

IP Multimedia Subsystem

Release 6.1

Solution Software Upgrade

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About this information product

Purpose

The IP Multimedia Subsystem (IMS) solution Software Upgrade contains descriptive information and high-level procedures for performing SU tasks on the network elements used in the Alcatel-Lucent IMS solution.

Reason for reissue

This table documents the change history:

Issue	Date	Remarks
1	August 2007	First release

Intended audience

This information product is written for:

- Personnel performing SU tasks on the IMS
- Personnel familiar with changing network element software required for their IMS solution

How to use this information product

This information product is not intended to be all-inclusive, but should be used in combination with Alcatel-Lucent Technologies product documents and other third-party documents.

Systems supported

Important! Software upgrades must be performed sequentially. Skip releases are not supported.

This information product applies to following IMS Solution:

Load	
R03.01.n	
R04.01.n	
R05.00.n	
R05.01.n	
R06.01.n	

Examples:

R03.01 to R04.01

R04.01 to R05.00

R05.00 to R05.01

R05.01. to R06.01.

Conventions used

Measurements are shown in metric notation first followed by the imperial equivalent, for example: 25.4 mm (1 inch).

This table summarizes presentation conventions:

Convention	Meaning
output	A system output message
cd /var/ptt	A command entered by the user (user input)
[Return]	Keyboard entries
[IP_address]	Variable parameters
filename	File name
cd /var/flx	Directory path
Provisioning	Graphical User Interface string
APx	Variable entities

Related documentation

The IMS solution level documentation set consists of the following information products:

Title	Ordering number
IP Multimedia Subsystem Solution Technical Description	275-100-000
IP Multimedia Subsystem Solution OAM&P	275-100-001
IP Multimedia Subsystem Solution Site Preparation	275-100-002
IP Multimedia Subsystem Solution Engineering Job Aid	275-100-003

Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do) for Alcatel-Lucent and third-party network elements documentation that provides the following information:

- Detailed functional descriptions
- Detailed architecture specifications
- Network element installation and configuration
- Network element operations, administration, maintenance, and provisioning (OAM&P)

Related training

Title	Ordering number
IMS Solution Introduction	IM1901
IMS Solution OAM&P Concepts	IM1501

Tasks

This information product describes tasks to:

- Prepare systems for upgrade
- Locate software upgrade packages
- Install software upgrade packages
- Verify proper system functionality

How to comment

To comment on this information product, go to the Online Comment Form (http://www.lucent-info.com/comments/enus/) or e-mail your comments to the Comments Hotline (comments@alcatel-lucent.com).

1 IMS solution overview

Overview

Purpose

This section describes the products used in the Alcatel-Lucent IMS solution.

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Alcatel-Lucent IMS architecture

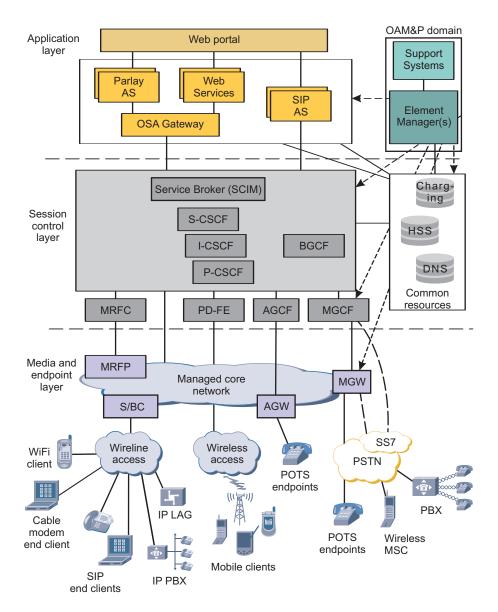
Overview

The Alcatel-Lucent IMS is a layered architecture that consists of the following elements:

- Media and Endpoint layer
- Session Control layer
- Application layer
- OAM&P domain for network management and provisioning

Reference diagram

The Alcatel-Lucent IMS architecture is shown in the following picture:



Alcatel-Lucent IMS Media and Endpoint layer products

Overview

The Alcatel-Lucent IMS provides the following Alcatel-Lucent and third-party vendor products for the functions in the IMS Media and Endpoint layer.

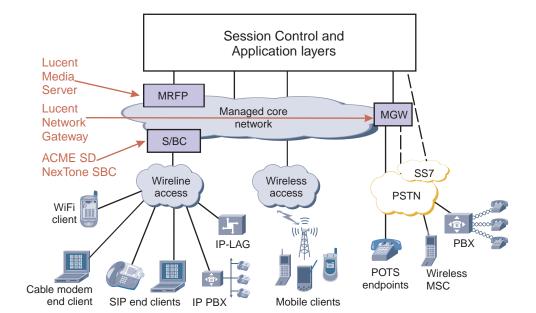
Function - product mapping

The Alcatel-Lucent IMS Media and Endpoint layer consists of the following products:

IMS function name	Alcatel-Lucent IMS product name	
Endpoints	Wireline:	
	SIP hardphone	
	Softphone (for laptops)	
	Wireless:	
	• 3G 1x and/or Evolution data only (EVDO) handset	
	General Packet Radio Service (GPRS) / Enhanced Data Rates for GSM Evolution (EDGE) and Universal Mobile Telecommunication System (UMTS) High Speed Download Packet Access (HSDPA) handset	
	WiFi handset	
	Lucent SIP client	
	Dual mode handsets (WLAN and GSM/UMTS)	
MGW	Lucent Network Gateway	
	Lucent Compact Switch	
AGCF	Lucent Network Controller	
MRFP	Lucent Media Resource Server (LMRS) which provides both MRFP and MRFC functionality	
	• AudioCodes IPmedia [™] media server family	
	Service provider-selected third-party application server with integrated MRFP	
S/BC	NexTone Session Border Controller	
	Acme Packet Net-Net Session Director	
IP-LAG	AnyMedia® LAG 4300	
	AnyMedia® LAG 2300	
	AnyMedia® LAG 1900	

Reference diagram

The following products are available in the Alcatel-Lucent IMS Media and Endpoint layer:



Alcatel-Lucent IMS Session Control layer products

Overview

The Alcatel-Lucent IMS provides the following products for the functions in the IMS Session Control layer.

