Click on the Next button.

rigure 5 117 specify the base birectory for 5020 sparmain server rites	Figure 3-149 Specify the Base Directory for 5620 SAM Main Server Fil
--	--

	5620 S	AM/5650 CPAM Server Installer	
	Specify the Base Directory for 5620 SAM Main Server Files		
	 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files.	Ī
In	stallAnywhere by Macrovision - <u>C</u> ancel	Previous	

133 As shown in Figure 3-150, the installer displays the release of the 5620 SAM server software that is to be installed. Verify the information. Click on the Next button.

5620 SAM/5650 CPAM Server Installer		
Checking Build Compatibility		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 3-150 Checking Build Compatibility

134 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 3-151. Click on the Next button.

— 5620 SAM/5650 CPAM Server Installer		
License Information for 5620 SAM Main Server		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key -00000-00000-00000-00000-00000-00000-0000	
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next	

Figure 3-151 License Information for 5620 SAM Main Server

- **135** Configure the following parameters shown in Figure 3-152, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported



Note - You must select the Redundancy Supported parameter.

— 5620 S.	AM/5650 CPAM Serve	r Installer		•
Additional Server Configuration				
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration Redundancy Supported Auxiliary Server Supported			
InstallAnywhere by Macrovision -		<u>P</u> revious	<u>N</u> ext	

Figure 3-152 Additional Server Configuration

- **136** Configure the following parameters, shown in Figure 3-153, using the recorded values from the primary database installation. Click on the Next button.
 - Primary Database IP Address
 - Primary Database Server Port (typically 1523)
 - Primary Database Instance Name (typically samdb1)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

- 5620 SAM/5650 CPAM Server Installer		
Primary Database Configuration		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server.	
	Primary Database IP Address Primary Database Server Port 1523	
	Primary Database Instance Name samdb1	
	Database User Name samuser	
	Database User Password	
	Primary Database Proxy Port 9002	
InstallAnywhere by Macrovision · <u>C</u> ancel	Previous <u>N</u> ext	

Figure 3-153 Primary Database Configuration

- **137** Configure the following database backup parameters shown in Figure 3-154, then click on the Next button:
 - Online Database Backup Interval (hours) (typically 24)
 - Online Backup Destination (typically /opt/5620sam/dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 136.

- 5620 SAM/5650 CPAM Server Installer		
	Online Database Backup	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Specify the interval between backups, the backup directory, and the number of backups to retain. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination /opt/5620sam/dbbackup Number Of Backup Sets 3	
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous	

Figure 3-154 Online Database Backup

- **138** Configure the following parameters shown in Figure 3-155, then click on the Next button:
 - Database Server IP Address
 - Database Instance Name (typically samdb2)
 - Database Proxy Port (typically 9002)

Figure 3-155 Standby Database Configuration

5620 SAM/5650 CPAM Server Installer		
	Standby Database Configuration	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Instance Name samdb2 Database Proxy Port 9002	
InstallAnywhere by Macrovision – Cancel	Previous Next	

- 139 Configure the parameters shown in Figure 3-156:
 - Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

	Main Server Address Configuration for Client
 Introduction License Agreement Choose Installation Type 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients.
 Configuration Install Complete 	Server Domain Name 5620sam Public IP (visible to clients)
InstallAnywhere by Macrovision	

Figure 3-156 Main Server Address Configuration for Clients

140 Configure the parameters shown in Figure 3-157:

- Public IP (visible to peer server)
- High Available JNDI Port (typically 1100)
- TCP Port Cluster Number (typically 11800)

If NAT is used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer		
Main Server Configuration for Peer Server		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the main server will use to communicate with the peer server. Public IP (visible to peer server) High Available JNDI Port 1100 TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server)	
InstallAnywhere by Macrovision	Previous Next	-

Figure 3-157 Main Server Address Configuration for Peer Server

141 The panel in Figure 3-158 is displayed if you select "Auxiliary Server Supported" in step 135. Otherwise, go to step 143.

Perform the following steps to specify an auxiliary server, if required.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 3-158:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

-		-
5	620 SAM/5650 CPAM Server Installe	er
	Main Server Configu	ration for Auxiliary Ser

Figure 3-158 Main Server Configuration for Auxiliary Servers

	Main Server Configuration for Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the IP address of the network interface the 5620 SAM main server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address. Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server)
InstallAnywhere by Macrovision -	Previous Next

- ii If NAT is to be used between this 5620 SAM server and the auxiliary servers, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server in the "Private IP" field.
- iii Click on the Next button.

iv Click on the Add button shown in Figure 3-159 to specify an auxiliary server. The form shown in Figure 3-160 opens.

- 5620 SA	AM/5650 CPAM Server Installer
	Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Specify all the 5620 SAM Auxiliary Servers that this Main Server connects to. There must be at least one Preferred auxiliary server. If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Main Server. IP Address Port Type Add Remove Edit
InstallAnywhere by Macrovision – Cancel	Previous <u>N</u> ext

Figure 3-159 Auxiliary Servers

Figure 3-160 Auxiliary Server Configuration

– Auxiliary Se	rver Configuration 🗗 🗖
IP Address	
Port	12800
Туре	Preferred v
	OK Cancel

- v Configure the following parameters shown in Figure 3-160:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- vi Click on the OK button to save the information and close the form.
- vii Repeat steps 141 iv to vi to specify an additional auxiliary server, if required.
- 142 Click on the Next button.

- **143** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 3-161.
 - ii If you want to accept the default user documentation location that is displayed, go to step 144.



Note – If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation folder on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 3-161 User Documentation



- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 3-161.
 - ii Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a folder under the base 5620 SAM client installation folder. The path must not contain a leading slash. For example, if the installation folder is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents folder.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms folder in the base 5620 SAM client installation folder, for example, /opt/5620sam/client/nms/Documents.

- 144 Click on the Next button.
- **145** Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 3-162. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.



Figure 3-162 License Information for 5650 CPAM Server

- **146** Configure the following parameters shown in Figure 3-163, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)



-	5620 S#	AM/5650 CPAM Server Installer
	SNMP Configurati	
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network. SNMP Trap Receiving IP Address SNMP Trap Receiving Port 162 Trap Log Id 98
Ins	stallAnywhere by Macrovision — <u>C</u> ancel	Previous

- **147** Configure the following parameters shown in Figure 3-164, then click on the Next button:
 - Peer Server IP Address
 - Peer Server Trap Log Id (typically 98)
 - Peer Server SNMP Trap Receiving IP Address
 - Peer Server SNMP Trap Receiving Port (typically 162)
 - Peer Server TCP Port Cluster Number (typically 11800)

Figure 3-164 Peer Main Server Configurations

= 5620 SAM/5650 CPAM Server Installer r		
Peer Main Server Configurations		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public address, as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public address, as known to the devices within the managed network. Peer Server IP Address Peer Server Trap Log Id 98 Peer Server SNMP Trap Receiving IP Address Peer Server SNMP Trap Receiving Port 162 Peer Server TCP Port Cluster Number	
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous <u>N</u> ext	
- **148** Configure the following parameters shown in Figure 3-165, then click on the Next button:
 - 5620 SAM Peer Server IP Address
 - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
 - 5620 SAM JNDI Peer Server Port (typically 1099)



- 5620	SAM/5650 CPAM Server Installer
	Peer Main Server Configurations (cont.)
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the IP address of the network interface the GUI and OSS clients will use to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients. 5620 SAM Peer Server IP Address 5620 SAM JNDI High Available Peer Server Port 1100 5620 SAM JNDI Peer Server Port 1099
InstallAnywhere by Macrovision	Previous Next

149 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 3-166 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

Figure 3-166 Navigation	n from External Systems
5620 SAM/5650 CF	PAM Server Installer
	Navigation from Externa

	3020 SAM/ 3030 CLAM SCIVELINStation
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision	Previous Next

150 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 3-167. Click on the Install button to begin the server installation.

Figure 3-167 XML Output Directory

-		5620 SAM/5650 CPAM Server Installer
		XML Output Directory
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xml_output Restore Default Folder Choose
Ins	stallAnywhere by Macrovision · Cancel	Previous

The next panel displays installation progress, as shown in Figure 3-168.

-	5620 SAM/5650 CPAM Server Installer	•
	Installing 5620 SAM/5650 CPAM Serve	er
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢	
InstallAnywhere by Macrovision	Installing Java Runtime Environment	

Figure 3-168 Installing 5620 SAM/5650 CPAM Server

151 As shown in Figure 3-169, the 5620 SAM server is installed as a UNIX daemon. Click on the Next button.

- 5620 SA	AM/5650 CPAM Server Installer
	Installing the Server as a Unix Daemon
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Server has been successfully installed as a Unix Daemon
InstallAnywhere by Macrovision — Cancel	Previous



152 When the standby server installation is complete, as shown in Figure 3-170, select the "Start the 5620 SAM Main Server" parameter to specify that you want the server to start immediately after the installation.

- 5620 Sr	AM/5650 CPAM Server Installer
	Installation Complete
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Congratulations! 5620 SAM Main Server has been successfully installed inside directory /opt/5620sam/server. Please assign a password for samadmin using 'passwd samadmin' command. Once the server is started for the first time it can take up to an hour for the server to initialize the database. Attempts to login to the server via the 5620 SAM client will fail until the server is completely up. ✓ Start the 5620 SAM Main Server
InstallAnywhere by Macrovision –	Previous

Figure 3-170 Installation Complete

- **153** Click on the Done button to close the installer. The server starts. Initial server startup can take twenty minutes or more.
- **154** The installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press ...

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.
- 155 Perform one of the following to verify that the 5620 SAM server is operational.
 - a If the 5620 SAM main server is installed on Solaris 9, perform the following steps.

i Enter the following at the CLI prompt:

./nmsserver.bash appserver_status \lrcorner

ii The 5620 SAM server application is operational when the command returns the following text string:

```
Application Server is started
```

If the command returns anything other than the above text string, wait five minutes and repeat step 155 a i. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Enter the following at the CLI prompt to switch to the samadmin user:

su - samadmin 🖯

ii Enter the following at the CLI prompt:

bash\$./nmsserver.bash appserver_status 斗

iii The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 155 b ii. Do not proceed unless the console displays the above text.

156 Close the console window.

Install client

157 Perform one of the following to install a 5620 SAM client.

- a Perform Procedure 2-3 to install a 5620 SAM client on a Windows station.
- **b** Perform Procedure 3-2 to install a 5620 SAM client on a Solaris or Linux station.

3.7 5620 SAM auxiliary server installation procedures

This section describes how to install a 5620 SAM auxiliary server component for a standalone or redundant 5620 SAM system.

Procedure 3-5 describes how to install the 5620 SAM auxiliary server software. Procedure 3-6 describes how to add a new 5620 SAM auxiliary server to an existing 5620 SAM system.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- *#* represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 3-5 To install a 5620 SAM auxiliary server

Perform this procedure to install the 5620 SAM auxiliary server software on a Solaris station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require root-equivalent user privileges to install the 5620 SAM auxiliary server software.

Note 2 - The installer creates the samadmin user account on the auxiliary server station during this procedure.

- 1 Log in as a user with root-equivalent user privileges on the station that is to be the auxiliary server station.
- 2 Open a console window.
- 3 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

4 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .]
```

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-171 appears and the installation process begins.



Figure 3-171 5620 SAM Installer

5 The 5620 SAM installer opens, as shown in Figure 3-172. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 3-172 Introduction

- 5620 SA	M/5650 CPAM Server Installer
	Introduction
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM/5650 CPAM Server. The version of the 5620 SAM/5650 CPAM Server software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision — Cancel	Previous

6 Review and accept the terms of the license agreement shown in Figure 3-173. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer	
	Software License Agreement
 Introduction License Agreement Choose Installation Type Install Directory 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Server software or installing the hardware unit with pre-enabled 5620 SAM Server software (each of which is referred to as "Software" in this Agreement).
 Configuration Install Complete 	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TilMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All cher trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved
InstallAnywhere by Macrovision	Previous Next

Figure 3-173 Software License Agreement

7 Select Auxiliary Server Installation, as shown in Figure 3-174. Click on the Next button.



Figure 3-174 Choose Installation Type

8 Specify a base directory in which to install the 5620 SAM auxiliary server software (typically /opt/5620sam/auxserver), as shown in Figure 3-175. Click on the Next button.

Figure 3-175 Specify the Base Directory for 5620 SAM Auxiliary Server Files

- 5620 SA	AM/5650 CPAM Server Installer
Specify th	e Base Directory for 5620 SAM Auxiliary Server Files
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files. //opt/5620sam/auxserver Restore Default Folder Choose
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

9 As shown in Figure 3-176, the installer displays the release of the 5620 SAM auxiliary server software that is to be installed. Verify the information. Click on the Next button.

Figure 3-176 Checking Build Compatibility

- 5620 Si	AM/5650 CPAM Server Installer	
	Checking Build Compatibility	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous	

- 10 Configure the parameters shown in Figure 3-177:
 - SAM Server Domain Name (typically 5620sam)
 - Public IP (visible to servers)
 - Auxiliary Server Port (typically 12800)
 - i If NAT is used between this 5620 SAM auxiliary server and the main 5620 SAM server, select the "Network Address Translation Used" parameter and enter the private IP address of this auxiliary server.
 - ii Select the "Redundancy Supported On the 5620 SAM Main Server" parameter to specify whether this auxiliary server is joining a redundant 5620 SAM configuration.
 - iii Click on the Next button.

- 5620 S	AM/5650 CPAM Server Installer
	Auxiliary Server Address Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the network interface information for the Auxiliary Server. The domain name must be the same as the 5620 SAM main server's domain name. SAM Server Domain Name 5620sam Public IP (visible to servers)
InstallAnywhere by Macrovision -	Previous Next

Figure 3-177 Auxiliary Server Address Configuration

- **11** Perform one of the following.
 - a If the "Redundancy Supported On the 5620 SAM Main Server" parameter shown in step 10 is disabled, configure the following parameters shown in Figure 3-178:
 - Main Server IP Address
 - Main Server Port (typically 12800)

Figure	3-178	Main	Server	Configuration

-	5620 SAM/5650 CPAM Server Installer	
		Main Server Configuration
 Introdu Licens Choos Install Config Install 	ction e Agreement e Installation Type Directory uration Complete	Enter the IP address of the network interface on the Main Server that this Auxiliary Server will use. Main Server IP Address Main Server Port 12800
InstallAnyw <u>C</u> ance	here by Macrovision – el	Previous

- **b** If redundancy is enabled, configure the following parameters shown in Figure 3-179:
 - Main Server One IP Address
 - Main Server One Port (typically 12800)
- Main Server Two IP Address
- Main Server Two Port (typically 12800)



5620 SAM/5650 CPAM Server Installer		
	Main Server Configuration	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the IP addresses of the network interfaces on the Main Servers that this Auxiliary Server will use. Main Server One IP Address Main Server One Port 12800 Main Server Two IP Address Main Server Two Port 12800	
InstallAnywhere by Macrovision	Previous	

12 Specify an OSS XML output location (typically /opt/5620sam/auxserver/xml_output), as shown in Figure 3-180. Click on the Install button to begin the auxiliary server installation.

Figure 3-180 XML Output Directory

	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Ty Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory //opt/5620sam/auxserver/kml_output Restore Default Folder Choose
InstallAnywhere by Macrovi <u>C</u> ancel	sion - Previous Install

The next panel displays installation progress, as shown in Figure 3-181.

- 5620 S	AM/5650 CPAM Server Installer
	Installing 5620 SAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢
	Installing jboss
InstallAnywhere by Macrovision	

Figure 3-181 Installing 5620 SAM/5650 CPAM Server

13 As shown in Figure 3-182, the 5620 SAM auxiliary server is installed as a UNIX daemon. Click on the Next button.

— 5620 S/	AM/5650 CPAM Server Installer
	Installing the Server as a Unix Daemon
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Server has been successfully installed as a Unix Daemon
InstallAnywhere by Macrovision – Cancel	Previous

Figure 3-182 Installing the Server as a Unix Daemon

14 When the auxiliary server installation is complete, as shown in Figure 3-183, configure the "Start the 5620 SAM Auxiliary Server" parameter to specify whether you want the server to start immediately after the installation.

- 5620 SAM/5650 CPAM Server Installer			
	Installation Complete		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Congratulations! 5620 SAM Auxiliary Server has been successfully installed inside directory /opt/6620sam/auxserver. Please assign a password for samadmin using 'passwd samadmin' command.		
InstallAnywhere by Macrovision –	Previous		

Figure 3-183 Installation Complete

- **15** Click on the Done button to close the installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.
- **16** The installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press ...

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.
- 17 If you specified not to start the auxiliary server immediately after the installation, you can start it later by performing one of the following.
 - a If the 5620 SAM auxiliary server is installed on Solaris 9, perform the following steps.

- i Log in as a user with root-equivalent privileges on the auxiliary server station.
- ii Enter the following at the CLI prompt:

path/nms/bin/nmsserver.bash auxstart ...

where path is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

- **b** If the 5620 SAM auxiliary server is installed on Solaris 10, perform the following steps.
 - i Log in as the samadmin user on the auxiliary server station.
 - ii Enter the following at the CLI prompt:

bash\$ path/nms/bin/nmsserver.bash auxstart .

where path is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver



Note — The order in which a 5620 SAM auxiliary server and the primary 5620 SAM server initialize is unimportant. The primary 5620 SAM server synchronizes with an auxiliary server as soon as it is able to communicate with the auxiliary server.

The 5620 SAM auxiliary server starts. Initial server startup can take twenty minutes or more.

Procedure 3-6 To add an auxiliary server to an existing 5620 SAM system

Perform this procedure to install an additional 5620 SAM auxiliary server to an existing 5620 SAM system. This operation involves installing the auxiliary server software, and reconfiguring the 5620 SAM database and main server components to recognize the auxiliary server. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Caution — This procedure requires that you shut down each 5620 SAM main server, which is service-affecting. Perform this procedure only during a scheduled maintenance window.

In a redundant 5620 SAM deployment, you must reconfigure the primary main server before you reconfigure the standby main server.



Note 1 — You require the following user privileges to perform this procedure:

on each main and auxiliary server station:

- root or root-equivalent
- samadmin (Solaris 10 only)

on each database station that has IP validation enabled:

Oracle management

Note 2 - The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- 1 If the 5620 SAM is deployed in a standalone configuration, go to step 5.
- 2 Perform steps 5 to 7 on the primary main server.



Note — After you stop the primary main server in step 5, a server activity switch occurs and the standby main server becomes the new primary main server.

- 3 Perform steps 5 to 7 on the former standby (new primary) main server.
- 4 Go to step 8.
- 5 Perform one of the following to stop the 5620 SAM main server application.
 - a If the main server is installed on Solaris 9, perform the following steps.
 - i Log in as a user with root-equivalent privileges on the main server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:
 - # cd path/nms/bin .]

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server application:
 - # ./nmsserver.bash stop \dashv
- v Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:
 - # ./nmsserver.bash appserver_status 斗
- vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 5 a v. Do not proceed unless the console displays the above text.

- **b** If the main server is installed on Solaris 10, perform the following steps.
 - i Log in to the main server station as the samadmin user.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:

bash\$ cd path/nms/bin .]

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt to stop the 5620 SAM server application:

bash\$./nmsserver.bash stop ,

 Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

bash\$./nmsserver.bash appserver_status 斗

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 5 a v. Do not proceed unless the console displays the above text.

- 6 You must use the 5620 SAM installer to add the new auxiliary server to the main server configuration. Perform one of the following to start the 5620 SAM installer.
 - a If the 5620 SAM main server is installed on Solaris 9, enter the following at the CLI prompt to open the 5620 SAM installer:

./ServerInstall_SAM_6_1_revision_ID.bin 斗

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

b If the 5620 SAM main server is installed on Solaris 10, enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./ServerInstall_SAM_6_1_revision_ID.bin ↓

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 3-184 appears and the configuration process begins.



Figure 3-184 5620 SAM Installer

- 7 Perform the following steps to add the new auxiliary server to the main server configuration.
 - i Accept the terms of the license agreement in the Software License Agreement panel.
 - ii Click on the Next button.
 - iii Choose Main Server Configuration in the Choose Installation Type panel.
 - iv Click on the Next button.
 - v Click on the Next button on each successive panel until the Additional Server Configuration panel is displayed.
 - vi Select the "Auxiliary Server Supported" parameter.
 - vii Click on the Next button until the Main Server Configuration for Auxiliary Servers panel is displayed.
 - viii Click on the Add button.
 - ix Configure the following parameters:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
 - x Click on the OK button to save the information and close the form.
 - **xi** Click on the Next button in each successive panel until the main server configuration is complete.
 - xii Click on the Done button to close the installer.

8 Perform one of the following on each 5620 SAM main server to start the 5620 SAM server application.



Caution — In a redundant 5620 SAM deployment, you must start the former primary main server first, then the former standby main server. This ensures that the primary and standby designations are the same as at the start of the procedure.

a If the main server is installed on Solaris 9, enter the following at the CLI prompt to start the 5620 SAM server application:

```
# path/nms/bin/nmsserver.bash start .
```

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

b If the main server is installed on Solaris 10, enter the following at the CLI prompt to start the 5620 SAM server application:

bash\$ path/nms/bin/nmsserver.bash start \dashv

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

The main server starts and adds the auxiliary server to the 5620 SAM cluster.

9 If IP validation is enabled for database access, perform the following steps on each database station in the 5620 SAM system to enable validation of the auxiliary server.



Caution — In a redundant 5620 SAM deployment, you must perform this step on the primary database station first, then on the standby database station.

- i Log in as the Oracle management user on the database station.
- ii Open a console window.
- iii Navigate to the Oracle network configuration directory. Enter the following at the CLI prompt:

bash\$ cd path/network/admin ...

where path is the Oracle base installation location, typically /opt/5620sam/oracle10r2

- iv Create a backup copy of the sqlnet.ora file.
- v Open the sqlnet.ora file with a text editor, for example, vi.
- vi In the section labeled IP Validation, edit the TCP.VALIDNODE_CHECKING line to read:

TCP.VALIDNODE_CHECKING = yes

vii In the same section, edit the TCP.INVITED_NODES line to read:

TCP.INVITED_NODES = (host|IP_address)

where

host is the hostname of the new auxiliary server *IP_address* is the IP address of the new auxiliary server



Note – You can specify multiple auxiliary servers by using a comma to separate entries, as follows:

```
TCP.INVITED_NODES =
  (host_1|IP_address_1,host_2|IP_address_2)
```

- viii Save the file.
- ix Close the file.
- **x** Enter the following commands in sequence at the CLI prompt to restart the Oracle database listener:

```
bash$ cd path/bin ↓
```

where *path* is the Oracle base installation location, typically /opt/5620sam/oracle10r2

bash\$ lsnrctl stop .]

bash\$ **lsnrctl start** .

- xi Close the console window.
- **10** Perform Procedure 3-5 to install the 5620 SAM auxiliary server software on the station that is to be the new 5620 SAM auxiliary server station.

4 – 5620 SAM upgrade on Solaris

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4.1 5620 SAM upgrade on Solaris overview

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



Caution 1 – An upgrade of a 5620 SAM system in a network requires that you thoroughly understand the general and OS-specific requirements of the task. It is essential that the upgrade procedure be planned, documented and tested in advance on a lab system that is representative of the target live network.

Contact your Alcatel-Lucent support representative to assess the upgrade requirements for your network implementation of the 5620 SAM. Alcatel-Lucent offers an upgrade service and strongly recommends that it be engaged for upgrades in larger or more complex networks.

Caution 2 – Alcatel-Lucent supports 5620 SAM software configuration only under the conditions described in chapter 1.

4.2 5620 SAM upgrade on Solaris procedures list

Table 4-1 lists the procedures required to perform 5620 SAM software upgrade activities on a Solaris platform.

Procedure	Purpose
To perform the pre-upgrade tasks	Prepare a standalone or redundant 5620 SAM system on Solaris for a software upgrade by ensuring the correct conditions are in place, gathering the required system information, and backing up the configuration files and database.
To upgrade a standalone 5620 SAM system on Solaris	Upgrade the 5620 SAM database and server software in a standalone configuration on one or more Solaris stations.
To upgrade a 5620 SAM Release 5.0 R4 or earlier client on Solaris or Linux	Upgrade the 5620 SAM client software on a Solaris or Linux station from Release 5.0 R4 or earlier.
To upgrade a 5620 SAM Release 5.0 R5 or later client on Solaris or Linux	Upgrade the 5620 SAM client software on a Solaris or Linux station from Release 5.0 R5 or later.
To upgrade a redundant 5620 SAM system on Solaris	Upgrade the 5620 SAM database and server software in a redundant configuration on Solaris stations.
To restore a 5620 SAM 4.0 database	Restore a backed-up 5620 SAM Release 4.0 database.

Table 4-1	5620 SA	M upgrade	e on Solaris	procedures	list
	5525 57		. on botans	procedures	

(1 of 2)

Procedure	Purpose
To restore a 5620 SAM 5.0 database	Restore a backed-up 5620 SAM Release 5.0 database.
To upgrade a 5620 SAM auxiliary server	Upgrade the 5620 SAM auxiliary server software on a Solaris station that is part of a standalone or redundant 5620 SAM system.

(2 of 2)

4.3 5620 SAM system upgrade preparation

This section describes how to prepare for the upgrade of a standalone or redundant 5620 SAM system on Solaris.

Before you attempt a 5620 SAM system upgrade, you must collect the required information and ensure that the proper upgrade conditions are in place. To do this, perform Procedure 4-1.

Procedure 4-1 To perform the pre-upgrade tasks

Perform this procedure to prepare a standalone or redundant 5620 SAM system on Solaris for a 5620 SAM software upgrade.



Note – You require the following user privileges to perform this procedure:

on each main server station:

root or root-equivalent

on each database station:

- root or root-equivalent
- Oracle management

General preparation

- 1 Ensure that the required releases of 5620 SAM software are available.
 - A standalone upgrade requires only the DVD-ROM that contains the new release of 5620 SAM software.
 - A redundant upgrade requires the DVD-ROM that contains the new release of 5620 SAM software and the DVD-ROM that contains the currently installed release of 5620 SAM software.
- 2 Remove all outstanding failed deployments. See the *5620 SAM User Guide* for information about deleting a failed deployment.

Back up database

3 Alcatel-Lucent strongly recommends that you perform a database backup using one of the following methods before you upgrade the 5620 SAM database.



Caution — You must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. A typical 5620 SAM database installation directory is /opt/5620sam/samdb.

Perform one of the following.

- **a** Use the 5620 SAM client GUI. See the 5620 SAM User Guide for information about how to perform a database backup using the client GUI.
- **b** Use a CLI script. Perform the following steps.
 - i Log in as the Oracle management user on the appropriate station.
 - In a standalone 5620 SAM system, this is the standalone database station.
 - In a redundant 5620 SAM system, this is the primary database station.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt to begin the database backup:

bash\$ path/install/config/samdb/SAMbackup.sh backup_directory .J

where

path is the 5620 SAM database installation location, typically /opt/5620sam/samdb *backup_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

Verify managed-device compatibility

- 4 Confirm that the new 5620 SAM software release supports the software release of each 5620 SAM-managed device. Perform one of the following for each unsupported device before you attempt the upgrade, or a service disruption may occur. See the 5620 SAM NE Compatibility Guide for information about managed-device release and 5620 SAM release compatibility.
 - a Upgrade the device to a software release that the new 5620 SAM software supports. See the appropriate device documentation for information about device software upgrades.
 - **b** Remove the device from the 5620 SAM managed network. See the 5620 SAM *User Guide* for information about performing the following steps.

- i Use a 5620 SAM client to unmanage the device.
- ii When the device is unmanaged, use the 5620 SAM client to remove the device from the 5620 SAM network.



Note 1 — If you have a Release 5.0 R4 or earlier 5620 SAM system that manages one or more 7250 SAS-ES, Release 2.0 devices, you must unmanage the 7250 SAS-ES, Release 2.0 devices in your network before you attempt to upgrade the 5620 SAM software.

You can resume management of the devices when the 5620 SAM upgrade is complete.

You do not need to unmanage a 7250 SAS-STD device before you upgrade the 5620 SAM software.

Note 2 — If you have a 5620 SAM system that manages one or more OmniSwitch devices as generic NEs, you must unmanage and delete the OmniSwitch generic NEs before you upgrade the 5620 SAM software.

You can manage the devices directly, rather than as generic NEs, when the 5620 SAM upgrade is complete.

Close 5620 SAM LogViewer

5 If you are upgrading a Release 6.1 R1 or later 5620 SAM system, close the 5620 SAM LogViewer application if it is open.



Caution — If the 5620 SAM LogViewer is running during a 5620 SAM upgrade, the upgrade fails.

Open port for client/server communication

6 Confirm that the firewalls between the 5620 SAM main server and client allow traffic to the HTTP or HTTPS port used for performing automatic client updates. Otherwise, you cannot perform a client installation. By default, the auto-update utility uses HTTP. See the SSL configuration for secure messaging chapter of the 5620 SAM User Guide for information about configuring HTTP and HTTPS for client/server communication.

Back up configuration files

7 Make a backup copy of the *path*/nms/config/nms-server.xml configuration file on each server station.

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Store the file in a secure location that is unaffected by 5620 SAM upgrade activity, such as a non-5620 SAM station.

8 Make a copy of any custom XML configuration files in the *path*/nms/jboss directory on each server station

where path is the 5620 SAM server installation location, typically /opt/5620sam/server



Note — The upgrade process re-installs and potentially modifies the format of the XML files in the jboss directory. You can use the copy of the pre-upgrade XML files as a reference for restoring your custom configuration, but you cannot use the files as part of the upgraded server installation. Copying the files to the new jboss directory after the upgrade does not restore the configuration specified in the XML files.

Store the files in a secure location that is unaffected by 5620 SAM upgrade activity, such as a non-5620 SAM station.

9 If you are upgrading a 5620 SAM system older than Release 5.0 R1, make a backup copy of the device backup files collected by the 5620 SAM in the *path*/nms/sr-backup directory on each server station.

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Store the files in a secure location that is unaffected by 5620 SAM upgrade activity, such as a non-5620 SAM station. You can import the files to the 5620 SAM database after the upgrade. See the *5620 SAM User Guide* for information about importing device backup files to the 5620 SAM database.

10 If you are upgrading a 5620 SAM system older than Release 5.0 R1, make a backup copy of the device software image files stored by the 5620 SAM in the *path*/nms/sr-images directory on each server station.

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Store the files in a secure location that is unaffected by 5620 SAM upgrade activity, such as a non-5620 SAM station. You can import the files to the 5620 SAM database after the upgrade. See the 5620 SAM User Guide for information about importing device software image files to the 5620 SAM database.

Gather required information

- 11 Obtain the following information for each server and database station in the 5620 SAM system and record it for use during the upgrade:
 - hostname
 - IP addresses
 - server IP addresses used by 5620 SAM databases to reach the server (public IP addresses, if NAT is used)
 - server IP address used by 5620 SAM GUI and OSS clients to reach the server (public IP address, if NAT is used)
 - server IP address used by 5620 SAM auxiliary servers to reach the server (public IP address, if NAT is used)
 - private server IP address (if NAT is used)
 - root user password

- **12** Obtain the redundancy information for each server and database in the 5620 SAM system.
 - i Open a 5620 SAM client.
 - ii Choose Administration \rightarrow System Information from the 5620 SAM main menu. The System Information window is displayed.
 - iii Record the following information for use during the upgrade:
 - Domain Name
 - In the Primary Server panel:
 - IP Address
 - Host Name
 - Status

•

- In the Primary Database Server panel:
 - Database Name
 - Instance Name
 - IP Address
 - Host Name
- iv If the 5620 SAM system is deployed in a redundant configuration, record the following information for use during the upgrade:
 - In the Secondary Server panel:
 - IP Address
 - Host Name
 - Status
 - In the Secondary Database Server panel:
 - Database Name
 - Instance Name
 - IP Address
 - Host Name

- **13** Obtain the following information for each database in the 5620 SAM system and record it for use during the upgrade:
 - hostname
 - IP addresses
 - database IP addresses used by 5620 SAM servers to reach the database (public IP addresses, if NAT is used)
 - database IP address used by 5620 SAM auxiliary servers to reach the database (public IP address, if NAT is used)
 - private database IP address (if NAT is used)
 - root user password
 - Oracle management user information:
 - UNIX user name (default value at installation is oracle)
 - UNIX group name (default value at installation is oracle)
 - UNIX home directory (default value at installation is /opt/5620sam/oracle)
 - Oracle database user ID (default value at installation is samuser)
 - Oracle database user password
 - Oracle SYS password
 - Oracle base installation directory name (default value at installation is /opt/5620sam/oracle)
 - 5620 SAM database installation directory name (default value at installation is /opt/5620sam/samdb)
- 14 Close all unrequired open 5620 SAM client sessions.
 - i Open a 5620 SAM client session using an account with security management privileges, such as admin.
 - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security Security Management (Edit) form opens with the General tab displayed.
 - iii Click on the Sessions tab button.
 - iv Click on the Search button. The form displays a list of the open 5620 SAM client sessions.
 - v Using the IP addresses in the Client IP column, identify the GUI and OSS clients that are currently logged in.
 - vi Close the client sessions by selecting them and clicking on the Close Session button. A dialog box appears.
 - If you are performing a standalone upgrade, you must close all open 5620 SAM client sessions.
 - If you are performing a redundant upgrade, you must close all open 5620 SAM client sessions except for those required for monitoring the network during the upgrade.



Note - One of the listed sessions is the session that you are using. Do not attempt to close this session.

- vii Click on the Yes button to confirm the action.
- viii Click on the Search button to refresh the list of open client sessions.
- 15 If the 5620 SAM client that you are using is not required for network monitoring during the upgrade, close the 5620 SAM client by choosing Application \rightarrow Exit from the 5620 SAM main menu.

4.4 Workflow for standalone 5620 SAM upgrade on Solaris

The following is the sequence of high-level actions required to upgrade a 5620 SAM standalone system on Solaris. A section heading in quotation marks is a reference to a section in Procedure 4-2.

- 1 Perform the pre-upgrade tasks. See Procedure 4-1 for more information.
- 2 Back up the 5620 SAM database, if not done as a pre-upgrade task. See "Back up database" for more information.
- 3 Shut down the 5620 SAM server application. See "Shut down server" for more information.
- 4 Disable the 5620 SAM server startup daemon. See "Disable server daemon" for more information.
- 5 Prepare the 5620 SAM database for the upgrade. See "Prepare database for upgrade" for more information.
- 6 Disable the 5620 SAM database and Oracle proxy startup daemons. See "Disable database daemons" for more information.
- 7 Upgrade the database. See "Upgrade database" for more information.
- 8 Upgrade the server. See "Upgrade server" for more information.
- **9** Upgrade or install one or more 5620 SAM clients. See "Upgrade or install clients" for more information.
- **10** Upgrade or install a client delegate, if required. See Procedure 3-3 for more information.

4.5 Standalone 5620 SAM system upgrade on Solaris procedures

This section describes how to upgrade the software components of a standalone 5620 SAM system on Solaris.

Before you begin a 5620 SAM system upgrade, you must collect the required information and ensure that the proper conditions are in place. Procedure 4-1 describes how to perform the required tasks to prepare for a 5620 SAM system upgrade.

Procedure 4-2 describes how to upgrade the 5620 SAM database and main server software. Procedure 4-3 describes how to upgrade a Release 5.0 R4 or earlier 5620 SAM client. Procedure 4-4 describes how to upgrade a Release 5.0 R5 or later 5620 SAM client.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- # represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 4-2 To upgrade a standalone 5620 SAM system on Solaris

Perform this procedure to upgrade the 5620 SAM database and main server software in a standalone 5620 SAM system on one or more Solaris stations. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note – You require the following user privileges to perform this procedure:

on the main server station:

root or root-equivalent

on the database station:

- root or root-equivalent
- Oracle management
- 1 Open at least one 5620 SAM client to monitor the network before the first server/database pair is upgraded.

Back up database

2 Alcatel-Lucent strongly recommends that you perform a database backup before you perform a 5620 SAM system upgrade. If you did not perform a database backup as part of the pre-upgrade preparation in Procedure 4-1, back up the database now using a CLI script.



Caution — You must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. A typical 5620 SAM database installation directory is /opt/5620sam/samdb. Perform the following steps.

- i Log in as the Oracle management user on the database station.
- ii Open a console window.
- iii Enter the following at the CLI prompt to begin the database backup:

bash\$ path/install/config/samdb/SAMbackup.sh backup_directory ~

```
where

path is the 5620 SAM database installation location, typically /opt/5620sam/samdb

backup directory is the directory that is to contain the database backup
```

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

Shut down server

- 3 Shut down the 5620 SAM server application.
 - i Log in as a user with root-equivalent privileges on the server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:
 - # cd path/nms/bin 🕹

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt to stop the 5620 SAM server application:

```
# ./nmsserver.bash stop \dashv
```

Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

./nmsserver.bash appserver_status \dashv

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 3 v. Do not proceed unless the console displays the above text.

Disable server daemon

- 4 Disable the 5620 SAM server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the upgrade.
 - i Log in to the server station as a user with root-equivalent privileges.
 - ii Open a console window.
 - iii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

```
# cd /etc/rc3.d ↓
```

iv Disable the 5620 SAM server daemon by renaming it. Enter the following at the CLI prompt:

```
# mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↓
```

Prepare database for upgrade

5 If you are upgrading from the 5620 SAM, Release 4.0 or 5.0, you must run a pre-upgrade script. This script configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.



Caution — Ensure that you run only the pre-installation script that is on the new 5620 SAM software DVD-ROM. Using a different version of the script may cause the database upgrade to fail.

Perform the following steps to run the pre-upgrade script:

- i Log in to the database station as a user with root-equivalent privileges.
- ii Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris 🗐

iii Enter the following at the CLI prompt to run the pre-installation script:

```
# ./Oracle10g_PreInstall.sh upgrade 斗
```

- iv The script prompts you to enter the following:
 - group name (default is dba)
 - user name (default is oracle)
 - Oracle user home directory name (default is /opt/5620sam/oracle10r2)



Note — To reduce the complexity of subsequent software upgrades and technical-support activities, Alcatel-Lucent recommends that you press \downarrow to accept the default value for each parameter.

If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

The script updates the system configuration.



Note – Running the script may generate messages that are similar to the following; these are not error messages and can be ignored.

- WARNING: Group dba already exists locally.
- WARNING: Oracle user with the specified name already exists locally.
- projadd: Duplicate project name "Oracle10R2"

Disable database daemons

- 6 Disable the 5620 SAM Oracle proxy and database startup daemons. This ensures that the 5620 SAM database does not automatically start in the event of a power disruption during the upgrade.
 - i Log in to the database station as a user with root-equivalent privileges.
 - ii Open a console window.
 - iii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:
 - # cd /etc/rc3.d ↓
 - iv Disable the 5620 SAM database startup daemon by renaming it. Enter the following at the CLI prompt:
 - # mv S95db5620sam inactive.S95db5620sam ...
 - v Disable the 5620 SAM Oracle proxy daemon by renaming it. Enter the following at the CLI prompt:

mv S965620SAMOracleProxyWrapper

inactive.S965620SAMOracleProxyWrapper ↓

7 Reboot the database station to put the system update into effect. Enter the following at the CLI prompt:

shutdown -y -i6 -g0 ↓

The station reboots.

Upgrade database

- 8 After the database station reboots, log in to the database station as the Oracle management user.
- 9 Open a console window.
- **10** Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 🕹

11 Enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./DBConfig_SAM_6_1_revision_ID.bin .

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 4-1 appears and the upgrade process begins.

Figure 4-1 5620 SAM Installer



12 The 5620 SAM installer opens, as shown in Figure 4-2. The left pane indicates upgrade progress. The right pane displays release information about the software being upgraded. Click on the Next button.

– 5620 SAM Database Configurator 👘		
	Introduction	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This program will create and configure an Oracle database to be used by a 5620 SAM Server system. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 4-2 Introduction

13 Review and accept the terms of the license agreement shown in Figure 4-3. Click on the Next button.



- 5620 SAM Database Configurator		
	Software License Agreement	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement). Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved	
InstallAnywhere by Macrovision – Cancel	Previous Next	

14 Select Upgrade a Database, as shown in Figure 4-4. Click on the Next button.

5620 SAM Database Configurator	
	Choose Installation Type
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Install & Configure a Standalone Database Restore a Database
	Upgrade a Database
	Install & Configure Primary/Standby Database
InstallAnywhere by Macrovision	Previous Next

Figure 4-4 Choose Installation Type

15 Specify the directory in which the 5620 SAM database files are installed (typically /opt/5620sam/samdb/install), as shown in Figure 4-5. Click on the Install button to begin the installer configuration.

Figure 4-5 Specify the Installation Root Directory of the 5620 SAM Database

- 5620 SAM Database Configurator	
Specify the Installation Root Directory of the 5620 SAM Database	
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	This is the installation root directory of the database to be upgraded. This directory will be populated with upgraded configuration scripts, readme and license files. /opt/5620sam/samdb/install Restore Default Folder Choose
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous
The installer prepares to upgrade the database, as shown in Figure 4-6.



Figure 4-6 Installing 5620 SAM Database Configurator

16 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 4-7. Click on the Next button.



Note 1 — If you are upgrading the 5620 SAM from a release earlier than 5.0 R1, a new Oracle software directory is chosen for you. You can specify an alternative directory. The directory must be empty.

Note 2 - If you are upgrading the 5620 SAM from a release later than 5.0 R1, the existing Oracle software directory is chosen for you and cannot be changed.

- 5620) SAM Database Configurator	•
Specify the Base Directory for Oracle Software		e
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all Oracle files. /opt/5620sam/oracle10r2 Restore Default Folder Choose	
InstallAnywhere by Macrovision -	Previous	

17 If you are upgrading from 5620 SAM, Release 5.0 or Release 6.0, go to step 24.

18 You are prompted to run an Oracle pre-installation script, as shown in Figure 4-8. Run the script in a separate console window as a user with root-equivalent privileges.

- 5620	SAM Database Configurator
	Oracle Pre-Install Script
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	A configuration script needs to be run as root to create the inventory pointer file. Please run /opt/5620sam/samdb/install/config/orainstRoot.sh as root in a separate window now.
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

Figure 4-8 Oracle Pre-Install Script

- **19** When the script execution is complete, click on the Next button.
- **20** You are prompted to install Oracle software, as shown in Figure 4-9. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

- 5620) SAM Database Configurator
 Introduction License Agreement 	Install Oracle Database Management Software Please press the start button to install Oracle software. These set if the term is the start button to install Oracle software.
 Installation Type Installation In Progress Installation Completed 	This process will take some time.
	Start Oracle Installation
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 4-9 Install Oracle Database Management Software

21 Oracle installation details are displayed as the installation progresses. When the installation is complete, as shown in Figure 4-10, click on the Next button.

- 5620	SAM Database Configurator
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	 [11.30.26.527] Oracle Installation starts. [11.30.26.569] Prepare Oracle installation files [11.37.21.96] Install Oracle Software [11.37.21.105] Install Oracle Patch Set [11.37.21.457] Oracle Patch Installation was successful. [11.37.21.585] Oracle installation has succeeded.
	Start Oracle Installation
InstallAnywhere by Macrovision –	Previous <u>N</u> ext

Figure 4-10 Install Oracle Database Management Software

22 You are prompted to run an Oracle post-installation script, as shown in Figure 4-11. Run the script in a separate console window as a user with root-equivalent privileges. When the script execution is complete, click on the Next button.



5620 SAM Database Configurator	
	Oracle Post-Install Script
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	A configuration script needs to be run as root to complete the installation. Please run /opt/562Dsam/oracle10r2/root.sh as root in a separate window now.
InstallAnywhere by Macrovision -	Previous Next

23 The panel shown in Figure 4-12 is displayed if a new release of Oracle is being installed, such as when you upgrade from 5620 SAM, Release 4.0. If you do not want the existing Oracle installation deleted by the installer, select the "Keep the Old Oracle Folder Contents after Upgrade" parameter and specify the base directory in which the existing Oracle software is installed (typically /opt/5620sam/oracle). Click on the Next button.

	tory for the database versite apgrade.
f "Keep the Old Oracle Folder C contents under the old Oracle s	Contents after Upgrade" is deselected, the oftware folder will be removed after upgrade.
	Restore Default Folder Choose.
Keep the Old Oracle Folder C	ontents after Upgrade

Figure 4-12 Specify existing Oracle location

- 24 Configure the following parameters shown in Figure 4-13 using information from the existing 5620 SAM installation, then click on the Next button:
 - Database Server IP Address
- User Name (typically samuser)
- Database Name (typically samdb)
 - User Password
 - Instance Name (typically samdb)

Figure 4-13 Get Upgrade Database Info

- 5620) SAM Database Configurator
	Get Upgrade Database Info
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify the database's private IP address. Database Server IP Address Database Name samdb Instance Name samdb User Name samuser User Password
InstallAnywhere by Macrovision – Cancel	Previous

- **25** Configure the following parameters shown in Figure 4-14 using information from the existing 5620 SAM installation, then click on the Next button:
 - Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)

Figure 4-14 Get Upgrade Database Info (continued)

-	5620) SAM Database Configurator
		Get Upgrade Database Info (cont.)
	Introduction License Agreement Installation Type Installation in Progress Installation Completed	Database Listener Port 1523 Database Proxy Port 9002 Database File Server Port 9003
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

26 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 4-15. Click on the Next button.



- 5620) SAM Database Configurator	•
	Determine Memory Requirement	s
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify whether a 5620 SAM Server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load. Implicit Database co-exists with a 5620 SAM Server	
InstallAnywhere by Macrovision – Cancel	Previous Next	

27 If the "Enable SAM Server IP Validation" parameter shown in Figure 4-16 is selected, only the specified server can connect to the database. If required, select this parameter and enter the IP address of the 5620 SAM server. Click on the Next button.

5620) SAM Database Configurator
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If NAT (network address translation) is to be used, enter the 5620 SAM main server public IP address as known to this 5620 SAM database. If IP address validation is enabled, the database will allow only connections from the specified server.
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 4-16 Main Server IP Validation

28 Depending on the 5620 SAM release from which you are upgrading, the panel in Figure 4-17 is displayed if the "Enable SAM Server IP Validation" parameter in step 27 is selected. Otherwise, go to step 30.

If the 5620 SAM system includes an auxiliary server, perform the following steps.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

i Click on the Add button shown in Figure 4-17. The Auxiliary Server Configuration form shown in Figure 4-18 opens.

- 5620) SAM Database Configurator
	Auxiliary Server IP Validation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). IP Address Add Remove Edit
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 4-17 Auxiliary Server IP Validation

ii Enter the IP Address of the auxiliary server.

Figure 4-18 Auxiliary Servers

— Auxiliary Servers	
IP Address	
OK Can	el

- iii Click on the OK button to save the information and close the form.
- iv Repeat steps 28 i to iii to specify an additional auxiliary server, if required.
- 29 Click on the Next button.

30 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 4-19 and enter the public IP address of the database. Click on the Next button.

- 5620) SAM Database Configurator
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. Image: NAT (network address translation) Used Public IP (visible to servers)
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

Figure 4-19 Public IP of the Database Server

31 If the panel in Figure 4-20 is displayed, specify a directory for the continuous statistics tablespace backup. Click on the Next button.

- 5620) SAM Database Configurator
	Staging Destination
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify a staging directory for the files created by the continuous statistics tablespace backup. The directory must be located on a low-activity device, such as a disk that is dedicated to this function only. /opt/5620sam/dbbackup/staging Restore Default Folder Choose
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

Figure 4-20 Staging Destination

32 Configure the "Accounting Statistic Database Retention Period" parameter shown in Figure 4-21. Click on the Next button.

- 5620) SAM Database Configurator
	Accounting Statistics Database Retention Period
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Enter the accounting statistics retention period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space. Accounting Statistic Data Retention Period
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

Figure 4-21 Accounting Statistics Database Retention Period

- **33** To speed the database upgrade, you can purge the statistics data that the 5620 SAM currently stores. Configure the following parameters shown in Figure 4-22, then click on the Next button:
 - Purge All Accounting Statistics
 - Purge All MIB Statistics



Note — The statistics data for the specified statistics types are permanently deleted from the 5620 SAM.

5620 SAM Database Configurator	
	Purge Statistics
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify whether you wish to purge statistics records from the database. The statistics will not be available post upgrade. Purge All Accounting Statistics Purge All MIB Statistics
InstallAnywhere by Macrovision	Previous

Figure 4-22 Purge Statistics

34 Depending on the 5620 SAM release from which you are upgrading, the panel shown in Figure 4-23 appears. Configure the "Retention Time (hours) parameter to specify how long the 5620 SAM retains accounting statistics after server startup. Click on the Next button.

- 5620 SAM Database Configurator		
	Keep Accounting Statistics	
 License Agreement Installation Type Installation In Progress 	Specify the amount of accounting statistics you wish to keep in the database. Accounting statistics older than the retention time will not be available post upgrade.	
Installation Completed	Retention Time (hours) 24	
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next	

Figure 4-23 Keep Accounting Statistics

- 35 If the panel in Figure 4-24 is displayed, the new database contains at least one tablespace that is not defined in the previous database and you must perform the following steps to specify the tablespace directories. Otherwise, go to step 38.
 - i Click on the Add button shown in Figure 4-24. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii If you are configuring the database to use a single tablespace, go to step 37.
 - iv Repeat steps 35 i and ii to specify an additional tablespace directory, if required.

5620 SAM Database Configurator	
	Data File Directories
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify the directories that will be used in Tablespace distribution. Please make sure enough disk space is available for each of the directories allocated for the corresponding Tablespace. Refer to the installation guide for more information Directory Name Type /opt/5620sam/samdb/table Defa Remove Selected Set As Default Configure Tablespaces
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

Figure 4-24 Data File Directories

- 36 Associate tablespaces with the directories specified in step 35.
 - i Click on the Configure Tablespaces button. The tablespace configuration form opens, as shown in Figure 4-25.



Note – The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with the directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 4-24 reappears.

 Configure Tablespaces 			
Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button. You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces			
Directories			
Directory Name Type	Name	Drive	
/opt/5620sam/samdb/tables Default	ALARMS	/opt/5620sam/samdb/tabl	
	ALARM_HISTORY	/opt/5620sam/samdb/tabl	
	CURRENT_DATA_STRUCT_1	/opt/5620sam/samdb/tabl	
	CURRENT_DATA_STRUCT_2	/opt/5620sam/samdb/tabl	
	CURRENT_DATA_STRUCT_3	/opt/5620sam/samdb/tabl	
	CURRENT_DATA_STRUCT_4	/opt/5620sam/samdb/tabl	
	INDX	/opt/5620sam/samdb/tabl	
	SAM_RELATIONS_1	/opt/5620sam/samdb/tabl	
	SAM_RELATIONS_2	/opt/5620sam/samdb/tabl	
Coracle Tablespaces	SAM_SYSTEM_1	/opt/562Usam/samdb/tabl	
Tablesnace Name	SAM_SYSTEM_2	/opt/562Usam/samdb/tabl	
	SAM_SYSTEM_3	/opt/562Usam/samdb/tabl	
	SAM_SYSTEM_4	/opt/562Usam/samdb/tabl	
	STATS_CURRENT	/opt/562Usam/samdb/tabl	
	STATS_HISTORY	Jopt/5620sam/samdb/tabl	
	STATS_PULICY	Jopt/5620sam/samdb/tabl	
	OVOTEM	/opt/5620sam/samdb/tabl	
		/opt/5620sam/samub/tabl	
		/opt/5620sam/samub/tabl	
	TIME EVE INDY	(opt/5620eam/eamdb/tabl	
- 5620 SAM Tablospaces		(opt/5620com/comdb/tabl	
JUZU JAMI Tablespaces		(opt/5620eam/eamdb/tabl	
Tablespace Name	OBERG	ropp30203am/samub/tabi	
OURRENT_DATA_STRUCT_2	Add associations	from the left	
CURRENT_DATA_STRUCT_3			
	Remove Selected	Associations	
SAM_RELATIONS_2	Set Default As	sociations	
SAM_SYSTEM_1	Select	All	
] /	J <u></u>	OK Cancel	

Figure 4-25 Configure Tablespaces

37 Click on the Next button.

38 Depending on the 5620 SAM release from which you are upgrading, the panel in Figure 4-26 is displayed. Specify a directory for the accounting statistics tablespace files. Click on the Next button.

- 5620 SAM Database Configurator -	
	Accounting Statistics Data File Directory
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify a directory for the accounting statistics tablespace files. For the best performance, locate the directory on a low-activity device, such as one that is dedicated to the accounting statistics tablespaces only. /opt/5620sam/samdb/tablespace/statstbs01 Restore Default Folder Choose
InstallAnywhere by Macrovision	Previous

Figure 4-26 Accounting Statistics Data File Directory

39 If you are prompted to run an Oracle patch pre-installation script, as shown in Figure 4-27, run the script in a separate console window as a user with root-equivalent privileges.

Figure 4-27 Oracle Patch Pre-install Script

- 5620 SAM Database Configurator	
_	Oracle Patch Pre-Install Script
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please run /opt/5620sam/samdb/install/config/orapatchRoot.sh as root in a separate window now.
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous

40 When the script execution is complete, click on the Next button.

41 You are prompted to begin the database upgrade, as shown in Figure 4-28. A database upgrade can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database upgrade.

— 5620 SAM Database Configurator	
	Database Upgrade
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The Database Configurator will now upgrade the 5620 SAM database to the current 5620 SAM version. The database upgrade process takes some time. Do not interrupt this process once it has started. If cancelled, the application exits and the result is an incomplete database upgrade. Start Process
InstallAnywhere by Macrovision — Cancel	Previous Next

Figure 4-28 Database Upgrade

The next panel displays upgrade progress, as shown in Figure 4-29.

Figure 4-29 Oracle Database Upgrade

-	5620	SAM Database Configurator
	_	Oracle Database Upgrade
Introduction		
🔋 License Agreen	nent	
🔋 Installation Type	e	
🔋 Installation In P	rogress	
Installation Con	npleted	
		Oracle upgrade in progress
		Upgrading Oracle Server (12.5%)
InstallAnywhere by N	dacrovision —	
Cancel	г	
<u></u>	L	

42 When the database upgrade is complete, you are prompted to run a script that enables automatic database startup during system startup, as shown in Figure 4-30. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Done button to close the installer.

- 5620	5620 SAM Database Configurator		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	SAM Database Configurator Installation Complete Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/562Dsam/samdb/install/config/samdb/solaris_root.sh Database upgrade was successful		
InstallAnywhere by Macrovision -	Previous		

Figure 4-30 Installation Complete

Upgrade server

- 43 Log into the server station as a user with root-equivalent privileges.
- 44 Open a console window.
- **45** Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \dashv

46 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .
```

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 4-31 appears and the upgrade process begins.



Figure 4-31 5620 SAM Installer

47 The 5620 SAM installer opens, as shown in Figure 4-32. The left pane indicates upgrade progress. The right pane displays release information about the software being upgraded. Click on the Next button.





48 Review and accept the terms of the license agreement shown in Figure 4-33. Click on the Next button.

	Software License Agreemer
 Introduction License Agreement Choose Installation Type Install Directory 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Server software or installing the hardware unit with pre-enabled 5620 SAM Server software (each of which is referred to as "Software" in this Agreement).
 Configuration Install Complete 	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved
nstallAnywhere by Macrovision - Cancel	Previous Next

Figure 4-33 Software License Agreement

49 Select Main Server Installation, as shown in Figure 4-34. Click on the Next button.



Figure 4-34 Choose Installation Type

50 Specify the base directory in which the existing 5620 SAM main server software is installed (typically /opt/5620sam/server), as shown in Figure 4-35. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer ·		
Specify the Base Directory for 5620 SAM Main Server Files		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files. /opt/5620sam/server Restore Default Folder Choose	
InstallAnywhere by Macrovision – Cancel	Previous Next	

Figure 4-35 Specify the Base Directory for 5620 SAM Main Server Files

51 As shown in Figure 4-36, the installer displays the release of the 5620 SAM server software that is currently installed and the release to which it is being upgraded. Verify the information. Click on the Next button.

Figure 4-36 Checking Build Compatibility

	5620 SAM/5650 CPAM Server Installer				
	Checking Build Compatibility				
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008				
Ins	stallAnywhere by Macrovision – <u>C</u> ancel	Previous Next			

52 The 5620 SAM Installer displays the License Key specified during the existing installation. Enter the License Key information for the new 5620 SAM release exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 4-37. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer		
	License Information for 5620 SAM Main Server	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key -00000-00000-00000-00000-00000-00000-0000	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 4-37 License Information for 5620 SAM Main Server

- **53** Configure the following parameters shown in Figure 4-38, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported



Note – You must leave the Redundancy Supported parameter unselected.

— 5620 S	AM/5650 CPAM Serve	r Installer	•
	Addi	tional Server Configuration	on
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration Redundancy Supported Auxiliary Server Supported		
InstallAnywhere by Macrovision	[Previous Next	

Figure 4-38 Additional Server Configuration

- **54** Configure the following parameters, shown in Figure 4-39, using the recorded values from the database upgrade, then click on the Next button.
 - Database Server IP address
 - Database Server Port (typically 1523)
 - Database Instance Name (typically samdb)
- Database User Name (typically samuser)
- Database User Password
- Database Proxy Port (typically 9002)

5620 SAM/5650 CPAM Server Installer		
	Database Configuration	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Server Port 1523 Database Instance Name samuser Database User Password ********** Database Proxy Port 9002	
InstallAnywhere by Macrovision	Previous Next	

Figure 4-39 Database Configuration

- **55** Depending on the existing configuration. the panel shown in Figure 4-40 appears. Configure the following parameters, if required, then click on the Next button:
 - Online Database Backup Interval (hours) (typically 24)
 - Online Backup Destination (typically /opt/5620sam/dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 54.

5620 SAM/5650 CPAM Server Installer		
	Online Database Backup	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Specify the interval between backups, the backup directory, and the number of backups to retain. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination Jopt/5620sam/dbbackup Number Of Backup Sets 3	
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next	

Figure 4-40 Online Database Backup

- 56 Configure the following parameters shown in Figure 4-41:
 - Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

	Main Server Address Configuration for Clie
 Introduction License Agreement Choose Installation Type 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients.
Configuration Install Complete	Server Domain Name 5620sam Public IP (visible to clients) EJB JNDI Server port 1099 EJB JMS Server port 8093 NAT (network address translation) Used Private IP (accessible only by this server) Enable 5670 RAM
nstallAnywhere by Macrovision	Provinue Novi

Figure 4-41 Main Server Address Configuration for Clients

57 The panel in Figure 4-42 is displayed if you select "Auxiliary Server Supported" in step 53. Otherwise, go to step 59.

Perform the following steps to specify an auxiliary server, if required.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 4-42:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

Figure 4-47	Main Server	Configuration for	or Auxiliary	/ Servers
	Main Server	Configuration is		

	5620 SAM/5650 CPAM Server Installer			
	Main Server Configuration for Auxiliary Servers			
 Introduction License Agreement Choose Installation Type Install Directory Configuration 	Enter the IP address of the network interface the 5620 SAM main server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address.			
Install Complete	Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server)			
InstallAnywhere by Macrovision	Previous Next			

- ii If NAT is used between the 5620 SAM main server and the auxiliary servers, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server in the "Private IP" field.
- iii Click on the Next button.

iv Click on the Add button shown in Figure 4-43 to specify an auxiliary server. The form shown in Figure 4-44 opens.

- 5620 Si	AM/5650 CPAM Server Installer
	Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Specify all the 5620 SAM Auxiliary Servers that this Main Server connects to. There must be at least one Preferred auxiliary server. If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Main Server. IP Address Port Type IP Address Port Type Edit Edit
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

Figure 4-43 Auxiliary Servers

Figure 4-44 Auxiliary Server Configuration

– Auxiliary Ser	ver Configuration	•	
IP Address			
Port	12800		
Туре	Preferred -		
	OK Cancel		

- v Configure the following parameters:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- vi Click on the OK button to save the information and close the form.
- vii Repeat steps 57 iv to vi to specify an additional auxiliary server, if required.
- 58 Click on the Next button.

- **59** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 4-45.
 - ii If you want to accept the default user documentation location that is displayed, go to step 60.



Note — If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation directory on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 4-45 User Documentation



- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 4-45.
 - ii Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a directory under the base 5620 SAM client installation directory. The path must not contain a leading slash. For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents directory.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms directory in the base 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 60 Click on the Next button.
- 61 Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 4-46. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

- 5620 SA	M/5650 CPAM Server Installer
	License Information for 5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Include 5650 CPAM Server License Information -00000-00000-00000-00000-00000-00000-0000
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous

Figure 4-46 License Information for 5650 CPAM Server

- **62** Configure the following parameters shown in Figure 4-47, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)



– 5620 S <i>i</i>	AM/5650 CPAM Server Installer
	SNMP Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network. SNMP Trap Receiving IP Address SNMP Trap Receiving Port 162 Trap Log Id 98
InstallAnywhere by Macrovision – Cancel	Previous Next

63 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 4-48 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Image: Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision	Previous

Figure 4-48 Navigation from External Systems

64 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 4-49. Click on the Install button to begin the server upgrade.

-	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/auxserver/xml_output Restore Default Folder Choose
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous

Figure 4-49 XML Output Directory

The next panel displays upgrade progress, as shown in Figure 4-50.

-	5620 SAM/5650 CPAM Server Installer
	Installing 5620 SAM/5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢
	Installing Java Runtime Environment
InstallAnywhere by Macrovision - Cancel	

Figure 4-50 Installing 5620 SAM/5650 CPAM Server

65 The 5620 SAM server is installed as a UNIX daemon, as shown in Figure 4-51. Click on the Next button.

— 5620 SA	M/5650 CPAM Server Installer
Installing the Server as a Unix Daemon	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Server has been successfully installed as a Unix Daemon
InstallAnywhere by Macrovision — Cancel	Previous

Figure 4-51 Installing the Server as a Unix Daemon

66 When the server upgrade is complete, as shown in Figure 4-52, select the "Start the 5620 SAM Main Server" parameter to specify that the server is to start immediately after the upgrade.



Figure 4-52 Installation Complete

67 Click on the Done button to close the installer. The server starts. Initial server startup can take twenty minutes or more.

68 If you are upgrading from the 5620 SAM, Release 6.0 or earlier, the installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press \dashv .

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.

Upgrade or install clients

- **69** Perform one of the following to upgrade an existing 5620 SAM client, or install a new 5620 SAM client, for post-upgrade sanity testing and network monitoring.
 - a Perform Procedure 2-3 to install a 5620 SAM client on a Windows station.
 - b Perform Procedure 2-7 to upgrade a Release 5.0 R4 or earlier 5620 SAM client on a Windows station.
 - c Perform Procedure 2-8 to upgrade a Release 5.0 R5 or later 5620 SAM client on a Windows station.
 - d Perform Procedure 3-2 to install a 5620 SAM client on a Solaris or Linux station.
 - e Perform Procedure 4-3 to upgrade a Release 5.0 R4 or earlier 5620 SAM client on a Solaris or Linux station.
 - f Perform Procedure 4-4 to upgrade a Release 5.0 R4 or earlier 5620 SAM client on a Solaris or Linux station.



Note — The procedures listed in this step include a step that starts the 5620 SAM client. Do not perform the step that starts the 5620 SAM client; the 5620 SAM client is not to be started at this time.

Procedure 4-3 To upgrade a 5620 SAM Release 5.0 R4 or earlier client on Solaris or Linux

Perform this procedure to upgrade the 5620 SAM client software on a Solaris or Linux station when the currently installed client software release is 5.0 R4 or earlier.

A 5620 SAM client software upgrade from Release 5.0 R4 or earlier consists of a client uninstallation and subsequent client installation because of the introduction of the auto-client update functionality in Release 5.0 R5.



Note – The 5620 SAM server to which the 5620 SAM client connects must be upgraded before you can upgrade the client.

- 1 Close the 5620 SAM client if it is running.
 - i Choose Application \rightarrow Exit from the 5620 SAM main menu. A dialog box appears.
 - ii Click on the Yes button. The 5620 SAM client closes.
- 2 Perform Procedure 7-1 to uninstall the existing 5620 SAM client software.
- 3 Perform Procedure 3-2 to install the new 5620 SAM client software.

Procedure 4-4 To upgrade a 5620 SAM Release 5.0 R5 or later client on Solaris or Linux

Perform this procedure to upgrade the 5620 SAM client software on a Solaris or Linux station when the currently installed client software release is 5.0 R5 or later. You cannot use this procedure to upgrade an older release of the client software.

A 5620 SAM client software upgrade happens automatically when the client and the server to which it connects are running different releases of the 5620 SAM software.



Note 1 - The 5620 SAM server to which the 5620 SAM client connects must be upgraded before you can upgrade the client.

Note 2 - The user that upgrades the 5620 SAM client software must be the user that installed the client software.

- 1 Close the 5620 SAM client if it is running.
 - i Choose Application \rightarrow Exit from the 5620 SAM main menu. A dialog box appears.
 - ii Click on the Yes button. The 5620 SAM client closes.

2 Start the 5620 SAM auto-client update utility by double-clicking on the 5620 SAM Client App desktop icon. The utility detects the available client software on the 5620 SAM server and presents the panel shown in Figure 4-53.

	Alcatel·Lucent 🕖
5	Alcatel-Lucent 5620 SAM Service Aware Manager RELEASE 5.1
	© 2003-2008 Alcatel-Lucent. All rights reserved.
?	The server is at version 5.0. R6 , would you like to change to that version now? If no, you will be presented with the standard login to choose a different server.

Figure 4-53 Upgrade prompt

3 Click on the Yes button to begin the 5620 SAM client software upgrade. As shown in Figure 4-54, the next panel displays the upgrade progress using separate indicators for overall progress and current task progress.



Figure 4-54 Installation progress

When the upgrade is complete, the auto-client update utility closes and the 5620 SAM client login form is displayed.

- 4 Log in to the 5620 SAM client GUI.
- 5 If the 5620 SAM server is at Release 6.0 R1 or later, and the 5620 SAM client is being upgraded from a Release 5.0 maintenance release of R5 or greater, the auto-update functionality prompts you to keep or remove the older JRE version, as shown in Figure 4-55. Perform one of the following.



誊 SAM A	uto Update Client
?	A version of the JRE exists for previous versions of SAM (pre SAM 6.0). If you will not be accessing versions of SAM below SAM 6.0, you will not need this JRE. Do you want to remove it?
	Yes

- a If there is no longer a need for the client to connect to a 5620 SAM Release 5.0 server, click on the Yes button. The older JRE version is removed.
- **b** If the client is to be used later to connect to a Release 5.0 server, click on the No button. The older JRE version is retained.

If you have trouble opening the GUI, see the Troubleshooting 5620 SAM clients chapter of the 5620 SAM Troubleshooting Guide.

4.6 Workflow for redundant 5620 SAM upgrade on Solaris



Note — A redundant 5620 SAM system upgrade involves a network-management outage and must be performed only during a scheduled maintenance window of sufficient duration for the upgrade.

The following assumptions are made regarding the 5620 SAM redundant upgrade:

- The four 5620 SAM application components (primary server, standby server, primary database, and standby database) are operational.
- Each database station is to be associated with the same database instance name after the upgrade as before the upgrade.
- 5620 SAM down time is to be kept to a minimum.
- No 5620 SAM-related hardware modifications occur during the upgrade.

If these assumptions do not align with the conditions under which the redundant upgrade is to be performed, consult an Alcatel-Lucent support representative before you begin the redundant upgrade.

The following is the sequence of high-level actions required to upgrade a 5620 SAM redundant 5620 SAM system on Solaris. A section heading in quotation marks is a reference to a section in Procedure 4-5.

1 Perform the pre-upgrade tasks. See Procedure 4-1 for more information.
- 2 Open at least one 5620 SAM client to monitor the network before the first server/database pair is upgraded.
- **3** Back up the primary database. See "Back up primary database" for more information.
- 4 Align the primary and standby 5620 SAM database designations with the original 5620 SAM main server configuration. See "Align database roles with 5620 SAM configuration" for more information.
- 5 Shut down the standby main server. See "Shut down standby main server" for more information.
- 6 Disable the standby 5620 SAM main server startup daemon. See "Disable standby server daemon" for more information.
- 7 If the 5620 SAM deployment contains auxiliary servers, shut down the preferred and reserved auxiliary servers of the standby main server. See "Shut down standby auxiliary servers" for more information.
- 8 Disable database redundancy functionality on the primary 5620 SAM main server. See "Disable redundancy on primary main server" for more information.
- **9** Upgrade the original standby database. This database becomes the new primary database. See "Upgrade standby database" for more information.
- 10 Upgrade the original standby main server to become the new primary server. See "Upgrade original standby main server" for more information.
- 11 If the 5620 SAM deployment contains auxiliary servers, upgrade the preferred and reserved auxiliary servers of the original standby main server. See Procedure 4-8 for more information.
- 12 Shut down the original primary 5620 SAM main server. See "Shut down original primary main server" for more information.



Note – This is the beginning of the network management outage.

- **13** Disable the original primary 5620 SAM server startup daemon. See "Disable original primary server daemon" for more information.
- 14 Shut down the original primary database. See "Shut down original primary database" for more information.
- **15** Disable the original primary 5620 SAM database startup daemons. See "Disable original primary database daemons" for more information.
- 16 If the 5620 SAM deployment contains auxiliary servers, shut down the preferred and reserved auxiliary servers of the original primary main server. See "Shut down original primary auxiliary servers" for more information.
- 17 Start the new primary (original standby) 5620 SAM main server. See "Start new primary main server" for more information.

- **18** If the 5620 SAM deployment contains auxiliary servers, start the preferred and reserved auxiliary servers of the new primary main server. See "Start new primary auxiliary servers" for more information.
- **19** Upgrade or install 5620 SAM clients as required for 5620 SAM sanity testing and network monitoring after the first server/database pair is upgraded in case it is necessary to back out of the upgrade.

See "Upgrade or install client for testing upgraded system" for more information.



Note – This is the end of the network management outage.

- 20 Perform sanity testing on the upgraded server/database pair using the newly installed or upgraded 5620 SAM client. See "Test 5620 SAM system using new client" for more information.
- **21** Uninstall the original primary database. See "Uninstall original primary database" for more information.
- 22 Install the new standby database. See "Install new standby database" for more information.
- 23 Reinstantiate the database on the new standby database station. See "Reinstantiate database on new standby station" for more information.
- 24 Upgrade the original primary server to become the new standby server. See "Upgrade original primary main server" for more information.
- **25** If the 5620 SAM deployment contains auxiliary servers, upgrade the preferred and reserved auxiliary servers of the new standby main server. See Procedure 4-8 for more information.
- 26 Start the new standby main server. See "Start new standby main server" for more information.
- 27 If the 5620 SAM deployment contains auxiliary servers, start the preferred and reserved auxiliary servers of the new standby main server. See "Start new standby auxiliary servers" for more information.
- 28 Upgrade or install additional 5620 SAM clients for the redundant 5620 SAM system, if required. See "Upgrade or install additional clients for redundant system" for more information.
- **29** Upgrade or install a client delegate, if required. See Procedure 3-3 for more information.

4.7 Redundant 5620 SAM system upgrade on Solaris procedures

This section describes how to upgrade the software components of a redundant 5620 SAM system on Solaris.

Before you begin a 5620 SAM system upgrade, you must collect the required information and ensure that the proper conditions are in place. Procedure 4-1 describes how to perform the required tasks to prepare for a 5620 SAM system upgrade.

Procedure 4-5 describes how to upgrade the 5620 SAM database and main server software. Procedure 4-6 describes how to restore a 5620 SAM 4.0 database. Procedure 4-7 describes how to restore a 5620 SAM 5.0 database. Procedure 4-3 describes how to upgrade a Release 5.0 R4 or earlier 5620 SAM client. Procedure 4-4 describes how to upgrade a Release 5.0 R5 or later 5620 SAM client.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- # represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 4-5 To upgrade a redundant 5620 SAM system on Solaris

Perform this procedure to upgrade the 5620 SAM database and main server software in a redundant 5620 SAM system on one or more Solaris stations. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require the following user privileges to perform this procedure:

on each main server station:

• root or root-equivalent

on each database station:

- root or root-equivalent
- Oracle management

Note 2 — This procedure requires the DVD-ROM used for the installation of the currently installed 5620 SAM system. The Solaris directory on this DVD-ROM may be in a high-level directory other than the root directory, depending on the 5620 SAM software release.

1 Open an existing 5620 SAM client GUI for network monitoring purposes until the second 5620 SAM server/database pair is disabled in this procedure.

Back up primary database

2 If you did not perform a database backup as part of the pre-upgrade preparation in Procedure 4-1, you must back up the database now using one of the following methods.



Caution — When backing up the primary database, specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. A typical 5620 SAM database installation directory is /opt/5620sam/samdb.

- **a** Use the 5620 SAM client GUI. See the 5620 SAM User Guide for information about performing database backups.
- **b** Use a CLI script.
 - i Log in as the Oracle management user on the primary database station.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt to begin the database backup:

bash\$ path/install/config/samdb/SAMbackup.sh backup_directory .

where

path is the 5620 SAM database installation location, typically /opt/5620sam/samdb *backup_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

Align database roles with 5620 SAM configuration

3 Before you can perform a redundant upgrade, the database named as the primary database in the initial configuration must be running as the primary database.

Perform the following steps to determine which database is the primary database in the primary main server configuration and to ensure that this database is running as the primary database when the upgrade begins.



Note – In a collocated redundant 5620 SAM system, the primary main server and the primary database must be on the same station.

- i Log in as a user with root-equivalent privileges on the primary server station.
- ii Open the following file for viewing:

path/nms/config/nms-server.xml

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iii Search for the section that begins with the following XML tag:

<db

iv Locate the line in this section that reads as follows:

host="nnn.nnn.nnn"

where nnn.nnn.nnn is the IP address of a station in the 5620 SAM cluster

This IP address on this line is the original primary database IP address.

v If the IP address on the host= line belongs to the current standby database station, you must perform a database switchover so that the standby database becomes the primary database. See the *5620 SAM User Guide* for information about performing a database switchover.



Caution — Do not attempt to modify the nms-server.xml file. You cannot change the 5620 SAM primary and standby database designations by changing a parameter value.

vi Close the nms-server.xml file.

Shut down standby main server

- 4 Shut down the standby 5620 SAM main server application.
 - i Log in as a user with root-equivalent privileges on the standby server station.
 - ii Open a console window.
 - iii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d .

iv Stop the server daemon. Enter the following at the CLI prompt:

```
\# ./S975620SAMServerWrapper stop \dashv
```

Do not proceed until the command returns the following text string:

Done

Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

```
# ps -ef | grep 5620SAMServer ↓
```

The command displays a list of processes that contain the term "5620SAMServer".



Note — One of the list entries is the "grep 5620SAMServer" command from this step. Disregard the "grep 5620SAMServer" entry, as it is not a 5620 SAM server process.

vi If the command returns lines of text other than "grep 5620SAMServer", the 5620 SAM server is not stopped. Repeat step 4 v.

Do not proceed until the command returns only the single "grep 5620SAMServer" entry.

Leave the console window open for use in the next step.

Disable standby server daemon

5 Disable the 5620 SAM server startup daemon on the standby server station. This ensures that the standby 5620 SAM server does not automatically start in the event of an electrical or network disruption during the upgrade.

Enter the following at the CLI prompt on the standby server station:

mv S975620SAMServerWrapper inactive.S975620SAMServerWrapper \dashv

Shut down standby auxiliary servers

- 6 If the 5620 SAM deployment contains auxiliary servers, perform the following steps on each preferred and reserved auxiliary server station of the standby main server to stop the auxiliary server software.
 - i Log in as the same user that installed the auxiliary server.
 - ii Enter the following at the CLI prompt:

```
# path/nms/bin/nmsserver.bash auxstop 斗
```

where *path* is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server stops.

Disable redundancy on primary main server

- 7 Disable the 5620 SAM failover and switchover functionality on the primary server.
 - i Log in to the primary server station as a user with root-equivalent privileges.
 - ii Open a console window.
 - iii Navigate to the server configuration directory. Enter the following at the CLI prompt:

```
# cd path/nms/config .]
```

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Make a backup copy of the server configuration file. Enter the following at a CLI prompt:

cp nms-server.xml nms-server.xml.backup 斗

- v Open the nms-server.xml file with a text editor, for example, vi.
- vi Search for the <db tag.
- vii Edit the line below the tag that reads:

redundancyEnabled="true"

to read:

redundancyEnabled="false"

- viii Save the nms-server.xml file.
- ix Close the text editor.
- x If you are upgrading from 5620 SAM, Release 5.0 or later, enter the following at the CLI prompt to put the nms-server.xml change into effect:
 - # path/nms/bin/nmsserver.bash read_config ...

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

The primary 5620 SAM server application is reconfigured with database redundancy disabled.

xi If you are upgrading a 5620 SAM, Release 4.0 system, you must restart the primary server station to put the nms-server.xml change into effect. Enter the following at the CLI prompt to restart the primary server station:

shutdown -y -i6 -g0 ↓

The primary 5620 SAM server restarts with database redundancy disabled.

Upgrade standby database

8 If you are upgrading from the 5620 SAM, Release 4.0 or 5.0, you must run a pre-upgrade script. This script configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.



Caution — Ensure that you run only the pre-installation script that is on the new 5620 SAM software DVD-ROM. Using a different version of the script may cause the database upgrade to fail.

Perform the following steps to run the pre-upgrade script:

- i Log in to the standby database station as a user with root-equivalent privileges.
- ii Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

- iii Enter the following at the CLI prompt to run the pre-installation script:
 - # ./Oracle10g_PreInstall.sh upgrade 斗
- iv The script prompts you to enter the following:
 - group name (default is dba)
 - user name (default is oracle)
 - Oracle user home directory name (default is /opt/5620sam/oracle10r2)



Note — To reduce the complexity of subsequent software upgrades and technical-support activities, Alcatel-Lucent recommends that you press \downarrow to accept the default value for each parameter.

If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

The script updates the system configuration.



Note – Running the script may generate messages that are similar to the following; these are not error messages and can be ignored.

- WARNING: Group dba already exists locally.
- WARNING: Oracle user with the specified name already exists locally.
- projadd: Duplicate project name "Oracle10R2"
- v When the script execution is complete, reboot the standby database station to put the system update into effect. Enter the following at the CLI prompt:

shutdown -y -i6 -g0 .

The station reboots.

- 9 Log in as the Oracle management user on the standby database station.
- **10** Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 斗

11 Enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./DBConfig_SAM_6_1_revision_ID.bin ↓

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen shown in Figure 4-56 appears and the upgrade process begins.

Figure 4-56 5620 SAM Installer



12 The 5620 SAM installer opens, as shown in Figure 4-57. The left pane indicates upgrade progress. The right pane displays release information about the software being upgraded. Click on the Next button.



5620 SAM Database Configurator		
	Introduction	
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	This program will create and configure an Oracle database to be used by a 5620 SAM Server system. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision – Cancel	Previous	

13 Review and accept the terms of the license agreement shown in Figure 4-58. Click on the Next button.

5620 SAM Database Configurator		
	Software License Agreement	
 Introduction License Agreement Installation Type Installation In Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).	
Installation Completed	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved I gocept the terms of the License Agreement I do NOI accept the terms of the License Agreement	
InstallAnywhere by Macrovision - <u>C</u> ancel	<u>P</u> revious <u>N</u> ext	

Figure 4-58 Software License Agreement

14 Select Upgrade a Database, as shown in Figure 4-59. Click on the Next button.

- 5620) SAM Database Configurator
	Choose Installation Type
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Install & Configure a Standalone Database Restore a Database
	Upgrade a Database
	Install & Configure Primary/Standby Database
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

Figure 4-59 Choose Installation Type

15 Specify the base directory in which the existing 5620 SAM database software is installed (typically /opt/5620sam/samdb/install), as shown in Figure 4-60. Click on the Install button to begin the database software upgrade.



5620 SAM Database Configurator		
Specify the Installation Root Directory of the 5620 SAM Database		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This is the installation root directory of the database to be upgraded. This directory will be populated with upgraded configuration scripts, readme and license files. //opt/5620sam/samdb/install Restore Default Folder Choose	
InstallAnywhere by Macrovision – Cancel	Previous	

The 5620 SAM installer prepares to upgrade the database, as shown in Figure 4-61.

-	5620) SAM Database Configurator
		Installing 5620 SAM Database Configurator
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	Alcatel·Lucent 🕢
In	stallAnywhere by Macrovision – Cancel	

Figure 4-61 Installing 5620 SAM Database Configurator

16 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 4-62. Click on the Next button.



Note 1 — If you are upgrading the 5620 SAM from a release earlier than 5.0 R1, a new Oracle software directory is chosen for you. You can specify an alternative directory. The directory must be empty.

Note 2 - If you are upgrading the 5620 SAM from a release later than 5.0 R1, the existing Oracle software directory is chosen for you and cannot be changed.