Function - product mapping

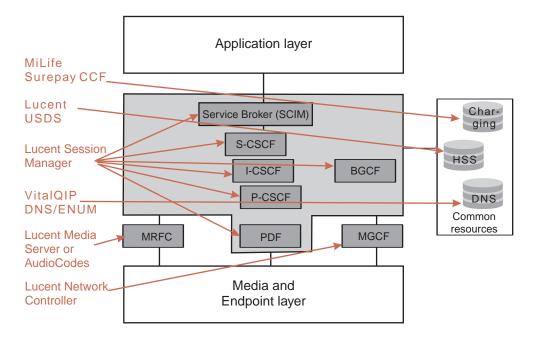
The Alcatel-Lucent IMS Session Control layer consists of the following products:

IMS function name	Alcatel-Lucent IMS product name
MRFC	• Lucent Media Resource Server (LMRS) which provides both MRFP and MRFC functionality
	AudioCodes IPmedia TM media server family
	• Service provider-selected third-party application server with integrated MRFC
MGCF	Lucent Network Controller
	Based on:
	Lucent Gateway Platform
	Lucent Control Platform
P-CSCF	Lucent Session Manager
I-CSCF	
S-CSCF	
BGCF	Lucent Session Manager
PDF	Integrated with the P-CSCF on the Lucent Session Manager
Service Broker or SCIM	Lucent Service Broker on the Lucent Session Manager
IMS Emergency Application Server or (IEAS)	IEAS on the Lucent Session Manager
IMS E.164 Expansion Server (EEAS)	EEAS on the Lucent Session Manager
AGCF	Lucent Network Controller
HSS	Lucent Unified Subscriber Data Server (Lucent USDS)
DNS, DHCP, and ENUM	Lucent VitalQIP® DNS/DHCP and IP Management Software

IMS function name	Alcatel-Lucent IMS product name
Charging System	 Lucent MiLife® SurePay® CCF Lucent Milife®SurePay® CGF

Reference diagram

The Alcatel-Lucent IMS Session Control layer consists of the following products:



Alcatel-Lucent IMS Application layer products

Overview

The Alcatel-Lucent IMS provides the following Alcatel-Lucent and third-party vendor products for the functions in the IMS Application layer.

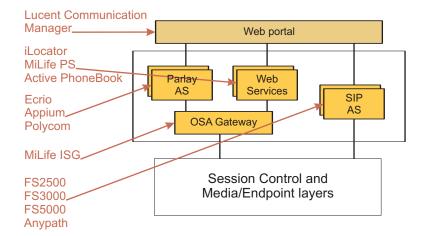
Function - product mapping

The Alcatel-Lucent IMS Application layer consists of the following products:

Function name	Alcatel-Lucent IMS product name
Application Servers	SIP application servers:
	Lucent Feature Server 5000
	• Lucent Feature Server 2500
	Lucent Feature Server 3000
	AnyPath® Messaging System
	Lucent Active PhoneBook
	MiLife® Presence Solution
	MiLife® iLocator
	OSA gateway to Parlay application servers
	• Lucent <i>MiLife</i> ® Intelligent Services Gateway (ISG) running on the <i>MiLife</i> ® Application Server (MAS) platform
	Parlay application servers:
	Third-party application servers for instant messaging and presence/location services such as Ecrio, Polycom, and Appium
Web portal	Lucent Communication Manager

Reference diagram

The Alcatel-Lucent IMS Application layer consists of the following products:



Alcatel-Lucent IMS OAM&P products

Overview

The Alcatel-Lucent IMS provides the following products for the functions in the IMS OAM&P domain.

The OAM&P domain consists of:

- Element Management Systems (EMS)
- Network Management Systems (NMS)
- Operations Support Systems (OSS)

Important! OAM&P for the access and transport networks is outside the scope of this document. Network elements of the access and transport networks have their own management systems and interfaces.

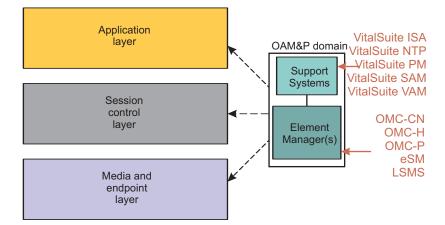
Function - product mapping

The Alcatel-Lucent IMS OAM&P domain consists of the following products:

Function name	Alcatel-Lucent IMS product name	
Element	Lucent EMSs:	
management systems	OMC-CN	
	• OMC-P	
	• OMC-H	
	• eSM	
	Lucent Security Management Server	
	Third-party applications and elements have their own dedicated element management systems. These include EMSs for the following components:	
	Session Border Controller NE	
	Third-party applications such as Ecrio	
Network	• Lucent VitalSuite® ISA	
management systems	• Lucent VitalSuite® VitalNet	
	• Lucent VitalSuite® NTP	
Operations support systems	 Lucent VitalSuite® Service Activation Manager (SAM) Lucent VitalSuite® Voice Activation Manager (VAM) 	

Reference diagram

The Alcatel-Lucent IMS OAM&P domain consists of the following products:



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2 Configuration management - software upgrade

Overview

Purpose

This chapter provides configuration management tasks and guidance for software upgrade in the IMS network.

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Upgrade introduction

Overview

Purpose

This section provides general upgrade concepts and examples.

Contents

Software upgrade introduction	2-4
Software upgrade definitions	2-5

Software upgrade introduction

Purpose

This document will be a guideline for the network elements involved in an IMS solution upgrade and to provide the appropriate procedures each of the network elements as it relates to the upgrading of the network element itself.

Guideline

The described process flows in this document are guidelines for the sequence of the upgrade process that the least amount of system downtime or network element unavailability is realized.

When not applicable steps can be skipped.

Release Notes

Check the Release Notes for the *NEW* software release to verify if there are additional and or updated procedures.

Entrance criteria

To prepare the Upgrade procedures use the NE-NLT Entrance Criteria Checklists.

Access the NE-NLT checklists is available via: http://openetsrv.ho.lucent.com/NLT/3. 01.11/Binder/ (http://openetsrv.ho.lucent.com/NLT/3.01.11/Binder/).

Software upgrade definitions

Purpose

This topic provides definitions that are used for upgrade processes.

Upgrade definitions

End to End IMS Upgrade An end to end IMS upgrade, for the purposes of this document, will cover all the Lucent Technologies' products and applications, along with some 3rd party products used in Lucent IMS Solution offering.

The end to end upgrade strategy does not include some 3rd party application servers which may be a part of an IMS Solution or IMS end-user client software.

Hot Upgrade The term "hot-upgrade" is a software upgrade that does not experience any interruption in stable sessions.

Transient sessions may be interrupted during a hot upgrade.

Software Upgrade / Retrofit The methods and procedures whereby an in-service transition takes place from one software generic to a newer software generic release, sometimes referred to as a generic retrofit.

The upgrade is designed to add new features and functionalities to the IMS network and to counteract errors previously detected but not fixed in a software patch.

Each upgrade of a network element includes a step to soak the new software and check for its sanity and then to commit the new software load once the sanity has been verified.

Software Update A software update consists of a number of changes to a software generic that includes fault corrections and feature enhancements that have accumulated over a period of time between major generic releases.

A software update is also referred to as a maintenance release, point release, or a dot release. The frequency of a software update may be several times a year.

Outage definitions

Partial Outage A significant event, but not one that is classified as a Total System Outage. A significant event is defined to be a loss greater than 10% of provisioned Network Element capacity for originations/terminations of a Network Element for a period greater than 30 seconds.

Total Outage Total loss (100%) of capacity for originations and/or terminations for voice and data traffic due to causes affecting the Network Element for more than 30 seconds.

Session definitions

Session A session refers to an IMS service that is established for an active user.

Examples of sessions can be a voice call, video call or a text messaging "call". Once the user is actively engaged the session is considered stable.

Stable Call A call that is in the talking state (i.e. either voice or data is being transmitted) and no transient call activity is being initiated.

Transient Call A call that is in a state of potential change, for example, receiving dial tone, dialing, ringing, transferring negotiating media and establishing bearer connectivity.

Sequential upgrade process flows

Overview

Purpose

This section describes task flows and references to perform sequential software upgrade in IMS.

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Sequential software upgrade flow for the IMS solution

Purpose

This topic describes the process to perform an end to end software upgrade for IMS.

The process describes the order in which the IMS network element must be upgraded and provides references to upgrade procedures of the network elements.

Basic order of software upgrade

The software upgrade follows the following order:

- 1. Upgrade management system
- 2. Upgrade network elements associated with the management system
- 3. Verify software upgrade

Important! The Ethernet routers and Session Border Controllers are not part of the sequential software upgrade approach and should be upgraded 1-2 weeks in advance.

Upgrade of additional or optional network elements

Process stages for network elements that are not part of your IMS network can be skipped.

Check the Release Notes for the *NEW* software release to verify if additional or optional network elements also require software upgrades

Software upgrade failure

If a software upgrade for a network element fails, perform a software back out

Refer to the documentation set of the network element for information about how to act in case of a software upgrade failure.

Before you begin

Before you begin the end to end software upgrade of the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

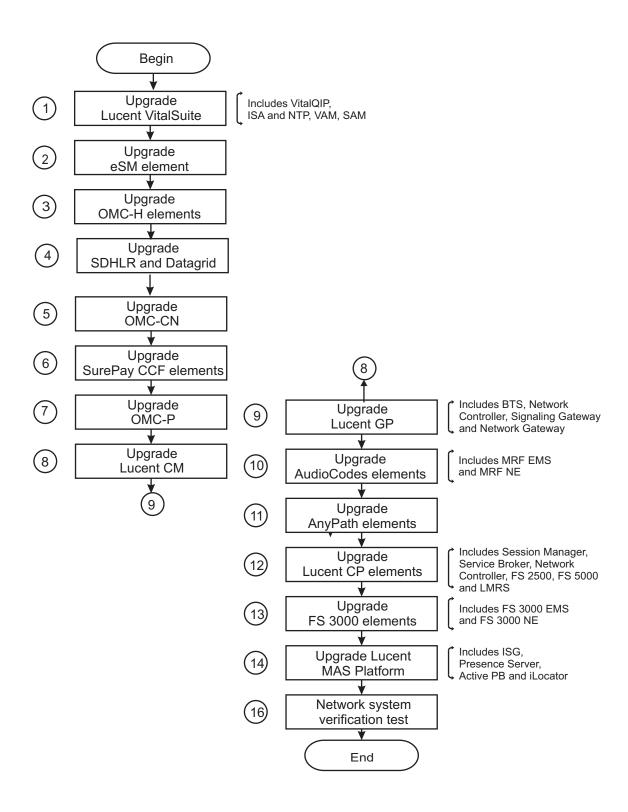
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

End to end software upgrade process diagram

The end to end software upgrade process diagram:



End to end software upgrade process

The end-to-end software upgrade consists of the following stages:

1	If VitalSuite products software is required follow the process in:
	"Software upgrade flow for VitalSuite products" (p. 2-13)
2	If eSM product software is required follow the process in :
_	"Software upgrade flow for eSM element" (p. 2-16)
3	If OMC-H products software is required follow the process in:
	"Software upgrade flow for OMC-H and managed related elements" (p. 2-18)
4	If SDHLS and Datagrid software are required follow the process in :
-	"Software upgrade flow for Lucent SDHLS and Datagrid" (p. 2-20)
5	If OMC-CN products software is required follow the process in:
	"Software upgrade flow for OMC-CN" (p. 2-22)
6	If SurePay CCF products software is required follow the process in :
	"Software upgrade flow for MiLife SurePay CCF elements" (p. 2-24)
7	If OMC-P products software is required follow the process in:
	"Software upgrade flow for OMC-P" (p. 2-26)
8	If LCM products software is required follow the process in :
	"Software upgrade flow for Lucent CM elements" (p. 2-28)
9	If Lucent GP related software upgrade is required follow the process in:
	"Software upgrade flow for Lucent Gateway Platform elements" (p. 2-30)
10	If AudioCodes products software is required follow the process in:
	"Software upgrade flow for AudioCodes elements" (p. 2-33)

11	If <i>AnyPath</i> ® Messaging System products software upgrade is required follow the process in:
	"Software upgrade flow for AnyPath Messaging System elements" (p. 2-35)
12	If Lucent CP related software upgrade is required follow the process in:
	"Software upgrade flow for the Lucent Control Platform" (p. 2-37)
13	If Lucent Feature Server 3000 products software is required follow the process in :
	"Software upgrade flow for Lucent FS3000 elements" (p. 2-41)
14	If <i>MiLife</i> ®Application Server related products software upgrade is required follow the process in:
	"Software upgrade flow for MiLife Application Server supported elements" (p. 2-43)
15	IMS network system verification tests

Software upgrade flow for VitalSuite products

Purpose

This topic describes the process to perform an end to end software upgrade for *VitalSuite*® products.

The upgrade steps listed are for the following products:

- VitalQIP® DNS and ENUM
- VitalSuite® Integrated Service Assurance Software
- VitalSuite® Network Trouble Patterning Software
- VitalSuite® Voice Activation Manager Software
- VitalSuite® Services Activation Manager Software

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

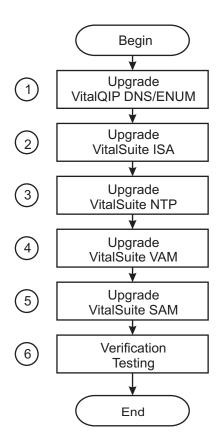
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

VitalSuite software upgrade process diagram

The VitalSuite software upgrade process diagram:



VitalSuite software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the VitalQIP® DNS and ENUM IP address management software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- ENUM Manager User Guide, 190-409-067 Chapter: Installing ENUM Manager.
- **2** Upgrade the *VitalSuite*® Integrated Service Assurance Software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- VitalSuite® Software Integrated Service Assurance and Network Fault Management Upgrade Guide for a SUN Computer, 190-422-802
 Chapter: Application Upgrade on a Sun Computer
- VitalSuite® Software Integrated Service Assurance and Network Fault Management Upgrade Guide for an HP Computer, 190-422-804
 Chapter: Application Upgrade on an HP Computer
- VitalSuite® Software Integrated Service Assurance and Network Fault Management Installation Guide, 190-422-801

Chapter: Install the VitalSuite ISA Application Software

3 Upgrade the *VitalSuite*[®] Network Trouble Patterning Software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

 VitalSuite® Software Network Trouble Patterning Installation Guide, 190-405-575

Chapter: Overview.

4 Upgrade the *VitalSuite*® Voice Activation Manager Software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Navis Voice Activation Manager Operations, Administration and Maintenance Guide, 365-370-328
 - **Chapter: Sytem Operations Software Upgrades.**
- Navis Voice Activation Manager System Administration (International) Guide, 365-370-327
- 5 Upgrade the *VitalSuite*® Services Activation Manager Software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- VitalQIP Workflow Manager, Installation Guide, 109-409-064
- **6** To verify successful update consider the following:
 - Interactions between the Lucent *VitalSuite®* Software products and other NEs

Software upgrade flow for eSM element

Purpose

This topic describes the process to perform an end to end software upgrade for the eSM element.