Figure 4-62	Specify the	Base Directory	for Oracle	Software
-------------	-------------	-----------------------	------------	----------

- 5620) SAM Database Configurator
Specify the Base Directory for Oracle Software	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all Oracle files. /opt/5620sam/oracle10r2 Restore Default Folder Choose
InstallAnywhere by Macrovision - Cancel	Previous Next

17 If you are upgrading from 5620 SAM, Release 5.0 or Release 6.0, go to step 25.

18 You are prompted to run an Oracle pre-installation script, as shown in Figure 4-63. Run the script in a separate console window as a user with root-equivalent privileges.

- 5620 SAM Database Configurator		
	Oracle Pre-Install Script	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	A configuration script needs to be run as root to create the inventory pointer file. Please run /opt/62Dsam/samdb/install/config/orainstRoot.sh as root in a separate window now.	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 4-63 Oracle Pre-install Script

- **19** When the script execution is complete, click on the Next button.
- **20** You are prompted to install Oracle software, as shown in Figure 4-64. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

- 5620) SAM Database Configurator	•
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	SAM Database Configurator Install Oracle Database Management Software Please press the start button to install Oracle software. This process will take some time.	e e
	Start Oracle Installation	
InstallAnywhere by Macrovision - Cancel	Previous Next	

Figure 4-64 Install Oracle Database Management Software

21 Oracle installation details are displayed as the installation progresses. When the installation is complete, as shown in Figure 4-65, click on the Next button.

- 5620	SAM Database Configurator
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	 [11.30.26.527] Oracle Installation starts. [11.30.26.569] Prepare Oracle installation files [11.30.52.968] Install Oracle Software [11.37.21.105] Install Oracle Patch Set [11.37.21.457] Oracle Patch Installation was successful. [11.37.21.585] Oracle installation has succeeded.
	Start Oracle Installation
InstallAnywhere by Macrovision –	Previous Next

Figure 4-65 Install Oracle Database Management Software

22 You are prompted to run an Oracle post-installation script, as shown in Figure 4-66, run the script in a separate console window as a user with root-equivalent privileges.



- 5620 SAM Database Configurator		
	Oracle Post-Install Script	
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	A configuration script needs to be run as root to complete the installation. Please run /opt/5620sam/oracle10r2/root.sh as root in a separate window now.	
InstallAnywhere by Macrovision – Cancel	Previous	

23 When the script execution is complete, click on the Next button.

24 The panel shown in Figure 4-67 is displayed if a new release of Oracle is being installed, such as when you upgrade from 5620 SAM Release 4.0. If you do not want the existing Oracle installation deleted by the installer, select the "Keep the Old Oracle Folder Contents after Upgrade" parameter and specify the base directory in which the existing Oracle software is installed (typically /opt/5620sam/oracle). Click on the Next button.



Figure 4-67 Specify existing Oracle location

- 25 Configure the following parameters shown in Figure 4-68 using information from the existing 5620 SAM installation, then click on the Next button:
 - . Database Server IP Address
- User Name (typically samuser)
- Database Name (typically samdb) User Password
- Instance Name (typically samdb2)



5620 SAM Database Configurator	
	Get Upgrade Database Info
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify the database's private IP address. Database Server IP Address Database Name samdb Instance Name samdb2 User Name samuser User Password
InstallAnywhere by Macrovision - Cancel	Previous Next

- **26** Configure the following parameters shown in Figure 4-69 using information from the existing 5620 SAM installation, then click on the Next button:
 - Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)

Figure 4-69 Get Upgrade Database Info (continued)

-	5620) SAM Database Configurator
		Get Upgrade Database Info (cont.)
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	Database Listener Port 1523 Database Proxy Port 9002 Database File Server Port 9003
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous

- 27 Configure the following parameters, shown in Figure 4-70, using the recorded values from the primary database upgrade. Click on the Next button.
 - Primary IP Address
 - Primary Instance Name (typically samdb1)

Figure 4-70	Primary Database Info

- 562	0 SAM Database Configurator	
Primary Database Info		fo
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the IP address of the network interface the primary database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify the primary database's public IP address. Primary IP Address Primary Instance Name samdb 1	
InstallAnywhere by Macrovision	Previous Next	

28 You are prompted to activate the standby database, as shown in Figure 4-71. Click on the Start activation button to proceed with the activation.

Figure 4-71 Activate the Standby Database

-	5620 SAM Database Configurator	
		Activate the Standby Database
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	We will activate this standby database to make it a writable primary database before it can be upgraded. This process will take a few minutes. Please press the start button. Start activation
In	stallAnywhere by Macrovision – Cancel	Previous Next

29 Database activation details are displayed as the activation progresses. When the activation is complete, as shown in Figure 4-72, click on the Next button.

- 5620) SAM Database Configurator
	Activate the Standby Database
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	[12.31.02.609] Standby activation starts. [12.33.06.815] Standby activation was successful.
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous <u>N</u> ext

Figure 4-72 Activate the Standby Database

The installer prepares for the next configuration phase, as shown in Figure 4-73.

Figure 4-73 Please Wait

-	5620	SAM Database Configurator	•
		Please Wai	t
	 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment	_
Ir	nstallAnywhere by Macrovision —		_
	<u>C</u> ancel	Previous Next	

30 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 4-74. Click on the Next button.

— 5620 SAM Database Configurator 👘		
	Determine Memory Requirements	
 Introduction License Agreement Installation Type Installation In Progress 	Specify whether a 5620 SAM Server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load.	
Installation Completed	☑ Database co-exists with a 5620 SAM Server	
InstallAnywhere by Macrovision -	Previous Next	

Figure 4-74 Determine Memory Requirements

- **31** If the "Enable SAM Server IP Validation" parameter shown in Figure 4-75 is selected, only the specified servers can connect to the database. If required, select it and configure the following parameters. Click on the Next button.
 - Primary SAM Server IP Address
 - Peer SAM Server IP Address

- 5620) SAM Database Configurator
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s).
	Enable SAM Server IP Validation
	Primary SAM Server IP Address
	Peer SAM Server IP Address
InstallAnywhere by Macrovision	
<u>C</u> ancel	Previous

Figure 4-75 Main Server IP Validation

32 Depending on the 5620 SAM release from which you are upgrading, the panel in Figure 4-76 is displayed if the "Enable SAM Server IP Validation" parameter in step 31 is selected. Otherwise, go to step 34.

If the 5620 SAM system includes an auxiliary server, perform the following steps.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

i Click on the Add button shown in Figure 4-76. The Auxiliary Server Configuration form shown in Figure 4-77 opens.

- 562	0 SAM Database Configurator
	Auxiliary Server IP Validation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). IP Address Add Remove Edit
InstallAnywhere by Macrovision	Previous Next

Figure 4-76 Auxiliary Server IP Validation

ii Enter the IP Address of the auxiliary server.

Figure 4-77 Auxiliary Servers

 Auxiliary Servers 		
IP Address		
	ОК	Cancel

- iii Click on the OK button to save the information and close the form.
- iv Repeat steps 32 i to iii to specify an additional auxiliary server, if required.
- 33 Click on the Next button.

34 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 4-78 and enter the public IP address of the database. Click on the Next button.

- 5620) SAM Database Configurator
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. Image: NAT (network address translation) Used Public IP (visible to servers)
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous <u>N</u> ext

Figure 4-78 Public IP of the Database Server

35 If the panel in Figure 4-79 is displayed, specify a directory for the continuous statistics tablespace backup. Click on the Next button.

- 5620) SAM Database Configurator
	Staging Destination
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify a staging directory for the files created by the continuous statistics tablespace backup. The directory must be located on a low-activity device, such as a disk that is dedicated to this function only. /opt/5620sam/dbbackup/staging Restore Default Folder Choose
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

Figure 4-79 Staging Destination

36 Configure the "Accounting Statistic Database Retention Period" parameter shown in Figure 4-80. Click on the Next button.

- 5620	SAM Database Configurator
 5620 SAM Database Configurator Accounting Statistics Database Retention Period (in days). The retention period is the maximum number of days that records are kept in the database. Using a longer retention period will require more disk space. 	
	Accounting Statistic Data Retention Period 1
InstallAnywhere by Macrovision - Cancel	Previous

Figure 4-80 Accounting Statistics Database Retention Period

- **37** To speed the database upgrade, you can purge the statistics data that the 5620 SAM currently stores. Configure the following parameters shown in Figure 4-81, then click on the Next button:
 - Purge All Accounting Statistics
 - Purge All MIB Statistics



Note — The statistics data for the specified statistics types are permanently deleted from the 5620 SAM.

- 5620	0 SAM Database Configurator	
	Purge Statisti	cs
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify whether you wish to purge statistics records from the database. The statistics will not be available post upgrade. Purge All Accounting Statistics Purge All MIB Statistics	
InstallAnywhere by Macrovision - Cancel	, Previous	

Figure 4-81 Purge Statistics

38 Depending on the 5620 SAM release from which you are upgrading, the panel shown in Figure 4-82 appears. Configure the "Retention Time (hours) parameter to specify how long the 5620 SAM retains accounting statistics after server startup. Click on the Next button.

5620 SAM Database Configurator		
	Keep Accounting Statistics	
 Introduction License Agreement Installation Type Installation In Progress 	Specify the amount of accounting statistics you wish to keep in the database. Accounting statistics older than the retention time will not be available post upgrade.	
Installation Completed	Retention Time (hours) 24	
InstallAnywhere by Macrovision	Previous Next	

Figure 4-82 Keep Accounting Statistics

- **39** If the panel in Figure 4-83 is displayed, the new database contains at least one tablespace that is not defined in the previous database and you must perform the following steps to specify the tablespace directories. Otherwise, go to step 38.
 - i Click on the Add button. A file browser form opens.
 - ii Use the file browser form to choose a tablespace directory.
 - iii Repeat steps 39 i and ii to specify an additional tablespace directory, if required.

- 5620 SAM Database Configurator		
	Data File Directories	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify the directories that will be used in Tablespace distribution. Please make sure enough disk space is available for each of the directories allocated for the corresponding Tablespace. Refer to the installation guide for more information Directory Name Type /opt/5620sam/samdb/tableDefa Remove Selected Set As Default	
InstallAnywhere by Macrovision	Previous	

Figure 4-83 Data File Directories

- 40 Associate the new tablespaces with the directories specified in step 39.
 - i Click on the Configure Tablespaces button. The tablespace configuration form opens, as shown in Figure 4-84.



Note – The lists of drives and tablespaces on the tablespace configuration form may differ from the lists shown in the figure below.

- ii Follow the instructions at the top of the form to associate tablespaces with directories, as required.
- iii Click on the OK button. The tablespace configuration form closes and the Data File Directories panel in Figure 4-83 reappears.

Configure Tablespaces			
Select one drive and one or more Tablespaces from the left side. Add those associations to the right side using the 'Add associations from the left' button. You can select at the same time on both TS tables at the left: Oracle Tablespaces and 5620 SAM Tablespaces			
🕝 Directories	Associations		
Directory Name Type /opt/5620sam/samdb/tables Default	Name ALARMS	Drive /opt/5620sam/samdb/tabl	
	CURRENT_DATA_STRUCT_1 CURRENT_DATA_STRUCT_2	/opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl	
	CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4 INDX	/opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl	
	SAM_RELATIONS_1 SAM_RELATIONS_2	/opt/5620sam/samdb/tabl /opt/5620sam/samdb/tabl	
Cracle Tablespaces	SAM_SYSTEM_1	/opt/5620sam/samdb/tabl	
Tablespace Name	SAM_SYSTEM_3	/opt/5620sam/samdb/tabl	
	SAM_SYSTEM_4	/opt/5620sam/samdb/tabl	
	STATS_CURRENT	/opt/5620sam/samdb/tabl	
	STATS_HISTORY	/opt/5620sam/samdb/tabl	
		/opt/5620sam/samdb/tabl	
	SYSTEM	/opt/5620sam/samdb/tabl	
	TEMP	/opt/5620sam/samdb/tabl	
	TIMS SYSTEM	/opt/5620sam/samdb/tabl	
[[[[]]	TIMS_SYS_INDX	/opt/5620sam/samdb/tabl	
5620 SAM Tablespaces	UNDOTBS1	/opt/5620sam/samdb/tabl	
Tablespace Name CURRENT_DATA_STRUCT_1		/opt/5620sam/samdb/tabl	
CURRENT_DATA_STRUCT_2 CURRENT_DATA_STRUCT_3 CURRENT_DATA_STRUCT_4	Add associations	from the left	
SAM_RELATIONS 2	Remove Selected	Associations	
SAM_SYSTEM_1 SAM_SYSTEM_2	Select	All	
] ;	<u> </u>	OK Cancel	

Figure 4-84 Configure Tablespaces

41 Click on the Next button.

42 Depending on the 5620 SAM release from which you are upgrading, the panel in Figure 4-85 is displayed. Specify a directory for the accounting statistics tablespace files. Click on the Next button.

- 5620	5620 SAM Database Configurator		
Accounting Statistics Data File Directo			
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Specify a directory for the accounting statistics tablespace files. For the best performance, locate the directory on a low-activity device, such as one that is dedicated to the accounting statistics tablespaces only. /opt/5620sam/tablespace/statstbs01 Restore Default Folder Choose		
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next		

Figure 4-85 Accounting Statistics Data File Directory

43 If you are prompted to run an Oracle patch pre-installation script, as shown in Figure 4-86, run the script in a separate console window as a user with root-equivalent privileges.

Figure 4-86 Oracle Patch Pre-install Script

- 5620 SAM Database Configurator -		
Oracle Patch Pre-Install Scrip		t
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please run /opt/5620sam/samdb/install/config/orapatchRoot.sh as root in a separate window now.	
InstallAnywhere by Macrovision — Cancel	Previous]

44 When the script execution is complete, click on the Next button.

45 You are prompted to begin the database upgrade, as shown in Figure 4-87. A database upgrade can take two hours or more, depending on the database release and number of database records. Click on the Start Process button to begin the database upgrade.

- 5620	SAM Database Configurator
 5620 SAM Database Configurator Database Upgr Introduction License Agreement Installation Type Installation In Progress Installation Completed 	
InstallAnswhere hv Marmvisinn	Start Process
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 4-87 Database Upgrade

The next panel displays database creation progress, as shown in Figure 4-88.

Figure 4-88 Database Upgrade

-	5620) SAM Database Configurator	•
	Database Upgrade		
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	Database upgrade in progress	
		Performing transition:4.0.R8 to 5.0.R1 (74.9%)	
	stallAnywhere by Macrovision - Cancel		

46 When the database upgrade is complete, as shown in Figure 4-89, you are prompted to run a script that enables automatic database startup during system startup. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Done button to close the installer.

- 5620) SAM Database Configurator
	Installation Complete
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/562Dsam/samdb/install/config/samdb/solaris_root.sh Database upgrade was successful
InstallAnywhere by Macrovision -	
<u>C</u> ancel	Previous Done

Figure 4-89 Installation Complete

This database is the new primary database.

Upgrade original standby main server

- **47** Log in as a user with root-equivalent privileges on the original standby server station.
- 48 Open a console window.
- **49** Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

50 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .]
```

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen shown in Figure 4-90 appears and the upgrade process begins.



Figure 4-90 5620 SAM Installer

51 The 5620 SAM installer opens, as shown in Figure 4-91. The left pane indicates upgrade progress. The right pane displays release information about the software being upgraded. Click on the Next button.





52 Review and accept the terms of the license agreement shown in Figure 4-92. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer Software License Agreement		
 Introduction License Agreement Choose Installation Type Install Directory 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Server software or installing the hardware unit with pre-enabled 5620 SAM Server software (each of which is referred to as "Software" in this Agreement).	
 Configuration Install Complete 	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All their trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved	
InstallAnywhere by Macrovision Cancel	Previous Next	

Figure 4-92 Software License Agreement

53 Select Main Server Installation, as shown in Figure 4-93. Click on the Next button.



Figure 4-93 Choose Installation Type

54 Specify the base directory in which the existing 5620 SAM main server software is installed (typically /opt/5620sam/server), as shown in Figure 4-94. Click on the Next button.

5620 SAM/5650 CPAM Server Installer		
Specify the Base Directory for 5620 SAM Main Server Files		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files. //opt/5620sam/server Restore Default Folder Choose	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 4-94 Specify the Base Directory for 5620 SAM Main Server Files

55 As shown in Figure 4-95, the installer displays the release of the 5620 SAM server software that is installed and the release to which it is being upgraded. Verify the information. Click on the Next button.

Figure 4-95 Checking Build Compatibility

— 5620 SA	AM/5650 CPAM Server Installer
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	You are about to perform an installation on an already installed directory Installed on disk: 5620 SAM Version 5.0 R5.0 - Built on Fri Aug 17 04:37:11 EST 2007 Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous Next

56 The 5620 SAM Installer displays the License Key specified during the existing installation. Enter the License Key information for the new 5620 SAM release exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 4-96. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer	
	License Information for 5620 SAM Main Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key -00000-00000-00000-00000-00000-00000-0000
InstallAnywhere by Macrovision – Cancel	Previous

Figure 4-96 License Information for 5620 SAM Main Server

- **57** Configure the following parameters shown in Figure 4-97, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported



Note - You must select the Redundancy Supported parameter.

— 5620 S	AM/5650 CPAM Server Installer
	Additional Server Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration
InstallAnywhere by Macrovision	Previous

Figure 4-97 Additional Server Configuration

- **58** Configure the following parameters, shown in Figure 4-98, using the recorded values from the new primary database upgrade, then click on the Next button.
 - Primary Database IP Address (the IP address of the new primary database station)
 - Primary Database Server Port (typically 1523)
 - Primary Database Instance Name (the name of the former standby database instance, typically samdb2)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

- 5620 SAM/5650 CPAM Server Installer		
	Primary Database Configuration	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server.	
	Primary Database IP Address	
	Primary Database Server Port 1523	
	Primary Database Instance Name samdb2	
	Database User Name samuser	
	Database User Password	
	Primary Database Proxy Port 9002	
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next	

Figure 4-98 Primary Database Configuration

- **59** Depending on the existing configuration. the panel shown in Figure 4-99 appears. Configure the following parameters, if required, then click on the Next button:
 - Online Database Backup Interval (hours) (typically 24)
 - Online Backup Destination (typically /opt/5620sam/dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 58.

5620 SAM/5650 CPAM Server Installer	
	Online Database Backup
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Specify the interval between backups, the backup directory, and the number of backups to retain. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination Jopt/5620sam/dbbackup Number Of Backup Sets 3
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 4-99 Online Database Backup
- **60** Configure the following parameters shown in Figure 4-100, then click on the Next button:
 - Database Server IP Address (the IP address of the new standby database station)
 - Database Instance Name (the name of the database instance on the new primary database station, typically samdb1)
 - Database Proxy Port (typically 9002)

Figure 4-100 Standby Database Configuration

- 5620 Si	AM/5650 CPAM Server Installer
	Standby Database Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Instance Name samdb1 Database Proxy Port 9002
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

- 61 Configure the following parameters shown in Figure 4-101:
 - SAM Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

	Main Server Address Configuration for Clie
 Introduction License Agreement Choose Installation Type 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients.
Configuration Install Complete	Server Domain Name 5620sam Public IP (visible to clients)
InstallAnywhere by Macrovision Cancel	Previous

Figure 4-101 Main Server Address Configuration for Clients

- 62 Configure the following parameters shown in Figure 4-102:
 - Public IP (visible to peer server)
 - High Available JNDI Port (typically 1100)
 - TCP Port Cluster Number (typically 11800)

If NAT is used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

- 5620 S	AM/5650 CPAM Server Installer	
Main Server Configuration for Peer Server		er
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the main server will use to communicate with the peer server. Public IP (visible to peer server) High Available JNDI Port TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server)	
InstallAnywhere by Macrovision	I	_
Cancel	Previous Next	

Figure 4-102 Main Server Address Configuration for Peer Server

63 The panel in Figure 4-103 is displayed if you select "Auxiliary Server Supported" in step 57. Otherwise, go to step 65.

Perform the following steps to specify an auxiliary server, if required.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 4-103:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

Figure 4-103 Mai	n Server Configuration	for Auxiliary Servers
------------------	------------------------	-----------------------

	5620 SAM/5650 CPAM Server Installer		
	Main Server Configuration for Auxiliary Servers		
	Introduction License Agreement Choose Installation Type Install Directory Configuration	Enter the IP address of the network interface the 5620 SAM main server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address.	
	Install Complete	Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server) Enable Stats Collection on Remote Servers	
in:	stallAnywhere by Macrovision	Previous Next	

- ii If NAT is used between this 5620 SAM main server and the auxiliary servers, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server in the "Private IP" field.
- iii Click on the Next button.

iv Click on the Add button shown in Figure 4-104 to specify an auxiliary server. The form shown in Figure 4-105 opens.

- 5620 S	AM/5650 CPAM Server Installer
	Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Specify all the 5620 SAM Auxiliary Servers that this Main Server connects to. There must be at least one Preferred auxiliary server. If Network Address Translation is to be used, enter the 6520 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Main Server. IP Address Port Type IP Address Port Type Edit Edit
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 4-104 Auxiliary Servers

Figure 4-105 Auxiliary Server Configuration

Auxiliary Sei	rver Configuration	-	
IP Address			
Port	12800		
Туре	Preferred -		
	OK Cancel		

- v Configure the following parameters:
 - IP Address (the IP address of the auxiliary server)
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- vi Click on the OK button to save the information and close the form.
- vii Repeat steps 63 iv to vi to specify an additional auxiliary server, if required.
- 64 Click on the Next button.

- **65** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 4-106.
 - ii If you want to accept the default user documentation location that is displayed, go to step 66.



Note — If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation directory on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 4-106 User Documentation



- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 4-106.
 - ii Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a directory under the base 5620 SAM client installation directory. The path must not contain a leading slash. For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents directory.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms directory in the base 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 66 Click on the Next button.
- **67** Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 4-107. If it does, enter the 5650 CPAM license key provided by from Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

- 5620 SAI	M/5650 CPAM Server Installer	
License Information for 5650 CPAM Server		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Include 5650 CPAM Server License Information D00000-000000-000000-000000-000000-000000	
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous	

Figure 4-107 License Information for 5650 CPAM Server

- **68** Configure the following parameters shown in Figure 4-108, then click on the Next button:
 - SNMP Trap Receiving IP Address (the IP address of the network interface on this server that the managed devices use to reach this server)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)



— 5620 Si	AM/5650 CPAM Server Installer
	SNMP Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network. SNMP Trap Receiving IP Address SNMP Trap Receiving Port 162 Trap Log Id
InstallAnywhere by Macrovision -	
<u>C</u> ancel	Previous Next

- **69** Configure the following parameters shown in Figure 4-109, then click on the Next button:
 - Peer Server IP Address (original primary server station IP address)
 - Peer Server Trap Log Id (typically 98)
 - Peer Server SNMP Trap Receiving IP Address
 - Peer Server SNMP Trap Receiving Port (typically 162)
 - Peer Server TCP Port Cluster Number (typically 11800)



Note – The peer is the other 5620 SAM server station that is the standby server after the upgrade.

- 5620 SA	AM/5650 CPAM Server Installer	•
Peer Main Server Configurations		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public address, as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public address, as known to the devices within the managed network. Peer Server IP Address Peer Server Trap Log Id 98 Peer Server SNMP Trap Receiving IP Address Peer Server SNMP Trap Receiving Port 162 Peer Server TCP Port Cluster Number	
InstallAnywhere by Macrovision — Cancel	Previous	

Figure 4-109 Peer Main Server Configurations

- **70** Configure the following parameters shown in Figure 4-110, then click on the Next button:
 - 5620 SAM Peer Server IP Address (new standby server station IP address)
 - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
 - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 4-110 Peer Main Server Configurations (continued)

	arver mataner
Peer Ma	in Server Configurations (cont.)
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 5620 SAM Peer Server IP A 5620 SAM JNDI High Availa 5620 SAM JNDI Peer Server 	network interface the GUI and OSS iicate with the peer server. If NAT on) is to be used, specify the public IP 620 SAM clients. Address ble Peer Server Port 1100 er Port 1099
InstallAnywhere by Macrovision	Previous Next

71 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 4-111 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision	Previous

Figure 4-111 Navigation from External Systems

72 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 4-112. Click on the Install button to begin the server upgrade.

	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xml_output Restore Default Folder Choose
InstallAnywhere by Macrovision · <u>C</u> ancel	Previous

The next panel displays upgrade progress, as shown in Figure 4-113.

-	5620 SAM/5650 CPAM Server Installer	
	Installing 5620 SAM/5650 CPAM Serve	r
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢	
	Installing Java Runtime Environment	
InstallAnywhere by Macrovision		_

Figure 4-113 Installing 5620 SAM/5650 CPAM Server

73 As shown in Figure 4-114, the 5620 SAM server is installed as a UNIX daemon. Click on the Next button.

- 5620 SA	AM/5650 CPAM Server Installer
Installing the Server as a Unix Daemon	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Server has been successfully installed as a Unix Daemon
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous

Figure 4-114 Installing the server as a Unix Daemon

74 When the server upgrade is complete, as shown in Figure 4-115, ensure that the "Start the 5620 SAM Main Server" parameter is not selected. Click on the Done button to close the installer.

- 5620 S	AM/5650 CPAM Server Installer
	Installation Complete
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Congratulations! 5620 SAM Main Server has been successfully installed inside directory /opt/5620sam/server. Please assign a password for samadmin using 'passwd samadmin' command. Once the server is started for the first time it can take up to an hour for the server to initialize the database. Attempts to login to the server via the 5620 SAM client will fail until the server is completely up.
InstallAnywhere by Macrovision -	Previous Done

Figure 4-115 Installation Complete

This server is the new primary server.

75 If you are upgrading from the 5620 SAM, Release 6.0 or earlier, the installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press ...

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.
- v Leave the console window open for later use.

Upgrade original standby auxiliary servers

76 If the 5620 SAM deployment contains auxiliary servers, perform Procedure 4-8 on each preferred and reserved auxiliary server of the original standby main server to upgrade the auxiliary server software.

Shut down original primary main server

- **77** Shut down the 5620 SAM server application on the original primary main server station.
 - i Log in as a user with root-equivalent privileges on the original primary server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:

```
# cd path/nms/bin .
```

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt to stop the 5620 SAM server:

./nmsserver.bash stop \dashv

Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

./nmsserver.bash appserver_status \dashv

vi The 5620 SAM server is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 77 v. Do not proceed unless the console displays the above text.

Disable original primary server daemon

- **78** Disable the 5620 SAM server startup daemon on the original primary server station. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the upgrade.
 - i Log in to the original primary server station as a user with root-equivalent privileges.
 - ii Open a console window.
 - iii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d .

iv Disable the 5620 SAM server daemon by renaming it. Enter the following at the CLI prompt:

```
# mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ...
```

Shut down original primary database

- **79** Shut down the 5620 SAM database application on the original primary database station.
 - i Log in as a user with root-equivalent privileges on the original primary database station.
 - ii Open a console window.
 - iii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d 斗

iv Stop the Oracle proxy daemon. Enter the following at the CLI prompt:

```
# ./S965620SAMOracleProxyWrapper stop 斗
```

v Stop the 5620 SAM database daemon. Enter the following at the CLI prompt:

./S95db5620sam stop ↓

Do not proceed until the command returns the following text string:

Done

Disable original primary database daemons

- **80** Disable the 5620 SAM Oracle proxy and database startup daemons on the original primary database station. This ensures that the original primary 5620 SAM database does not automatically start in the event of a power disruption during the upgrade.
 - i Log in as a user with root-equivalent privileges on the database station.
 - ii Open a console window.
 - iii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d ↓

iv Disable the Oracle database daemon by renaming it. Enter the following at the CLI prompt:

```
# mv S95db5620sam inactive.S95db5620sam ...
```

v Disable the Oracle proxy daemon by renaming it. Enter the following at the CLI prompt:

```
# mv S965620SAMOracleProxyWrapper
inactive.S965620SAMOracleProxyWrapper ...
```

Shut down original primary auxiliary servers

- **81** If the 5620 SAM deployment contains auxiliary servers, perform the following steps on each preferred and reserved auxiliary server of the original primary main server to stop the auxiliary server software.
 - i Log in as the same user that installed the auxiliary server.
 - ii Enter the following at the CLI prompt:
 - # path/nms/bin/nmsserver.bash auxstop 斗

where path is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server stops.

Start new primary main server

- 82 Perform one of the following to start the new primary 5620 SAM main server.
 - a If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Navigate to the server binary directory. Enter the following at the CLI prompt:

```
# cd path/nms/bin ↓
```

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

ii Enter the following at the CLI prompt:

./nmsserver.bash start \dashv

The 5620 SAM main server starts.

iii Enter the following at the CLI prompt to verify that the new primary 5620 SAM main server is operational:

```
\# ./nmsserver.bash appserver_status \lrcorner
```

iv The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 82 a iii. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Enter the following at the CLI prompt to switch to the samadmin user:

su - samadmin ↓

ii Enter the following at the CLI prompt:

bash\$ path/nms/bin/nmsserver.bash start 斗

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

The 5620 SAM main server starts.

iii Enter the following at the CLI prompt to verify that the new primary 5620 SAM main server is operational:

<code>bash\$</code> ./nmsserver.bash appserver_status \dashv

iv The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 82 b iii. Do not proceed unless the console displays the above text.

Start new primary auxiliary servers

- **83** Perform one of the following on each preferred and reserved 5620 SAM auxiliary server of the new primary main server.
 - a If the 5620 SAM auxiliary server is installed on Solaris 9, perform the following steps.

- i Log in as a user with root-equivalent privileges on the auxiliary server station.
- ii Open a console window.
- iii Enter the following at the CLI prompt:
 - # path/nms/bin/nmsserver.bash auxstart .

where path is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

- **b** If the 5620 SAM auxiliary server is installed on Solaris 10, perform the following steps.
 - i Log in to the auxiliary server station as the samadmin user.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt:

<code>bash\$ path/nms/bin/nmsserver.bash auxstart</code> \dashv

where path is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server starts. Initial server startup can take twenty minutes or more.

Upgrade or install client for testing upgraded system

- **84** Perform one of the following to upgrade an existing 5620 SAM client, or install a new 5620 SAM client, for sanity testing and network monitoring after the first server/database pair is upgraded to the new release.
 - a Perform Procedure 2-3 to install a 5620 SAM client on a Windows station.
 - b Perform Procedure 2-7 to upgrade a Release 5.0 R4 or earlier 5620 SAM client on a Windows station.
 - c Perform Procedure 2-8 to upgrade a Release 5.0 R5 or later 5620 SAM client on a Windows station.
 - d Perform Procedure 3-2 to install a 5620 SAM client on a Solaris or Linux station.
 - e Perform Procedure 4-3 to upgrade a Release 5.0 R4 or earlier 5620 SAM client on a Solaris or Linux station.
 - f Perform Procedure 4-4 to upgrade a Release 5.0 R5 or later 5620 SAM client on a Solaris or Linux station.



Note — You must specify the IP address of the current standby 5620 SAM server as the primary main server IP address when you install or upgrade the client. The current standby server is the new primary server after the upgrade.

Test 5620 SAM system using new client

85 When the new primary server is operational, use the new client to perform sanity testing of the new primary 5620 SAM server/database pair, as required.

See the 5620 SAM User Guide for information about client operation.

If you need to back out of the upgrade and return the original primary server/database pair to service, you can do so by stopping the new primary server and database and restarting the original primary server and database applications.

Uninstall original primary database

- **86** Log in as a user with root-equivalent privileges on the original primary database station.
- 87 Open a console window.
- 88 Switch to the Oracle management user. Enter the following at the CLI prompt:

```
# su - Oracle_management_user_name ...
```

where *Oracle_management_user_name* is the name of the UNIX account with Oracle management privileges, typically oracle

89 Enter the following at the CLI prompt to open the 5620 SAM uninstaller:

```
bash$
path/install/Uninstaller/Uninstall_5620_SAM_Database_Configurato
r ↓
```

where path is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The splash screen shown in Figure 4-116 appears and the uninstallation process begins. The appearance of the splash screen depends on the release of the 5620 SAM uninstaller.



Figure 4-116 5620 SAM Uninstaller

90 The 5620 SAM uninstaller opens, as shown in Figure 4-117. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Next button.

Uninstall	5620 SAM Database Configurator
	Uninstall 5620 SAM Database Configurator
 Introduction Uninstalling Uninstall Complete 	About to uninstall 5620 SAM Database Configurator This will remove features installed by InstallAnywhere. It will not remove files and folders created after the installation. For large databases, this could take several minutes.
InstallAnywhere by Macrovision · <u>C</u> ancel	Previous Next

Figure 4-117 Uninstall 5620 SAM Database Configurator

91 A 5620 SAM standby database upgrade requires the removal of the previously installed Oracle software. Select the "Uninstall Oracle software" parameter, as shown in Figure 4-118. Click on the Uninstall button to begin the Oracle uninstallation.

-	Uninstall	5620 SAM Database Configurator 👘 👘
		Uninstall Oracle Software
	 Introduction Uninstalling Uninstall Complete 	Please specify if Oracle software is to be uninstalled. ✓ Uninstall Oracle software
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous

92 As shown in Figure 4-119, you are prompted to run a script that enables the uninstallation of the database daemons. Open a separate console window and run the script.

— Uninstall	5620 SAM Database Configurator
	Uninstall Oracle Proxy
 Introduction Uninstalling Uninstall Complete 	The account that is being used to execute this program does not have enough permissions to uninstall the DB daemons. Please log in as root now and manually execute the following script: /opt/5620sam/samdb/install/config/samdb/uninstall_solaris_roo t.sh
InstallAnywhere by Macrovision	Previous Uninstall

Figure 4-119 Uninstall Oracle Proxy

- 93 When the script execution is complete, click on the OK button.
- **94** As shown in Figure 4-120, the uninstaller begins to remove files and directories from the original primary database station.

— Uninstall	5620 SAM Database Configurator
	Uninstall 5620 SAM Database Configurator
 Introduction Uninstalling 	Please wait while InstallAnywhere's uninstaller removes the following features
Uninstall Complete	Preparing
	Files
	LaunchAnywhere
	Uninstalling
InstallAnywhere by Macrovision	
<u>C</u> ancel	

Figure 4-120 Uninstall 5620 SAM Database Configurator

95 When database uninstallation is complete, as shown in Figure 4-121, click on the Done button to close the uninstaller.

– Uninstall	5620 SAM Database Configurator
	Uninstall Complete
Introduction	All items were successfully uninstalled.
 Uninstall Complete 	Please restart this workstation.
InstallAnywhere by Macrovision –	
<u>C</u> ancel	Previous Done

Figure 4-121 Uninstall Complete

The next section of the procedure describes the installation of the new standby (original primary) 5620 SAM database. 5620 SAM database installation requires root-equivalent and Oracle management user privileges.

Install new standby database

96 Before you perform a 5620 SAM database installation on Solaris, you must run a pre-installation script. This script configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.



Caution — Ensure that you run only the pre-installation script that is on the new 5620 SAM software DVD-ROM. Using a different version of the script may cause the database installation to fail.

Switch to the root user. Enter the following at the CLI prompt:

bash\$ **su -** ↓

97 Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris 斗

98 Enter the following at the CLI prompt to run the pre-installation script:

```
# ./Oracle10g_PreInstall.sh upgrade 斗
```

- **99** The script prompts you to enter the following:
 - group name (default is dba)
 - user name (default is oracle)
 - Oracle user home directory name (default is /opt/5620sam/oracle10r2)



Note — To reduce the complexity of subsequent software upgrades and technical-support activities, Alcatel-Lucent recommends that you press \downarrow to accept the default value for each parameter.

If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

The script updates the system configuration.



Note – Running the script may generate messages that are similar to the following; these are not error messages and can be ignored.

- WARNING: Group dba already exists locally.
- WARNING: Oracle user with the specified name already exists locally.
- projadd: Duplicate project name "Oracle10R2"
- **100** When the script execution is complete, reboot the new standby database station to put the system update into effect. Enter the following at the CLI prompt:

shutdown -y -i6 -g0 ↓

The station reboots.

- **101** After the new standby database station reboots, log in as the Oracle management user on the new standby database station.
- 102 Open a console window.
- **103** Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 斗

104 Enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./DBConfig_SAM_6_1_revision_ID.bin ↓

where revision_ID is the revision identifier, such as R1, R3, or another descriptor



Note — After the upgrade, the database on this station is the new standby database. The installer automatically backs up the new primary database and replicates it on this station.

The splash screen in Figure 4-122 appears and the installation process begins.



Figure 4-122 5620 SAM Installer

105 The 5620 SAM installer opens, as shown in Figure 4-123. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 4-123 Introduction



106 Review and accept the terms of the license agreement shown in Figure 4-124. Click on the Next button.

- 5620 SAM Database Configurator	
	Software License Agreement
 Introduction License Agreement Installation Type Installation in Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).
Installation Completed	5620 SAM Software License Agreement
	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM software or installing the hardware unit with pre-enabled 5620 SAM software (each of which is referred to as
	I gocept the terms of the License Agreement I do NOT accept the terms of the License Agreement
InstallAnywhere by Macrovision	Previous Next

Figure 4-124 Software License Agreement

107 Select Install & Configure Primary/Standby Database, as shown in Figure 4-125. Click on the Next button.

- 5620) SAM Database Configurator
	Choose Installation Type
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Install & Configure a Standalone Database Restore a Database Upgrade a Database Install & Configure Primary/Standby Database
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

Figure 4-125 Choose Installation Type

108 Select Standby Database Install, as shown in Figure 4-126. Click on the Next button.

- 5620) SAM Database Configurator
	Install & Configure Primary/Standby Database
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Choose among the following options: Primary Database Install Convert Standalone Database to Primary Standby Database Install
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

Figure 4-126 Install & Configure Primary/Standby Database

109 Select Install Oracle Software, as shown in Figure 4-127. Click on the Next button.

- 5620) SAM Database Configurator
	Install Oracle Software
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	You can choose to install Oracle 10g Software first if it is not already installed. Install Oracle Software Do not install Oracle Software
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 4-127 Install Oracle Software

110 Specify the base directory for the standby 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 4-128. This directory must be the same one specified in step 15. Click on the Install button to begin the database software installation.

Figure 4-128 Specify the Base Directory for 5620 SAM Database Files

-	5620	SAM Database Configurator
	Spe	ecify the Base Directory for 5620 SAM Database Files
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	The directory specified here will be the base directory for all 5620 SAM database related files //opt/5620sam/samdb/install Restore Default Folder Choose
	stallAnywhere by Macrovision — <u>C</u> ancel	Previous

The installer prepares to install the database, as shown in Figure 4-129.



Figure 4-129 Installing 5620 SAM Database Configurator

111 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 4-130. This directory specification must be the same as the one specified in step 16. Click on the Next button.

- 5620) SAM Database Configurator
	Specify the Base Directory for Oracle Software
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	The directory specified here will be the base directory for all Oracle files. /opt/5620sam/oracle10r2 Restore Default Folder Choose
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 4-130 Specify the Base Directory for Oracle Software

112 If you are prompted to run an Oracle pre-installation script, as shown in Figure 4-131, run the script in a separate console window as a user with root-equivalent privileges.

Figure 4-131 Oracle Pre-Install Script

- 5620) SAM Database Configurator
	Oracle Pre-Install Script
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	A configuration script needs to be run as root to create the inventory pointer file. Please run /opt/S620sam/samdb/install/config/orainstRoot.sh as root in a separate window now.
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

113 When the script execution is complete, click on the Next button.

114 You are prompted to install Oracle software, as shown in Figure 4-132. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

- 5620) SAM Database Configurator	•
	Install Oracle Database Management Softwar	e
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please press the start button to install Oracle software. This process will take some time. Start Oracle Installation	
InstallAnywhere by Macrovision – Cancel	Previous Next	

Figure 4-132 Install Oracle Database Management Software

115 Oracle installation details are displayed as the installation progresses. When Oracle installation is complete, as shown in Figure 4-133, click on the Next button.

- 5620 SAM Database Configurator	
	Install Oracle Database Management Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	 [10.20.51.473] Oracle Installation starts. [10.20.51.490] Prepare Oracle installation files [10.21.15.520] Install Oracle Software [10.26.27.205] Install Oracle Patch Set [10.37.02.134] Oracle Patch Installation was successful. [10.37.02.146] Oracle installation has succeeded.
	Start Oracle Installation
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 4-133 Install Oracle Database Management Software

116 You are prompted to run an Oracle post-installation script, as shown in Figure 4-134. Open a separate console window and run the script as a user with root-equivalent privileges.

- 5620) SAM Database Configurator
	Oracle Post-Install Script
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	A configuration script needs to be run as root to complete the installation. Please run /opt/5620sam/oracle10r2/root.sh as root in a separate window now.
InstallAnywhere by Macrovision -	Previous

Figure 4-134 Oracle Post-Install Script

117 When the script execution is complete, click on the Next button.

118 Configure the parameters shown in Figure 4-135, then click on the Next button.

- Database Server IP Address (the IP address of the network interface on this station that the main servers use to reach the database on this station)
- Database Proxy Port (typically 9002) •
- Database File Server Port (typically 9003) •

Figure 4-135 Standby Database Configuration Info		
- 5620) SAM Database Configurator	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Standby Database Configuration Info Enter the IP address of the network interface the standby database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify the standby database's private IP address. Database Server IP Address Database Proxy Port 9002 Database File Server Port 9003	
InstallAnywhere by Macrovision – Cancel	Previous	

. . - -

119 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 4-136. Click on the Next button.

- 5620) SAM Database Configurator
	Determine Memory Requirements
 Introduction License Agreement Installation Type Installation In Progress 	Specify whether a 5620 SAM Server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load.
Installation Completed	☑ Database co-exists with a 5620 SAM Server
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous

Figure 4-136 Determine Memory Requirements

- **120** If IP-address validation is required, select the "Enable SAM Server IP Validation" parameter and configure the following parameters shown in Figure 4-137. Click on the Next button.
 - Primary SAM Server IP Address (primary server IP address value from step 31)
 - Peer SAM Server IP Address (peer server IP address value from step 31)

- 5620) SAM Database Configurator
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). Enable SAM Server IP Validation Primary SAM Server IP Address Peer SAM Server IP Address
InstallAnywhere by Macrovision – Cancel	Previous <u>N</u> ext

Figure 4-137 Main Server IP Validation

121 Depending on the 5620 SAM release from which you are upgrading, the panel in Figure 4-138 is displayed if the "Enable SAM Server IP Validation" parameter in step 120 is selected. Otherwise, go to step 123.

If the 5620 SAM system includes an auxiliary server, perform the following steps.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

i Click on the Add button shown in Figure 4-138. The form shown in Figure 4-139 opens.

- 562	0 SAM Database Configurator
	Auxiliary Server IP Validation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). IP Address Atd Remove Edit
InstallAnywhere by Macrovision	Previous Next

Figure 4-138 Auxiliary Server IP Validation

Figure 4-139 Auxiliary Servers

 Auxiliary Servers
IP Address
OK Cancel
OR Calicel

- ii Enter the IP Address of the auxiliary server.
- iii Click on the OK button to save the information and close the form.
- iv Repeat steps 121 i to iii to specify an additional auxiliary server, if required.
- 122 Click on the Next button.

123 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 4-140 and enter the public IP address of the database. Click on the Next button.

- 5620) SAM Database Configurator
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5520 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. Image: NAT (network address translation) Used Public IP (visible to servers)
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous <u>N</u> ext

Figure 4-140 Public IP of the Database Server

- **124** Configure the following parameters, shown in Figure 4-141, using the recorded values from the primary database upgrade. Click on the Next button.
 - Primary IP Address
 - Primary Instance Name (typically samdb2)
 - Primary SYS Password
- Primary Database Listener Port (typically 1523)
- Primary Database Proxy Port (typically 9002)

Figure 4-141 Primary Database Info

- 5620	SAM Database Configurator
	Primary Database Info
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Enter the IP address of the network interface the primary database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify the primary database's public IP address. Primary IP Address Primary IP Address Primary Instance Name samdb2 Primary SYS Password ********** Primary Database Listener Port 1523 Primary Database Proxy Port 9002
InstallAnywhere by Macrovision –	Previous <u>N</u> ext

125 You are prompted to begin standby database creation, as shown in Figure 4-142. Click on the Start Process button to begin the database creation.

- 5620) SAM Database Configurator
	Standby Database Configuration
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The database config process is short. Once the configuration files are in place, you can create the standby database later using Standby Re-instantiation. Start Process
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 4-142 Standby Database Configuration

126 When the database creation is complete, you are prompted to run a script that enables automatic database startup during system startup, as shown in Figure 4-143. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Done button to close the installer.



- 5620) SAM Database Configurator
	Installation Complete
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/5620sam/samdb/install/config/samdb/solaris_root.sh Database creation was successful You will need to re-instantiate the Standby database to restore database redundancy.
InstallAnywhere by Macrovision – Cancel	Previous

The next section of the procedure describes the reinstantiation of the database on the new standby database station.

Reinstantiate database on new standby station

- 127 Log in to a 5620 SAM client as the admin user.
- **128** Choose Administration \rightarrow System Information from the 5620 SAM main menu. The System Information form opens with the General tab displayed.
- **129** Click on the Re-Instantiate Standby button. A dialog box appears.
- 130 Click on the Yes button. The database reinstantiation begins.

You can view the reinstantiation status on the client GUI status bar or on the System Information form. The Standby Re-instantiation State changes from In Progress to Success when reinstantiation is complete. The start time of the reinstantiation is shown by the Last Attempted Standby Re-instantiation Time indicator.



Note – Database reinstantiation can take a long time when there is a large amount of statistics information to transfer.

131 When the reinstantiation is complete, close the System Information form.

The next section of the procedure describes the upgrade of the original primary (new standby) 5620 SAM server. Server upgrade requires root-equivalent privileges.

Upgrade original primary main server

132 Log in to the original primary server station as a user with root-equivalent privileges.



Note – This station is the new standby server station after the upgrade.

- **133** Open a console window.
- **134** Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris .J

135 Enter the following at the CLI prompt to open the 5620 SAM installer:

./ServerInstall_SAM_6_1_revision_ID.bin ...

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 4-144 appears and the installation process begins.



Figure 4-144 5620 SAM Installer

136 The 5620 SAM installer opens, as shown in Figure 4-145. The left pane indicates upgrade progress. The right pane displays release information about the software being upgraded. Click on the Next button.

Figure 4-145 Introduction

— 5620 SA	AM/5650 CPAM Server Installer	•
Introduction		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM/5650 CPAM Server. The version of the 5620 SAM/5650 CPAM Server software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision — Cancel	Previous	
137 Review and accept the terms of the license agreement shown in Figure 4-146. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer ·				
Software License Agreement				
 Introduction License Agreement Choose Installation Type Install Directory 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Server software or installing the hardware unit with pre-enabled 5620 SAM Server software (each of which is referred to as "Software" in this Agreement). Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved			
 Configuration Install Complete 				
InstallAnywhere by Macrovision				

Figure 4-146 Software License Agreement

138 Select Main Server Installation, as shown in Figure 4-147. Click on the Next button.



Figure 4-147 Choose Installation Type

139 Specify the base directory in which the existing 5620 SAM main server software is installed (typically /opt/5620sam/server), as shown in Figure 4-148. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer				
Specify the Base Directory for 5620 SAM Main Server Files				
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files. //opt/5620sam/server Restore Default Folder Choose			
InstallAnywhere by Macrovision – Cancel	Previous Next			

Figure 4-148 Specify the Base Directory for 5620 SAM Main Server Files

140 As shown in Figure 4-149, the installer displays the release of the 5620 SAM server software that is installed and the release to which it is being upgraded. Verify the information. Click on the Next button.

Figure 4-149 Checking Build Compatibility

— 5620 Si	5620 SAM/5650 CPAM Server Installer			
	Checking Build Compatibility			
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	You are about to perform an installation on an already installed directory Installed on disk: 5620 SAM Version 5.0 R5.0 - Built on Fri Aug 17 04:37:11 EST 2007 Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008			
InstallAnywhere by Macrovision - Cancel	Previous			

141 The 5620 SAM Installer displays the License Key specified during the existing installation. Enter the License Key information for the new 5620 SAM release exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 4-150. Click on the Next button.

5620 SAM/5650 CPAM Server Installer			
	License Information for 5620 SAM Main Server		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key -00000-00000-00000-00000-00000-00000-0000		
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous		

Figure 4-150 License Information for 5620 SAM Main Server

- **142** Configure the following parameters shown in Figure 4-151, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported



Note - You must select the Redundancy Supported parameter.

5620 SAM/5650 CPAM Server Installer			
Additional Server Configuration			
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration Redundancy Supported Auxiliary Server Supported		
InstallAnywhere by Macrovision -		<u>P</u> revious	Next

Figure 4-151 Additional Server Configuration

- **143** Configure the following parameters, shown in Figure 4-152, using the recorded values from the primary database upgrade. Click on the Next button.
 - Primary Database IP Address
 - Primary Database Server Port (typically 1523)
 - Primary Database Instance Name (typically samdb2)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

5620 SAM/5650 CPAM Server Installer		
Primary Database Configuration		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server. Primary Database IP Address Primary Database IP Address Primary Database Server Port 1523 Primary Database Instance Name samdb2 Database User Name Database User Password ************************************	
InstallAnywhere by Macrovision -		
Cancel	Previous Next	

Figure 4-152 Primary Database Configuration

- 144 Depending on the existing configuration. the panel shown in Figure 4-153 appears. Configure the following parameters, if required, then click on the Next button:
 - Online Database Backup Interval (hours) (typically 24)
 - Online Backup Destination (typically /opt/5620sam/dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 143.

- 5620 S	- 5620 SAM/5650 CPAM Server Installer -				
	Online Database Back				
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Specify the interval between backups, the backup directory, and the number of backups to retain. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination /opt/5620sam/dbbackup Number Of Backup Sets 3				
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next				

Figure 4-153 Online Database Backup

- **145** Configure the following parameters shown in Figure 4-154, then click on the Next button:
 - Database Server IP Address
 - Database Instance Name (typically samdb1)
 - Database Proxy Port (typically 9002)

Figure 4-154 Standby Database Configuration

-	5620 SAM/5650 CPAM Server Installer			
	Standby Database Configuration			
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	Standby Database Configurati If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Instance Name Samdb1 Database Proxy Port 9002		
In	stallAnywhere by Macrovision – Cancel	Previous <u>N</u> ext		

146 Configure the following parameters shown in Figure 4-155:

- SAM Server Domain Name (typically 5620sam)
- Public IP (visible to clients)
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)
- Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

5620 SAM/5650 CPAM Server Installer		
	Main Server Address Configuration for Clients	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients. Server Domain Name 5620sam Public IP (visible to clients)	
InstallAnywhere by Macrovision —	Previous	

Figure 4-155 Main Server Address Configuration for Clients

- 147 Configure the following parameters shown in Figure 4-156:
 - Public IP (visible to peer server)
 - High Available JNDI Port (typically 1100)
 - TCP Port Cluster Number (typically 11800)

If NAT is used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

5620 SAM/5650 CPAM Server Installer		
Main Server Configuration for Peer Serve		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the main server will use to communicate with the peer server. Public IP (visible to peer server) High Available JNDI Port 1100 TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server)	
InstallAnywhere by Macrovision -	Previous	

Figure 4-156 Main Server Address Configuration for Peer Server

148 The panel in Figure 4-157 is displayed if you select "Auxiliary Server Supported" in step 142. Otherwise, go to step 150.

Perform the following steps to specify an auxiliary server, if required.



Note - The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 4-157:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

Figure 4-157	Maill Server Colliguration for Auxiliary Servers	
-	5620 SAM/5650 CPAM Server Installer	,
	Main Server Configuration for Auxiliary Serve	rs
 Introduction License Agreement Choose Installation Type Install Directory Configuration 	Enter the IP address of the network interface the 5620 SAM main server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address.	
Install Complete	Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server)	

Figure 4-157	Main Server	Configuration	for Auxiliary Servers
--------------	-------------	---------------	-----------------------

If NAT is used between this 5620 SAM main server and the auxiliary servers, ii select the "NAT (network address translation) Used" parameter and enter the private IP address of the server in the "Private IP" field.

<u>P</u>revious

Next

iii Click on the Next button.

InstallAnywhere by Macrovision <u>C</u>ancel

iv Click on the Add button shown in Figure 4-158 to specify an auxiliary server. The form shown in Figure 4-159 opens.

- 5620 S	AM/5650 CPAM Server Installer
	Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Specify all the 5620 SAM Auxiliary Servers that this Main Server connects to. There must be at least one Preferred auxiliary server. If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Main Server. IP Address Port Type Add Edit
InstallAnywhere by Macrovision - <u>C</u> ancel	<u>P</u> revious <u>N</u> ext

Figure 4-158 Auxiliary Servers

Figure 4-159 Auxiliary Server Configuration

– Auxiliary Ser	ver Configuration	
IP Address		
Port	12800	
Туре	Preferred •	
	OK Cancel	

- v Configure the following parameters:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- vi Click on the OK button to save the information and close the form.
- vii Repeat steps 148 iv to vi to specify an additional auxiliary server, if required.
- 149 Click on the Next button.

- **150** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 4-160.
 - ii If you want to accept the default user documentation location that is displayed, go to step 151.



Note — If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation directory on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 4-160 User Documentation



- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 4-160.
 - ii Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a directory under the base 5620 SAM client installation directory. The path must not contain a leading slash. For example, if the installation directory is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents directory.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms directory in the base 5620 SAM client installation directory, for example, /opt/5620sam/client/nms/Documents.

- 151 Click on the Next button.
- **152** Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 4-161. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

— 5620 SA	M/5650 CPAM Server Installer		
	License Information for 5650 CPAM Server		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	□ Include 5650 CPAM Server License Information >-00000-00000-00000-00000-00000-00000-0000		
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous		

Figure 4-161 License Information for 5650 CPAM Server

153 If NAT is used between the 5620 SAM server and clients, select the "Network Address Translation Used" parameter shown in Figure 4-162 and enter the public IP address of the server. Click on the Next button.

- 5620 S	AM/5650 CPAM Server Installer
	Network Address Translation
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If the 5620 SAM GUI and OSS clients are to connect to the 5620 SAM server through a NAT router, enable the "Network Address Translation Used" parameter and provide the 5620 SAM server public IP address that will be known to the clients. Image: Contract
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 4-162 Network Address Translation

- **154** Configure the following parameters shown in Figure 4-163, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)

Figure 4-163 SNMP	Configuration
-------------------	---------------

— 5620 S <i>i</i>	AM/5650 CPAM Server Installer
	SNMP Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network. SNMP Trap Receiving IP Address SNMP Trap Receiving Port 162 Trap Log Id
InstallAnywhere by Macrovision – Cancel	Previous Next

- **155** Configure the following parameters shown in Figure 4-164, then click on the Next button:
 - Peer Server IP Address (the new standby server IP address)
 - Peer Server Trap Log Id (typically 98)
 - Peer Server SNMP Trap Receiving IP Address
 - Peer Server SNMP Trap Receiving Port (typically 162)
 - Peer Server TCP Port Cluster Number (typically 11800)

Figure 4-164 Peer Main Server Configurations

= 5620 S#	AM/5650 CPAM Server Installer
Peer Main Server Configurations	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public address, as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public address, as known to the devices within the managed network. Peer Server IP Address Peer Server Trap Log Id 98 Peer Server SNMP Trap Receiving IP Address Peer Server SNMP Trap Receiving Port 162 Peer Server TCP Port Cluster Number
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

- **156** Configure the following parameters shown in Figure 4-165, then click on the Next button:
 - 5620 SAM Peer Server IP Address (new standby server station IP address)
 - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
 - 5620 SAM JNDI Peer Server Port (typically 1099)

Figure 4-165 Peer Main Server Configurations (continued)

-	5620 S/	AM/5650 CPAM Server Installer	•
	Peer Main Server Configurations (cont.)		
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	Enter the IP address of the network interface the GUI and OSS clients will use to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients. 5620 SAM Peer Server IP Address 5620 SAM JNDI High Available Peer Server Port 1100 5620 SAM JNDI Peer Server Port 1099	
Ins	stallAnywhere by Macrovision – <u>C</u> ancel	Previous	

157 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 4-166 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Image: Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision	Previous

Figure 4-166 Navigation from External Systems

158 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 4-167. Click on the Install button to begin the server upgrade.

-	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Chose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xml_output Restore Default Folder Choose
nstallAnywhere by Macrovision — <u>C</u> ancel	Previous

Figure 4-167 XML Output Directory

The next panel displays upgrade progress, as shown in Figure 4-168.

-	5620 SAM/5650 CPAM Server Installer
	Installing 5620 SAM/5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢
	Installing Java Runtime Environment
InstallAnywhere by Macrovision	

Figure 4-168 Installing 5620 SAM/5650 CPAM Server

159 The 5620 SAM server is installed as a UNIX daemon, as shown in Figure 4-169. Click on the Next button.

— 5620 SA	M/5650 CPAM Server Installer
	Installing the Server as a Unix Daemon
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Server has been successfully installed as a Unix Daemon
InstallAnywhere by Macrovision — Cancel	Previous

Figure 4-169 Installing the Server as a Unix Daemon

160 When the server upgrade is complete, as shown in Figure 4-170, ensure that the "Start the 5620 SAM Main Server" parameter is not selected. Click on the Done button to close the installer.



Caution — Do not configure this server to start immediately after the upgrade.

Figure 4-170 Installation Complete

5620 SA	AM/5650 CPAM Server Installer	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	AM/5650 CPAM Server Installer Installation Complete Congratulations! 5620 SAM Main Server has been successfully installed inside directory /opt/5620sam/server. Please assign a password for samadmin using 'passwd samadmin' command. Once the server is started for the first time it can take up to an hour for the server to initialize the database. Attempts to login to the server via the 5620 SAM client will fail until the server is completely up.	
InstallAnywhere by Macrovision –	Previous Done	

This server is the new standby server.

161 If you are upgrading from the 5620 SAM, Release 6.0 or earlier, the installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

- i Enter the following at the CLI prompt:
 - # passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.
- v Leave the console window open for later use.

Upgrade new standby auxiliary servers

162 If the 5620 SAM deployment contains auxiliary servers, perform Procedure 4-8 on each preferred and reserved auxiliary server of the new standby main server to upgrade the auxiliary server software.

Start new standby main server

163 Perform one of the following to start the new standby 5620 SAM main server.

- a If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Navigate to the server configuration directory. Enter the following at the CLI prompt:

cd path/nms/bin 🕹

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

ii Enter the following at the CLI prompt:

./nmsserver.bash start \dashv

The 5620 SAM main server starts.

iii Enter the following at the CLI prompt to verify that the new standby 5620 SAM main server is operational:

./nmsserver.bash appserver_status \dashv

iv The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 163 a iii. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Navigate to the server configuration directory. Enter the following at the CLI prompt:

cd path/nms/bin .]

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

ii Enter the following at the CLI prompt to switch to the samadmin user:

su - samadmin .∣

iii Enter the following at the CLI prompt:

<code>bash\$./nms/bin/nmsserver.bash start</code> \dashv

The 5620 SAM main server starts.

iv Enter the following at the CLI prompt to verify that the new standby 5620 SAM main server is operational:

bash\$./nmsserver.bash appserver_status 斗

v The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 163 b iii. Do not proceed unless the console displays the above text.

Start new standby auxiliary servers

- **164** Perform one of the following on each preferred and reserved 5620 SAM auxiliary server of the new standby main server.
 - a If the 5620 SAM auxiliary server is installed on Solaris 9, perform the following steps.
 - i Log in as a user with root-equivalent privileges on the auxiliary server station.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt:

path/nms/bin/nmsserver.bash auxstart .

where path is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

- **b** If the 5620 SAM auxiliary server is installed on Solaris 10, perform the following steps.
 - i Log in to the auxiliary server station as the samadmin user.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt:

bash\$ path/nms/bin/nmsserver.bash auxstart .]

where *path* is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

The 5620 SAM auxiliary server starts. Initial server startup can take twenty minutes or more.

Upgrade or install additional clients for redundant system

- **165** Perform one of the following to upgrade an existing 5620 SAM client, or install a new 5620 SAM client, if required.
 - a Perform Procedure 2-3 to install a 5620 SAM client on a Windows station.
 - b Perform Procedure 2-7 to upgrade a Release 5.0 R4 or earlier 5620 SAM client on a Windows station.
 - c Perform Procedure 2-8 to upgrade a Release 5.0 R5 or later 5620 SAM client on a Windows station.
 - d Perform Procedure 3-2 to install a 5620 SAM client on a Solaris or Linux station.
 - e Perform Procedure 4-3 to upgrade a Release 5.0 R4 or earlier 5620 SAM client on a Solaris or Linux station.
 - f Perform Procedure 4-4 to upgrade a Release 5.0 R5 or later 5620 SAM client on a Solaris or Linux station.

Procedure 4-6 To restore a 5620 SAM 4.0 database

Perform this procedure to restore a 5620 SAM 4.0 database backup on a 5620 SAM database station.



Note – You require the following user privileges on the database station to perform this procedure:

- root or root-equivalent
- Oracle management
- 1 Log in as the Oracle management user on the database station.
- 2 Open a console window.
- 3 Navigate to the Solaris directory on the 5620 SAM Release 4.0 software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 斗



Caution – You must use the Release 4.0 5620 SAM DVD-ROM for the database restore, not the new DVD-ROM.

4 Enter the following at the CLI prompt to open the 5620 SAM configuration utility:

```
bash$ ./DBConfig.bin .
```

A splash screen appears, as shown in Figure 4-171, and the restore process begins.



Figure 4-171 5620 SAM Installer

5 The 5620 SAM database configuration utility opens, as shown in Figure 4-172. The left pane indicates restore progress. The right pane displays release information about the utility. Click on the Next button.



Figure 4-172 Introduction

6 Review and accept the terms of the license agreement shown in Figure 4-173. Click on the Next button.



Figure 4-173 Software License Agreement

7 Select Restore a Database, as shown in Figure 4-174. Click on the Next button.



Figure 4-174 Choose Installation Type

8 Specify the base directory in which to install the 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 4-175.

5620 SAM Database Configurator		
Specify the Base Directory for 5620 SAM Database Files		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all 5620 SAM database related files //opt/5620sam/samdb/install Restore Default Folder Choose	
InstallAnywhere by Zero G ——— Cancel	Previous	

Figure 4-175 Specify the Base Directory for 5620 SAM Database Files

The installer prepares to restore the database, as shown in Figure 4-176.



Figure 4-176 Installing 5620 SAM Database Configurator

9 Specify the base directory in which the existing 5620 SAM Oracle software is installed (typically /opt/5620sam/oracle), as shown in Figure 4-177. Click on the Next button.

5620 SAM Database Configurator		
Specify the Base Directory for Oracle Files		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all Oracle files. /opt/5620sam/oracle Restore Default Folder Choose	
InstallAnywhere by Zero G ——— Cancel	Previous	

Figure 4-177 Specify the Base Directory for Oracle Files

10 Specify the directory that contains the database backup file set, as shown in Figure 4-178. Click on the Next button.

Figure 4-178	Locate the	Backup	Directory
inguie i ize	Eccure the	Duchup	Directory

- 5620) SAM Database Configurator
	Locate the Backup Directory
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This directory should contain a 5620 SAM database backup set. Restore Default Folder Choose
InstallAnywhere by Zero G	Previous Next

- 11 Configure the following parameters shown in Figure 4-179, then click on the Next button.
 - Database Server IP Address (the local IP address of the network interface that the database uses)
 - Database Instance Name (the instance name used for the database on this station before the upgrade began)
 - Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)

- 5620 SAM Database Configurator		
	General Database Restore Info	
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Enter the network interface the Database will use to communicate with the Servers. If Network Address Translation (NAT) is used, specify the Database's private IP address. Database Server IP Address Database Instance Name samdb2 Database Listener Port 1523 Database Proxy Port 9002	
InstallAnywhere by Zero G		
Cancel	Previous	

Figure 4-179 General Database Restore Info

12 Specify and confirm the SYS password, as shown in Figure 4-180. Click on the Next button.

- 5620 SAM Database Configurator		
	Oracle SYS Password	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	IMPORTANT: the password needs to be known to the 5620 SAM administrator for future reference SYS Password Confirm SYS Password	
InstallAnywhere by Zero G	Previous	

Figure 4-180 Oracle SYS Password

13 The panel in Figure 4-181 is displayed. It is not necessary to configure the parameters on this panel for a database restore. Click on the Next button.

- 562	0 SAM Database Configurator
 Introduction License Agreement Installation Type 	Server IP Validation If Network Address Translation is to be used, enter the 5620 SAM Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will
 Installation In Progress Installation Completed 	Enable SAM Server IP Validation Primary SAM Server IP Address Door SAM Server IP Address
InstallAnywhere by Zero G ——— Cancel	Previous Next

Figure 4-181 Server IP Validation

14 If NAT is used between the 5620 SAM server and database, select the "Access Database through a NAT Router" parameter shown in Figure 4-182 and enter the public IP address of the database. Click on the Next button.

- 5620 SAM Database Configurator		
	Public IP Address of the Database Server	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. Access Database through a NAT Router Public IP Address	
InstallAnywhere by Zero G	Previous	

Figure 4-182 Public IP Address of the Database Server

15 The panel in Figure 4-183 is displayed. It is not necessary to configure the parameters on this panel for a database restore. Click on the Next button.

- 562	0 SAM Database Configurator
	Archive Log Destination
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	To enable online database backups, the database must be run in archive log mode. Specify the directory where the archived logs are to be located. For best performance, choose a low-activity device for the archive log directory. /opt/5620sam/samdb/archivelog Restore Default Folder Choose
InstallAnywhere by Zero G ———	
Cancel	Previous

Figure 4-183 Archive Log Destination

16 The panel in Figure 4-184 is displayed. It is not necessary to configure the parameters on this panel for a database restore. Click on the Next button.

 5620 SAM Database Configurator 	
	XML and CSV Dump Destination
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This is the directory on the database server or accessible from the database server for outputing data in XML and CSV formats. //opt/5620sam/samdb/xml_csv Restore Default Folder Choose
InstallAnywhere by Zero G ——— Cancel	Previous

Figure 4-184 XML and CSV Dump Destination

The installer prepares to restore the database, as shown in Figure 4-185.

Figure 4-185 Please Wait

-	562	0 SAM Database Configurator
		Please Wait
	 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment
In	stallAnywhere by Zero G ———	
	Cancel	Previous

17 You are prompted to begin the database restore, as shown in Figure 4-186. A database restore can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the restore.

— 5620 SAM Database Configurator 🦿	
	Database Restore
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The database restore process takes some time. Do not interrupt this process once it has started. If cancelled, the application exits and the result is an incomplete database restore.
InstallAnywhere by Zero G ——— Cancel	Previous

Figure 4-186 Database Restore

Database restore progress is indicated as shown in Figure 4-187.

- 5620	O SAM Database Configurator		
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	D SAM Database Configurator	Database Resto	re
InstallAnywhere by Zero G ———	Previo	us Next	

Figure 4-187 Database Restore

18 The panel in Figure 4-188 is displayed. It is not necessary to configure the parameters on this panel for a database restore. Click on the Next button.

- 562	0 SAM Database Configurator
	Peer Database Info
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the network interface the Database will use to communicate with the Servers. If Network Address Translation (NAT) is used, specify the Database's private IP address. Peer Database IP Address Peer Database Instance Name
InstallAnywhere by Zero G	Previous Next

Figure 4-188 Peer Database Info

Database configuration progress is indicated as shown in Figure 4-189.

- 5620 SAM Database Configurator		
	Please Wait	
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment	
InstallAnywhere by Zero G		
Cancel	Previous	

Figure 4-189 Please Wait

19 When the database restore is complete, you are prompted to run a script that enables automatic database startup during system startup, as shown in Figure 4-190. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Done button to close the installer.

– 5620 SAM Database Configurator 🛛 🖓	
	Installation Complete
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/5620sam/samdb/install/config/samdb/solaris_root.sh Database restore was successful
InstallAnywhere by Zero G	Previous

Figure 4-190 Installation Complete

Procedure 4-7 To restore a 5620 SAM 5.0 database

Perform this procedure to restore a 5620 SAM 5.0 database backup on a 5620 SAM database station.



Note – You require the following user privileges on the database station to perform this procedure:

- root or root-equivalent
- Oracle management
- 1 Log in as the Oracle management user on the database station.
- 2 Open a console window.
- 3 Navigate to the Solaris directory on the 5620 SAM 5.0 software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 🚽

4 Enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./DBConfig_SAM_5_0_revision_ID.bin ↓

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

A splash screen appears, as shown in Figure 4-191, and the restore process begins.



Figure 4-191 5620 SAM Installer

5 The 5620 SAM database configuration utility opens, as shown in Figure 4-192. The left pane indicates restore progress. The right pane displays release information about the utility. Click on the Next button.



Figure 4-192 Introduction

6 Review and accept the terms of the license agreement shown in Figure 4-193. Click on the Next button.

5620 SAM Database Configurator	
	Software License Agreement
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement). Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2007 Alcatel-Lucent.
InstallAnywhere by Macrovision - Cancel	, Previous <u>N</u> ext

Figure 4-193 Software License Agreement

7 Select Restore a Database, as shown in Figure 4-194. Click on the Next button.



Figure 4-194 Choose Installation Type

8 Select do not Install Oracle Software, as shown in Figure 4-195. Click on the Next button.

- 5620	SAM Database Configurator
	Install Oracle Software
Introduction	You can choose to install Oracle 10g Software first if it is not already
License Agreement	installed.
Installation Type	
Installation In Progress	
Installation Completed	
	 Install Oracle Software Do not install Oracle Software
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 4-195 Install Oracle Software

The installer begins configuration, as shown in Figure 4-196.

Figure 4-196 Please Wait

- 562	0 SAM Database Configurator	•
	Please Wa	it
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment	
InstallAnywhere by Macrovision · Cancel	Previous	
9 Specify the base directory in which to install the 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 4-197. Click on the Install button to begin the restore.

- 5620 SAM Database Configurator		
Specify the Base Directory for 5620 SAM Database Files		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all 5620 SAM database related files /opt/5620sam/samdb/install Restore Default Folder Choose	
InstallAnywhere by Macrovision - Cancel	Previous	

Figure 4-197 Specify the Base Directory for 5620 SAM Database Files

The installer prepares to restore the database, as shown in Figure 4-198.



Figure 4-198 Installing 5620 SAM Database Configurator

10 Specify the base directory in which the existing 5620 SAM Oracle software is installed (typically /opt/5620sam/oracle), as shown in Figure 4-199. Click on the Next button.

- 5620) SAM Database Configurator	•
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	SAM Database Configurator Specify the Base Directory for Oracle Softwar The directory specified here will be the base directory for all Oracle software. /oracle software. /opt[sam/oracle Restore Default Folder Choose	e -
InstallAnywhere by Macrovision –	Previous Next	

Figure 4-199 Specify the Base Directory for Oracle Software

11 Specify the directory that contains the database backup file set, as shown in Figure 4-200. Click on the Next button.

Figure 4-200	Locate t	the Backup	Directory
·			

-	5620 SAM Database Configurator	
	Introduction	Locate the Backup Directory This directory should contain a 5620 SAM database backup
	 License Agreement Installation Type Installation In Progress Installation Completed 	set
		/opt/sam/dbbackup/pre_upgrade Restore Default Folder Choose
	nstallAnywhere by Macrovision — <u>C</u> ancel	Previous Next

12 Depending on which 5620 SAM 5.0 release is installed, the panel shown in Figure 4-201 is displayed. Click on the Next button to accept the parameter values.

- 5620 SAM Database Configurator		
General Database Restore		
Introduction License Agreement Installation Type Installation In Progress Installation Completed	Enter the network interface the database will use to communicate with the servers. If NAT (network address translation) is used, specify the database's private IP address.	
	Database Server IP Address Database Instance Name samdb1 Database Listener Port 1523	
	Database Proxy Port 9002	
InstallAnywhere by Macrovision - Cancel	Previous Next	

Figure 4-201 General Database Restore Info

13 Specify and confirm the SYS password, as shown in Figure 4-202. Click on the Next button.

Figure	4-202	Oracle	svs	Password
riguie	4-202	Ulacie	212	rasswuru

- 5620	SAM Database Configurator
	Oracle SYS Password
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	IMPORTANT: the password needs to be known to the 5620 SAM administrator for future reference. SYS Password ************************************
InstallAnywhere by Macrovision – Cancel	Previous Next

14 Depending on which 5620 SAM 5.0 release is installed, the panel shown in Figure 4-203 is displayed. If the 5620 SAM database and server are collocated, select the "Database co-exists with a 5620 SAM server" parameter. Click on the Next button.

– 5620 SAM Database Configurator		
Determine Memory Requirement		
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Specify whether a 5620 SAM server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load. Database co-exists with a 5620 SAM server	
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous	

Figure 4-203 Determine Memory Requirements

15 The panel in Figure 4-204 is displayed. It is not necessary to configure the parameters on this panel for a database restore. Click on the Next button.

Figure 4-204 Main Server IP Validation

-	5620 SAM Database Configurator		
	Main Server IP Validation		
	 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If NAT (network address translation) is to be used, enter the 5620 SAM main server(s) public IP address(es) as known to this 5620 SAM database. If IP address validation is enabled, the database will allow only connections from the specified server(s). Enable 5620 SAM Server IP Validation Primary 5620 SAM Server IP Address Peer 5620 SAM Server IP Address	
	nstallAnywhere by Macrovision – Cancel	Previous Next	

16 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 4-205 and enter the public IP address of the database. Click on the Next button.

- 5620 SAM Database Configurator	
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. NAT (network address translation) Used Public IP (visible to servers)
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

Figure 4-205 Public IP of the Database Server

17 The panel in Figure 4-206 is displayed. It is not necessary to configure the parameters on this panel for a database restore. Click on the Next button.

Figure 4-206	Archive Log	Destination
--------------	-------------	-------------

-	5620 SAM Database Configurator	
	S620 SAM Database Configurator Archive Log Destination Introduction License Agreement Installation Type Installation In Progress	
	 Installation Completed 	archive log directory. /opt/sam/samdb/archivelog Restore Default Folder Choose
lr	nstallAnywhere by Macrovision — <u>C</u> ancel	Previous

The installer prepares to restore the database, as shown in Figure 4-207.

 - 5620	SAM Database Configurator	•
	Please Wa	it
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 4-207 Please Wait

18 You are prompted to begin the database restore, as shown in Figure 4-208. A database restore can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the restore.

- 5620	SAM Database Configurator
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	SAM Database Configurator r Database Restore Database Restore The database restore process takes some time. Do not interrupt this process once it has started. If cancelled, the application exits and the result is an incomplete database restore.
InstallAnywhere by Macrovision -	Start Process Previous Next

Figure 4-208 Database Restore

19 Depending on which 5620 SAM 5.0 release is installed, the panel shown in Figure 4-209 is displayed. Click on the Continue button to overwrite the current database.

Figure 4-209 Please Choose



Database restore progress is indicated as shown in Figure 4-210.

-	562	SAM Database Configurator
		Database Restore
	 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Database restore in progress
	nstallAnywhere by Macrovision · Cancel	

Figure 4-210 Database Restore

20 Depending on which 5620 SAM 5.0 release is installed, the panel shown in Figure 4-211 is displayed. It is not necessary to configure the parameters on this panel for a database restore. Click on the Next button.

- 5620	SAM Database Configurator
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Peer Database Info Enter the network interface information that the database will use to communicate with the servers. If NAT (network address translation) is to be used, specify the database's private IP address. Peer Database IP Address Peer Database Instance Name
InstallAnywhere by Macrovision –	Previous Next

Figure 4-211 Peer Database Info

The installer prepares to restore the database, as shown in Figure 4-212.

Figure 4-212 Please Wait

-	5620) SAM Database Configurator
		Please Wait
	 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment
	nstallAnywhere by Macrovision -	Previous Next

21 When the database restore is complete, you are prompted to run a script that enables automatic database startup during system startup, as shown in Figure 4-213. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Done button to close the database installer.

- 5620	SAM Database Configurator
	Installation Complete
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/5620sam/samdb/install/config/samdb/solaris_root.sh Database restore was successful
InstallAnywhere by Macrovision -	,
<u>C</u> ancel	Previous Done

Figure 4-213 Installation Complete

4.8 5620 SAM auxiliary server upgrade procedures

This section describes how to upgrade a 5620 SAM auxiliary server component for a standalone or redundant 5620 SAM system.

Procedure 4-8 describes how to upgrade the 5620 SAM auxiliary server software.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- # represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 4-8 To upgrade a 5620 SAM auxiliary server

Perform this procedure to upgrade the 5620 SAM auxiliary server software on a Solaris station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note – You require root-equivalent user privileges to upgrade the 5620 SAM auxiliary server software.

- 1 Log in as a user with root-equivalent privileges on the auxiliary server station.
- 2 Open a console window.
- 3 Navigate to the Solaris directory on the new 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

- 4 Enter the following at the CLI prompt to open the 5620 SAM installer:
 - # ./ServerInstall_SAM_6_1_revision_ID.bin .]

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 4-214 appears and the upgrade process begins.

Figure 4-214 5620 SAM Installer



5 The 5620 SAM installer opens, as shown in Figure 4-215. The left pane indicates upgrade progress. The right pane displays release information about the software being upgraded. Click on the Next button.

Figure 4-215 Introduction

- 5620 S	AM/5650 CPAM Server Installer	-
	Introduction	1
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM/5650 CPAM Server. The version of the 5620 SAM/5650 CPAM Server software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision - Cancel	Previous]

6 Review and accept the terms of the license agreement shown in Figure 4-216. Click on the Next button.



Figure 4-216 Software License Agreement

7 Select Auxiliary Server Installation and Configuration, as shown in Figure 4-217. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Choose Installation Type
 Introduction License Agreement Choose Installation Type Install Directory 	Main Server Installation Install or upgrade the 5620 SAM Main Server Main Server installation Main Server installation
Configuration Install Complete	Auxiliary Server Installation Install or upgrade the 5620 SAM Auxiliary Server Auxiliary Server Configuration Change parameters of an existing 5620 SAM Auxiliary Server Installation
	CPAM Server Installation Install or upgrade the 6660 CPAM Server Installation CPAM Server Installation
InstallAnywhere by Macrovision —	<u>Previous</u>

Figure 4-217 Choose Installation Type

8 Specify the base directory in which the existing 5620 SAM auxiliary server software is installed (typically /opt/5620sam/auxserver), as shown in Figure 4-218. Click on the Next button.

Figure 4-218 Specify the Base Directory for 5620 SAM Auxiliary Server Files

- 5620 S/	AM/5650 CPAM Server Installer	•
Specify the Base Directory for 5620 SAM Auxiliary Server Files		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files. /opt/5620sam/auxserver Restore Default Folder Choose	
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next	

9 As shown in Figure 4-219, the installer displays the release of the 5620 SAM auxiliary server software that is to be upgraded. Verify the information. Click on the Next button.

- 5620 S	AM/5650 CPAM Server Installer
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	You are about to perform an installation on an already installed directory Installed on disk: 5620 SAM Version 5.0 R5.0 - Built on Fri Aug 17 04:37:11 EST 2007 Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision - Cancel	Previous Next

Figure 4-219 Checking Build Compatibility

- 10 Configure the parameters shown in Figure 4-220:
 - SAM Server Domain Name (typically 5620sam)
 - Public IP (visible to servers)
 - Auxiliary Server Port (typically 12800)
 - i If NAT is used between this 5620 SAM auxiliary server and the main 5620 SAM server, select the "Network Address Translation Used" parameter and enter the private IP address of this auxiliary server.
 - ii Select the "Redundancy Supported On the 5620 SAM Main Server" parameter to specify whether this auxiliary server is joining a redundant 5620 SAM configuration.
 - iii Click on the Next button.

- 5620 S	AM/5650 CPAM Server Installer
	Auxiliary Server Address Configuration
 Introduction License Agreement Choose Installation Type Install Directory 	Enter the network interface information for the Auxiliary Server. The domain name must be the same as the 5620 SAM main server's domain name.
 Configuration Install Complete 	SAM Server Domain Name 5620sam Public IP (visible to servers) Auxiliary Server Port 12800
	Network Address Translation Used
	Redundancy Supported On the 5620 SAM Main Server
InstallAnywhere by Macrovision	Previous

Figure 4-220 Auxiliary Server Address Configuration

- 11 Perform one of the following.
 - a If the "Redundancy Supported On the 5620 SAM Main Server" parameter shown in step 10 is disabled, configure the following parameters shown in Figure 4-221:
 - Main Server IP Address
 - Main Server Port (typically 12800)

-	5620 SAM/5650 CPAM Server Installer		
	Main Server Configuration		
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	Enter the IP address of the network interface on the Main Server that this Auxiliary Server will use. Main Server IP Address Main Server Port 12800	
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous	

- **b** If redundancy is enabled, configure the following parameters shown in Figure 4-222:
 - Main Server One IP Address
 - Main Server One Port (typically 12800)
- Main Server Two IP Address
- Main Server Two Port (typically 12800)



— 5620 S	5620 SAM/5650 CPAM Server Installer		
	Main Server Configuration		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the IP addresses of the network interfaces on the Main Servers that this Auxiliary Server will use. Main Server One IP Address Main Server One Port 12800 Main Server Two IP Address Main Server Two Port 12800		
InstallAnywhere by Macrovision - Cancel	Previous Install		

12 Specify an OSS XML output location (typically /opt/5620sam/auxserver/xml_output), as shown in Figure 4-223. Click on the Install button to begin the auxiliary server upgrade.

Figure 4-223 XML Output Directory

-		5620 SAM/5650 CPAM Server Installer
		XML Output Directory
	Introduction License Agreement Choose Installation Type Install Directory Configuration	The output of the OSSI file exports will be stored under this directory /opt/5620sam/auxserver/xml_output Restore Default Folder Choose
Ins	tallAnywhere by Macrovision · <u>C</u> ancel	Previous Install

The next panel displays upgrade progress, as shown in Figure 4-224.

5620 SAM/5650 CPAM Server Installer		
	Installing 5620 SAM/5650 CPAM Server	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel-Lucent 🕢	
	Installing jboss	
InstallAnywhere by Macrovision – <u>C</u> ancel		

Figure 4-224 Installing 5620 SAM/5650 CPAM Server

13 As shown in Figure 4-225, the 5620 SAM auxiliary server is installed as a UNIX daemon. Click on the Next button.

— 5620 SA	5620 SAM/5650 CPAM Server Installer		
Installing the Server as a Unix Daemon			
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Server has been successfully installed as a Unix Daemon		
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous		

Figure 4-225 Installing the Server as a Unix Daemon

14 When the server upgrade is complete, as shown in Figure 4-226, configure the "Start the 5620 SAM Auxiliary Server" parameter to specify whether you want the server to start immediately after the upgrade.



Caution — If you are upgrading the auxiliary server as part of a redundant 5620 SAM system upgrade, do not configure the server to start immediately after the upgrade.

— 5620 S <i>i</i>	AM/5650 CPAM Server Installer
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	AM/5650 CPAM Server Installer Installation Complete
InstallAnywhere by Macrovision –	Previous

Figure 4-226 Installation Complete

- **15** Click on the Done button to close the installer. If you specified that the server is to start after the upgrade, the server starts. Initial server startup can take twenty minutes or more.
- **16** If you are upgrading from the 5620 SAM, Release 6.0 or earlier, the installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