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

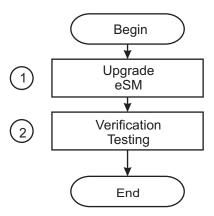
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

eSM software upgrade process diagram

The eSM software upgrade process diagram:



eSM software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the eSM.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Intelligent Network (IN) Enhanced Services Manager (ESM) Service Version Management (SVM), 270-720-343

.....

Chapter: Service Version Management (SVM) Tasks.

- **2** To verify successful update consider the following:
 - Interactions between the eSM and other NEs

Software upgrade flow for OMC-H and managed related elements

Purpose

This topic describes the process to perform an end to end software upgrade for OMC-H elements.

The upgrade steps listed are for the following products:

OMC-H

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

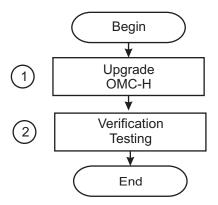
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

OMC-H software upgrade process diagram

The OMC-H software upgrade process diagram:



OMC-H software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the OMC-H software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- OMC-H System Installation, 401-380-084
 Part: Installation of a Whole OMC System, Chapter: Upgrade of Lucent OMC-H.
- *OMC-H Configuration Management*, 401-380-078 Chapter: Upgrade of Lucent OMC-H.
- **2** To verify successful update consider the following:
 - Interactions between the OMC-H and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for Lucent SDHLS and Datagrid

Purpose

This topic describes the process to perform an end to end software upgrade Lucent SDHLS and *Datagrid*

The upgrade steps listed are for the following products:

- Lucent Datagrid
- Lucent SDHLR

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

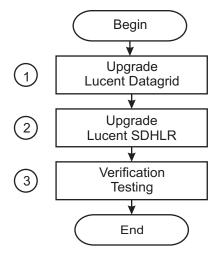
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

OMC-H software upgrade process diagram

The Lucent SDHLS and *Datagrid* software upgrade process diagram:



OMC-H software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the Lucent Datagrid software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application.
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit.

• Intelligent Network (IN) MiLife® Application Server (MAS) Customer Software Installation Guide, 275-700-175

Chapter: MAS Platform Release and Tools Installation: New Install.

2 Upgrade the Lucent SDHLR software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application.
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit.

• Intelligent Network (IN) MiLife® Application Server (MAS) Customer Software Installation Guide, 275-700-175

Chapter: MAS Platform Release and Tools Installation: New Install.

- **3** To verify successful update consider the following:
 - Interactions between the *Lucent Datagrid* and other NEs
 - Interactions between the Lucent SDHLR and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for OMC-CN

Purpose

This topic describes the process to perform an end to end software upgrade for OMC-CN.

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

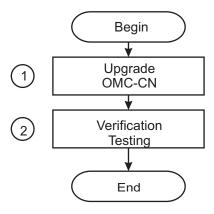
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

OMC-CN software upgrade process diagram

The OMC-CN software upgrade process diagram:



OMC-CN software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the OMC-CN software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- *OMC-CN System Installation*, 401-380-816 Chapter: Upgrade of Lucent OMC-CN.
- **2** To verify successful update consider the following:
 - Interactions between the OMC-CN and other NEs

Software upgrade flow for MiLife SurePay CCF elements

Purpose

This topic describes the process to perform an end to end software upgrade for *MiLife*[®] *SurePay*[®] CCF elements.

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

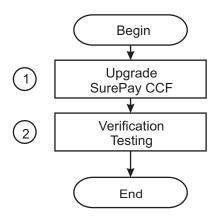
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

MiLife® SurePay® CCF software upgrade process diagram

The MiLife® SurePay® CCF software upgrade process diagram:



MiLife® SurePay® CCF software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the *MiLife*® *SurePay*® CCF

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server Services Administration Guide, 275-710-652 Chapter: Updating a service package application.
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651
 - **Chapter: Implementing retrofit.**
- MiLife® SurePay® CCF OA&M manual, 270-725-058
 Chapter: Installing the SurePay® Charging Collection Function (CCF) SPA.
- **2** To verify successful update consider the following:
 - Interactions between the MiLife® SurePay® CCF and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

275-100-035R6.1 Issue 1, August 2007

Software upgrade flow for OMC-P

Purpose

This topic describes the process to perform an end to end software upgrade for OMC-P.

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

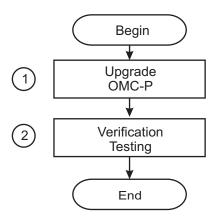
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

OMC-P software upgrade process diagram

The OMC-P software upgrade process diagram:



OMC-P software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the OMC-P.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Control and Gateway Platform Element Management System (PlexView EMS) Installation Guide for the Lucent Gateway Platform, 255-400-401 Chapter: Installing Oracle and Installing or Upgrading EMS.
- **2** To verify successful update consider the following:
 - Interactions between the OMC-P and other NEs

275-100-035R6.1 Alcatel-Lucent - Proprietary
Issue 1, August 2007 Use pursuant to Company instructions

Software upgrade flow for Lucent CM elements

Purpose

This topic describes the process to perform an end to end software upgrade for Lucent Communication Manager (Lucent CM) elements.

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

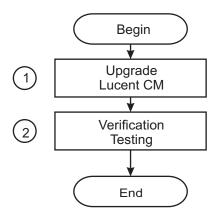
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Lucent CM software upgrade process diagram

The Lucent CM software upgrade process diagram:



Lucent CM software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the software on the Lucent Communication Manager nodes.

For a multi node Lucent CM system, a software upgrade will upgrade the software on all application nodes, database nodes and universal nodes.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Communication Manager Administration Guide, 255-490-001 Chapter: Configuration management Software.
- 2 To verify a successful update consider the following:
 - Interactions between the Lucent Communication Manager and other NEs
 - Start up and log in to the Lucent Communication Manager with the Lucent CM Explorer administration client.
 - Start up and log in to the Lucent Communication Manager with the Lucent CM user client.
 - Set up calls and perform configuration actions with the Lucent CM user client.

275-100-035R6.1 Issue 1, August 2007

Software upgrade flow for Lucent Gateway Platform elements

Purpose

This topic describes the process to perform an end to end software upgrade for Lucent Gateway Platform.

The upgrade steps listed are for the following products:

- BTS
- Lucent Gateway Platform Lucent Signaling Gateway
 Lucent Gateway Platform Lucent Network Controller
- Lucent Gateway Platform Lucent Network Gateway

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

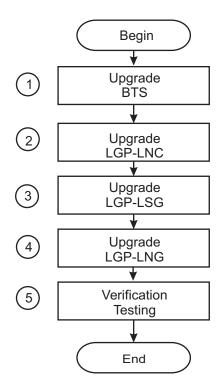
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Lucent GP software upgrade process diagram

The Lucent GP software upgrade process diagram:



Lucent GP software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the BTS.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Gateway Platform PlexViewTM Advanced Traffic Collection for the Advanced Reporting System Installation & Setup Guide, 255-400-202

 Chapter: Prepare and Install or Upgrade the Advanced Traffic Collector.
- **2** Upgrade the Lucent Signaling Gateway.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Gateway Platform Switch Software Change procedures, 255-400-013 Part: Task Index List; Chapter: Upgrading a Lucent Signaling Gateway.
- **3** Upgrade the Lucent Network Controller.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Gateway Platform Switch Software Change procedures, 255-400-013 Part: Task Index List; Chapter: Upgrading a Lucent Network Controller.
- **4** Upgrade the Lucent Network Gateway.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Gateway Platform Switch Software Change procedures, 255-400-013

 Part: Task Index List; Chapter: Upgrading a Lucent Network Gateway.
- 5 To verify successful update consider the following:
 - Interactions between the Lucent Gateway Platform and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for AudioCodes elements

Purpose

This topic describes the process to perform an end to end software upgrade for AudioCodes elements.

The upgrade steps listed are for the following products:

- AudioCodes MRF EMS
- AudioCodes MRF

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

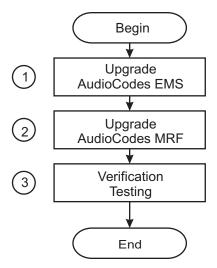
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

AudioCodes software upgrade process diagram

The AudioCodes software upgrade process diagram:



AudioCodes software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the AudioCodes EMS.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- EMS User's Manual, LTRT-91005
 Chapter: Gateway Installation, Software Update and regional files distribution.
- **2** Upgrade the AudioCodes IPmedia 2000.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- IP2000&IPM Series User Manual, LTRT-73202
 Chapter: Upgrading the IPmedia 2000
- IPM 1610 User Manual, LTRT-58803
 Chapter: Upgrading the IPM-1610 software
- EMS User's Manual, LTRT-91005
 Chapter: Gateway Installation, Software Update and regional files distribution.
- **3** To verify successful update consider the following:
 - Interactions between the AudioCodes media server and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for AnyPath Messaging System elements

Purpose

This topic describes the process to perform an end to end software upgrade for *AnyPath*® Messaging System elements.

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

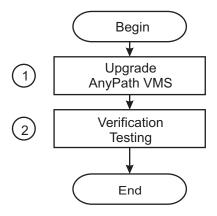
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

AnyPath® Messaging System software upgrade process diagram

The AnyPath® Messaging System software upgrade process diagram:



AnyPath® Messaging System software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the *AnyPath*® Messaging System.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- AnyPath Software Patch Notification & Installation Procedure
- 2 To verify successful update consider the following:
 - Interactions between the AnyPath® Messaging System and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for the Lucent Control Platform

Purpose

This topic describes the process to perform an end to end software upgrade for the Lucent Control Platform.

The upgrade steps listed are for the following products:

- Lucent Control Platform and its applications:
 - Lucent Network Controller
 - Lucent Session Manager
 - Lucent Service Broker
 - Lucent FS 2500
 - Lucent FS 5000
- Lucent MRS

Note: The Lucent MRS is not part of the Lucent Control Platform but discussed here because it interfaces with the MI-Agent.

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

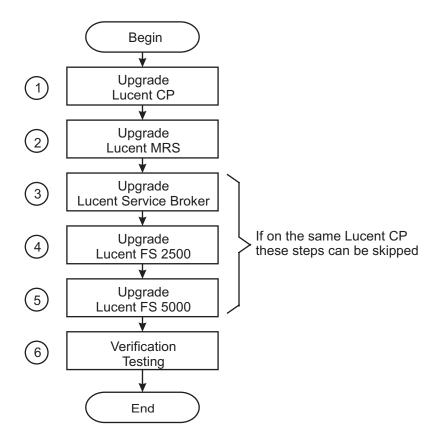
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Lucent CP software upgrade process diagram

The Lucent CP software upgrade process diagram:



Lucent CP software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the Lucent Control Platform. This includes the MI-Agent, Lucent Network Controller, Lucent Session Manager (including Service Broker), FS 2500 and FS 5000.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual, 275-900-360
 - Part: Configuration Management Lucent CP; Chapter: Manage software Software update.
- **2** Upgrade the Lucent MRS.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Enhanced Media Resource Server System Operations and Administration manual, 270-780-411

Part: SPA and voice management; Chapter - Updating a service package application

3 Upgrade the Lucent Service Broker.

Important! This step can be skipped if the Lucent Service Broker runs on the same Lucent CP as the Lucent SM.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual, 275-900-360

Part: Configuration Management - Lucent CP; Chapter: Manage software - Software update.

4 Upgrade the Lucent Feature Server 2500 (MMAS and HOAS/AXAS).

Important! This step can be skipped if the FS 2500 runs on the same Lucent CP as the Lucent SM.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual. 275-900-360

Part: Configuration Management - Lucent CP; Chapter: Manage software - Software update.

5 Upgrade the Lucent Feature Server 5000.

Important! This step can be skipped if the FS 5000 runs on the same Lucent CP as the Lucent SM.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual, 275-900-360

Part: Configuration Management - Lucent CP; Chapter: Manage software - Software update.

- 6 To verify successful update consider the following:
 - Interactions between the Lucent Control Platform and other NEs
 - Interactions between the Lucent MRS and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for Lucent FS3000 elements

Purpose

This topic describes the process to perform an end to end software upgrade for Lucent Feature Server 3000 elements.

The upgrade steps listed are for the following products:

- Lucent Feature Server 3000 EMS
- Lucent Feature Server 3000 NE

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

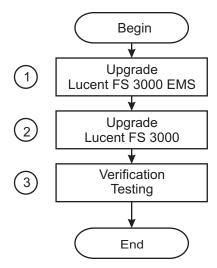
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Lucent FS3000 software upgrade process diagram

The Lucent FS3000 software upgrade process diagram:



Lucent FS3000 software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the Lucent Feature Server 3000 EMS.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Installation & Maintenance: *BroadWorks Software Management Guide Release*, 03-BD5000-00

Chapter: BroadWorks Upgrade Procedure.

2 Upgrade the Lucent Feature Server 3000.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

 Installation & Maintenance: BroadWorks Software Management Guide Release, 03-BD5000-00

Chapter: BroadWorks Upgrade Procedure.

- **3** To verify successful update consider the following:
 - Interactions between the Lucent Feature Server 3000 and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for MiLife Application Server supported elements

Purpose

This topic describes the process to perform an end to end software upgrade for $MiLife^{®}$ Application Server supported elements.