```
# passwd samadmin
```

The following prompt is displayed:

New Password:

ii Enter the new password and press \dashv .

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.
- 17 If you specified not to start the auxiliary server immediately after the upgrade, you can start it later by performing one of the following.
 - a If the 5620 SAM auxiliary server is installed on Solaris 9, perform the following steps.
 - i Log in as a user with root-equivalent privileges on the auxiliary server station.
 - ii Enter the following at the CLI prompt:

path/nms/bin/nmsserver.bash auxstart ...

where path is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver

- **b** If the 5620 SAM auxiliary server is installed on Solaris 10, perform the following steps.
 - i Log in as the samadmin user on the auxiliary server station.
 - ii Enter the following at the CLI prompt:

bash\$ path/nms/bin/nmsserver.bash auxstart .

where path is the 5620 SAM auxiliary server installation location, typically /opt/5620sam/auxserver



Note — The order in which a 5620 SAM auxiliary server and the primary 5620 SAM server initialize is unimportant. A 5620 SAM server synchronizes with an auxiliary server as soon as it is able to communicate with the auxiliary server.

The 5620 SAM auxiliary server starts. Initial server startup can take twenty minutes or more.

5 – 5620 SAM conversion to redundancy

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- 5.3 Workflow for 5620 SAM conversion to redundancy 5-3
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5.1 5620 SAM conversion to redundancy overview

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



Caution 1 – Converting a 5620 SAM system from standalone to redundant requires that you thoroughly understand the general and OS-specific requirements. It is essential that the conversion procedure be planned, documented and tested in advance on a lab system that is representative of the target live network.

Contact your Alcatel-Lucent support representative to assess the conversion requirements for your network implementation of the 5620 SAM. Alcatel-Lucent offers an upgrade service and strongly recommends that it be engaged for conversions in larger or more complex networks.

Caution 2 – Alcatel-Lucent supports 5620 SAM software configuration only under the conditions described in chapter 1.



Note 1 – You cannot convert a standalone 5620 SAM system to redundancy as part of a 5620 SAM system upgrade. To upgrade your 5620 SAM system and convert it to redundancy, you must upgrade the system before you perform the conversion.

Note 2 – You require a second 5620 SAM license key for the new standby 5620 SAM main server. The new key must have the same capacity specifications as the existing key, and must be generated specifically for the new 5620 SAM server station. Consult an Alcatel-Lucent technical-support representative for more information.

5.2 5620 SAM conversion to redundancy procedures list

Table 5-1 lists the procedures required to perform the conversion of a standalone 5620 SAM system on a Solaris platform to a redundant system on a Solaris platform.

Table 5-1	5620 SA	M conversion	to redundancy	procedures	list

Procedure	Purpose
To convert a standalone 5620 SAM system on Solaris to a redundant system	Convert a standalone 5620 SAM system on one or more Solaris stations to a redundant 5620 SAM system on Solaris stations.

5.3 Workflow for 5620 SAM conversion to redundancy

The following is the sequence of high-level actions required to convert a standalone 5620 SAM system on Solaris to a redundant system. A section heading in quotation marks is a reference to a section in Procedure 5-1.

- 1 Back up the 5620 SAM configuration files. See "Back up configuration files" for more information.
- 2 Gather the system information required for the conversion. See "Gather required information" for more information.
- 3 Close the unrequired 5620 SAM client sessions. See "Close client sessions" for more information.
- 4 Close the 5620 SAM LogViewer application, if it is running. See "Close 5620 SAM LogViewer" for more information.
- 5 Back up the 5620 SAM database. See "Back up database" for more information.
- 6 Shut down the 5620 SAM server. See "Shut down server" for more information.
- 7 Disable the 5620 SAM server startup daemon. See "Disable server daemon" for more information.
- 8 Convert the standalone database to a primary database. See "Convert standalone database to primary database" for more information.
- 9 Convert the standalone server to a primary server. See "Convert standalone server to primary server" for more information.
- **10** Create an Oracle management user account and configure the associated system parameters on the standby database station. See "Prepare standby database station for standby database installation" for more information.
- 11 Install the standby database. See "Install standby database" for more information.
- 12 Install the standby server. See "Install standby server" for more information.
- **13** Reinstantiate the database on the standby database station. See "Reinstantiate standby database" for more information.
- 14 Use a 5620 SAM client to perform sanity testing on the newly redundant 5620 SAM system, as required.

5.4 5620 SAM conversion to redundancy procedures

This section describes how to convert a standalone 5620 SAM system on Solaris to a redundant system on Solaris.

Procedure 5-1 describes how to convert a standalone 5620 SAM system to a redundant system.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- # represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 5-1 To convert a standalone 5620 SAM system on Solaris to a redundant system

Perform this procedure to convert a standalone 5620 SAM system on a Solaris platform to a redundant 5620 SAM system. This involves converting the standalone main server and database to a primary main server and database, installing the standby main server and database software, and reinstantiating the new primary database to the new standby database station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent
- samadmin (Solaris 10 only)

on each database station:

- root or root-equivalent
- Oracle management

Note 2 — The samadmin user account is created on the standby main server station during this procedure.

Note 3 — The Oracle management user account is created on the standby database station during this procedure.

Back up configuration files

1 Make a backup copy of the *path*/nms/config/nms-server.xml configuration file on the server station.

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Store the file in a secure location that is unaffected by the 5620 SAM conversion activity, such as a non-5620 SAM station.

2 Make a copy of any custom XML configuration files in the *path*/nms/jboss directory on the server station

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Store the files in a secure location that is unaffected by the 5620 SAM conversion activity, such as a non-5620 SAM station.

Gather required information

- 3 Obtain the following information from the server station and record it for use during the conversion:
 - hostname
 - IP addresses
 - server IP addresses used by the current and new 5620 SAM databases to reach the server (public IP addresses, if NAT is used)
 - server IP address used by 5620 SAM GUI and OSS clients to reach this server (public IP address, if NAT is used)
 - server IP address used by 5620 SAM auxiliary servers to reach this server (public IP address, if NAT is used)
 - private server IP address (if NAT is used)
 - root user password
- 4 Obtain the following information from the database station and record it for use during the conversion:
 - hostname
 - IP addresses
 - database IP addresses used by the current and new 5620 SAM servers to reach the database on this station (public IP addresses, if NAT is used)
 - database IP address used by 5620 SAM auxiliary servers to reach the database on this station (public IP address, if NAT is used)
 - private database IP address (if NAT is used)
 - root user password
 - UNIX user name for Oracle management account (default value at installation is oracle)
 - Oracle database user ID (default value at installation is samuser)
 - Oracle database user password
 - Oracle SYS password
 - Oracle base installation directory name (default value at installation is /opt/5620sam/oracle)
 - 5620 SAM database installation directory name (default value at installation is /opt/5620sam/samdb)

Close client sessions

- 5 Close all unrequired open 5620 SAM client sessions.
 - i Open a 5620 SAM client session using an account with security management privileges, such as admin.
 - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security - Security Management (Edit) form opens with the General tab displayed.
 - iii Click on the Sessions tab button.
 - iv Click on the Search button. The form displays a list of the open 5620 SAM client sessions.
 - v Using the IP addresses in the Client IP column, identify the GUI and OSS clients that are currently logged in.
 - vi Close the client sessions by selecting them and clicking on the Close Session button. A dialog box appears.



Note - One of the listed sessions is the session that you are using. Do not attempt to close this session.

- vii Click on the Yes button to confirm the action.
- viii Click on the Search button to refresh the list of open client sessions.

Close 5620 SAM LogViewer

6 If you are upgrading a Release 6.1 R1 or later 5620 SAM system, close the 5620 SAM LogViewer application if it is open.



Caution – If the 5620 SAM LogViewer is running during a 5620 SAM upgrade, the upgrade fails.

Back up database

- 7 Perform one of the following to back up the 5620 SAM database.
 - a Use a 5620 SAM client GUI to back up the database. See the 5620 SAM User Guide for information about performing database backups using the client GUI.
 - b Use a CLI script to back up the database. Perform the following steps.
 - i Log in as the Oracle management user on the database station.
 - ii Open a console window.

iii Enter the following at the CLI prompt to begin the database backup:

bash\$ path/install/config/samdb/SAMbackup.sh backup_directory .

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb *backup_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

Shut down server

- 8 Perform one of the following to stop the 5620 SAM main server application.
 - a If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Log in as a user with root-equivalent privileges on the main server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:
 - # cd path/nms/bin .]

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt:
 - # ./nmsserver.bash stop \dashv
- Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

./nmsserver.bash appserver_status \dashv

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 8 a v. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Log in as the samadmin user on the main server station.

- ii Open a console window.
- iii Navigate to the server binary directory. Enter the following at the CLI prompt:

bash\$ cd path/nms/bin .]

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt:

bash\$./nmsserver.bash stop 🗸

 Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

<code>bash\$</code> ./nmsserver.bash appserver_status \dashv

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 8 b v. Do not proceed unless the console displays the above text.

Disable server daemon

- **9** Disable the 5620 SAM server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the conversion.
 - i If you are logged in as the samadmin user, enter the following at the CLI prompt to switch to the root user:

bash\$ **su -** ↓

ii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d ↓

iii Disable the 5620 SAM server daemon by renaming it. Enter the following at the CLI prompt:

mv S975620SAMServerWrapper inactive.S975620SAMServerWrapper .J

The next section of the procedure describes the conversion of the standalone 5620 SAM database to the primary database in a redundant system.

Convert standalone database to primary database

- 10 Log in as the Oracle management user on the database station.
- 11 Open a console window.

12 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 斗

13 Enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./DBConfig_SAM_6_1_revision_ID.bin .

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 5-1 appears and the conversion process begins.

	Alcatel·Lucent 🕢
50	Alcatel-Lucent 5620 SAM Service Aware Manager RELEASE 0.1
	© 2003-2008 Alcatel-LucentAllrights reserved.

Figure 5-1 5620 SAM Installer

14 The 5620 SAM installer opens, as shown in Figure 5-2. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 5-2 Introduction

- 562	0 SAM Database Configurator
	Introduction
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This program will create and configure an Oracle database to be used by a 5620 SAM Server system. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision	Previous Next

15 Review and accept the terms of the license agreement shown in Figure 5-3. Click on the Next button.

5620 SAM Database Configurator		
Software License Agreeme		
 Introduction License Agreement Installation Type Installation In Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).	
 Installation In Progress Installation Completed 	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved © I gocept the terms of the License Agreement ○ I do NOT accept the terms of the License Agreement	
InstallAnywhere by Macrovision	Previous Next	

Figure 5-3 Software License Agreement

16 Select Install & Configure Primary/Standby Database, as shown in Figure 5-4. Click on the Next button.

- 5620) SAM Database Configurator
	Choose Installation Type
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Install & Configure a Standalone Database Restore a Database
	Upgrade a Database
	Install & Configure Primary/Standby Database
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 5-4 Choose Installation Type

17 Select Convert Standalone Database to Primary, as shown in Figure 5-5. Click on the Next button.

- 5620) SAM Database Configurator
	Install & Configure Primary/Standby Database
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Choose among the following options: Primary Database Install Convert Standalone Database to Primary Standby Database Install
InstallAnywhere by Macrovision -	Previous Next

Figure 5-5 Install & Configure Primary/Standby Database

18 Select Do not install Oracle Software, as shown in Figure 5-6. Click on the Next button.

- 5620) SAM Database Configurator
	Install Oracle Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	You can choose to install Oracle 10g Software first if it is not already installed. Install Oracle Software Do not install Oracle Software
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 5-6 Install Oracle Software

19 Specify the base directory in which the existing 5620 SAM database software is installed (typically /opt/5620sam/samdb/install), as shown in Figure 5-7. Click on the Install button to begin the database conversion.

- 5620) SAM Database Configurator
Sp	ecify the Base Directory for 5620 SAM Database Files
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all 5620 SAM database related files /opt/5620sam/samdb/install Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous [nstall

Figure 5-7 Specify the Base Directory for 5620 SAM Database Files

The installer prepares to convert the database, as shown in Figure 5-8.



Figure 5-8 Installing 5620 SAM Database Configurator

20 Specify the base directory in which the Oracle software is installed (typically /opt/5620sam/oracle10r2), as shown in Figure 5-9. Click on the Next button.

- 5620) SAM Database Configurator
Specify the Base Directory for Oracle Software	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all Oracle files. /opt/5620sam/oracle10r2 Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous

Figure 5-9 Specify the Base Directory for Oracle Software

- 21 Configure the following parameters shown in Figure 5-10, then click on the Next button:
 - Database Server IP Address
- User Name (typically samuser)
- Database Name (typically samdb)
- b) User Password
- Instance Name (typically samdb)



- 5620	SAM Database Configurator
	Standalone Database Info
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the network interface the Database will use to communicate with the Servers. If Network Address Translation (NAT) is used, specify the Database's private IP address. Database Server IP Address Database Name samdb Instance Name samdb User Name samuser User Password
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

- 22 Configure the following parameters shown in Figure 5-11, then click on the Next button:
 - Database Listener Port (typically 1523)
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)

Figure 5-11 Standalone Database Info (continued)

-	5620) SAM Database Configurator
		Standalone Database Info (cont.)
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	Database Listener Port 1523 Database Proxy Port 9002 Database File Server Port 9003
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

23 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 5-12. Click on the Next button.



- 5620) SAM Database Configurator
	Determine Memory Requirements
 Introduction License Agreement Installation Type Installation In Progress 	Specify whether a 5620 SAM Server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load.
Installation Completed	☑ Database co-exists with a 5620 SAM Server
InstallAnywhere by Macrovision - Cancel	Previous Next

- 24 If the "Enable SAM Server IP Validation" parameter shown in Figure 5-13 is selected, only the specified servers can connect to the database. If required, select it and the following parameters. Click on the Next button.
 - Primary SAM Server IP Address
 - Peer SAM Server IP Address



-	5620) SAM Database Configurator
	Main Server IP Validation	
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). Enable SAM Server IP Validation Primary SAM Server IP Address Peer SAM Server IP Address
In	stallAnywhere by Macrovision –	
	<u>C</u> ancel	Previous Next

25 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 5-14 and enter the public IP address of the database. Click on the Next button.



- 5620) SAM Database Configurator
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. NAT (network address translation) Used Public IP (visible to servers)
InstallAnywhere by Macrovision – Cancel	Previous Next

- 26 Configure the following standby database parameters shown in Figure 5-15, record the information for use later in the procedure, then click on the Next button:
 - Standby IP Address
 - Standby Instance Name (typically samdb2)
 - Standby Oracle Home (typically /opt/5620sam/oracle10r2)
 - Standby Archive Log Destination (typically /opt/5620sam/samdb/archivelog)

Figure 5-15 Standby Database Info

-	5620) SAM Database Configurator
		Standby Database Info
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server. Standby IP Address Standby IP Address Standby Instance Name samdb2 Standby Oracle Home /opt/5620sam/oracle10r2 Standby Archive Log Destination
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous

The installer prepares to convert the database, as shown in Figure 5-16.

Figure 5-16 Please Wait

- 5620) SAM Database Configurator
	Please Wait
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please wait, 5620 SAM Database Configurator is being configured for your system. This may take a moment
InstallAnywhere by Macrovision – Cancel	Previous
- 27 Click on the Next button.
- 28 You are prompted to begin primary database conversion, as shown in Figure 5-17. Database conversion can take one hour or more, depending on the tablespace configuration. Click on the Start Process button to begin the database conversion.

- 5620	SAM Database Configurator
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	SAM Database Configurator r Primary Database Conversion The database creation process takes some time. Do not interrupt this process once it has started. If cancelled, the application exits and the result is an incomplete database installation.
InstallAnywhere by Macrovision —	Start Process
<u>C</u> ancel	Previous Next

Figure 5-17 Primary Database Conversion

The next panel displays conversion progress, as shown in Figure 5-18.

Figure 5-18 Primary Database Conversion

-	5620) SAM Database Configurator
		Primary Database Conversion
	Introduction License Agreement Installation Type Installation In Progress Installation Completed	Primary database conversion in progress
		Executing ConfigPrimaryDB.sql (25%)
In	stallAnywhere by Macrovision – Cancel	

29 When the database conversion is complete, as shown in Figure 5-19, you are prompted to run a script that enables automatic database startup during system startup. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, click on the Done button to close the installer.

5620 SAM Database Configurator			
	Installation Complete		
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/5620sam/samdb/install/config/samdb/solaris_root.sh Database conversion was successful		
InstallAnywhere by Macrovision -			
Cancel	Previous Done		

Figure 5-19 Installation Complete

The next section of the procedure describes the conversion of the standalone 5620 SAM server to the primary 5620 SAM server. Server conversion requires root-equivalent privileges.

Convert standalone server to primary server

- 30 Log in as a user with root-equivalent privileges on the standalone server station.
- 31 Open a console window.
- **32** Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

33 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .
```

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 5-20 appears and the conversion process begins.



Figure 5-20 5620 SAM Installer

34 The 5620 SAM installer opens, as shown in Figure 5-21. The left pane indicates the conversion progress. The right pane displays release information about the software. Click on the Next button.



- 5620 SAM/5650 CPAM Server Installer	
_	Introduction
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM/5650 CPAM Server. The version of the 5620 SAM/5650 CPAM Server software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision — Cancel	Previous

35 Review and accept the terms of the license agreement shown in Figure 5-22. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer		
	Software License Agreement	
 Introduction License Agreement Choose Installation Type Install Directory 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Server software or installing the hardware unit with pre-enabled 5620 SAM Server software (each of which is referred to as "Software" in this Agreement).	
Configuration Install Complete	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent. All rights reserved	
InstallAnywhere by Macrovision	Previous Next	

Figure 5-22 Software License Agreement

36 Select Main Server Configuration, as shown in Figure 5-23. Click on the Next button.



Figure 5-23 Choose Installation Type

37 Specify the base directory in which the existing 5620 SAM main server software is installed (typically /opt/5620sam/server), as shown in Figure 5-24. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer		
Specify the Base Directory for 5620 SAM Main Server Files		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Please choose a directory where the server is already installed. /opt/5620sam/server Restore Default Folder Choose	
InstallAnywhere by Macrovision - Cancel	Previous Next	

Figure 5-24 Specify the Base Directory for 5620 SAM Main Server Files

38 As shown in Figure 5-25, the installer displays the release of the 5620 SAM server software that is installed. Verify the information. Click on the Next button.

Figure 5-25 Checking Build Compatibility

-	5620 SAM/5650 CPAM Server Installer		
	Checking Build Compatibility		
	 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Installed on disk: 5620 SAM Version 5.0 R5.0 - Built on Fri Aug 17 04:37:11 EST 2007 Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008	
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous	

39 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 5-26. Click on the Next button.

5620 SAM/5650 CPAM Server Installer	
	License Information for 5620 SAM Main Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key -00000-00000-00000-00000-00000-00000-0000
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous Next

Figure 5-26 License information for 5620 SAM Main Server

- **40** Configure the following parameters shown in Figure 5-27, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported



Note - You must select the Redundancy Supported parameter.

— 5620 SA	AM/5650 CPAM Serve	r Installer		•
Additional Server Configuration		'n		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration Redundancy Supported Auxiliary Server Supported			
InstallAnywhere by Macrovision – <u>C</u> ancel		<u>P</u> revious	Next	

Figure 5-27 Additional Server Configuration

- 41 Configure the following parameters, shown in Figure 5-28, using the recorded values from the primary database conversion. Click on the Next button.
 - Primary Database IP Address
 - Primary Database Server Port (typically 1523)
 - Primary Database Instance Name (typically samdb1)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

5620 SAM/5650 CPAM Server Installer		
	Primary Database Configuration	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server. Primary Database IP Address Primary Database IP Address Primary Database Server Port 1523 Primary Database Instance Name samdb1 Database User Name Database User Password ++++++++ Primary Database Proxy Port	
InstallAnywhere by Macrovision -		
<u>C</u> ancel	Previous	

Figure 5-28 Primary Database Configuration

- 42 Depending on the existing configuration. the panel shown in Figure 5-29 appears. Configure the following parameters, if required, then click on the Next button:
 - Online Database Backup Interval (hours) (typically 24)
 - Online Backup Destination (typically /opt/5620sam/dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 41.

- 5620 SAM/5650 CPAM Server Installer		
	Online Database Backup	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Specify the interval between backups, the backup directory, and the number of backups to retain. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination Jopt/5620sam/dbbackup Number Of Backup Sets 3	
InstallAnywhere by Macrovision – Cancel	Previous Next	

Figure 5-29 Online Database Backup

- **43** Configure the following parameters shown in Figure 5-30, then click on the Next button:
 - Database Server IP Address
 - Database Instance Name (typically samdb2)
 - Database Proxy Port (typically 9002)

Figure 5-30 Standby Database Configuration

-	5620 SAM/5650 CPAM Server Installer		
	Standby Database Configuration		
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Instance Name samdb2 Database Proxy Port 9002	
Ins	stallAnywhere by Macrovision – <u>C</u> ancel	Previous Next	

- 44 Configure the following parameters shown in Figure 5-31:
 - Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer		
	Main Server Address Configuration for Clients	
 Introduction License Agreement Choose Installation Type Install Directory 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients.	
Configuration Install Complete	Server Domain Name 5620sam Public IP (visible to clients) EJB JNDI Server port 1099 EJB JMS Server port 8093 NAT (network address translation) Used Private IP (accessible only by this server) Enable 5670 RAM	
InstallAnywhere by Macrovision	Previous Next	

Figure 5-31 Main Server Address Configuration for Clients

- **45** Configure the following parameters shown in Figure 5-32:
 - Public IP (visible to peer server)
 - High Available JNDI Port (typically 1100)
 - TCP Port Cluster Number (typically 11800)

If NAT is used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

- 5620 S	AM/5650 CPAM Server Installer	•
	Main Server Configuration for Peer Serve	r
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the main server will use to communicate with the peer server. Public IP (visible to peer server) High Available JNDI Port TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server)	
InstallAnywhere by Macrovision	Previous	

Figure 5-32 Main Server Address Configuration for Peer Server

46 The panel in Figure 5-33 is displayed if you select "Auxiliary Server Supported" in step 40. Otherwise, go to step 48.

Perform the following steps to specify an auxiliary server, if required.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 5-33:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

Figure 5-33	Main Server	Configuration	for	Auviliary	Sorvors
rigule 5-55	Maill Server	Configuration	101	Auxilialy	Servers

		5620 SAM/5650 CPAM Server Installer		
	Main Server Configuration for Auxiliary Servers			
 Ir C Ir C 	ntroduction icense Agreement choose Installation Type istall Directory configuration	Enter the IP address of the network interface the 5620 SAM main server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address.		
■ Ir	nstall Complete	Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server)		
Install	IAnywhere by Macrovision · Cancel	Previous		

- ii If NAT is to be used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server in the "Private IP" field.
- iii Click on the Next button.

iv Click on the Add button shown in Figure 5-34. The form shown in Figure 5-35 opens.

- 5620 S	AM/5650 CPAM Server Installer
	Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Specify all the 5620 SAM Auxiliary Servers that this Main Server connects to. There must be at least one Preferred auxiliary server. If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Main Server. IP Address Port Type Add Edit
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous <u>N</u> ext

Figure 5-34 Auxiliary Servers

Figure 5-35 Auxiliary Server Configuration

– Auxiliary Se	rver Configuration 🔽
IP Address	
Port	12800
Туре	Preferred •
	OK Cancel

- v Configure the following parameters shown in Figure 5-35:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- vi Click on the OK button to save the information and close the form.
- vii Repeat steps 46 iv to vi to specify an additional auxiliary server, if required.
- 47 Click on the Next button.

- **48** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 5-36.
 - ii If you want to accept the default user documentation location that is displayed, go to step 49.



Note — If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation folder on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 5-36 User Documentation



- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 5-36.
 - ii Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a folder under the base 5620 SAM client installation folder. The path must not contain a leading slash. For example, if the installation folder is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents folder.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms folder in the base 5620 SAM client installation folder, for example, /opt/5620sam/client/nms/Documents.

- 49 Click on the Next button.
- **50** Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 5-37. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

– 5620 SAM/5650 CPAM Server Installer -		
	License Information for 5650 CPAM Server	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Include 5650 CPAM Server License Information D:00000-00000-00000-00000-00000-00000-0000	
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous	

Figure 5-37 License Information for 5650 CPAM Server

- **51** Configure the following parameters shown in Figure 5-38, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)

Figure 5-38 SNMP Configuration

-	5620 SA	AM/5650 CPAM Server Installer
		SNMP Configuration
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network. SNMP Trap Receiving IP Address SNMP Trap Receiving IP Address Trap Log Id 98
Ins	stallAnywhere by Macrovision — <u>C</u> ancel	Previous

- **52** Configure the following parameters shown in Figure 5-39, then click on the Next button:
 - Peer Server IP Address
 - Peer Server Trap Log Id (typically 98)
 - Peer Server SNMP Trap Receiving IP Address
 - Peer Server SNMP Trap Receiving Port (typically 162)
 - Peer Server TCP Port Cluster Number (typically 11800)

Figure 5-39	Peer Main	Server	Configurations
-------------	-----------	--------	----------------

- 5620 SAM/5650 CPAM Server Installer		
Peer Main Server Configurations		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public address, as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public address, as known to the devices within the managed network. Peer Server IP Address Peer Server Trap Log Id 98 Peer Server SNMP Trap Receiving IP Address Peer Server SNMP Trap Receiving Port 162 Peer Server TCP Port Cluster Number	
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next	

- **53** Configure the following parameters shown in Figure 5-40, then click on the Next button:
 - 5620 SAM Peer Server IP Address
 - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
 - 5620 SAM JNDI Peer Server Port (typically 1099)



-	5620 S/	AM/5650 CPAM Server Installer	•
	Peer Main Server Configurations (cont.)		
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	Enter the IP address of the network interface the GUI and OSS clients will use to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients. 5620 SAM Peer Server IP Address 5620 SAM JNDI High Available Peer Server Port 1100 5620 SAM JNDI Peer Server Port 1099	
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous <u>N</u> ext	

54 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 5-41 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Chosse Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision · <u>C</u> ancel	Previous Next

Figure 5-41 Navigation from External Systems

55 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 5-42. Click on the Install button to begin the server conversion.

-	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xml_output Restore Default Folder Choose
InstallAnywhere by Macrovision	Previous

Figure 5-42 XML Output Directory

The next panel displays conversion progress, as shown in Figure 5-43.

-	5620 SAM/5650 CPAM Server Installer
	Installing 5620 SAM/5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢
InstallAnwhere hy Macrovision	Installing Java Runtime Environment
<u>Cancel</u>	

Figure 5-43 Installing 5620 SAM/5650 CPAM Server

56 When the server conversion is complete, as shown in Figure 5-44, select the "Start the 5620 SAM Main Server" parameter to specify that the server is to start immediately after the conversion.

- 5620 S/	AM/5650 CPAM Server Installer	•
	Installation Com	plete
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Congratulations! 5620 SAM Main Server has been successfully installed inside directory /opt/5620sam/server. Please assign a password for samadmin using 'passwd samadmin' command. Once the server is started for the first time it can take up to an hour for the server to initialize the database. Attempts to login to the server via the 5620 SAM client will fail until the server is completely up. The configuration changes will be taken by the server during the next server restart Start the 5620 SAM Main Server	
InstallAnywhere by Macrovision -	Previous	

Figure 5-44 Installation Complete

- **57** Click on the Done button to close the installer. The server starts. Initial server startup can take twenty minutes or more.
- **58** Perform one of the following to verify that the primary 5620 SAM main server is operational.
 - a If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Enter the following at the CLI prompt:
 - # ./nmsserver.bash appserver_status \dashv
 - ii The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 58~a i. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Enter the following at the CLI prompt to switch to the samadmin user:

su - samadmin ↓

ii Enter the following at the CLI prompt:

bash\$./nmsserver.bash appserver_status

iii The 5620 SAM server application is operational when the command returns the following text string:

```
Application Server is started
```

If the command returns anything other than the above text string, wait five minutes and repeat step 58 b ii. Do not proceed unless the console displays the above text.

The next section of the procedure describes the enabling of the 5620 SAM server startup daemon that is currently disabled.

Enable server daemon

- 59 Enable the 5620 SAM server startup daemon.
 - i If you are logged in as the samadmin user, enter the following at the CLI prompt to switch to the root user:

bash\$ **su -** 斗

ii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d .

iii Disable the 5620 SAM server daemon by renaming it. Enter the following at the CLI prompt:

```
# mv inactive.S975620SAMServerWrapper
S975620SAMServerWrapper ...
```

The next section of the procedure describes the configuration steps required to prepare the new standby database station for the 5620 SAM software.

Prepare standby database station for standby database installation

60 Before you perform a 5620 SAM database installation on Solaris, you must run a pre-installation script. This script creates and configures the UNIX account for the Oracle management user and adds configuration information to the /etc/system file.



Caution — Ensure that you run only the pre-installation script that is on the new 5620 SAM software DVD-ROM. Using a different version of the script may cause the database installation to fail.

Log in as a user with root-equivalent privileges on the station that is to be the standby database station.

61 Open a console window.

62 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

63 Enter the following at the CLI prompt to run the pre-installation script:

```
\# ./Oracle10g_PreInstall.sh install \lrcorner
```

- 64 The script prompts you to enter the following:
 - group name (default is dba)
 - user name (default is oracle)
 - Oracle user home directory name (default is /opt/5620sam/oracle10r2)



Note — To reduce the complexity of subsequent software upgrades and technical-support activities, Alcatel-Lucent recommends that you press \dashv to accept the default value for each parameter.

If you specify a value other than the default, you must record the value for use when the Oracle10g_PreInstall.sh script is run during a software upgrade, or when the Oracle management user information is required by Alcatel-Lucent technical support.

The script updates the system configuration.



Note — If you receive a "failed to create group" message, ensure that NIS is disabled and re-run the pre-installation script. For information about NIS, contact your Alcatel-Lucent customer support representative.

65 When the script execution is complete, enter the following at the CLI prompt to restart the new database station:

shutdown -y -i6 -g0 ↓

The station reboots.

66 Before the standby database installation can occur, the Oracle management user and group created by the pre-installation script require ownership of the directory that is to hold the database.

After the station reboots, log in to the station as a user with root-equivalent privileges.

- 67 Open a console window on the new database station.
- 68 Enter the following at the CLI prompt to change the current directory to /opt:

cd /opt ↓

69 Enter the following at the CLI prompt to specify the required user and group ownership of the 5620sam directory and subdirectories:

```
# chown -R user:group 5620sam \downarrow
```

where

```
user is the user name value from step 64, typically oracle group_name is the group name value from step 64, typically dba
```

- **70** Navigate to the 5620sam directory below /opt. Enter the following at the CLI prompt:
 - # cd 5620sam ↓
- 71 Confirm that the Oracle management user home directory has the correct user and group ownerships. Enter the following at the CLI prompt:

ls -l .⊣

If the command output is not as shown below, repeat steps 66 to 71. Do not proceed unless the output is as shown.

drwxr-xr-x 2 user group 512 Apr 11 11:15 directory

where

user is the user name specified in step 64, typically oracle *group* is the group name specified in step 64, typically dba *directory* is the Oracle management user home directory name specified in step 64, typically /opt/5620sam/oracle10r2

The next section of the procedure describes the installation of the standby 5620 SAM database. The standby database must be installed on a station other than the one on which the primary database is installed.

Install standby database

72 Switch to the Oracle management user created by the pre-installation script. Enter the following at the CLI prompt:

```
# su - Oracle_management_user_name ...
```

where *Oracle_management_user_name* is the name of the UNIX account with Oracle management privileges, typically oracle

73 Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

bash\$ cd Solaris 🚽

74 Enter the following at the CLI prompt to open the 5620 SAM installer:

bash\$./DBConfig_SAM_6_1_revision_ID.bin ↓

where revision_ID is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 5-45 appears and the installation process begins.



Figure 5-45 5620 SAM Installer

75 The 5620 SAM installer opens, as shown in Figure 5-46. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 5-46 Introduction

- 5620) SAM Database Configurator
	Introduction
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	This program will create and configure an Oracle database to be used by a 5620 SAM Server system. It also provides the option of restoring a database from backups. The version of the 5620 SAM software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision –	Previous

76 Review and accept the terms of the license agreement shown in Figure 5-47. Click on the Next button.

- 562	0 SAM Database Configurator Software License Agreemen
 Introduction License Agreement Installation Type Installation In Progress 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM Database Configurator software or installing the hardware unit with pre-enabled 5620 SAM Database Configurator software (each of which is referred to as "Software" in this Agreement).
Installation Completed	5620 SAM Software License Agreement
	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM software or installing the hardware unit with pre-enabled 5620 SAM software (each of which is referred to as
	I gocept the terms of the License Agreement I do NOT accept the terms of the License Agreement
InstallAnywhere by Macrovision · <u>C</u> ancel	, Previous <u>N</u> ext

Figure 5-47 Software License Agreement

77 Select Install & Configure Primary/Standby Database, as shown in Figure 5-48. Click on the Next button.



Figure 5-48 Choose Installation Type

78 Select Standby Database Install, as shown in Figure 5-49. Click on the Next button.

5620	SAM Database Configurator	
	Install & Configure Primary/Standby Database	e
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Choose among the following options: Primary Database Install Convert Standalone Database to Primary Standby Database Install 	
InstallAnywhere by Macrovision — Cancel	Previous Next	

Figure 5-49 Install & Configure Primary/Standby Database

79 Select Install Oracle Software, as shown in Figure 5-50. Click on the Next button.

Figure 5-50 Install Oracle Software

- 5620) SAM Database Configurator
	Install Oracle Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	You can choose to install Oracle 10g Software first if it is not already installed. Install Oracle Software Do not install Oracle Software
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

80 Specify a base directory in which to install the standby 5620 SAM database software (typically /opt/5620sam/samdb/install), as shown in Figure 5-51. Click on the Install button to begin database software installation.

— 5620 SAM Database Configurator -	
Specify the Base Directory for 5620 SAM Database Files	
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all 5620 SAM database related files //opt/5620sam/samdb/install Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous

Figure 5-51 Specify the Base Directory for 5620 SAM Database Files

The installer prepares to install the database, as shown in Figure 5-52.



Figure 5-52 Installing 5620 SAM Database Configurator

81 Specify a base directory in which to install the Oracle software (typically /opt/5620sam/oracle10r2), as shown in Figure 5-53. Click on the Next button.

- 5620) SAM Database Configurator
	Specify the Base Directory for Oracle Software
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The directory specified here will be the base directory for all Oracle files. /opt/5620sam/oracle10r2 Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous

Figure 5-53 Specify the Base Directory for Oracle Software

82 If you are prompted to run an Oracle pre-installation script, as shown in Figure 5-54, run the script in a separate console window as a user with root-equivalent privileges. Otherwise, go to step 87.



- 5620) SAM Database Configurator
	Oracle Pre-Install Script
 Introduction License Agreement Installation Type Installation in Progress Installation Completed 	A configuration script needs to be run as root to create the inventory pointer file. Please run /opt/5620sam/samdb/install/config/orainstRoot.sh as root in a separate window now.
InstallAnywhere by Macrovision – Cancel	Previous Next

83 When the script execution is complete, click on the Next button.

84 You are prompted to install Oracle software, as shown in Figure 5-55. This operation can take one hour or more. Click on the Start Oracle Installation button to begin the Oracle software installation.

- 5620) SAM Database Configurator	-
	Install Oracle Database Management Software	9
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Please press the start button to install Oracle software. This process will take some time. Start Oracle Installation	
InstallAnywhere by Macrovision – Cancel	Previous Next	

Figure 5-55 Install Oracle Database Management Software

85 As shown in Figure 5-56, Oracle installation details are displayed as the installation progresses. When the installation is complete, Click on the Next button.



Figure 5-56 Install Oracle Database Management Software

86 You are prompted to run an Oracle post-installation script, as shown in Figure 5-57. Open a separate console window and run the script as a user with root-equivalent privileges. When the script execution is complete, Click on the Next button.

- 562	0 SAM Database Configurator
	Oracle Post-Install Script
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	A configuration script needs to be run as root to complete the installation. Please run /opt/5620sam/oracle10r2/root.sh as root in a separate window now.
InstallAnywhere by Macrovision	Previous

Figure 5-57 Oracle Post-Install Script

- 87 Configure the parameters shown in Figure 5-58, then click on the Next button.
 - Database Server IP Address
 - Database Proxy Port (typically 9002)
 - Database File Server Port (typically 9003)



- 5620) SAM Database Configurator
	Standby Database Configuration Info
Introduction	Enter the IP address of the network interface the standby
 Installation Type 	database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify the
Installation In Progress standby database's private IP address.	standby database's private IP address.
Installation Completed	Database Server IP Address
	Database Proxy Port 9002
	Database File Server Port 9003
InstallAnywhere by Macrovision -	<u> </u>
Cancel	Previous

88 If the 5620 SAM server and database are installed on the same station, select the "Database co-exists with a 5620 SAM Server" parameter shown in Figure 5-59. Click on the Next button.

- 5620) SAM Database Configurator
	Determine Memory Requirements
 Introduction License Agreement Installation Type Installation In Progress 	Specify whether a 5620 SAM Server is installed on this workstation. The database memory requirements will be adjusted to account for the additional load.
Installation Completed	☑ Database co-exists with a 5620 SAM Server
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous

Figure 5-59 Determine Memory Requirements

- **89** If the "Enable SAM Server IP Address Validation" parameter shown in Figure 5-60 is selected, only the specified servers can connect to the database. If required, select it and configure the following parameters. Click on the Next button.
 - Primary SAM Server IP Address
 - Peer SAM Server IP Address



- 5620) SAM Database Configurator
	Main Server IP Validation
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Main Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). Enable SAM Server IP Validation Primary SAM Server IP Address Peer SAM Server IP Address
Installânswhare by Macrovision -	
<u>C</u> ancel	Previous Next

90 The panel in Figure 5-61 is displayed if the "Enable SAM Server IP Validation" parameter in step 89 is selected. Otherwise, go to step 92.

If the 5620 SAM system includes an auxiliary server, perform the following steps.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

i Click on the Add button shown in Figure 5-61. The form shown in Figure 5-62 opens.

- 562	0 SAM Database Configurator	r (
	Auxiliary Server IP Validation	n
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Database. If IP address validation is enabled, the database will allow only connections from the specified server(s). IP Address Add Remove Edit	Ī
InstallAnywhere by Macrovision		_
<u>C</u> ancel	Previous Next	

Figure 5-61 Auxiliary Server IP Validation

Figure 5-62 Auxiliary Servers

_	Auxiliary Servers
IP Addr	ess
	OK Cancel

- ii Enter the IP Address of the auxiliary server.
- iii Click on the OK button to save the information and close the form.
- iv Repeat steps 90 i to iii to specify an additional auxiliary server, if required.
- 91 Click on the Next button.

92 If NAT is used between the 5620 SAM server and database, select the "NAT (network address translation) Used" parameter shown in Figure 5-63 and enter the public IP address of the database. Click on the Next button.

- 5620) SAM Database Configurator
	Public IP of the Database Server
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	If the 5620 SAM server is to connect to this database server through a NAT router, check the box below and provide the database server public IP address. Image: mail of the server public is a server
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

Figure 5-63 Public IP of the Database Server

- **93** Configure the following parameters, shown in Figure 5-64, using the recorded values from the primary database conversion. Click on the Next button.
 - Primary IP Address
 - Primary Instance Name (typically samdb1)
 - Primary SYS Password
- Primary Database Listener Port (typically 1523)
- Primary Database Proxy Port (typically 9002)

Figure 5-64 Primary Database Info

- 5620) SAM Database Configurator
	Primary Database Info
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	Enter the IP address of the network interface the primary database will use to communicate with the server(s). If NAT (network address translation) is to be used, specify the primary database's public IP address. Primary IP Address Primary Instance Name samdb1 Primary SYS Password ********* Primary Database Listener Port 1523 Primary Database Proxy Port
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous <u>N</u> ext

94 You are prompted to begin standby database creation, as shown in Figure 5-65. Click on the Start Process button to begin the database creation.

- 5620) SAM Database Configurator
	Standby Database Configuration
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	The database config process is short. Once the configuration files are in place, you can create the standby database later using Standby Re-instantiation. Start Process
InstallAnywhere by Macrovision -	1
<u>C</u> ancel	Previous Next

Figure 5-65 Standby Database Configuration

95 When the database installation is complete, you are prompted to run a script that enables automatic database startup during system startup, as shown in Figure 5-66. Open a separate console window and run the script as a root-equivalent user. When the script execution is complete, click on the Done button to close the installer.



- 5620) SAM Database Configurator
 Introduction License Agreement Installation Type Installation In Progress Installation Completed 	SAM Database Configurator Installation Complete Log on as root, then manually execute the following script to configure the database to be started automatically upon reboot: /opt/5620sam/samdb/install/config/samdb/solaris_root.sh Database creation was successful You will need to re-instantiate the Standby database to
InstallAnywhere by Macrovision –	restore database redundancy. Previous

The next section of the procedure describes the installation of the standby 5620 SAM server. You can install the standby server on the same station that contains the standby database, or on a different station. Server installation requires root-equivalent privileges.

Install standby server

- **96** Log in as a user with root-equivalent privileges on the station that is to be the standby server station.
- 97 Open a console window.
- **98** Navigate to the Solaris directory on the 5620 SAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

99 Enter the following at the CLI prompt to open the 5620 SAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .]
```

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 5-67 appears and the installation process begins.



Figure 5-67 5620 SAM Installer
100 The 5620 SAM installer opens, as shown in Figure 5-68. The left pane indicates the installation progress. The right pane displays release information about the software being installed. Click on the Next button.

— 5620 SA	M/5650 CPAM Server Installer	
Introduction		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	This program will install 5620 SAM/5650 CPAM Server. The version of the 5620 SAM/5650 CPAM Server software contained by this installation package is: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008	
InstallAnywhere by Macrovision — Cancel	Previous Next	

Figure 5-68 Introduction

101 Review and accept the terms of the license agreement shown in Figure 5-69. Click on the Next button.



Figure 5-69 Software License Agreement

102 Select Main Server Installation, as shown in Figure 5-70. Click on the Next button.

	5620 SAM/5650 CPAM Server Installer	•
	Choose Installation Ty	ре
 Introduction License Agreement Choose Installation Type Install Directory Configuration 	Main Server Installation Install or upgrade a 5620 SAM Main Server Image Parameters of an existing 5620 SAM Main Server Installation	
 Install Complete 	Auxiliary Server Installation Install or upgrade a 5620 SAM Auxiliary Server Server	1
	CPAM Server Installation CPAM Server Configuration Install or upgrade a 6850 CPAM Server Change parameters of an existing 5650 CPAM Server installation Change parameters of an existing 5650	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 5-70 Choose Installation Type

103 Specify a base directory in which to install the standby 5620 SAM main server software (typically /opt/5620sam/server), as shown in Figure 5-71. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer ·				
Specify the Base Directory for 5620 SAM Main Server Files				
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5620 SAM server related files. /opt/5620sam/server Restore Default Folder Choose			
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next			

Figure 5-71 Specify the Base Directory for 5620 SAM Main Server Files

104 As shown in Figure 5-72, the installer displays the release of the 5620 SAM server software that is to be installed. Verify the information. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer			
Checking Build Compatibility			
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5620 SAM Version 6.1 R 3.0 - Built on Wed Nov 19 03:14 EST 2008		
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous Next		

Figure 5-72 Checking Build Compatibility

105 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 5-73. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer -				
License Information for 5620 SAM Main Server				
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key 00000-00000-00000-00000-00000-00000-0000			
InstallAnywhere by Macrovision · <u>C</u> ancel	Previous			

Figure 5-73 License Information for 5620 SAM Main Server

- **106** Configure the following parameters shown in Figure 5-74, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported



Note - You must select the Redundancy Supported parameter.

5620 SAM/5650 CPAM Server Installer			
Additional Server Configuration			
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration Redundancy Supported Auxiliary Server Supported		
InstallAnywhere by Macrovision		Previous	Next

Figure 5-74 Additional Server Configuration

- **107** Configure the following parameters, shown in Figure 5-75, using the recorded values from the primary database conversion. Click on the Next button.
 - Primary Database IP Address
 - Primary Database Server Port (typically 1523)
 - Primary Database Instance Name (typically samdb1)
- Database User Name (typically samuser)
- Database User Password
- Primary Database Proxy Port (typically 9002)

- 5620 SAM/5650 CPAM Server Installer		
Primary Database Configuration		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address, as known to the 5620 SAM server. Primary Database IP Address Primary Database IP Address Primary Database Server Port 1523 Primary Database Instance Name samdb1 Database User Name Database User Password ********* Primary Database Proxy Port	
InstallAnywhere by Macrovision -		
<u>C</u> ancel	Previous Next	

Figure 5-75 Primary Database Configuration

- **108** Depending on the existing configuration. the panel shown in Figure 5-76 appears. Configure the following parameters, if required, then click on the Next button:
 - Online Database Backup Interval (hours) (typically 24)
 - Online Backup Destination (typically /opt/5620sam/dbbackup)
 - Number of Backup Sets (typically 3)



Note – The Online Backup Destination is a path on the file system of the database station specified in step 107.

- 5620 SAM/5650 CPAM Server Installer -			
	Online Database Backup		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The database is in archive log mode to support online backups. Alcatel recommends a scheduled database backup. Specify the interval between backups, the backup directory, and the number of backups to retain. Database backups are not scheduled if the backup interval is set to zero or not configured. Online Backup Interval (Hours) 24 Online Backup Destination /opt/5620sam/dbbackup Number Of Backup Sets 3		
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous		

Figure 5-76 Online Database Backup

- **109** Configure the following parameters shown in Figure 5-77, then click on the Next button:
 - Database Server IP Address
 - Database Instance Name (typically samdb2)
 - Database Proxy Port (typically 9002)



5620 SAM/5650 CPAM Server Installer				
Standby Database Configuration				
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server. Database Server IP Address Database Instance Name samdb2 Database Proxy Port 9002			
InstallAnywhere by Macrovision –	Previous			

110 Configure the parameters shown in Figure 5-78:

- SAM Server Domain Name (typically 5620sam)
- Public IP (visible to clients)
- EJB JNDI Server port (typically 1099)
- EJB JMS Server port (typically 8093)
- Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Main Server Address Configuration for Clients
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients. Server Domain Name 5620sam Public IP (visible to clients)
InstallAnywhere by Macrovision —	Previous Next

Figure 5-78 Main Server Address Configuration for Clients

- 111 Configure the parameters shown in Figure 5-79:
 - Public IP (visible to peer server)
 - High Available JNDI Port (typically 1100)
 - TCP Port Cluster Number (typically 11800)

If NAT is to be used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

- 5620 S	AM/5650 CPAM Server Installer	•
	Main Server Configuration for Peer Serve	er
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the the network interface information that the main server will use to communicate with the peer server. Public IP (visible to peer server) High Available JNDI Port 1100 TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server)	
InstallAnywhere by Macrovision		

Figure 5-79 Main Server Address Configuration for Peer Server

112 The panel in Figure 5-33 is displayed if you select "Auxiliary Server Supported" in step 106. Otherwise, go to step 114.

Perform the following steps to specify an auxiliary server, if required.



Note – The 5620 SAM supports a maximum of one preferred and one reserved auxiliary server per 5620 SAM cluster.

- i Configure the following parameters shown in Figure 5-80:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

Figure 5-80) Main Sorvor	Configuration for	r Auviliary	(Sarvars
rigule 5-60	Maili Server	Configuration to	Auxilial	/ Servers

	5620 SAM/5650 CPAM Server Installer
Main Server Configuration for Auxiliary Server	
 Introduction License Agreement Choose Installation Type Install Directory Configuration 	Enter the IP address of the network interface the 5620 SAM main server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address.
Install Complete	Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server)
InstallAnywhere by Macrovision	Previous Next

- ii If NAT is to be used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server in the "Private IP" field.
- iii Click on the Next button.

iv Click on the Add button shown in Figure 5-81 to specify an auxiliary server. The form shown in Figure 5-82 opens.

- 5620 SA	AM/5650 CPAM Server Installer
	Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Specify all the 5620 SAM Auxiliary Servers that this Main Server connects to. There must be at least one Preferred auxiliary server. If Network Address Translation is to be used, enter the 5620 SAM Auxiliary Server(s) public address(es), as known to this 5620 SAM Main Server. IP Address Port Type Add Edit
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 5-81 Auxiliary Servers

Figure 5-82 Auxiliary Server Configuration

Auxiliary Se	rver Configuration 🔽 🗌
IP Address	
Port	12800
Туре	Preferred •
	OK Cancel

- v Configure the following parameters shown in Figure 5-82:
 - IP Address
 - Port (typically 12800)
 - Type (Preferred or Reserved)
- vi Click on the OK button to save the information and close the form.
- vii Repeat steps 112 iv to vi to specify an additional auxiliary server, if required.
- 113 Click on the Next button.

- **114** Perform one of the following to specify where the 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 5-83.
 - ii If you want to accept the default user documentation location that is displayed, go to step 115.



Note — If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the 5620 SAM user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation folder on the 5620 SAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 5-83 User Documentation



- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 5-83.
 - ii Specify a client file system location for the 5620 SAM user documentation in the field below the parameters. The location is a relative file path to a folder under the base 5620 SAM client installation folder. The path must not contain a leading slash. For example, if the installation folder is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents folder.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms folder in the base 5620 SAM client installation folder, for example, /opt/5620sam/client/nms/Documents.

- 115 Click on the Next button.
- **116** Specify whether the 5620 SAM configuration includes a 5650 CPAM server, as shown in Figure 5-84. If it does, enter the 5650 CPAM license key provided by Alcatel-Lucent. Include the dashes in the key. Click on the Next button.

- 56	20 SAM Server Installer
_	License Information for 5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Include 5650 CPAM Server License Information
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous Next

Figure 5-84 License Information for 5650 CPAM Server

- **117** Configure the following parameters shown in Figure 5-85, then click on the Next button:
 - SNMP Trap Receiving IP Address (typically the 5620 SAM server IP address)
 - SNMP Trap Receiving Port (typically 162)
 - Trap Log Id (typically 98)



- 5	620 SAM Server Installer
 Introduction License Agreement Choose Installation Type Install Directory Configuration 	SNMP Configuration If NAT (network address translation) is to be used, enter the 5620 SAM main server's public IP address as known to the devices within the managed network.
 Install Complete 	SNMP Trap Receiving IP Address SNMP Trap Receiving Port 162 Trap Log Id 98
InstallAnywhere by Macrovision - Cancel	Previous Next

- **118** Configure the following parameters shown in Figure 5-86, then click on the Next button:
 - Peer Server IP Address
 - Peer Server Trap Log Id (typically 98)
 - Peer Server SNMP Trap Receiving IP Address
 - Peer Server SNMP Trap Receiving Port (typically 162)
 - Peer Server TCP Port Cluster Number (typically 11800)

Figure 5-86 Peer Main Server Configurations

- 5620 S	AM/5650 CPAM Server Installer
	Peer Main Server Configurations
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	If NAT (network address translation) is to be used, enter the 5620 SAM peer server's public address, as known to the 5620 SAM server. Also enter the 5620 SAM peer server's public address, as known to the devices within the managed network. Peer Server IP Address Peer Server Trap Log Id 98 Peer Server SNMP Trap Receiving IP Address Peer Server SNMP Trap Receiving Port 162 Peer Server TCP Port Cluster Number
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

- **119** Configure the following parameters shown in Figure 5-87, then click on the Next button:
 - 5620 SAM Peer Server IP Address
 - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
 - 5620 SAM JNDI Peer Server Port (typically 1099)



—	5620 S/	AM/5650 CPAM Server Installer	
		Peer Main Server Configurations (cont.)	
	Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	Enter the IP address of the network interface the GUI and OSS clients will use to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients. 5620 SAM Peer Server IP Address 5620 SAM JNDI High Available Peer Server Port 1100 5620 SAM JNDI Peer Server Port 1099	
In	stallAnywhere by Macrovision – <u>C</u> ancel	Previous Next]

120 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 5-88 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button.

	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory 	Select this option to enable GUI navigation from a 5620 NM system.
Configuration	Enable Navigation from External Systems
Install Complete	TCP port for accepting GUI navigation requests
InstallAnwwhere by Macrovision	
<u>Cancel</u>	Previous Next

Figure 5-88 Navigation from External Systems

121 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 5-89. Click on the Install button to begin the server installation.

-	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xmi_output Restore Default Folder Choose
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous [Install]

Figure 5-89 XML Output Directory

The next panel displays installation progress, as shown in Figure 5-90.

-	5620 SAM/5650 CPAM Server Installer
	Installing 5620 SAM/5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢
	Installing Java Runtime Environment
InstallAnywhere by Macrovision	

Figure 5-90 Installing 5620 SAM/5650 CPAM Server

122 As shown in Figure 5-91, the 5620 SAM server is installed as a UNIX daemon. Click on the Next button.

— 5620 SA	AM/5650 CPAM Server Installer
	Installing the Server as a Unix Daemon
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The Server has been successfully installed as a Unix Daemon
InstallAnywhere by Macrovision – Cancel	Previous

Figure 5-91 Installing the Server as a Unix Daemon

123 When the server installation is complete, as shown in Figure 5-92, select the "Start the 5620 SAM Main Server" parameter to specify that the server is to start immediately after the installation.



— 5620 SA	AM/5650 CPAM Server Installer
	Installation Complete
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	CongratulationsI 5620 SAM Main Server has been successfully installed inside directory /opt/5620sam/server. Please assign a password for samadmin using 'passwd samadmin' command. Once the server is started for the first time it can take up to an hour for the server to initialize the database. Attempts to login to the server via the 5620 SAM client will fail until the server is completely up. ✓ Start the 5620 SAM Main Server
InstallAnywhere by Macrovision –	Previous

124 Click on the Done button to close the installer. The server starts. Initial server startup can take twenty minutes or more.

125 The installer creates a user account called samadmin that is required for 5620 SAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press 4.

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.
- **126** Perform one of the following to verify that the standby 5620 SAM main server is operational.
 - a If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Enter the following at the CLI prompt:
 - # ./nmsserver.bash appserver_status \dashv
 - ii The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 126 a i. Do not proceed unless the console displays the above text.

- b If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Enter the following at the CLI prompt to switch to the samadmin user:

su - samadmin ↓

ii Enter the following at the CLI prompt:

bash\$./nmsserver.bash appserver_status 斗

iii The 5620 SAM server application is operational when the command returns the following text string:

Application Server is started

If the command returns anything other than the above text string, wait five minutes and repeat step 126 b ii. Do not proceed unless the console displays the above text.

The next section of the procedure describes the transfer, or reinstantiation, of the primary database to the standby database station.

Reinstantiate standby database

- 127 Log in to a 5620 SAM client as the admin user.
- **128** Choose Administration \rightarrow System Information from the 5620 SAM main menu. The System Information form opens with the General tab displayed.
- **129** Click on the Re-Instantiate Standby button. A dialog box appears.
- 130 Click on the Yes button. The database reinstantiation begins.

You can view the reinstantiation status on the client GUI status bar or on the System Information form. The Standby Re-instantiation State changes from In Progress to Success when reinstantiation is complete. The start time of the reinstantiation is shown by the Last Attempted Standby Re-instantiation Time indicator.



Note – Database reinstantiation can take a long time when there is a large amount of statistics information to transfer.

- **131** When the Standby Re-instantiation State displays Success, close the System Information form.
- **132** Use the 5620 SAM client GUI to perform sanity testing of the newly redundant 5620 SAM server and database pair, as required.

6 – 5620 SAM platform migration

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- 6.2 5620 SAM platform migration procedures list 6-2
- 6.3 Workflow for 5620 SAM platform migration 6-3
- 6.4 5620 SAM platform migration preparation 6-3
- 6.5 Standalone 5620 SAM platform migration procedures 6-7
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6.1 5620 SAM platform migration overview

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document.



Caution – Alcatel-Lucent supports 5620 SAM system migration and software configuration only under the conditions described in chapter 1.

The 5620 SAM, Release 5.0 or later, supports the transfer, or migration, of a 5620 SAM system between platforms that have different processing architectures. The migration paths that the 5620 SAM supports are the following:

- Sun SPARC-based Solaris to Sun x86-based Solaris
- Sun x86-based Solaris to Sun SPARC-based Solaris



Note 1 – The new physical stations to which the 5620 SAM system migrates must have the same processing architecture and their OSs must be at the same release and patch level.

Note 2 – You cannot upgrade the 5620 SAM software as part of a 5620 SAM system migration. To upgrade your 5620 SAM system and move it to a different platform, you must upgrade the system before you perform the migration.

6.2 5620 SAM platform migration procedures list

Table 6-1 lists the procedures required to perform 5620 SAM platform migration activities.

Procedure	Purpose
To perform the pre-migration tasks	Prepare a standalone or redundant 5620 SAM system on Solaris for a platform migration by ensuring the correct conditions are in place, gathering the required system information, and backing up the configuration files and database.
To relocate a standalone 5620 SAM system to a different platform	Relocate the 5620 SAM database and server software in a standalone configuration on one or more Solaris stations to one or more Solaris stations of a different type.
To relocate a redundant 5620 SAM system to a different platform	Relocate the 5620 SAM database and server software in a redundant configuration on Solaris stations to Solaris stations of a different type.

Table 6-1 5620 SAM platform migration procedures list

6.3 Workflow for 5620 SAM platform migration

The following is the sequence of high-level actions required to relocate a standalone or redundant 5620 SAM system from one type of Solaris platform to another.

- 1 Perform the pre-upgrade tasks. See Procedure 6-1 for more information.
- 2 Perform the appropriate 5620 SAM migration procedure.
 - **a** To relocate a standalone 5620 SAM system to a new platform, perform Procedure 6-2.
 - b To relocate a redundant 5620 SAM system to a new platform, perform Procedure 6-3.
- **3** Perform sanity testing of the new 5620 SAM system using an existing 5620 SAM client.

6.4 5620 SAM platform migration preparation

This section describes how to prepare for the migration of a standalone or redundant 5620 SAM system from one type of Solaris platform to another.

Before you attempt a 5620 SAM platform migration, you must collect the required information and ensure that the proper conditions are in place. Procedure 6-1 describes how to perform the required tasks to prepare for a 5620 SAM platform migration.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- # represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 6-1 To perform the pre-migration tasks

Perform this procedure to prepare a standalone or redundant 5620 SAM system on one or more Solaris stations for migration to a different platform type. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note – You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent
- samadmin (Solaris 10 only)

on each database station:

- root or root-equivalent
- Oracle management

General preparation

- 1 Ensure that the 5620 SAM software DVD-ROM is available.
- 2 Remove all outstanding failed deployments. See the *5620 SAM User Guide* for information about deleting a failed deployment.

Back up configuration files

3 Make a backup copy of the *path*/nms/config/nms-server.xml configuration file on each server station.

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Copy the file to a secure location that is unaffected by 5620 SAM migration activity, such as a non-5620 SAM station.

4 If you are migrating a 5620 SAM system older than Release 5.0 R1, make a backup copy of the device backup files collected by the 5620 SAM in the *path*/nms/sr-backup directory on each server station.

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Ensure that you store the files in a secure location that is unaffected by 5620 SAM migration activity, such as a non-5620 SAM station. You can import the files to the 5620 SAM database after the migration. See the *5620 SAM User Guide* for more information about importing device backup files to the 5620 SAM database.

5 If you are migrating a 5620 SAM system older than Release 5.0 R1, make a backup copy of the device software image files stored by the 5620 SAM in the *path*/nms/sr-images directory on each server station.

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Ensure that you store the files in a secure location that is unaffected by 5620 SAM migration activity, such as a non-5620 SAM station. You can import the files to the 5620 SAM database after the migration. See the *5620 SAM User Guide* for more information about importing device software image files to the 5620 SAM database.

6 Make a copy of custom XML configuration files that may be present in the *path*/nms/jboss directory on each server station

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

Ensure that you store the files in a secure location that is unaffected by 5620 SAM migration activity, such as a non-5620 SAM station.

Gather required information

7 Obtain the following information for the appropriate database station in the current 5620 SAM system and record it for use during the migration:



Note – The appropriate station is one of the following:

- In a standalone 5620 SAM system, this is the standalone database station.
- In a redundant 5620 SAM system, this is the primary database station.
- root user password
- UNIX user name for Oracle management account (default value at installation is oracle)
- Oracle database user ID (default value at installation is samuser)
- Oracle database user password
- Oracle SYS password
- Oracle base installation directory name (default value at installation is /opt/5620sam/oracle)
- 5620 SAM database installation directory name (default value at installation is /opt/5620sam/samdb)
- 8 Obtain the following information for each station that is to be a server station in the new 5620 SAM system and record it for use during the migration:
 - hostname
 - IP addresses
 - server IP addresses used by 5620 SAM databases to reach the server (public IP addresses, if NAT is used)
 - server IP address used by 5620 SAM GUI and OSS clients to reach the server (public IP address, if NAT is used)
 - server IP address used by 5620 SAM auxiliary servers to reach the server (public IP address, if NAT is used)
 - private server IP addresses (if NAT is used)
 - root user password
 - samadmin user password, if the 5620 SAM server is installed on Solaris 10

- **9** Obtain the following information for each station that is to be a database station in the new 5620 SAM system and record it for use during the migration:
 - hostname
 - IP addresses
 - database IP addresses used by 5620 SAM servers to reach the database (public IP addresses, if NAT is used)
 - database IP address used by 5620 SAM auxiliary servers to reach the database (public IP address, if NAT is used)
 - private database IP addresses (if NAT is used)
 - root user password

Close unrequired clients

- **10** Close all open 5620 SAM client sessions but one; the remaining session is used to perform a database backup.
 - i Open a 5620 SAM client session using an account with security management privileges, such as admin.
 - ii Click on Administration→Security→5620 SAM User Security in the 5620 SAM main menu. The 5620 SAM User Security - Security Management (Edit) form opens with the General tab displayed.
 - iii Click on the Sessions tab button.
 - iv Click on the Search button. The form displays a list of the open 5620 SAM client sessions.
 - v Using the IP addresses in the Client IP column, identify the GUI and OSS clients that are currently logged in.
 - vi Close the client sessions by selecting them and clicking on the Close Session button. A dialog box appears.



Note — One of the listed sessions is the session that you are using. Do not attempt to close this session.

- vii Click on the Yes button to confirm the action.
- viii Click on the Search button to refresh the list of open client sessions.

Back up database

11 Alcatel-Lucent strongly recommends that you perform a database backup using one of the following methods before you perform a 5620 SAM system migration.



Caution — You must specify a backup directory that does not include the 5620 SAM database installation directory, or data loss may occur. A typical 5620 SAM database installation directory is /opt/5620sam/samdb.

- **a** Use the 5620 SAM client GUI. See the 5620 SAM User Guide for information about how to perform a database backup using the client GUI.
- b Use a CLI script. Perform the following steps.
 - i Log in as the Oracle management user on the appropriate station.
 - In a standalone 5620 SAM system, this is the standalone database station.
 - In a redundant 5620 SAM system, this is the primary database station.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt to begin the database backup:

bash\$ path/install/config/samdb/SAMbackup.sh backup_directory .

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb *backup_directory* is the directory that is to contain the database backup

The 5620 SAM backs up the database.

- iv Record the backup directory location.
- v Copy the database backup files from the backup directory to a secure location, such as a non-5620 SAM station, for safekeeping.

6.5 Standalone 5620 SAM platform migration procedures

This section describes the migration of a standalone 5620 SAM system from one type of Solaris platform to another.

Procedure 6-2 describes how to relocate a standalone 5620 SAM system.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- # represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 6-2 To relocate a standalone 5620 SAM system to a different platform

Perform this procedure to relocate a standalone 5620 SAM system on Solaris to a different platform type. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note – You require the following user privileges to perform this procedure:

on the main server station:

- root or root-equivalent
- samadmin (Solaris 10 only)

on the database station:

- root or root-equivalent
- Oracle management

Shut down server

- 1 Perform one of the following to stop the 5620 SAM main server application.
 - **a** If the 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Log in as a user with root-equivalent privileges on the main server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:
 - # cd path/nms/bin .

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt:

./nmsserver.bash stop 🚽

 Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

```
\# ./nmsserver.bash appserver_status \dashv
```

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 1 a v. Do not proceed unless the console displays the above text.

- **b** If the 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Log in as the samadmin user on the main server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:

bash\$ cd path/nms/bin ↓

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt:

bash\$./nmsserver.bash stop 🚽

v Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

bash\$./nmsserver.bash appserver_status 🚽

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 1 b v. Do not proceed unless the console displays the above text.

Disable server daemon

- 2 Disable the 5620 SAM server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the conversion.
 - i If you are logged in as the samadmin user, enter the following at the CLI prompt to switch to the root user:

bash\$ **su -** ↓

ii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d 🕹

iii Disable the 5620 SAM server daemon by renaming it. Enter the following at the CLI prompt:

The next section of the procedure describes the exporting of the 5620 SAM database to a file set.

Export database

- **3** Perform the following steps to export the 5620 SAM database to a file set using the 5620 SAM database migration script.
 - i Log in as the Oracle management user on the database station.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt:

bash\$ path/install/config/samdb/Solaris_dbMigration.sh -e
db_export_directory ...

where

path is the 5620 SAM database installation location, typically /opt/5620sam/samdb *db_export_directory* is the full path of the directory that is to contain the exported database file set

The following text is displayed:

```
Using ORACLE_SID = db_instance_name
Using ORACLE_HOME = Oracle_installation_directory
```



Note 1 - To view the migration script usage instructions, specify the -h switch, as follows:

Solaris_dbMigration.sh -h 斗

Note 2 - The passwords that you enter in this step are not echoed to the console.

iv Enter the SYS user password at the following prompt and press \dashv :

Enter the password for the "sys" user (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- v Press \rightarrow if you are sure that the password is entered correctly. Otherwise, enter n \rightarrow and repeat step 3 iv.
- vi Enter the 5620 SAM database user name at the following prompt:

Enter the username for the SAM Database (user name):

where user_name is the default 5620 SAM database user name, typically samuser

vii The following prompt is displayed if you enter a user name other than the default:

Accept "user_name" [y/n/q]? (y):

Press \downarrow if you have entered the name correctly. Otherwise, enter n \downarrow and repeat step 3 vi.

viii Enter the database user password at the following prompt:

Enter the password for *user_name* (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- ix Press \rightarrow if you are sure that the password is entered correctly. Otherwise, enter n \rightarrow and repeat step 3 viii.
- **x** Enter an export password at the following prompt:

```
Enter the password for export ENCRYPTION_PASSWORD (terminal
echo is off):
```



Note – The export password is used to encrypt the database contents. The password can be any length and use any characters.

The following prompt is displayed:

```
Accept value? [y/n/q] (y):
```

- xi Press \rightarrow if you are sure that the password is entered correctly. Otherwise, enter n \rightarrow and repeat step 3 x.
- xii Record the export password for use during the database import.
- **xiii** Press \downarrow at the following prompt to confirm that the 5620 SAM server is stopped:

This tool will shutdown the db listener disconnecting any connections to the database.

Have the SAM servers been shutdown? [y/n/q] (y):

xiv At the following prompt, specify how many CPUs are available for the export process:

To optimize the speed of the export this script will use as many CPUs as you allow it to.

How many CPUs are available for this export? (n):

where n is the number of CPUs that the script detects

xv Press \rightarrow at the following prompt if you want the script to estimate the amount of disk space required for the database export:

Do you want to perform an export size estimate first? [y/n/q] (y):

xvi Press \dashv at the following prompt to proceed with the database export:

Proceed with the export? [y/n/q] (y):

The script exports the 5620 SAM database to a file set in the directory specified in step 3 iii.

Shut down database

- 4 Shut down the 5620 SAM database application.
 - i Log in as a user with root-equivalent privileges on the database station.
 - ii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt: # cd /etc/rc3.d .J
 - iii Stop the Oracle proxy daemon. Enter the following at the CLI prompt:

```
# ./S965620SAMOracleProxyWrapper stop 斗
```

iv Stop the 5620 SAM database daemon. Enter the following at the CLI prompt:

```
# ./S95db5620sam stop ↓
```

Do not proceed until the command returns the following text string:

Done

Install database

5 Perform steps 1 to 47 of Procedure 3-1 to install the 5620 SAM database software on the new database station.



Note – For the database installation, you must use the same user names, passwords, database name, and database instance name that were specified for the existing database installation.

Import database file set

6 Copy the exported data file set created in step 3 to the new database station.



Note – The directory to which you copy the file set must contain no other files.

7 Perform the following steps to import the exported 5620 SAM data file set using the 5620 SAM database migration script.



Note 1 - To view the migration script usage instructions, specify the -h switch, as follows:

```
Solaris dbMigration.sh -h 🚽
```

Note 2 – The passwords that you enter in this step are not echoed to the console.

- i Log in as the Oracle management user on the primary database station.
- ii Open a console window.
- iii Enter the following at the CLI prompt:

bash\$ path/install/config/samdb/Solaris_dbMigration.sh -i
db_import_directory ...

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb *db_import_directory* is the full path of the directory that contains the exported database file set

The following text is displayed:

Using ORACLE_SID = db_instance_name

Using ORACLE HOME = Oracle installation directory

iv Enter the SYS user password at the following prompt and press \dashv :

Enter the password for the "sys" user (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- v Press \downarrow if you are sure that the password is entered correctly. Otherwise, enter n \downarrow and repeat step 7 iv.
- vi Enter the 5620 SAM database user name at the following prompt:

Enter the username for the SAM Database (user_name):

where user_name is the default 5620 SAM database user name, typically samuser

vii The following prompt is displayed if you enter a user name other than the default:

Accept "user name" [y/n/q]? (y):

Press \dashv if you have entered the name correctly. Otherwise, enter n \dashv and repeat step 7 vi.

viii Enter the database user password at the following prompt:

Enter the password for user_name (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- ix Press \downarrow if you are sure that the password is entered correctly. Otherwise, enter n \downarrow and repeat step 7 viii.
- **x** Enter the export password at the following prompt:

Enter the password for export ENCRYPTION_PASSWORD (terminal echo is off):



Note – This password is the password recorded in step 3 xii.

The following prompt is displayed:

Accept value? [y/n/q] (y):

- xi Press \downarrow if you are sure that the password is entered correctly. Otherwise, enter n \downarrow and repeat step 7 x.
- **xii** At the following prompt, specify how many CPUs are available for the import process:

In order to optimize the speed of this import, this script needs to know how many CPUs are available on this machine and how many data files there are to import.

This machine appears to have n CPUs

Is this correct? [y/n/q] (y):

where n is the number of CPUs that the script detects

xiii Press → at the following prompt if the number of data files to import is correct:

There appears to be n data files to import

Is this correct? [y/n/q] (y):

where n is the number of data files found by the script

xiv Press \downarrow at the following prompt to proceed with the database import:

Log of import command will be written to log_file

Proceed with the import? [y/n/q] (y):

where *log_file* is the name of a log file that the script creates

The script imports the 5620 SAM database from the directory specified in step 7 iii.

Install server

8 Perform steps 48 to 76 of Procedure 3-1 to install the 5620 SAM server software on the new server station.

6.6 Redundant 5620 SAM platform migration procedures

This section describes the migration of a redundant 5620 SAM system from one type of Solaris platform to another.

Procedure 6-3 describes how to relocate a redundant 5620 SAM system.



Note – Command-line examples use the following to represent the Solaris CLI prompts:

- # represents the prompt displayed for a root-equivalent user
- bash\$ represents the prompt displayed for the samadmin and Oracle management users

Do not type the # symbol or bash\$ when entering a command.

Procedure 6-3 To relocate a redundant 5620 SAM system to a different platform

Perform this procedure to relocate a redundant 5620 SAM system on Solaris to a different platform type. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note – You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent
- samadmin (Solaris 10 only)

on each database station:

- root or root-equivalent
- Oracle management

Shut down standby main server

- 1 Perform one of the following to stop the standby 5620 SAM main server application.
 - a If the standby 5620 SAM main server is installed on Solaris 9, perform the following steps.

- i Log in as a user with root-equivalent privileges on the standby main server station.
- ii Open a console window.
- iii Navigate to the server binary directory. Enter the following at the CLI prompt:

```
# cd path/nms/bin .]
```

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt:

./nmsserver.bash stop 🚽

v Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

./nmsserver.bash appserver_status .

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 1 a v. Do not proceed unless the console displays the above text.

- **b** If the standby 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Log in as the samadmin user on the standby main server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:

bash\$ cd path/nms/bin .]

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt:

bash\$./nmsserver.bash stop .]

v Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

bash\$./nmsserver.bash appserver_status 🚽

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped
If the command returns anything other than the above text string, wait five minutes and repeat step 1 b v. Do not proceed unless the console displays the above text.

Disable standby main server daemon

- 2 Disable the standby 5620 SAM main server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the migration.
 - i If you are logged in as the samadmin user, enter the following at the CLI prompt to switch to the root user:

bash\$ **su -** 斗

ii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d ↓

iii Disable the 5620 SAM server daemon by renaming it. Enter the following at the CLI prompt:

```
# mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ...
```

The next section of the procedure describes the stopping of the primary 5620 SAM main server.

Shut down primary main server

- **3** Perform one of the following to stop the primary 5620 SAM main server application.
 - **a** If the primary 5620 SAM main server is installed on Solaris 9, perform the following steps.
 - i Log in as a user with root-equivalent privileges on the primary main server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:

cd path/nms/bin .]

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt:

./nmsserver.bash stop \lrcorner

- v Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:
 - # ./nmsserver.bash appserver_status \dashv

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 3 a v. Do not proceed unless the console displays the above text.

- **b** If the primary 5620 SAM main server is installed on Solaris 10, perform the following steps.
 - i Log in as the samadmin user on the primary main server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:

bash\$ cd path/nms/bin .]

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt:

bash\$./nmsserver.bash stop 🚽

v Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

<code>bash\$</code> ./nmsserver.bash appserver_status \dashv

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 3 b v. Do not proceed unless the console displays the above text.

Disable primary main server daemon

- 4 Disable the primary 5620 SAM main server startup daemon. This ensures that the 5620 SAM server does not automatically start in the event of a power disruption during the migration.
 - i If you are logged in as the samadmin user, enter the following at the CLI prompt to switch to the root user:

bash\$ **su -** ↓

ii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d ↓

iii Disable the 5620 SAM server daemon by renaming it. Enter the following at the CLI prompt:

```
# mv S975620SAMServerWrapper
inactive.S975620SAMServerWrapper ↓
```

The next section of the procedure describes the stopping of the standby 5620 SAM database.

Shut down standby database

- 5 Shut down the standby database application.
 - i Log in as a user with root-equivalent privileges on the standby database station.
 - ii Open a console window.
 - iii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d .

iv Stop the Oracle proxy daemon. Enter the following at the CLI prompt:

```
# ./S965620SAMOracleProxyWrapper stop 4
```

v Stop the 5620 SAM database daemon. Enter the following at the CLI prompt:

```
# ./S95db5620sam stop ↓
```

Do not proceed until the command returns the following text string:

Done

Export database

- 6 Perform the following steps to export the primary 5620 SAM database to a file set using the 5620 SAM database migration script.
 - i Log in as the Oracle management user on the primary database station.
 - ii Open a console window.
 - iii Enter the following at the CLI prompt:

bash\$ path/install/config/samdb/Solaris_dbMigration.sh -e
db_export_directory ...

where

path is the 5620 SAM database installation location, typically /opt/5620sam/samdb *db_export_directory* is the full path of the directory that is to contain the exported database file set

The following text is displayed:

```
Using ORACLE_SID = db_instance_name
Using ORACLE_HOME = Oracle_installation_directory
```



Note 1 - To view the migration script usage instructions, specify the -h switch, as follows:

Solaris_dbMigration.sh -h 斗

Note 2 — The passwords that you enter in this step are not echoed to the console.

iv Enter the SYS user password at the following prompt and press \dashv :

Enter the password for the "sys" user (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- v Press \rightarrow if you are sure that the password is entered correctly. Otherwise, enter n \rightarrow and repeat step 6 iv.
- vi Enter the 5620 SAM database user name at the following prompt:

Enter the username for the SAM Database (user name):

where user_name is the default 5620 SAM database user name, typically samuser

vii The following prompt is displayed if you enter a user name other than the default:

Accept "user_name" [y/n/q]? (y):

Press \downarrow if you have entered the name correctly. Otherwise, enter n \downarrow and repeat step 6 vi.

viii Enter the database user password at the following prompt:

Enter the password for *user_name* (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- ix Press \dashv if you are sure that the password is entered correctly. Otherwise, enter n \dashv and repeat step 6 viii.
- **x** Enter an export password at the following prompt:

```
Enter the password for export ENCRYPTION_PASSWORD (terminal
echo is off):
```



Note – The export password is used to encrypt the database contents. The password can be any length and use any characters.

The following prompt is displayed:

```
Accept value? [y/n/q] (y):
```

- xi Press \rightarrow if you are sure that the password is entered correctly. Otherwise, enter n \rightarrow and repeat step 6 x.
- xii Record the export password for use during the database import.
- **xiii** Press \downarrow at the following prompt to confirm that the 5620 SAM server is stopped:

This tool will shutdown the db listener disconnecting any connections to the database.

Have the SAM servers been shutdown? [y/n/q] (y):

xiv At the following prompt, specify how many CPUs are available for the export process:

To optimize the speed of the export this script will use as many CPUs as you allow it to.

How many CPUs are available for this export? (n):

where n is the number of CPUs that the script detects

xv Press \rightarrow at the following prompt if you want the script to estimate the amount of disk space required for the database export:

Do you want to perform an export size estimate first? [y/n/q] (y):

xvi Press \dashv at the following prompt to proceed with the database export:

Proceed with the export? [y/n/q] (y):

The script exports the 5620 SAM database to a file set in the directory specified in step 6 iii.

Shut down primary database

- 7 Shut down the 5620 SAM database application on the primary database station.
 - i Enter the following at the CLI prompt on the primary database station to switch to the root user:

bash\$ **su -**

ii Enter the following at the CLI prompt to stop the Oracle proxy daemon:

```
# /etc/rc3.d/S965620SAMOracleProxyWrapper stop ...
```

iii Stop the 5620 SAM database daemon. Enter the following at the CLI prompt:

```
\# ./S95db5620sam stop \dashv
```

Do not proceed until the command returns the following text string:

Done

Install primary database

8 Perform steps 1 to 48 of Procedure 3-4 to install the 5620 SAM database software on the new primary database station.



Note — For the new primary database installation, you must use the same user names, passwords, database name, and database instance name that were specified for the existing primary database installation.

Import database file set to primary database

9 Copy the exported data file set created in step **6** to the new primary database station.



Note – The directory to which you copy the file set must contain no other files.

10 Perform the following steps to import the primary 5620 SAM data file set using the 5620 SAM database migration script.



Note 1 - To view the migration script usage instructions, specify the -h switch, as follows:

```
Solaris dbMigration.sh -h 🚽
```

Note 2 – The passwords that you enter in this step are not echoed to the console.

- i Log in as the Oracle management user on the primary database station.
- ii Open a console window.
- iii Enter the following at the CLI prompt:

bash\$ path/install/config/samdb/Solaris_dbMigration.sh -i
db_import_directory ...

where *path* is the 5620 SAM database installation location, typically /opt/5620sam/samdb *db_import_directory* is the full path of the directory that contains the exported database file set

The following text is displayed:

Using ORACLE_SID = db_instance_name

Using ORACLE HOME = Oracle installation directory

iv Enter the SYS user password at the following prompt and press \dashv :

Enter the password for the "sys" user (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- v Press \downarrow if you are sure that the password is entered correctly. Otherwise, enter n \downarrow and repeat step 10 iv.
- vi Enter the 5620 SAM database user name at the following prompt:

Enter the username for the SAM Database (user_name):

where user_name is the default 5620 SAM database user name, typically samuser

vii The following prompt is displayed if you enter a user name other than the default:

Accept "user_name" [y/n/q]? (y):

Press \dashv if you have entered the name correctly. Otherwise, enter n \dashv and repeat step 10 vi.

viii Enter the database user password at the following prompt:

Enter the password for user_name (terminal echo is off):

The following prompt is displayed:

Accept value? [y/n/q] (y):

- ix Press \downarrow if you are sure that the password is entered correctly. Otherwise, enter n \downarrow and repeat step 10 viii.
- **x** Enter the export password at the following prompt:

Enter the password for export ENCRYPTION_PASSWORD (terminal echo is off):



Note – This password is the password recorded in step 6 xii.

The following prompt is displayed:

Accept value? [y/n/q] (y):

- xi Press \downarrow if you are sure that the password is entered correctly. Otherwise, enter n \downarrow and repeat step 10 x.
- **xii** At the following prompt, specify how many CPUs are available for the import process:

In order to optimize the speed of this import, this script needs to know how many CPUs are available on this machine and how many data files there are to import.

This machine appears to have n CPUs

Is this correct? [y/n/q] (y):

where n is the number of CPUs that the script detects

xiii Press → at the following prompt if the number of data files to import is correct:

There appears to be n data files to import

Is this correct? [y/n/q] (y):

where n is the number of data files found by the script

xiv Press \downarrow at the following prompt to proceed with the database import:

Log of import command will be written to log_file

Proceed with the import? [y/n/q] (y):

where *log_file* is the name of a log file that the script creates

The script imports the 5620 SAM database from the directory specified in step 10 iii.

Install standby database

11 Perform steps 50 to 87 of Procedure 3-4 to install the 5620 SAM database software on the new standby database station.



Note — For the new standby database installation, you must use the same user names, passwords, database name, and database instance name that were specified for the existing standby database installation.

Install primary main server

12 Perform steps 88 to 119 of Procedure 3-4 to install the 5620 SAM server software on the new primary main server station.

Install standby main server

13 Perform steps 125 to 156 of Procedure 3-4 to install the 5620 SAM server software on the new standby main server station.

6 - 5620 SAM platform migration

7 – 5620 SAM uninstallation on Solaris

- 7.1 5620 SAM uninstallation on Solaris overview 7-2
- 7.2 5620 SAM uninstallation on Solaris procedures list 7-2
- 7.3 Workflow for 5620 SAM uninstallation on Solaris 7-2
- 7.4 5620 SAM uninstallation on Solaris procedures 7-2

7.1 5620 SAM uninstallation on Solaris overview

This chapter describes general information related to uninstalling the 5620 SAM software components on Solaris.

5620 SAM system uninstallation has the following requirements.

- No 5620 SAM software in the 5620 SAM system is running when the uninstallation begins.
- The order in which the 5620 SAM components are uninstalled is the reverse of the order in which they are installed.

7.2 5620 SAM uninstallation on Solaris procedures list

Table 7-1 lists the procedures required to perform 5620 SAM software uninstallation activities on a Solaris platform.

Table 7-1	5620 SAN	I uninstallation	on Solaris p	procedures list
-----------	----------	------------------	--------------	-----------------

Procedure	Purpose
To uninstall the 5620 SAM client software on Solaris	Remove the 5620 SAM client software from a Solaris station.
To uninstall the 5620 SAM server software on Solaris	Remove the 5620 SAM main or auxiliary server software from a Solaris station.
To uninstall the 5620 SAM database software on Solaris	Remove the 5620 SAM database software from a Solaris station.

7.3 Workflow for 5620 SAM uninstallation on Solaris

The following is the sequence of high-level actions required to uninstall the 5620 SAM client, server and database components that comprise a 5620 SAM system on Solaris.

- 1 Uninstall the client. See Procedure 7-1 for more information.
- 2 Uninstall the server. See Procedure 7-2 for more information.
- 3 Uninstall the database. See Procedure 7-3 for more information.

7.4 5620 SAM uninstallation on Solaris procedures

The following procedures describe how to remove the software components of a 5620 SAM system on a Solaris platform.

Procedure 7-1 describes how to uninstall the 5620 SAM client on a Solaris station.

Procedure 7-2 describes how to uninstall the 5620 SAM server on a Solaris station.

Procedure 7-3 describes how to uninstall the 5620 SAM database on a Solaris station.

Procedure 7-1 To uninstall the 5620 SAM client software on Solaris

Perform this procedure to remove the 5620 SAM client software from a Solaris station. 5620 SAM client uninstallation requires the local user privileges of the user that installed the client, or root-equivalent user privileges.

- 1 Stop the 5620 SAM client. From the 5620 SAM GUI main menu, choose Application \rightarrow Exit.
- 2 Log in to the 5620 SAM client station as the same user that installed the 5620 SAM client software or as a root-equivalent user.
- 3 Open a console window.



Note — Ensure that the current directory indicated by the CLI prompt is not a directory below the 5620 SAM client installation directory, for example, below /opt/5620sam/client.

4 Enter the following at the CLI prompt to open the 5620 SAM client uninstaller:

```
# path/install/Uninstaller/Uninstall_5620_SAM_Client ...
```

where path is the 5620 SAM client installation location, typically /opt/5620sam/client

The splash screen shown in Figure 7-1 appears, and the uninstallation process begins.





5 The 5620 SAM client uninstaller opens, as shown in Figure 7-2. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Uninstall button to begin the uninstallation.

- Uninstall 5620 SAM Client		
	Uninstall 5620 SAM Client	
 Introduction Uninstalling Uninstall Complete 	About to uninstall 5620 SAM Client This will remove features installed by InstallAnywhere. It will not remove files and folders created after the installation.	
InstallAnywhere by Macrovision -	Previous Uninstall	

Figure 7-2 Uninstall 5620 SAM Client

6 As shown in Figure 7-3, a warning appears. Ensure that the conditions are true. Click on the "Continue with the uninstall process" button to begin the uninstallation.

Figure 7-3 Warning



The uninstaller begins to remove 5620 SAM client files and directories, as shown in Figure 7-4.

– Uninstall 5620 SAM Client 🕝		
	Uninstall 5620 SAM Client	
 Introduction Uninstalling 	Please wait while InstallAnywhere's uninstaller removes the following features	
Uninstall Complete	Preparing	
	Files	
	LaunchAnywhere	
	Folders	
	Uninstalling	
InstallAnywhere by Macrovision		
<u>C</u> ancel		

Figure 7-4 Uninstall 5620 SAM Client

When the client uninstallation is complete, as shown in Figure 7-5, click on the 7 Done button to close the uninstaller.

	Uninstall 5620 SAM Client	
		Uninstal
on	All items were successfully uninstalled.	
ng Complete		

Figure 7-5 Uninstall Complete



Procedure 7-2 To uninstall the 5620 SAM server software on Solaris

Perform this procedure to remove the 5620 SAM main server or auxiliary server software from a Solaris station. 5620 SAM server software uninstallation requires local root-equivalent user privileges.



Caution — This procedure involves stopping the 5620 SAM server and database software. Ensure that you perform this procedure only during a scheduled maintenance window.



Note – You require the following user privileges to perform this procedure:

on each main server station:

- root or root-equivalent
- samadmin (Solaris 10 only)

on each database station:

- root or root-equivalent
- Oracle management

Stop server and database applications

- 1 Perform one of the following to stop the 5620 SAM main server application.
 - a If the main server is installed on Solaris 9, perform the following steps.
 - i Log in as a user with root-equivalent privileges on the main server station.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:
 - # cd path/nms/bin 🕹

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

- iv Enter the following at the CLI prompt to stop the 5620 SAM server application:
 - # ./nmsserver.bash stop \dashv
- Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:
 - # ./nmsserver.bash appserver_status \lrcorner
- vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 1 a v. Do not proceed unless the console displays the above text.

- **b** If the main server is installed on Solaris 10, perform the following steps.
 - i Log in to the main server station as the samadmin user.
 - ii Open a console window.
 - iii Navigate to the server binary directory. Enter the following at the CLI prompt:

bash\$ cd path/nms/bin .]

where *path* is the 5620 SAM server installation location, typically /opt/5620sam/server

iv Enter the following at the CLI prompt to stop the 5620 SAM server application:

bash\$./nmsserver.bash stop 🚽

 Verify that the 5620 SAM server is stopped. Enter the following at the CLI prompt:

bash\$./nmsserver.bash appserver_status 斗

vi The 5620 SAM server application is stopped when the command returns the following text string:

Application Server is stopped

If the command returns anything other than the above text string, wait five minutes and repeat step 1 b v. Do not proceed unless the console displays the above text.

- 2 Stop the 5620 SAM database application.
 - i Log in to the database station as a user with root-equivalent privileges.
 - ii Open a console window.
 - iii Navigate to the /etc/rc3.d directory. Enter the following at the CLI prompt:

cd /etc/rc3.d .

iv Stop the Oracle proxy daemon. Enter the following at the CLI prompt:

```
# ./S965620SAMOracleProxyWrapper stop 斗
```

v Stop the 5620 SAM database daemon. Enter the following at the CLI prompt:

```
# ./S95db5620sam stop ↓
```

vi Verify that the 5620 SAM database is stopped. Enter the following at the CLI prompt:

```
# ps -ef | grep oracle ↓
```

The command displays a list of processes that contain the term "oracle".



Note – One of the list entries is the "grep oracle" command from this step. Disregard the "grep oracle" entry, as it is not an Oracle process.

vii If the command returns lines of text other than "grep oracle", the 5620 SAM database is not stopped. Repeat step 2 vi.

Do not proceed until the command returns only the single "grep oracle" entry.

The next phase involves the uninstallation of the 5620 SAM server software. Server uninstallation requires root-equivalent user privileges on the server station.

Uninstall server

- **3** Log in as a user with root-equivalent privileges on the 5620 SAM main or auxiliary server station.
- 4 Open a console window.
- 5 Enter the following at the CLI prompt to open the 5620 SAM server uninstaller:

```
# path/install/Uninstaller/Uninstall_Server_Main ...
```

where path is the 5620 SAM server installation location, typically /opt/5620sam/server

The splash screen in Figure 7-6 appears and the uninstallation process begins.



Figure 7-6 5620 SAM Uninstaller

6 The 5620 SAM server uninstaller opens, as shown in Figure 7-7. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Uninstall button to begin the uninstallation.

Figure 7-7 Uninstall 5620 SAM Server

— Unin	nstall 5620 SAM Server Main
	Uninstall 5620 SAM Server
 Introduction Uninstalling Uninstall Complete 	About to uninstall 5620 SAM Server This will remove features installed by InstallAnywhere. It will not remove files and folders created after the installation.
InstallAnywhere by Macrovision – Cancel	Previous Uninstall

7 Read the warning shown in Figure 7-8. Click on the "Continue with the uninstall process" button to begin the uninstallation.

Figure 7-8 Warning			
	WARNING		
	Before continuing with the uninstall process, please make sure that: (1) the application you are about to uninstall is not running (2) there is no console left opened below the installed directory		
Continue with the uninstall process Cancel the uninstall process			

The uninstaller begins to remove 5620 SAM server files and directories, as shown in Figure 7-9.

Uninstall 5620 SAM Server Main
 Uninstall 5620 SAM Server

Figure 7-9 Uninstall 5620 SAM Server

8 When the server uninstallation is complete, as shown in Figure 7-10, click on the Done button to close the uninstaller.

— Uni	nstall 5620 SAM Server Main	
	Unir	nstall Complete
 Introduction Uninstalling Uninstall Complete 	All items were successfully uninstalled.	
InstallAnywhere by Macrovision	Previous	Done

Figure 7-10 Uninstall Complete

9 Enter the following at the CLI prompt to reboot the server station:

```
bash$ shutdown -y -i6 -g0 ↓
```

The station reboots.

10 Remove any files and directories that remain in the server installation directory.

Procedure 7-3 To uninstall the 5620 SAM database software on Solaris

Perform this procedure to remove the 5620 SAM database component from a Solaris station. Database software uninstallation requires root-equivalent and Oracle management user privileges on the database station.

- 1 Log in as a user with root-equivalent privileges on the database station.
- 2 Open a console window.
- 3 Switch to the Oracle management user created by the pre-installation script. Enter the following at the CLI prompt:

```
# su - Oracle_management_user_name ...
```

where *Oracle_management_user_name* is the name of the UNIX account with Oracle management privileges, typically oracle

4 Enter the following at the CLI prompt to open the 5620 SAM database uninstaller:

bash\$ path/install/Uninstaller/Uninstall_5620_SAM_Database_Configurato r ↓

where path is the 5620 SAM database installation location, typically /opt/5620sam/samdb

The splash screen in Figure 7-11 appears and the uninstallation process begins.



Figure 7-11 5620 SAM Uninstaller

5 The 5620 SAM database uninstaller opens, as shown in Figure 7-12. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Next button.

– Uninstall 5620 SAM Database Configurator 👘		
	Uninstall 5620 SAM Database Configurator	
 Introduction Uninstalling Uninstall Complete 	About to uninstall 5620 SAM Database Configurator This will remove features installed by InstallAnywhere. It will not remove files and folders created after the installation. For large databases, this could take several minutes.	
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous	

Figure 7-12 Uninstall 5620 SAM Database Configurator

6 Select the "Uninstall Oracle software" parameter shown in Figure 7-13 if you want to remove the Oracle software from the database station. Click on the Uninstall button to begin the uninstallation.

– Uninstall	5620 SAM Database Configurator
	Uninstall Oracle Software
 Introduction Uninstalling Uninstall Complete 	Please specify if Oracle software is to be uninstalled.
InstallAnywhere by Macrovision	Deprious [Injected]
Cancer	Previous

Figure 7-13 Uninstall Oracle Software

7 As shown in Figure 7-14, you are prompted to run a script that enables the uninstallation of the database daemons. Open a separate console window and run the script as the root user.

Figure 7-14 Warning



8 When the script execution is complete, click on the OK button.

The uninstaller begins to remove 5620 SAM database files and directories, as shown in Figure 7-15.

Uninstall 5620 SAM Database Configurator		
	Uninstall 5620 SAM Database Configurator	
 Introduction Uninstalling 	Please wait while InstallAnywhere's uninstaller removes the following features	
Uninstall Complete	Preparing Files LaunchAnywhere Folders	
	Uninstalling	
InstallAnywhere by Macrovision –		

Figure 7-15 Uninstall 5620 SAM Database Configurator

9 When database uninstallation is complete, as shown in Figure 7-16, click on the Done button to close the uninstaller.

— Uninstall	5620 SAM Database Configurator
	Uninstall Complete
 Introduction Uninstalling Uninstall Complete 	All items were successfully uninstalled. Please restart this workstation.
InstallAnywhere by Macrovision – Cancel	Previous

10 Enter the following at the CLI prompt to reboot the database station:

bash\$ shutdown -y -i6 -g0 ↓

The station reboots.

11 Remove any files and directories that remain in the Oracle installation directory and the database directories.

5650 CPAM for Solaris

8 - 5650 CPAM installation, upgrade, and uninstallation

8 – 5650 CPAM installation, upgrade, and uninstallation

- 8.1 5650 CPAM installation, upgrade, and uninstallation overview 8-2
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- 8.3 5650 CPAM server installation, upgrade, and uninstallation procedures 8-2

8.1 5650 CPAM installation, upgrade, and uninstallation overview

Before you attempt to perform a procedure in this chapter, ensure that you understand and comply with the relevant requirements, considerations, and precautions described in chapter 1 of this document and in the 5650 CPAM User Guide.



Note – The system requirements for a 5650 CPAM server are the same as the requirements for a 5620 SAM server. Use the 5620 SAM server guidelines for Solaris in chapter 1 as the 5650 CPAM guidelines.



Caution – Alcatel-Lucent supports 5650 CPAM software configuration only under the conditions described in chapter 1.

8.2 5650 CPAM installation, upgrade, and uninstallation procedures list

Table 8-1 lists the procedures required to perform 5650 CPAM software installation, upgrade and uninstallation activities on a Solaris platform.

Table 8-1 5650 CPAM installation,	upgrade,	and uninstallation	procedures list
-----------------------------------	----------	--------------------	-----------------

Procedure	Purpose
To install a 5650 CPAM system	Install the 5650 CPAM server software on a Solaris station.
To upgrade a 5650 CPAM system	Upgrade the 5650 CPAM software on a Solaris station.
To uninstall the 5650 CPAM software	Remove the 5650 CPAM server software from a Solaris station.

8.3 5650 CPAM server installation, upgrade, and uninstallation procedures

This section describes how to install, upgrade, and uninstall the 5650 CPAM on Solaris.

Procedure 8-1 describes how to install the 5650 CPAM server. Procedure 8-2 describes how to upgrade the 5650 CPAM server. Procedure 8-3 describes how to uninstall the 5650 CPAM server.



Note – Command-line examples use the following to represent the Solaris CLI prompt:

• # — represents the prompt displayed for a root-equivalent user

Do not type the # symbol when entering a command.

Procedure 8-1 To install a 5650 CPAM system

Perform this procedure to install the 5650 CPAM software on a Solaris station. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require root-equivalent user privileges to install the 5650 CPAM software.

Note 2 — This procedure describes the installation of a 5650 CPAM server for integration with a redundant 5620 SAM system. The set of user prompts is smaller in a 5650 CPAM server installation for integration with a standalone 5620 SAM system.

- 1 Log in as a user with root-equivalent privileges on the station that is to be the 5650 CPAM station.
- 2 Open a console window.
- 3 Navigate to the Solaris directory on the 5650 CPAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris 斗

4 Enter the following at the CLI prompt to open the 5650 CPAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .J
```

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 8-1 appears and the installation process begins.





5 The 5650 CPAM installer opens as shown in Figure 8-2. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 8-2 Introduction



6 Review and accept the terms of the license agreement shown in Figure 8-3. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer	
	Software License Agreement
 Introduction License Agreement Choose Installation Type 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 5620 SAM/5650 CPAM Server software or installing the hardware unit with pre-enabled 5620 SAM/5650 CPAM Server software (each of which is referred to as "Software" in this Agreement).
 Install Directory Configuration 	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice.
Install Complete	Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2008 Alcatel-Lucent.
	All rights reserved.
	Disclaimers Abatel-Lucent products are intended for commercial uses. Without the appropriate network design engineering, they must not be sold, licensed or otherwise distributed for use in any hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aincraft accept the terms of the License Agreement I do NOI accept the terms of the License Agreement
InstallAnywhere by Macrovision	Previous Next

Figure 8-3 Software License Agreement

7 Select CPAM Server Installation, as shown in Figure 8-4. Click on the Next button.



Figure 8-4 Choose Installation Type

8 Specify a base directory in which to install the 5650 CPAM server software (typically /opt/5620sam/server), as shown in Figure 8-5. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer	
	Specify the Base Directory for 5650 CPAM Server Files
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5650 CPAM server related files. /opt/5620sam/server Restore Default Folder Choose
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 8-5 Specify the Base Directory for 5650 CPAM Server Files

9 As shown in Figure 8-6, the installer displays the release of the 5650 CPAM server software that is to be installed. Verify the information. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Contained in this installation package: 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Next

Figure 8-6 Checking Build Compatibility

- **10** Perform one of the following to specify where the 5650 CPAM and 5620 SAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 8-7.
 - ii If you want to accept the default user documentation location that is displayed, go to step 11.



Note – If NAT is to be used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation folder on the 5620 SAM and 5650 CPAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

5620 SAM/5650 CPAM Server Installer User Documentation Introduction Select "Install User Documentation at Central Location Below" if you want the License Agreement documentation to be centrally accessible to clients. You must specify an absolute file Choose Installation Type path or a URL. If the location is a URL and NAT is used, ensure that the URL contains Install Directory the public address of the server. Configuration Select "Install User Documentation to Client File System" to install user Install Complete documentation on the clients. The file path that you specify is relative to the client installation directory. Install User Documentation at Central Location Below Install User Documentation to Client File System http://192.168.200.222:8085 Restore Default Choose... InstallAnywhere by Macrovision <u>P</u>revious <u>C</u>ancel Next

Figure 8-7 User Documentation

- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 8-7.
 - ii Specify a client file system location for the 5620 SAM and 5650 CPAM user documentation in the field below the parameters. The location is a relative file path to a folder under the base 5620 SAM client installation folder. The path must not contain a leading slash. For example, if the installation folder is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents folder.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms folder in the base 5620 SAM client installation folder, for example, /opt/5620sam/client/nms/Documents.

- 11 Click on the Next button.
- 12 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 8-8. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer	
	License Information for 5650 CPAM Server
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key <u>5000-00000-00000-00000-00000-00000-00000-0000</u>
InstallAnywhere by Macrovision – Cancel	Previous

Figure 8-8 License Information for 5650 CPAM Server
- **13** Configure the following parameters shown in Figure 8-9, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported

- 5620 SAM/5650 CPAM Server Installer		
	Additional Server Configuration	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration	
InstallAnywhere by Macrovision -	Previous Next	

- 14 Configure the following parameters shown in Figure 8-10. Click on the Next button.
 - Primary Database Sever IP Address
 - Primary Database Server Port (typically 1523)
 - Primary Database Instance Name (typically samdb1)
 - Database User Name (typically samuser)
 - Database User Password
 - Primary Database Proxy Port (typically 9002)

Figure 8-10 Primary Database Configuration

-	5620 SAM/5650 CPAM Server Installer
	Primary Database Configuration
 Introduction License Agreement Choose Installation Type Install Directory 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address as known to the 5650 CPAM server.
Configuration	Primary Database Server IP Address
Install Complete	Primary Database Server Port 1523
	Primary Database Instance Name samdb1
	Database User Name samuser
	Database User Password
	Primary Database Proxy Port 9002
InstallAnywhere by Macrovision	Destigue
Cancer	<u>Previous</u> <u>N</u> exi

- **15** Configure the following parameters shown in Figure 8-11, then click on the Next button:
 - Standby Database Server IP Address
 - Standby Database Instance Name (typically samdb2)
 - Standby Database Proxy Port (typically 9002)

Figure 8-11 Standby Database Configuration

- 5620 SAM/5650 CPAM Server Installer -		
	Standby Database Configuration	
Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete	If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server.	
	Database Server IP Address	
	Database Instance Name samdb2	
	Database Proxy Port 9002	
InstallAnywhere by Macrovision		
Cancel	Previous Next	

- **16** Configure the following parameters shown in Figure 8-12:
 - Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is to be used between the 5620 SAM server and clients, select the "Network Address Translation Used" parameter and enter the private IP address of the server. Click on the Next button.

	CPAM Server Address Configuration for Client
 Introduction License Agreement Choose Installation Type 	Enter the the network interface information that the 5620 SAM main server will use to communicate with the GUI and OSS clients.
 Configuration Install Complete 	Server Domain Name [5620sam] Public IP (visible to clients) EJB JNDI Server port [1099 EJB JMS Server port [8093] NAT (network address translation) Used Private IP (accessible only by this server) Enable 5670 RAM
InstallAnywhere by Macrovision	Previous Nevi

Figure 8-12 CPAM Server Address Configuration for Clients

- 17 Configure the following parameters shown in Figure 8-13:
 - Public IP (visible to peer server)
 - High Available JNDI Port (typically 1100)
 - TCP Port Cluster Number (typically 11800)

If NAT is to be used between this 5620 SAM server and the peer 5620 SAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer		
	CPAM Server Address Configuration	
 Introduction License Agreement Choose Installation Type Install Directory 	Enter the the network interface information that the 5650 CPAM server will use to communicate with the peer server.	
 Configuration Install Complete 	Public IP (visible to peer server) High Available JNDI Port TCP Port Cluster Number 11800 NAT (network address translation) Used	
	Private IP (accessible only by this server)	
InstallAnywhere by Macrovision	Previous Next	

Figure 8-13 CPAM Server Address Configuration

18 If you did not select "Auxiliary Server Supported" in step 13, go to step 20.

- 19 If auxiliary servers are to be supported and NAT is to be used between the 5650 CPAM and auxiliary servers, select the "NAT (network address translation) Used" parameter shown in Figure 8-14 and enter the private IP address of the server in the "Private IP" field. Configure the following parameters, then click on the Next button:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

- 5620 SAM/5650 CPAM Server Installer		
	CPAM Server Configuration for Auxiliary Servers	
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the IP address of the network interface the 5650 CPAM server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address. Public IP (visible to auxiliary) Server Port	
	NAT (network address translation) Used	
	Private IP (accessible only by this server)	
InstallAnywhere by Macrovision	Previous Next	

Figure 8-14 CPAM Server Configuration for Auxiliary Servers

- **20** Configure the following parameters shown in Figure 8-15, then click on the Next button:
 - Peer Server IP Address
 - Peer Server Trap Log Id (typically 98)
 - Peer Server SNMP Trap Receiving IP Address
 - Peer Server SNMP Port Number (typically 162)
 - Peer Server TCP Port Cluster Number (typically 11800)

Figure 8-15 Peer CPAM Server Configurations

- 5620 SAM/5650 CPAM Server Installer		
Peer CPAM Server Configurations		
Introduction License Agreement Choose Installation Type Install Directory Configuration		
Install Complete Peer Server IP Address Peer Server Trap Log Id 98 Peer Server SNMP Trap Receiving IP Address Peer Server SNMP Trap Receiving Port 162 Peer Server TCP Port Cluster Number 11800		
InstallAnywhere by Macrovision Qancel Previous Next		

- 21 Configure the following parameters shown in Figure 8-16, then click on the Next button:
 - 5620 SAM Peer Server IP Address
 - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
 - 5620 SAM JNDI Peer Server Port (typically 1099)



5620 SAM/5650 CPAM Server Installer		
	Peer Main Server Configurations (cont.)	
Introduction License Agreement Choose Installation Type Install Directory Configuration	Enter the IP address of the network interface the GUI and OSS clients will use to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients.	
Install Complete	5620 SAM Peer Server IP Address 5620 SAM JNDI High Available Peer Server Port 1100 5620 SAM JNDI Peer Server Port 1099	
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next	

22 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 8-17 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button to begin the server installation.

Figure 8-17	Navigation	from	External Systems
-------------	------------	------	------------------

-	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision	Previous

The next panel displays installation progress, as shown in Figure 8-18.

	5620 SAM/5650 CPAM Server Installer	
	Installing 5620 SAM/5650 CPAM Serve	۶r
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢	
	Installing bin	
InstallAnywhere by Macrovision		

Figure 8-18 Installing 5620 SAM/5650 CPAM Server

23 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 8-19. Click on the Install button to begin the server installation.



	5620 SAM7 5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xml_output Restore Default Folder Choose
InstallAnywhere by Macrovision	Previous

24 As shown in Figure 8-20, the 5650 CPAM server is installed as a UNIX daemon. Click on the Next button.

a	5620 SAM/5650 CPAM Server Installer
	Installing the server as a Unix Daemo
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The 5650 CPAM server has been successfully installed as a Unix Daemon.
nstallAnywhere by Macrovision -	
Cancel	Previous Next

Figure 8-20 Installing the Server as a Unix Daemon

25 When the server installation is complete, as shown in Figure 8-21, configure the "Start the 5650 CPAM Server" parameter to specify whether you want the server to start immediately after the installation.



	5620 SAM/5650 CPAM Server Installer	
	Installation Com	plete
 Introduction License Agreement Chosse Installation Type Install Directory Configuration Install Complete 	Congratulations! 5650 CPAM Server has been successfully installed inside directory /opt/5620sam/server. Please assign a password for samadmin using 'passwd samadmin' command. Start the 5650 CPAM Server	
InstallAnywhere by Macrovision - Cancel	Previous	

26 Click on the Done button to close the installer. If you specified that the server is to start after installation, the server starts. Initial server startup can take twenty minutes or more.

27 The installer creates a user account called samadmin that is required for 5650 CPAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

passwd samadmin

The following prompt is displayed:

New Password:

ii Enter the new password and press 4.

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.

Procedure 8-2 To upgrade a 5650 CPAM system

Perform this procedure to upgrade the 5650 CPAM software. Ensure that you record the information that you specify during this procedure, for example, directory names, passwords, and IP addresses.



Note 1 — You require root-equivalent user privileges to upgrade the 5650 CPAM software.

Note 2 — This procedure describes the upgrade of a 5650 CPAM server that is integrated with a redundant 5620 SAM system. The set of user prompts is smaller for the upgrade of a 5650 CPAM server that is integrated with a standalone 5620 SAM system.

- 1 Log in as a user with root-equivalent privileges on the 5650 CPAM station.
- 2 Open a console window.
- 3 Navigate to the Solaris directory on the new 5650 CPAM software DVD-ROM. Enter the following at the CLI prompt:

cd Solaris \lrcorner

4 Enter the following at the CLI prompt to open the 5650 CPAM installer:

```
# ./ServerInstall_SAM_6_1_revision_ID.bin .
```

where *revision_ID* is the revision identifier, such as R1, R3, or another descriptor

The splash screen in Figure 8-22 appears and the installation process begins.



5 The 5650 CPAM installer opens as shown in Figure 8-23. The left pane indicates installation progress. The right pane displays release information about the software being installed. Click on the Next button.

Figure 8-23 Introduction



6 Review and accept the terms of the license agreement shown in Figure 8-24. Click on the Next button.

	5620 SAM/5650 CPAM Server Installer
	Software License Agreement
 Introduction License Agreement Choose Installation Type 	NOTICE: Please carefully read this license agreement before copying or using the accompanying 6520 SAM/6560 CPAM Server software or installing the hardware unit with pre-enabled 5620 SAM/5650 CPAM Server software (each of which is referred to as "Software" in this Agreement).
Install Directory Configuration Install Complete	Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. Alcatel-Lucent, the Alcatel-Lucent logo, Alcatel, the Alcatel logo, MainStreet, TiMetra, and Newbridge are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Copyright 2007 Alcatel-Lucent. All rights reserved. Disclaimers Alcatel-Lucent products are intended for commercial uses. Without the appropriate network design engineering, they must not be sold, licensed or otherwise distributed for use in any hazardous environments requiring fail-asfe performance, such as in the operation of nuclear facilities, aircraft
InstallAnywhere by Macrovision	I do NOT accept the terms of the License Agreement Previous Next

Figure 8-24 Software License Agreement

7 Select CPAM Server Installation, as shown in Figure 8-25. Click on the Next button.

5620 SAM/5650 CPAM Server Installer Choose Installation Type Introduction Main Server Installation Main Server Configuration Install or upgrade the 5620 SAM Main Change parameters of an existing 5620 SAM Main Server installation License Agreement Server 📮 Choose Installation Type Install Directory Configuration Install Complete Auxiliary Server Installation **Auxiliary Server Configuration** -Install or upgrade the 5620 SAM Auxiliary Change parameters of an existing 5620 SAM Auxiliary Server installation Server **CPAM Server Installation CPAM Server Configuration** ۲ Install or upgrade the 5650 CPAM Server Change parameters of an existing 5650 CPAM Server installation InstallAnywhere by Macrovision <u>P</u>revious <u>C</u>ancel Next

Figure 8-25 Choose Installation Type

8 Specify a base directory in which to install the 5650 CPAM server software (typically /opt/5620sam/server), as shown in Figure 8-26. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer	· # -
Specify the Base Directory for 5650 CPAM Server Files		
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The directory specified here will be the base directory for all 5650 CPAM server related files. /opt/5620sam/server Restore Default Folder Choose	
InstallAnywhere by Macrovision – Cancel	Previous	

Figure 8-26 Specify the Base Directory for 5650 CPAM Server Files

9 As shown in Figure 8-27, the installer displays the release of the 5650 CPAM server software that is to be installed. Verify the information. Click on the Next button.

Figure 8-27	Checking Bu	ild Compatibility
-------------	-------------	-------------------

	5620 SAM/5650 CPAM Server Installer
	Checking Build Compatibility
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	You are about to perform an installation on an already installed directory Installed on disk: 5650 CPAM Version 1.0 - Built on Fri Aug 17 04:37:11 EST 2007 Contained in this installation package: 5650 CPAM Version 2.0 - Built on Wed Nov 19 03:14 EST 2008
InstallAnywhere by Macrovision - Cancel	Previous

- **10** Perform one of the following to specify where the 5620 SAM and 5650 CPAM user documentation is to be stored.
 - a To store the documentation in a central location that is available to all clients, perform the following steps.
 - i Select the "Install User Documentation at Central Location Below" parameter, as shown in Figure 8-28.
 - ii If you want to accept the default user documentation location that is displayed, go to step 11.



Note — If NAT is used between the 5620 SAM server and clients, you must update the default location using the public IP address of the server, or the documentation is not accessible to clients.

- iii Specify a location for the user documentation in the field below the parameters.
- iv Copy the contents of the User_Documentation folder on the 5620 SAM and 5650 CPAM installation DVD-ROM to the location specified in step iii.
- v Click on the Next button. A dialog box appears.
- vi Click on the OK button.

Figure 8-28 User Documentation

	5620 SAM/5650 CPAM Server Installer		
User Documentation			
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select "Install User Documentation at Central Location Below" if you want the documentation to be centrally accessible to clients. You must specify an absolute file path or a URL. If the location is a URL and NAT is used, ensure that the URL contains the public address of the server. Select "Install User Documentation to Client File System" to install user documentation on the clients. The file path that you specify is relative to the client installation directory. Image: Install User Documentation to Client File System Image: I		
InstallAnywhere by Macrovision	Previous Next		

- **b** To store a copy of the documentation on the client file system, perform the following steps.
 - i Select the "Install User Documentation to Client File System" parameter shown in Figure 8-28.
 - ii Specify a client file system location for the 5620 SAM and 5650 CPAM user documentation in the field below the parameters. The location is a relative file path to a folder under the base 5620 SAM client installation folder. The path must not contain a leading slash. For example, if the installation folder is /opt/5620sam/client and you specify Documents as the location, the documentation is installed in the /opt/5620sam/client/Documents folder.



Note — The 5620 SAM uninstaller cannot remove the documentation unless it is installed below the nms folder in the base 5620 SAM client installation folder, for example, /opt/5620sam/client/nms/Documents.

- 11 Click on the Next button.
- 12 Enter the License Key information exactly as received from Alcatel-Lucent. Include the dashes in the key, as shown in Figure 8-29. Click on the Next button.

5620 SAM/5650 CPAM Server Installer		
	License Information for 5650 CPAM Serve	er
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	License Key 2000-00000-00000-00000-00000-00000-00000-0000	
InstallAnywhere by Macrovision — Cancel	Previous	

Figure 8-29 License Information for 5650 CPAM Server

- **13** Configure the following parameters shown in Figure 8-30, then click on the Next button.
 - Redundancy Supported
 - Auxiliary Server Supported

Figure 8-30	Additional	Server	Configuration
-------------	------------	--------	---------------

-	5620 SAM/5650 CPAM Server Installer
	Additional Server Configuration
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Additional Server Configuration
InstallAnywhere by Macrovision - Cancel	Previous Next

- 14 Configure the following parameters shown in Figure 8-31. Click on the Next button.
 - Primary Database Sever IP Address
 - Primary Database Server Port (typically 1523)
 - Primary Database Instance Name (typically samdb1)
 - Database User Name (typically samuser)
 - Database User Password
 - Primary Database Proxy Port (typically 9002)

Figure 8-31 Primary Database Configuration

	5620 SAM/5650 CPAM Server Installer
	Primary Database Configuration
 Introduction License Agreement Choose Installation Type Install Directory 	If NAT (network address translation) is to be used, enter the primary 5620 SAM database's public IP address as known to the 5650 CPAM server.
Configuration	Primary Database Server IP Address
Install Complete	Primary Database Server Port 1523
	Primary Database Instance Name samdb1
	Database User Name samuser
	Database User Password
	Primary Database Proxy Port 9002
InstallAnywhere by Macrovision	
<u>C</u> ancel	Previous Next

- **15** Configure the following parameters shown in Figure 8-32, then click on the Next button:
 - Database Server IP Address
 - Database Instance Name (typically samdb2)
 - Database Proxy Port (typically 9002)

Figure 8-32 Standby Database Configuration

-	5620 SAM/5650 CPAM Server Installer
	Standby Database Configuration
 Introduction License Agreement Choose Installation Type Install Directory 	If NAT (network address translation) is to be used, enter the standby 5620 SAM database's public IP address as known to the 5620 SAM server.
 Configuration Install Complete 	Database Server IP Address Database Instance Name samdb2 Database Proxy Port 9002
InstallAnywhere by Macrovision	Previous Next

- **16** Configure the following parameters shown in Figure 8-33:
 - Server Domain Name (typically 5620sam)
 - Public IP (visible to clients)
 - EJB JNDI Server port (typically 1099)
 - EJB JMS Server port (typically 8093)
 - Enable 5670 RAM

If NAT is used between the 5620 SAM server and clients, select the "Network Address Translation Used" parameter and enter the private IP address of the server. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	CPAM Server Address Configuration for Clients
 Introduction License Agreement Choose Installation Type Install Directory 	Enter the the network interface information that the 5650 CPAM server will use to communicate with the GUI and OSS clients.
 Install Directory Configuration Install Complete 	Server Domain Name 5620sam Public IP (visible to clients) EJB JNDI Server port 1099 EJB JMS Server port 8093 NAT (network address translation) Used
	Enable 5670 RAM
InstallAnywhere by Macrovision	Previous Next

Figure 8-33 CPAM Server Address Configuration for Clients

- 17 Configure the following parameters shown in Figure 8-34:
 - Public IP (visible to peer server)
 - High Available JNDI Port (typically 1100)
 - TCP Port Cluster Number (typically 11800)

If NAT is used between this 5650 CPAM server and the peer 5650 CPAM server, select the "NAT (network address translation) Used" parameter and enter the private IP address of the server. Click on the Next button.

- 5620 SAM/5650 CPAM Server Installer	
	CPAM Server Address Configuration
 Introduction License Agreement Choose Installation Type Install Directory 	Enter the the network interface information that the 5650 CPAM server will use to communicate with the peer server.
 Configuration Install Complete 	Public IP (visible to peer server) High Available JNDI Port TCP Port Cluster Number 11800 NAT (network address translation) Used Private IP (accessible only by this server)
InstallAnywhere by Macrovision – Cancel	Previous Next

Figure 8-34 CPAM Server Address Configuration

18 If you did not select "Auxiliary Server Supported" in step 13, go to step 20.

- 19 If the 5620 SAM deployment includes auxiliary servers and NAT is to be used between the 5650 CPAM and auxiliary servers, select the "NAT (network address translation) Used" parameter shown in Figure 8-35 and enter the private IP address of the server in the "Private IP" field. Configure the following parameters, then click on the Next button:
 - Public IP (visible to auxiliary)
 - Server Port (typically 12800)

	5620 SAM/5650 CPAM Server Installer
	CPAM Server Configuration for Auxiliary Servers
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the IP address of the network interface the 5650 CPAM server will use to communicate with the 5620 SAM auxiliary servers. If NAT (network address translation) is to be used, specify the server's private IP address. Public IP (visible to auxiliary) Server Port 12800 NAT (network address translation) Used Private IP (accessible only by this server)
InstallAnywhere by Macrovision — <u>C</u> ancel	Previous Next

Figure 8-35 CPAM Server Address Configuration for Auxiliary Servers

- **20** Configure the following parameters shown in Figure 8-36, then click on the Next button:
 - Peer Server IP Address
 - Peer Server Trap Log Id (typically 98)
 - Peer Server SNMP Trap Receiving IP Address
 - Peer Server SNMP Port Number (typically 162)
 - Peer Server TCP Port Cluster Number (typically 11800)

Figure 8-36 Peer CPAM Server Configurations

	5620 SAM/5650 CPAM Server Installer
	Peer CPAM Server Configurations
 Introduction License Agreement Choose Installation Type Install Directory Configuration 	If NAT (network address translation) is to be used, enter the 5650 CPAM peer server's public IP address as known to the 5650 CPAM server. Also enter the 5650 CPAM peer server's public IP address as known to the devices within the managed network.
Install Complete	Peer Server IP Address Peer Server Trap Log Id 98 Peer Server SNMP Trap Receiving IP Address Peer Server SNMP Trap Receiving Port 162 Peer Server TCP Port Cluster Number 11800
InstallAnywhere by Macrovision - <u>C</u> ancel	Previous Next

- 21 Configure the following parameters shown in Figure 8-37, then click on the Next button:
 - 5620 SAM Peer Server IP Address
 - 5620 SAM JNDI High Available Peer Server Port (typically 1100)
 - 5620 SAM JNDI Peer Server Port (typically 1099)



	5620 SAM/5650 CPAM Server Installer
	Peer Main Server Configurations (cont.)
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Enter the IP address of the network interface the GUI and OSS clients will use to communicate with the peer server. If NAT (network address translation) is to be used, specify the public IP address as known to the 5620 SAM clients. 5620 SAM Peer Server IP Address 5620 SAM JNDI High Available Peer Server Port 1100 5620 SAM JNDI Peer Server Port 1099
InstallAnywhere by Macrovision	Previous Next

22 If you require 5620 SAM client navigation from a 5620 NM system, select the "Enable Navigation from External Systems" parameter shown in Figure 8-38 and specify the TCP port that the client is to use for accepting navigation requests. Click on the Next button to begin the server upgrade.