The upgrade steps listed are for the following products:

- *MiLife*® Intelligent Services Gateway
- *MiLife*® Presence Solution
- Lucent Active PhoneBook
- MiLife® iLocator

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

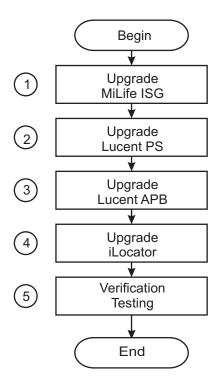
Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

MiLife® Application Server software upgrade process diagram

The MiLife® Application Server software upgrade process diagram:



MiLife® Application Server software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the *MiLife*® Intelligent Services Gateway

Reference: OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Refer to the MiLife® Application Server (MAS) Services Administration Guide, 275-710-652

Chapter: Updating a service package application,

• MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit

2 Upgrade the *MiLife®* Presence Solution

Reference: OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit

3 Upgrade the Lucent Active PhoneBook

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application,
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit

4 Upgrade the *MiLife*® iLocator

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit

- 5 To verify successful update consider the following:
 - Interactions between the *MiLife*® Application Server and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Parallel upgrade process flows

Overview

Purpose

This section describes task flows and references to perform parallel software upgrade in IMS.

Contents

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Parallel software upgrade flow for the IMS solution

Purpose

This topic describes the process to perform an end to end software upgrade for IMS.

The process describes the order in which the IMS network element must be upgraded and provides references to upgrade procedures of the network elements.

Basic order of software upgrade

The software upgrade follows the following order:

- 1. Upgrade Vital Suite products
- 2. Upgrade EMS/Portal products
- 3. Upgrade NE/AS products
- 4. Upgrade LCP products
- 5. Upgrade Application Servers

Important! The Ethernet routers and Session Border Controllers are not part of the parallel software upgrade approach and should be upgraded 1-2 weeks in advance.

Upgrade of additional or optional network elements

Process stages for network elements that are not part of your IMS network can be skipped.

Check the Release Notes for the *NEW* software release to verify if additional or optional network elements also require software upgrades

Software upgrade failure

If a software upgrade for a network element fails, perform a software back out

Refer to the documentation set of the network element for information about how to act in case of a software upgrade failure.

Before you begin

Before you begin the end to end software upgrade of the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

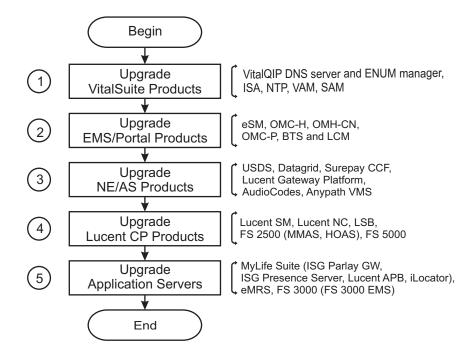
Guideline

When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Important! Elements in each of the following groupings can be upgraded at the same time. *HOWEVER* all of the elements in a grouping *MUST* be completed before moving to the next grouping.

End to end parallel software upgrade process diagram

The end to end parallel software upgrade process diagram:



End to end software upgrade process

The end-to-end software upgrade consists of the following stages:

1 If VitalSuite products (VitalQIP DNS server and ENUM manager, ISA, NTP, VAM, SAM) software upgrade is required follow the process in :

"Software upgrade flow for VitalSuite products" (p. 2-50)

2 If EMS/Portal products (eSM, OMC-H, OMC-CN, OMC-P BTS and LCM) software upgrade is required follow the process in :

"Software upgrade flow for EMS/Portal products" (p. 2-53)

3	If NE/AS products (USDS, Datagrid, Surepay CCF, Lucent Gateway Platform,
	AudioCodes, Anypath) software upgrade is required follow the process in :
	"Software upgrade flow for Lucent CP products" (p. 2-61)

4 If LCP (LSM, LNC, LSB, FS2500 (MMAS, HOAS), FS5000) products software upgrade is required follow the process in :

"Software upgrade flow for Lucent CP products" (p. 2-61)

5 If Applications Servers (MyLife Suite (ISG Parlay GW, Presence Server, Lucent ABP, iLocator), eMRS, FS3000) products software upgrade is required follow the process in :

"Software upgrade flow for Application Servers" (p. 2-64)

Software upgrade flow for VitalSuite products

Purpose

This topic describes the process to perform an end to end parallel software upgrade for *VitalSuite*® products.

The upgrade steps listed are for the following products:

- VitalQIP® DNS and ENUM
- VitalSuite® Integrated Service Assurance Software
- VitalSuite® Network Trouble Patterning Software
- VitalSuite® Voice Activation Manager Software
- VitalSuite® Services Activation Manager Software

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

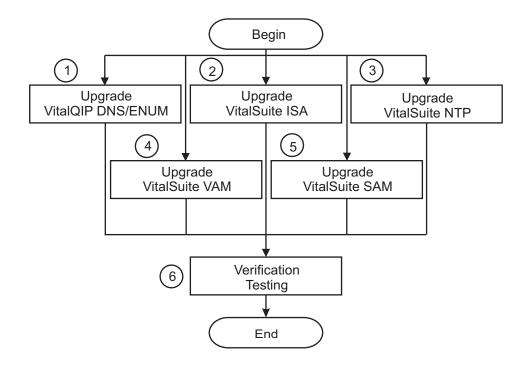
When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Important! Elements in this grouping can be upgraded at the same time. *HOWEVER* all of the elements in a grouping *MUST* be completed before moving to the next grouping.

Important! Note that the numbers in the following figure do not indicate an order but signify the associated reference.

VitalSuite software upgrade process diagram

The VitalSuite software upgrade process diagram:



VitalSuite software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the VitalQIP® DNS and ENUM IP address management software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- VitalQIP Release Notes
 - Chapter: Upgrading to VitalQIP X.Y
- ENUM Manager User Guide, 190-409-067 Chapter: Installing ENUM Manager.
- **2** Upgrade the *VitalSuite*® Integrated Service Assurance Software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- VitalSuite® Software Integrated Service Assurance and Network Fault Management Upgrade Guide for a SUN Computer, 190-422-802
 Chapter: Application Upgrade on a Sun Computer
- VitalSuite® Software Integrated Service Assurance and Network Fault Management Upgrade Guide for an HP Computer, 190-422-804
 Chapter: Application Upgrade on an HP Computer
- VitalSuite® Software Integrated Service Assurance and Network Fault Management Installation Guide, 190-422-801
 Chapter: Install the VitalSuite ISA Application Software

Chapter. Install the vitaloute ISA Application Software

3 Upgrade the *VitalSuite*® Network Trouble Patterning Software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

 VitalSuite® Software Network Trouble Patterning Installation Guide, 190-405-575

Chapter: Overview.

4 Upgrade the *VitalSuite*® Voice Activation Manager Software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Navis Voice Activation Manager Operations, Administration and Maintenance Guide, 365-370-328
 - **Chapter: Sytem Operations Software Upgrades.**
- Navis Voice Activation Manager System Administration (International) Guide, 365-370-327
- 5 Upgrade the *VitalSuite*® Services Activation Manager Software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- VitalQIP Workflow Manager, Installation Guide, 109-409-064
- **6** To verify successful update consider the following:
 - Interactions between the Lucent *VitalSuite®* Software products and other NEs

Software upgrade flow for EMS/Portal products

Purpose

This topic describes the process to perform an end to end software upgrade for EMS/Portal products.