	5620 SAM/5650 CPAM Server Installer
	Navigation from External Systems
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Select this option to enable GUI navigation from a 5620 NM system. Enable Navigation from External Systems TCP port for accepting GUI navigation requests
InstallAnywhere by Macrovision	Previous

Figure 8-38 Navigation from External Systems

The next panel displays upgrade progress, as shown in Figure 8-39.

Figure 8-39 Installing 5620 SAM/5650 CPAM Server

	5620 SAM/5650 CPAM Server Installer	•
	Installing 5620 SAM/5650 CPAM Serve	r
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Alcatel·Lucent 🕢	
InstallAnywhere by Macrovision	Installing bin	

23 Specify an OSS XML output location (typically /opt/5620sam/server/xml_output), as shown in Figure 8-40. Click on the Install button to begin the server upgrade.

-	5620 SAM/5650 CPAM Server Installer
	XML Output Directory
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The output of the OSSI file exports will be stored under this directory /opt/5620sam/server/xml_output Restore Default Folder Choose
InstallAnywhere by Macrovision -	Previous

Figure 8-40 XML Output Directory

24 As shown in Figure 8-41, the 5650 CPAM server is installed as a UNIX daemon. Click on the Next button.

-	5620 SAM/5650 CPAM Server Installer
	Installing the server as a Unix Daemon
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	The 5650 CPAM server has been successfully installed as a Unix Daemon.
InstallAnywhere by Macrovision	
<u>C</u> ancel	Previous

Figure 8-41 Installing the Server as a Unix Daemon

25 When the server upgrade is complete, as shown in Figure 8-42, configure the "Start the 5650 CPAM Server" parameter to specify whether you want the server to start immediately after the upgrade.



Caution – Alcatel-Lucent recommends that you do not configure the server to start immediately after an upgrade.

Figure 8-42 Installation Complete

	5620 SAM/5650 CPAM Server Installer
	Installation Complete
 Introduction License Agreement Choose Installation Type Install Directory Configuration Install Complete 	Congratulations! 5650 CPAM Server has been successfully installed inside directory /opt//620sam/server. Please assign a password for samadmin using 'passwd samadmin' command.
InstallAnywhere by Macrovision -	Deviaue
Cancel	Previous

- **26** Click on the Done button to close the installer. If you specified that the server is to start after the upgrade, the server starts. Initial server startup can take twenty minutes or more.
- 27 The installer creates a user account called samadmin that is required for 5650 CPAM system administration. You must assign a new password to this user account.

Perform the following steps to assign a new samadmin password.

i Enter the following at the CLI prompt:

```
# passwd samadmin
```

The following prompt is displayed:

New Password:

ii Enter the new password and press \dashv .

The following prompt is displayed:

Confirm New Password:

- iii Enter the new password again and press \dashv . The password is changed.
- iv Record the new password and store it in a secure location.

Procedure 8-3 To uninstall the 5650 CPAM software

Perform this procedure to remove the 5650 CPAM software.



Caution — This procedure involves stopping the 5650 CPAM server software. Ensure that you perform this procedure only during a scheduled maintenance window.



Note — You require root-equivalent user privileges to uninstall the 5650 CPAM software.

- 1 Stop the 5650 CPAM server application. See the 5650 CPAM User Guide for information about stopping the 5650 CPAM.
- 2 Log in as a user with root-equivalent privileges on the 5650 CPAM server station.
- 3 Open a console window.
- 4 Enter the following at the CLI prompt to open the 5650 CPAM server uninstaller:

```
# path/install/Uninstaller/Uninstall_5620_CPAM_Server ...
```

where path is the 5650 CPAM server installation location, typically /opt/5620sam/server

The splash screen in Figure 8-43 appears and the uninstallation process begins.



Figure 8-43 5650 CPAM Uninstaller

5 The 5650 CPAM server uninstaller opens, as shown in Figure 8-44. The left pane indicates uninstallation progress. The right pane indicates the operations that are to take place. Click on the Uninstall button to begin the uninstallation.

[-] U	Ininstall 5650 CPAM Server
	Uninstall 5650 CPAM Server
 Introduction Uninstalling Uninstall Complete 	About to uninstall 5620 SAM Server This will remove features installed by InstallAnywhere. It will not remove files and folders created after the installation.
InstallAnywhere by Macrovision – <u>C</u> ancel	Previous Uninstall

Figure 8-44 Uninstall 5650 CPAM Server

6 Read the warning shown in Figure 8-45. Click on the "Continue with the uninstall process" button to begin the uninstallation.

Figure 8-45 Warning



The uninstaller begins to remove 5650 CPAM server files and directories, as shown in Figure 8-46.

Uninstall 5650 CPAM Server	
	Uninstall 5650 CPAM Server
 Introduction Uninstalling 	Please wait while InstallAnywhere's uninstaller removes the following features
Uninstall Complete	Files LaunchAnywhere Folders
	Uninstalling
InstallAnywhere by Macrovision -	

Figure 8-46 Uninstall 5650 CPAM Server

7 When the server uninstallation is complete, as shown in Figure 8-47, click on the Done button to close the uninstaller.

U	ninstall 5650 CPAM Server
	Uninstall Complete
 Introduction Uninstalling Uninstall Complete 	All items were successfully uninstalled.
InstallAnywhere by Macrovision — Cancel	Previous

Figure 8-47 Uninstall Complete

8 Close the console window.

Appendices

- A. 5620 SAM installation parameters reference A-1
- B. 5620 SAM and 5620 NM integration B-1

A. 5620 SAM installation parameters reference

- A.1 5620 SAM database installation parameters A-2
- A.2 5620 SAM main server installation and upgrade parameters A-7
- A.3 5620 SAM auxiliary server installation parameters A-10
- A.4 5620 SAM client installation and upgrade parameters A-11

A.1 5620 SAM database installation parameters

The following reference tables list the parameter prompts displayed during database installation. Table entries are listed in order by the installer panel header, and include the parameter name and configuration information.

Parameter	Description	
Choose Installation Type		
Install & Configure a Standalone Database	Specifies a standalone database installation	
Restore a Database	Specifies a database restore	
Upgrade a Database	Specifies a database upgrade	
Install & Configure Primary/Standby Database	Specifies a redundant primary or standby database installation	
Install Oracle Software		
Install Oracle Software	Specifies that the Oracle software is to be installed	
Do Not Install Oracle Software	Specifies that the Oracle software is not to be installed	
Specify the Base Directory for 5620 SAM Database Files		
5620 SAM database installation directory	The directory in which the 5620 SAM-related database files are to be installed; for example, C:\5620sam\samdb or /opt/5620sam/samdb	
Specify the Base Directory for	Oracle Files	
Oracle installation directory	The directory in which the Oracle files are to be installed. For example, C:\5620sam\oracle or /opt/5620sam/oracle	
General Database Configuration	n Info	
Database Server IP Address	Enter the IP address of the station on which you are installing the 5620 SAM database.	
Database Name	The name of the 5620 SAM database in this standalone or redundant 5620 SAM system	
	 consist of up to 8 characters 	
	contain only ASCII characters	
	• use a letter as the first character	
	 not be restricted by Oracle. See the appropriate Oracle documentation for a list of restricted database names. 	
	The database is created in Oracle by the 5620 SAM.	
Instance Name	The name that the Oracle software associates with the database processes and the memory allocated to the processes. In a cluster environment, there can be multiple instance names. In a non-cluster environment, the instance name can be the same as the database name.	
	The instance name must:	
	consist of up to 11 characters	
	contain only ASCII characters	
	use a letter as the first character	
User Name	The database user name	

Table A-1 Standalone 5620 SAM database installation parameters

(1 of 3)

Parameter	Description
User Password Confirm User Password	 Enter a password using up to 32 alphanumeric characters. Alcatel-Lucent recommends that you use the default password. If you do not use the default password, the password must contain three of the four following character types: uppercase lowercase numeric special (for example, %) This password can only be changed during installation. Remember to keep track of the password for future use.
Database Listener Port	The TCP port that the Oracle database listener uses for basic connectivity between the database and the 5620 SAM server
Proxy port number	The TCP port that the server uses for redundancy communication with the database, such as the initiation of a database failover or notification of a server activity switch.
Oracle SYS Password	
Oracle SYS password	Specifies the password that Oracle requires to start the database
Main Server IP Validation	
Enable SAM Server IP Validation	When enabled, specifies to restrict the 5620 SAM server that can connect to the database using the IP address specified. If required, select the parameter and specify the 5620 SAM server IP address.
SAM Server IP Address	Specifies the IP address of the standalone 5620 SAM server that connects to this database.
Public IP Address of the Databa	ase Server
Access Database through a NAT Router	When enabled, specifies that the database communicates through a NAT router.
Public IP Address	The database public IP address, which is the address that the NAT router uses as the database IP address when communicating with the 5620 SAM server
Archive Log Destination	
Archive log directory	The directory for storing the database archive logs, for example, C:\5620sam\samdb\archivelog or /opt/5620sam/samdb/archivelog. This directory should be secure and regularly backed up to prevent corruption or data loss.
	Check the directory regularly to ensure that there is enough disk space available to continue storing database backup files. All database changes are stored in the directory until a backup of the database is performed. Alcatel-Lucent recommends performing regular backups to avoid filling the disk partition.
	Click on the Create Directory and Continue button to create the directory, if it does not already exist.
Choose the Redo Log Directory	
Redo log directory	The directory for storing the database redo logs, for example, C:\5620sam\samdb\redolog or /opt/5620sam/samdb/redolog. This directory should be secure and regularly backed up to prevent corruption or data loss.
	Click on the Create Directory and Continue button to create the directory, if it does not already exist.
Data Layout Option	

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Parameter	Description
Data Layout Option	 Perform one of the following to determine tablespace creation: "Single Table Space" option: Specifies that the 5620 SAM database stores all data in one tablespace. Alcatel-Lucent recommends this configuration for most installations. "Multiple Tablespaces, specifying only Stats and Alarm drives" option: Specifies that the 5620 SAM database stores the data in one tablespace, except for the statistics and alarm data, which are stored in other configurable tablespaces The 5620 SAM supports the ability to span the Oracle database tablespaces over multiple file systems. However, this spanning is only an advantage when the file systems use different hard disk controllers. Contact your Alcatel-Lucent support representative for more information about using multiple file systems for tablespaces. "Multiple Tablespaces, assigning each TS to a drive" option: Specifies that the 5620 SAM database stores the data in multiple configurable tablespaces The 5620 SAM supports the ability to span the Oracle database tablespaces over multiple file systems. However, this spanning is only an advantage when the file systems use different hard disk controllers. Contact your Alcatel-Lucent support representative for more information about using multiple configurable tablespaces The 5620 SAM supports the ability to span the Oracle database tablespaces over multiple file systems. However, this spanning is only an advantage when the file systems use different hard disk controllers. Contact your Alcatel-Lucent support representative for more information about using multiple file systems for tablespaces.
Data File Directories	
-	Use this form to specify the directories that hold the 5620 SAM database tablespaces
Configure Tablespaces	
-	Use this form to assign the data file directories to 5620 SAM database tablespaces
Auxiliary Server IP Validation	
Add button	When "Enable SAM Server IP Validation" is enabled, only the specified 5620 SAM auxiliary servers can connect to the database. If required, click on this button to specify an auxiliary server IP address. Applies only to a 5620 SAM database installations on Solaris

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Table A-2 Redundant 5620 SAM database installation parameters

Parameter	Instructions	
Choose Installation Type		
Install & Configure a Standalone Database	Specifies a standalone database installation	
Restore a Database	Specifies a database restore	
Upgrade a Database	Specifies a database upgrade	
Install & Configure Primary/Standby Database	Specifies a redundant primary or standby database installation	
Specify the Base Directory for 5620 SAM Database Files		
Location of 5620 SAM database files	The directory in which the 5620 SAM-related database files are to be installed; for example, C:\5620sam\samdb or /opt/5620sam/samdb. The primary and standby 5620 SAM databases must use an identical directory structure.	
Specify the Base Directory for Oracle Files		

(1 of 3)
Parameter	Instructions
Location of 5620 SAM database files	The directory in which the Oracle files are to be installed. For example, C:\5620sam\oracle or /opt/5620sam/oracle. The directory names and structures must match on the primary and standby databases.
Main Server IP Validation	
Enable SAM Server IP Validation	When enabled, specifies whether to restrict the 5620 SAM server that can connect to the database using the IP address specified. If required, enable this option and specify the server station IP address.
SAM Server IP Address	Specifies the IP address of the 5620 SAM server that connects to this database.
Auxiliary Server IP Validation	<u>.</u>
Add button	When "Enable SAM Server IP Validation" is enabled, only the specified 5620 SAM auxiliary servers can connect to the database. If required, click on this button to specify an auxiliary server IP address.
Primary or Standby Database C	onfiguration Info
SAM Server IP Address Validation	Specifies whether only 5620 SAM servers using the IP addresses specified can connect to the database. If required, enable this parameter and specify the server IP addresses.
Peer SAM Server IP Address	Specifies the IP address of the standby 5620 SAM server that connects to this database
(Primary or Standby) Database name	Enter a name for the 5620 SAM primary or standby database. The default name is samdb. You must use the same database name for the primary and standby databases. The database name must:
	consist of up to 8 characters
	contain only ASCII characters
	have a letter as the first character
	restricted database names.
(Primary or Standby) Instance Name	Enter the instance name used by Oracle to name the processes and the memory allocated to the processes on the primary and standby database stations. The instance name must be unique on the primary and standby servers, for example, samdb1 for the primary database and samdb2 for the standby database.
	consist of up to 11 character
	contain only ASCII characters
	• use a letter as the first character
(Primary or Standby) User name	Enter a username on the primary and standby database; for example, samuser.
(Primary or Standby) User Password	Enter a password using up to 32 alphanumeric characters. Alcatel-Lucent recommends that you use the default password. If you do not use the default password, the password must contain three of the four following character types:
Confirm User Password	• uppercase
	lowercase
	• numeric
	• special (for example, %)
	This password can only be changed during installation. Remember to keep track of the password for future use.
Oracle SYS Password	
Oracle SYS password	Specifies the password that Oracle requires to start the database
Database Proxy Port	
Database Proxy Port Number	Accept the default port number of 9002. This is the TCP port used by the server to send requests to the database for redundancy failovers and switchovers.

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Parameter	Instructions
Archive Log Destination	
Archive log destination	Enter a directory on a separate partition where the database archive logs are stored; for example /opt/5620sam/samdb/archivelog. This directory should be secure and regularly backed up to prevent corruption or loss of data. The archive log directory structures must match on both the primary and standby databases.
	Check the directory regularly to ensure that there is enough disk space available to continue storing database backup files. All database changes are stored in the directory until a backup of the database is performed. Alcatel-Lucent recommends that you perform regular backups to avoid filling the directory.
	Click on the Create Directory and Continue button to create the directory, if it does not already exist.
Data Layout Option	
Data layout option	Perform one of the following to determine tablespace creation.
	• Choose the Single Table Space option to store all data in one tablespace. Alcatel-Lucent recommends this configuration for most installations.
	Choose the Multiple Table Space Stats and Alarm drives option.
	The 5620 SAM supports the ability to span the Oracle database tablespaces over multiple file systems. However, this spanning is only an advantage when the file systems use different hard disk controllers. In most setups, use the Single Table Space option. To use multiple file systems for tablespaces, contact your Alcatel-Lucent support representative for more information.
	• Choose the Multiple Table Space option, assigning each tablespace to a drive option to customize all Oracle tablespaces that are created by the 5620 SAM.
Data File Directories	
Data file directories and Configure tablespaces	The tablespace directory should be the default directory. This places the directories in the same directory as the samdb database; for example, /opt/5620sam/samdb/tablespace.
	By default, all tablespaces are created in one tablespace directory.
Primary or Standby Database Info	
Configure the parameters for the standby database	You can configure the standby database information using similar forms and parameters, as was done for the primary database. Enter the standby database information, but use a different database instance name and configure the standby-specific parameters.

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Table A-3 5620 SAM database upgrade parameters

Parameter	Instructions
Choose Installation Type	
Install & Configure a Standalone Database	Specifies a standalone database installation
Restore a Database	Specifies a database restore
Upgrade a Database	Specifies a database upgrade
Install & Configure Primary/Standby Database	Specifies a redundant primary or standby database installation
Specify the Installation Root Directory of the 5620 SAM Database	
Base location of current database	Enter the directory of the currently installed database, for example, C:\oracle\samdb or /opt/oracle/samdb.

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Parameter	Instructions
Specify the Base Directory for Oracle Files	
Base Directory for Oracle Files	Enter the location of Oracle directory in which the Oracle home directory is to be located after the upgrade; for example, C:\5620sam\oracle or /opt/5620sam/oracle10r2.
Install Oracle Database Management Software	
Install Oracle Software	When you specified an Oracle installation, a series of prompts appear for the Oracle installation.
	Click on the Start Oracle Installation button.
Get Upgrade Database Info	
Database configuration information	Configure the required parameters to provide database configuration information. The parameters include:
	Database Server IP Address
	Database Name
	Instance Name
	• Username
	User Password and Confirm User Password
	 Oracle SYS password and Oracle SYSTEM password
Database Proxy Port	
Database Proxy Port Number	Accept the default port number of 9002. This is the TCP port used by the server to send requests to the database for redundancy failovers and switchovers.

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A.2 5620 SAM main server installation and upgrade parameters

The following reference tables show the parameter prompts displayed during main server installation and upgrade, including the installer panel header, the parameter name, and notes on parameter usage. Prompts differ depending on the OS type.

Table A-4 5620 SAM standalone and redu	ndant main server installation paramete
--	---

Parameter	Instructions	
Choose Installation Type		
Main Server Installation	Specifies a main server installation	
Main Server Configuration	Specifies a main server reconfiguration	
Auxiliary Server Installation	Specifies an auxiliary server installation	
Auxiliary Server Configuration	Specifies an auxiliary server reconfiguration	
Specify the Base Directory for 5620 SAM Main Server Files		
Specify the Base Directory for 5620 SAM Server Files	Enter a name and path for the base directory of all 5620 SAM-server related files; for example, C:\5620sam\server or /opt/5620sam/server.	
	When you are configuring redundancy, server installation must be on a Solaris station.	
License Information for 5620 SAM Server		

(1 of 4)

Parameter	Instructions
Customer name and license	Creating the event area consistive systemer name that is president with the license
key	key
	Specify the license key in the following format: XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXX
	Include the dashes when you enter the license key. The customer name used to apply for the license key is used as part of the license key and must match. For example, if the customer name used to apply for the key is ABC Industries Incorporated, use that name for the Customer Name, rather than ABC industries.
Redundancy Support	
Redundancy Configuration	Specifies whether the server is installed using a redundant configuration using the check box. Redundancy is only supported on Solaris stations. When redundancy is enabled, you can configure primary and standby database parameters and the server redundancy configuration parameters. When redundancy is not enabled, you can only configure the standalone database parameters.
Primary Database Configuration	n (for redundant configurations)
Primary Database Configuration	When you specify redundancy support, you can configure the parameters for the primary (active) database connection, as described in Table A-2:
	Primary Database IP Address
	Primary Database Server Port (default is 1523)
	Primary Database Instance Name; for example, samdb1
	Database User Name Database User Descuerd and Confirm Database User Descuerd
	Database User Password and Commin Database User Password Primary Database Brown Part (default is 0002)
	• Fillingly Database Floxy Folt (default is 9002)
Standby Database Configuratio	n Info (for redundant configurations)
Standby Database Configuration Info	When you specify redundancy support, you can configure the parameters for the standby database connection, as described in Table $A-2$:
	Database Server IP Address (Database Server IP Address)
	Database Proxy Port (default is 9002)
	Database File Server Port (default is 9003)
Database Redundancy Options	(for redundant configurations)
Database Redundancy Options	Specifies the parameters that determine how server and database redundancy are handled.
	Alcatel-Lucent recommends that the database instance that is configured as the primary database is closely located with the primary server. Ensure that the primary database and the primary server are installed and running on the same side of the WAN, to help prevent network management performance problems.
Database Configuration (for standalone database systems)	
Database Server IP Address	Specifies the IP address of the station on which you installed the 5620 SAM database for a standalone configuration.
Database Server Port	Specifies the default TCP port
Database Instance Name	Specifies the name of the 5620 SAM database created when you installed the 5620 SAM database. The default is samdb. The database name is case-sensitive.
Database User Name	Specifies the 5620 SAM database username created when you installed the 5620 SAM database, for example, samuser.
Database User Password	Specifies he 5620 SAM database user password created when you installed the database
Confirm Database User Password	
Online Database Backup	

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Parameter	Instructions
Online Backup Interval (Hours)	Specifies how often the database is to be backed up
Online Backup Destination	Specifies the backup directory on the database station
Number of Backup Sets	Specifies the number of database backup sets to store on the disk or partition where the database backups are stored
	For example, if the backup destination is dbbackup and 3 backup sets are specified, the dbbackup directory contains the following sub-directories: backupset_1, backupset_2, and backupset_3.
	A large numbers of backup sets can cause disk or partition space problems. Alcatel-Lucent recommends that you:
	create a separate partition for database backups
	 create a directory equal to at least five times the expected database size ensure that the backup disk or partition is sized for growth, depending on network considerations
Application Server Configuration	bn
Application Server IP address	Specifies the IP address of the station on which you are installing the 5620 SAM server application
EJB JNDI Server port	Specifies the EJB JNDI messaging port
	 Other software uses the same port number. Alcatel-Lucent recommends that no other software should run on the server.
	 There is a firewall between the client and the server.
EJB JMS Server port	Specifies the EJB JMS messaging port
	 Other software uses the same port number. Alcatel-Lucent recommends that no other software should run on the server station.
	 There is a firewall between the client and the server.
High available JNDI port	Accept the default value of 1100.
TCP Port Cluster Number	Accept the default value of 11800.
License Information for 5650 C	PAM Server
License key	The license key for a 5650 CPAM server, in the form XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXX
	Include the dashes when you enter the license key.
SNMP Configuration	
SNMP trap receiving IP Address	Specifies the IP address to which the managed devices should be sending SNMP traps. In cases where there are multiple active network interfaces on the 5620 SAM server station, specify the IP address of the network interface through which the managed devices are to communicate with the server.
	For cases in which a network address translation firewall is located between the 5620 SAM server and managed devices in the network, specify the IP address the managed devices are to use to communicate with the 5620 SAM server.
SNMP trap receiving port	Specifies a port for SNMP communication. This value should match the setting for the managed network devices, such as the 7750 SRs. For Solaris stations, the port number must be above 1024. Note changes to port defaults and ensure that ports are available through firewalls. See the <i>5620 SAM Planning Guide</i> for more information.
Trap Log Id	Specifies the SNMP trap log ID. This value should match the value configured on the managed network devices.
Peer Application Server Configuration (for redundant configurations)	

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Parameter	Instructions
Peer Server IP Address	Specifies the IP address of the standby server station in a redundant configuration.
	Specify the IP address to which the managed devices should be sending SNMP traps. For cases in which there are multiple active network interfaces on the 5620 SAM server station, specify the IP address of the network interface through which the managed devices are to communicate with the server.
	For cases in which a network address translation firewall is located between the 5620 SAM server and managed devices in the network, specify the IP address that the managed devices are to use to communicate with the 5620 SAM server.
Peer Server Trap Log Id	Specifies the SNMP trap log ID. The default is 98. This ID may differ for the active and standby server components. Ensure configurations match on the managed devices, such as the 7750 SR, to ensure trap logs are sent to the appropriate server.
Peer Server SNMP Port Number	Specifies a port. The default is 162. This setting should match the setting for the managed network devices, such as the 7750 SRs.
Peer Server TCP Port Cluster Number	Accept the default of 11800.

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A.3 5620 SAM auxiliary server installation parameters

The following reference tables show the installation parameter prompts displayed during auxiliary server installation, including the installer panel header, the parameter name, and notes on parameter usage.

Parameter	Instructions
Choose Installation Type	
Main Server Installation	Specifies a main server installation
Main Server Configuration	Specifies a main server reconfiguration
Auxiliary Server Installation	Specifies an auxiliary server installation
Auxiliary Server Configuration	Specifies an auxiliary server reconfiguration
Specify the Base Directory for 5620 SAM Auxiliary Server Files	
_	Enter a name and path for the base directory of all 5620 SAM-server related files; for example, C:\5620sam\auxserver or /opt/5620sam/auxserver.
Auxiliary Server Address Configuration	
SAM Server Domain Name	Specifies the domain of the 5620 SAM server
Auxiliary Server IP Address	Specifies the IP address of this station
Auxiliary Server port	Specifies the local TCP port that this auxiliary server is to use for communication with a 5620 SAM main server
Redundancy Supported	Specifies whether the 5620 SAM main servers are installed in a redundant configuration. Redundancy is only supported on Solaris stations.
Main Server Configuration	
Main Server IP Address	Specifies the IP address of the 5620 SAM server in a standalone configuration

(1 of 2)

Parameter	Instructions
Main Server Port	Specifies the TCP port of the 5620 SAM server in a standalone configuration that this auxiliary server uses
Main Server One IP Address	Specifies the IP address of the primary 5620 SAM server in a redundant configuration
Main Server One Port	Specifies the TCP port of the primary 5620 SAM server in a redundant configuration that this auxiliary server uses
Main Server Two IP Address	Specifies the IP address of the standby 5620 SAM server n a redundant configuration
Main Server Two Port	Specifies the TCP port of the standby 5620 SAM server in a redundant configuration that this auxiliary server uses

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5620 SAM client installation and upgrade parameters A.4

The following reference tables show the parameter prompts displayed during client installation and upgrade, including the installer panel header, the parameter name, and notes on parameter usage. Prompts differ, depending on the OS type.

Table A-6 standalone and redundant 5620 SAM client installation parameters
--

Parameter	Instructions	
Specify the Base Directory for 5620 SAM client Files		
Specify the Base Directory for 5620 SAM Client Files	Enter a name and path for the base directory for all 5620 SAM-client related files; for example, C:\5620sam\client or /opt/5620sam/client.	
Main Server Configuration		
Server IP Address	Specifies the IP address of the standalone or primary 5620 SAM server to which the client is to routinely connect.	
Redundancy support	Specifies whether the 5620 SAM server and database are installed in a redundant configuration.	
Server Two IP Address	Specifies the IP address of the standby server in a redundant configuration. The parameter is configurable when the Redundancy Support parameter is enabled.	

B. 5620 SAM and 5620 NM integration

B.1 Before you start B-2

B.2 5620 SAM integration software installation procedures B-2

B.1 Before you start

This chapter describes how to install the Alcatel-Lucent 5620 NM network-management software for interworking with the 5620 SAM. You can configure alarm forwarding from the 5620 SAM to the 5620 NM and enable a 5620 SAM client as a menu option on the 5620 NM GUI.

Consider the following before you install the integration software:

- The *5620 NM Release Notice* lists the compatible *5620 SAM* software loads for the *5620 NM* release.
- The 5620 NM and 5620 SAM integration software is on the 5620 SAM product DVD-ROM.
- For 5620 SAM GUI navigation from the 5620 NM client, the 5620 SAM client must be installed on the same station that runs the 5620 NM client X-window access application.
- For alarm forwarding, the 5620 SAM and 5620 NM client software can be installed on the same or different stations.
- The platform for the 5620 NM software must meet the minimum requirements in the 5620 Network Manager Installation and Upgrade Guide.
- You must configure the 5620 SAM to interwork with the 5620 NM software; for example, configure the 5620 SAM server to forward alarms and configure the 5620 SAM client to allow navigation from external systems.

B.2 5620 SAM integration software installation procedures

This section describes how to enable 5620 SAM and 5620 NM interworking.

Procedure B-1 To configure 5620 SAM and 5620 NM GUI integration

Perform this procedure to enable the use of a 5620 SAM client GUI through a 5620 NM client GUI.

- 1 Include the required 5620 SAM integration package in the 5620 NM installation. Consult the 5620 NM documentation for integration software installation and configuration information.
- 2 If required, configure the 5620 SAM server to forward alarms to the 5620 NM. See the 5620 SAM User Guide for information about how to configure a 5620 SAM server to forward alarms to an external system.
- **3** Perform the following steps when the "Navigation from External Systems" panel is displayed during the 5620 SAM server installation.
 - i Select the "Enable Navigation from External Systems" parameter.
 - ii Specify a value for the "TCP port for accepting GUI navigation requests" parameter.

- 4 Install a 5620 SAM client on a station that displays the 5620 NM client GUI. This is typically a station that runs an X-Window terminal emulator, but it can also be the 5620 NM database networkstation or the 5620 NM operator server networkstation, if a client GUI is locally displayed.
- 5 Perform the following steps on the station where the 5620 SAM client is installed to ensure that anti-aliasing is disabled.
 - i Open the *path*/nms/config/nms-client.xml file with a plain-text editor

where path is the 5620 SAM client installation location, typically /opt/5620sam/client

ii Search for the following XML tag that marks the beginning of the topologyMaps section:

<topologyMaps

iii Edit the antiAliasActive entry in the topologyMaps section to read "false" as shown below.

<topologyMaps

```
iconReductionThreshold="40"
labelHideThreshold="35"
    snapToGridInterval="25"
    antiAliasActive="false"
/>
```

- **6** Open a console window on the on the station where the 5620 SAM client is installed.
- 7 Navigate to the 5620 SAM client binary directory. Enter the following at the CLI prompt:

```
# cd path/nms/bin
```

where path is the 5620 SAM client installation location, typically /opt/5620sam/client

8 Start the navproxy process by entering the following at the CLI prompt:

./nmsnavproxy.bash start

9 Start the 5620 SAM client by entering the following at the CLI prompt:

./nmsclient.bash

- 10 Use the 5620 SAM client GUI to create a 5620 NM user account that has a non-administrative privilege level and scope of command. See the 5620 SAM User Guide for information about user accounts and scopes of command.
- 11 Copy the sam-jaxb.jar file from the /integration/5620NM/server/jaxb directory on the 5620 SAM installation DVD-ROM to the opt/netmgt/jnm/extlib directory on the 5620 NM database networkstation.

- 12 Copy the following files from the 5620 SAM server station to the opt/netmgt/jnm/samjms/lib directory on the 5620 NM database networkstation:
 - /opt/5620sam/server/nms/lib/common/nms-common.jar
 - /opt/5620sam/server/nms/jboss/client/jbossall-client.jar
- **13** Copy the following files from the /integration/5620NM/client/samadaptor directory on the 5620 SAM installation DVD-ROM to the /opt/netmgt/samadaptor/lib directory on the 5620 NM database networkstation:
 - jbasiccomp.jar
 - jnavapi.jar
 - navrmi.jar
 - samAdaptor.jar
- 14 Open the X-Window terminal emulator on the station that has the newly installed 5620 SAM client.
- **15** Log in to the 5620 NM operator server networkstation as a user with administrative privileges.
- 16 Open a console window on the 5620 NM operator server networkstation.
- 17 Redirect the 5620 NM client display to the local station by entering the following at the CLI prompt:

```
setenv DISPLAY station_IP_address:0.0
```

where station_IP_address is the public IP address of the local station

18 Redirect the 5620 SAM client display to the local station by entering the following at the CLI prompt:

```
setenv SAM_DIS station_IP_address:9001
```

where station_IP_address is the public IP address of the local station

- **19** Start the 5620 NM client. The 5620 NM client GUI is displayed on the local station, and the 5620 SAM client GUI is available as a 5620 NM main menu item.
- 20 Use the 5620 SAM client account created in step 10 to perform the required interworking functions, as described in the 5620 Network Manager User Guide and the 5620 SAM User Guide.

Glossary

Numerics

5620 NM	5620 Network Manager
	The 5620 NM provides advanced management of large, complex LAN/WAN networks, including hybrid circuit-switched, IP/MPLS, ATM, frame relay, and X.25 networks. The GUI operates on a Sun workstation. It can be used to configure databases, monitor network operation in real time, set up and manage paths, and perform diagnostics to isolate and manage problems on the network.
	With the addition of optional software modules, the 5620 NM can perform advanced management functions such as managing multivendor equipment, interfacing with UMS, and partitioning networks.
5620 SAM	5620 Service Aware Manager
	The 5620 SAM is the network manager portfolio of modules for the 7750 SR, 7710 SR, 7450 ESS, 7250 SAS, and Telco devices.
5620 SAM auxiliary server	In a 5620 SAM system that is deployed using distributed server architecture, a 5620 SAM server instance on a dedicated station that accepts processing requests from, and is directed by, a 5620 SAM main server. A main server and one or more auxiliary servers that are in communication are collectively called a 5620 SAM server cluster.
5620 SAM client	The 5620 SAM client provides a GUI to configure IP network elements.
5620 SAM database	The 5620 SAM database stores network data-model objects and network configuration information.

5620 SAM main server	A server instance in the 5620 SAM distributed server architecture that directs one or more 5620 SAM auxiliary servers and interacts with 5620 SAM clients. The term is meaningful only in the context of a distributed 5620 SAM server deployment; the term 5620 SAM server applies to a single server instance in a non-distributed 5620 SAM deployment. A main server and one or more auxiliary servers that are in communication are collectively called a 5620 SAM server cluster.
5620 SAM server	The 5620 SAM server mediates between the 5620 SAM database, the 5620 SAM client, and the network. A 5620 SAM server may be a single server instance, or, in a distributed server architecture, a server cluster that consists of one main server and one or more auxiliary servers.
5620 SAM server cluster	A logical grouping in a distributed 5620 SAM server configuration that consists of a 5620 SAM main server and the 5620 SAM auxiliary servers in communication with it.
5620 SAM-A	5620 SAM Assurance
	The 5620 SAM-A provides service assurance functionality.
5620 SAM-E	5620 SAM Element Manager
	The 5620 SAM-E provides network element configuration and management functionality.
5620 SAM-P	Alcatel 5620 SAM Provisioning
	The 5620 SAM-P provides service provisioning functionality.
7450 ESS	7450 Ethernet Service Switch
	The 7450 ESS is a router that provides scalable, high-speed Ethernet private data services with SLAs.
7710 SR	7710 Service Router
	The 7710 SR is a 10 Gbyte version of the 7750 SR that provides granular lower-speed private data services with SLAs.
7750 SR	7750 Service Router
	The 7750 SR is a router that provides scalable, high-speed private data services with SLAs.
Α	
AS	AS is expanded two ways:
	1 alarm surveillance
	AS is an application that receives, stores, displays, and manages real-time alarms. The AS tool consists of an IM to receive, filter, and store alarms; and a USM to display and manage alarm information.

	2 autonomous system
	An AS is a collection of routers under one administrative entity that cooperates by using a common IGP (such as OSPF). AS is synonymous with the ISO term "routing domain". Routing between autonomous systems is done with an inter-AS or interdomain EGP, such as BGP-4.
auxiliary server	See 5620 SAM auxiliary server.
C	
CLI	command line interface
	The CLI is an interface that allows the user to interact with the OS by typing alphanumeric commands and optional parameters at a command prompt. UNIX and DOS provide CLIs.
D	
DVD	digital versatile disk
	An optical digital disk that stores up to 4.7 Gbytes of data. A DVD can be recorded on both sides and in dual layers.
DVD-ROM	digital versatile disk- read-only memory
	A read-only DVD that is used to store data and software, as well as audio and video content.
F	
fault	A fault is a failure or defect in a network, causing the network, or part of the network, to malfunction.
FTP	file transfer protocol
	FTP is the Internet standard client/server protocol for transferring files from one computer to another. FTP generally runs over UDP.
G	
GUI	graphical user interface
	A GUI is a computer user interface that incorporates graphics to make software easier to use.

OSSI	operations support system interface
000	A network management system supporting a specific management function, such as alarm surveillance and provisioning, in a service provider network.
OSS	An optical SONET signal carried at the speed of <i>N</i> , for example OC-12 is a signal at 622.08 Mb/s.
OC-N	Optical Carrier - level N
0	
	The process of re-writing the source and/or destination address of IP packets as they pass through a router. NAT is used as a means to give multiple hosts on a private IP range access to the Internet using a single IP address.
NAT	Network Address Translation
N	
main server	See 5620 SAM main server.
Μ	
main server	See 5620 SAM main server.
	JMS is an API that combines Java technology with enterprise messaging. The JMS API defines a common set of interfaces for creating applications for reliable asynchronous communication among components in a distributed computing environment, so that the applications are portable across different enterprise systems.
JMS	Java Message Service
J	
	IP is the network layer for the TCP/IP protocol suite. It is a connectionless, best-effort packet-switching protocol defined by the IETF.
IP	internet protocol
	ICMP is a protocol that sends and receives the control and error messages used to manage the behavior of the TCP/IP stack. ICMP is defined in RFC 792.
ICMP	Internet Control Message Protocol
I	

Р	
PID	process identifier
R	
RAID	redundant array of independent disks
RN	release notice
	The RN provides details about outstanding issues and functionality related to a software release, including platform requirements, configurations, restrictions, and issues lists.
router	A router is an interface device between two networks, connecting LANs to LANs or LANs to WANs. It selects the most cost-effective route for moving data between multiprotocol LANs, making sure that only one route exists between source and destination devices.
S	
SAN	storage area network
	A SAN is an architecture that attaches remote computer storage devices such as disk arrays, tape libraries and optical jukeboxes to a computer in such a way that, to the computer OS, the devices appear to be locally attached.
SNMP	Simple Network Management Protocol
	A protocol used for the transport of network management information between a network manager and a network element. SNMP is the most commonly used standard for most interworking devices.
SNMP trap	An SNMP trap is an unsolicited notification that indicates that the SNMP agent on the node has detected a node event, and that the network management domain should be aware of the event. SNMP trap information typically includes alarm and status information, and standard SNMP messages.
SNMP trap log ID	SNMP trap log ID is the ID of a log. A valid log ID must exist for alarms and traps to be sent to the trap receiver.
SSH	secure shell
	The SSH protocol is used to protect communications between two hosts by encrypting a Telnet or FTP connection between the 5620 SAM and some nodes. Both ends of the client/server connection are authenticated using a digital certificate, and passwords are protected by being encrypted.
station	Station, in the 5620 SAM 5650 CPAM Installation and Upgrade Guide, is a general term that means a Windows PC or a Solaris workstation.

Т

Telnet	Telnet is the Internet-standard TCP/IP protocol for remote terminal connection service. The Telnet command and program are used to log in from one Internet site to another.
tiered architecture	Tiered architecture refers to the way in which the GUI and the network management components use a Java-based technology that provides distributed, secure, and scalable applications. This tiered architecture allows for scaling and fair load balancing, which improves performance.
TMN OS	Telecommunications Management Network Operating System
	A TMN is an industry-standard model defined by the ITU-T for the layering of management functionality for telecommunications networks. In the Alcatel-Lucent use of TMN OS, a common desktop is used to allow different network management components, such as the 5620 SAM and the Alcatel-Lucent 5620 NM, to interwork as an integrated subsystem.
U	
UI	user interface
	See GUI
UNIX	UNIX is a multi-user, multitasking OS, which is used on mainframes, workstations, and PCs. UNIX is the basis of Solaris and SunOS, which are OSs used by Sun workstations.
USM	user service manager
	A GUI application for a management system, usually playing the manager role toward an information manager application although it may also connect directly with the managed system.
W	
window	Windows are panels of information that appear on a screen or contain a running software application. Windows commonly allow a user to input data and initiate functions but some windows simply display information.
workflow	A workflow is a sequence of high-level tasks that describe an operation such as an installation or upgrade.
workstation	A Sun Microsystems term for computer hardware on which the Solaris OS is installed.

Χ

XML

extensible markup language

XML defines the syntax to customize markup languages. The markup languages are used to create, manage, and transmit documents across the Web.

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