The upgrade steps listed are for the following products:

- eSM
- OMC-H
- OMC-CN
- OMC-P
- BTS
- LCM

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

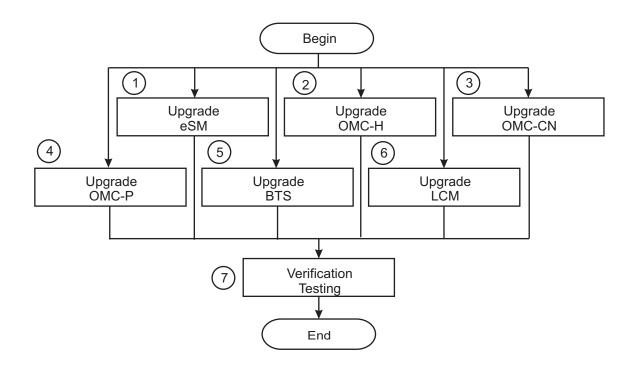
When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Important! Elements in this grouping can be upgraded at the same time. *HOWEVER* all of the elements in a grouping *MUST* be completed before moving to the next grouping.

Important! Note that the numbers in the following figure do not indicate an order but signify the associated reference.

EMS/Portal products software upgrade process diagram

The EMS/Portal products software upgrade process diagram:



EMS/Portal products software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the eSM.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Intelligent Network (IN) Enhanced Services Manager (ESM) Service Version Management (SVM), 270-720-343

Chapter: Service Version Management (SVM) Tasks.

2 Upgrade the OMC-H software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- OMC-H System Installation, 401-380-084
 Part: Installation of a Whole OMC System, Chapter: Upgrade of Lucent OMC-H.
- *OMC-H Configuration Management*, 401-380-078 Chapter: Upgrade of Lucent OMC-H.

3 Upgrade the OMC-CN software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- *OMC-CN System Installation*, 401-380-816 Chapter: Upgrade of Lucent OMC-CN.
- **4** Upgrade the OMC-P.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Control and Gateway Platform Element Management System (PlexView EMS) Installation Guide for the Lucent Gateway Platform, 255-400-401 Chapter: Installing Oracle and Installing or Upgrading EMS.
- **5** Upgrade the BTS.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Gateway Platform PlexView™ Advanced Traffic Collection for the Advanced Reporting System Installation & Setup Guide, 255-400-202

 Chapter: Prepare and Install or Upgrade the Advanced Traffic Collector.
- **6** Upgrade the software on the Lucent Communication Manager nodes.

For a multi node Lucent CM system, a software upgrade will upgrade the software on all application nodes, database nodes and universal nodes.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Communication Manager Administration Guide, 255-490-001 Chapter: Configuration management Software.
- 7 To verify successful update consider the following:
 - Interactions between the eSM and other NEs
 - Interactions between the OMC-H and other NEs
 - Interactions between the OMC-CN and other NEs
 - Interactions between the OMC-P and other NEs
 - Interactions between the Lucent Communication Manager and other NEs

- Start up and log in to the Lucent Communication Manager with the Lucent CM Explorer administration client.
- Start up and log in to the Lucent Communication Manager with the Lucent CM user client.
- Set up calls and perform configuration actions with the Lucent CM user client.
- Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for NE/AS products

Purpose

This topic describes the process to perform an end to end software upgrade for NE/AS products.

The upgrade steps listed are for the following products:

- USDS
- Lucent Datagrid[™]
- Surepay CCF
- Lucent Gateway Platform
- AnyPath Messaging System
- Audiocodes EMS/MRF

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

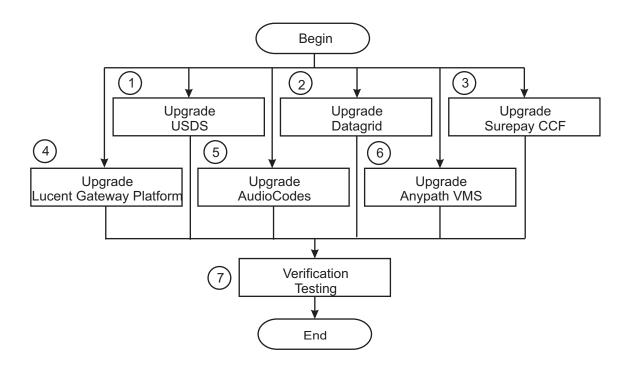
When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Important! Elements in this grouping can be upgraded at the same time. *HOWEVER* all of the elements in a grouping *MUST* be completed before moving to the next grouping.

Important! Note that the numbers in the following figure do not indicate an order but signify the associated reference.

NE/AS products software upgrade process diagram

The NE/AS products software upgrade process diagram:



NE/AS products software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the Lucent SDHLR software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application.
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit.

• Intelligent Network (IN) MiLife® Application Server (MAS) Customer Software Installation Guide, 275-700-175

Chapter: MAS Platform Release and Tools Installation: New Install.

2 Upgrade the *Lucent Datagrid*TM software.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application.
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit.

• Intelligent Network (IN) MiLife® Application Server (MAS) Customer Software Installation Guide, 275-700-175

Chapter: MAS Platform Release and Tools Installation: New Install.

3 Upgrade the *MiLife*® *SurePay*® CCF

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server Services Administration Guide, 275-710-652 Chapter: Updating a service package application.
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit.

- MiLife® SurePay® CCF OA&M manual, 270-725-058
 Chapter: Installing the SurePay® Charging Collection Function (CCF) SPA.
- **4** Upgrade the Lucent Gateway Platform.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- Lucent Gateway Platform Switch Software Change procedures, 255-400-013 Part: Task Index List; Chapter: Upgrading a Lucent Network Controller.
- Lucent Gateway Platform Switch Software Change procedures, 255-400-013 Part: Task Index List; Chapter: Upgrading a Lucent Signaling Gateway.
- Lucent Gateway Platform Switch Software Change procedures, 255-400-013 Part: Task Index List; Chapter: Upgrading a Lucent Network Gateway.
- **5** Upgrade the AudioCodes EMS/MRF.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- EMS User's Manual, LTRT-91005
 Chapter: Gateway Installation, Software Update and regional files distribution.
- *IP2000&IPM Series User Manual*, LTRT-73202 Chapter: Upgrading the IPmedia 2000
- *IPM 1610 User Manual*, LTRT-58803

Chapter: Upgrading the IPM-1610 software

EMS User's Manual, LTRT-91005
 Chapter: Gateway Installation, Software Update and regional files distribution.

6 Upgrade the *AnyPath*[®] Messaging System.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- AnyPath Software Patch Notification & Installation Procedure
- 7 To verify successful update consider the following:
 - Interactions between the OMC-H and other NEs
 - Interactions between the *Lucent Datagrid*™ and other NEs
 - Interactions between the Lucent SDHLR and other NEs
 - Interactions between the Lucent Gateway Platform and other NEs
 - Interactions between the AudioCodes media server and other NEs
 - Interactions between the *AnyPath®* Messaging System and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for Lucent CP products

Purpose

This topic describes the process to perform an end to end software upgrade for Lucent CP products.

The upgrade steps listed are for the following products:

- Lucent Session Manager
- Lucent Network Controller
- Lucent Service Broker
- Lucent FS 2500
- Lucent FS 5000

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Important! When the FS 2500 or FS 5000 are not on the same Lucent CP as the Lucent SM, they may be upgraded concurrently with other Lucent CPs.

Guideline

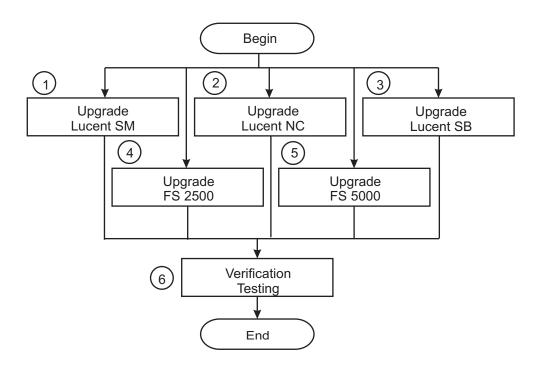
When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Important! Elements in this grouping can be upgraded at the same time. *HOWEVER* all of the elements in a grouping *MUST* be completed before moving to the next grouping.

Important! Note that the numbers in the following figure do not indicate an order but signify the associated reference.

Lucent CP products software upgrade process diagram

The Lucent CP products software upgrade process diagram:



Lucent CP products software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the Lucent Session Manager.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual, 275-900-360

Part: Configuration Management - Lucent CP; Chapter: Manage software - Software update.

2 Upgrade the Lucent Network Controller.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual, 275-900-360

Part: Configuration Management - Lucent CP; Chapter: Manage software - Software update.

3 Upgrade the *Lucent Service Broker* TM .

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual, 275-900-360

Part: Configuration Management - Lucent CP; Chapter: Manage software - Software update.

4 Upgrade the Lucent Feature Server 2500 (MMAS and HOAS/AXAS).

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual, 275-900-360

Part: Configuration Management - Lucent CP; Chapter: Manage software - Software update.

5 Upgrade the Lucent Feature Server 5000.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Lucent Control Platform Lucent NC, Lucent SM, Lucent FS 2500 and Lucent FS 5000 OAM&P manual, 275-900-360

Part: Configuration Management - Lucent CP; Chapter: Manage software - Software update.

- **6** To verify successful update consider the following:
 - Interactions between the Lucent Control Platform and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

Software upgrade flow for Application Servers

Purpose

This topic describes the process to perform an end to end software upgrade for Application Servers.

The upgrade steps listed are for the following products:

- MiLife® Intelligent Services Gateway
- *MiLife*® Presence Solution
- Lucent Active PhoneBook
- *MiLife*® iLocator
- eMRS
- FS3000

Before you begin

Before you begin the software upgrade of this element in the IMS network, make backups or ensure you have recent backups available.

Refer to the *IMS Solution Release Notes* of the IMS network for requirements that are specific for the upgrade procedure for the IMS network.

Refer to the *documentation set* and the *Release Notes* of the network element for requirements that are specific for the upgrade procedure for that network element.

Guideline

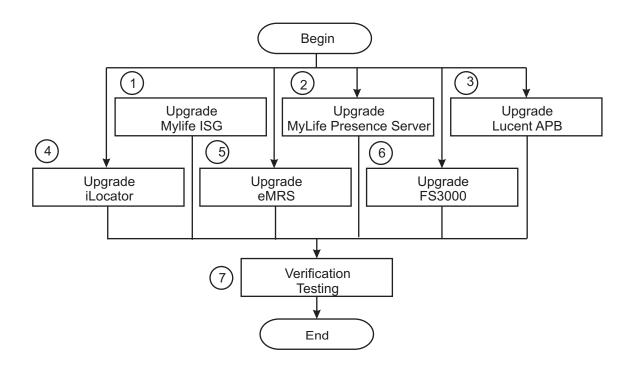
When the upgrade of an element in the IMS network is not applicable then the upgrade of this element can be skipped.

Important! Elements in this grouping can be upgraded at the same time. *HOWEVER* all of the elements in a grouping *MUST* be completed before moving to the next grouping.

Important! Note that the numbers in the following figure do not indicate an order but signify the associated reference.

Application Servers software upgrade process diagram

The Application Servers software upgrade process diagram:



Application Servers software upgrade process

The software upgrade consists of the following stages:

1 Upgrade the *MiLife*® Intelligent Services Gateway

Reference: OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

.....

- Refer to the MiLife® Application Server (MAS) Services Administration Guide, 275-710-652
 - Chapter: Updating a service package application,
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit

2 Upgrade the *MiLife*® Presence Solution

Reference: OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit

3 Upgrade the Lucent Active PhoneBook

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application,
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit

4 Upgrade the *MiLife*® iLocator

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

- MiLife® Application Server (MAS) Services Administration Guide, 275-710-652 Chapter: Updating a service package application
- MiLife® Application Server/Enhanced Control Server Release LE Retrofit Procedures, 275-700-651

Chapter: Implementing retrofit

5 Upgrade the eMRS (Lucent MRS).

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Enhanced Media Resource Server System Operations and Administration manual, 270-780-411

Part: SPA and voice management; Chapter - Updating a service package application

6 Upgrade the Lucent Feature Server 3000.

Reference: Refer to the OLCS documentation section (https://support.lucent.com/portal/olcsHome.do):

• Installation & Maintenance: *BroadWorks Software Management Guide Release*, 03-BD5000-00

Chapter: BroadWorks Upgrade Procedure.

- 7 To verify successful update consider the following:
 - Interactions between the MiLife® Application Server and other NEs
 - Interactions between the eMRS and other NEs
 - Interactions between the Lucent Feature Server 3000 and other NEs
 - Setup end to end IMS session scenarios (UE-UE, UE-PSTN, PSTN-UE)

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Glossary

В	BGCF	Breakout Gateway Control Function
D	DHCP	Dynamic Host Configuration Protocol
	DNS	Domain Name System
E	EDGE	Enhanced Data rates for Global Evolution
	EDGE	Enhanced Decision Graph Editor
	EEAS	E.164 Expansion Application Server
	EMS	element management system
	ENUM	Telephone Numbering Mapping
	ENUM	E.164 Number to URI Mapping
G	GPRS	General Packet Radio Service

GSM Global System for Mobile Communications **HSDPA** Н High-Speed Downlink Packet Access **HSS** Home Subscriber Server **I-CSCF** Interrogating Call Session Control Function **IEAS** IMS Emergency Application Server **IMS** IP Multimedia Subsystem ΙP Internet Protocol **LMRS** L Lucent MRS M **MGCF** media gateway control function **MGW** media gateway **MRFC** Multimedia Resource Function Controller **MRFP** Media Resource Function Processor Ν NE network element

NLT NMS network management system 0 OAM&P Operations, Administration, Maintenance & Provisioning OMC Operation Management Center oss Operations Support System P-CSCF Proxy Call Session Control Function PDF Policy Decision Function **PDF** power distribution frame S S-CSCF Serving Call Session Control Function S/BC Session Border Controller SAM Subsequent Address Message SAM Secure Access Manager **SCIM** Service Capability Interaction Manager SIP Session Initiation Protocol SU Software Update

U UMTS

Universal Mobile Telecommunications System

V VAM

W WiFi

Wireless Fidelity

WLAN

wireless local area network

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