Alcatel-Lucent 1850

TRANSPORT SERVICE SWITCH 5C (TSS-5C) | R1.0

Customer Release Notes

8DG 24625 AAAA
September 2010
Issue 1

Conformance statements

Interference Information: Part 15 of FCC Rules
NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If the equipment is not installed and used in accordance with the guidelines in this document, the equipment may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the expense of the user.

Security statement

In rare instances, unauthorized individuals make connections to the telecommunications network through the use of remote access features. In such an event, applicable tariffs require that the customer pay all network charges for traffic. Alcatel-Lucent cannot be responsible for such charges and will not make any allowance or give any credit for charges that result from unauthorized access.

Limited warranty

For terms and conditions of sale, contact your Alcatel-Lucent Account Team.

Contents

About this document

Purpose

The Customer Release Notes provides information on the 1850 TSS-5C features, known issues, resolved issues, software installation, and upgrade procedures.

Reason for revision

This is the first issue.

Intended audience

This document is intended for individuals who are responsible for the installation, acceptance, operations, and maintenance of the 1850 TSS-5C.

How to use this document

Chapter 1, "Features"

This chapter of the Customer Release Notes includes the delivered software, supported hardware, and new features in Release 1.0.

Chapter 2, "Issues"

This chapter of the Customer Release Notes provides a list of Known Issues in Release 1.0.

Chapter 3, "Software installation and upgrade"

This chapter provides the procedure to install the Release 1.0 software into a new network element.

Safety information

This document contains safety statements. Safety statements are given at points where risks of damage to personnel, equipment, and operation may exist. Failure to follow the directions in a safety statement may result in serious consequences.

For additional safety precautions, please see the Alcatel-Lucent 1850 Transport Service Switch 5C (TSS-5C) Installation and System Turn-Up Guide, 8DG24622AAAA.

Conventions used

This guide uses the following typographical conventions:

Appearance	Description
Emphasis	Text that is emphasized
document titles	Titles of books or other documents
file or directory names	The names of files or directories
graphical user interface text	Text that is displayed in a graphical user interface
keyboard keys	The name of a key on the keyboard
system input	Text that the user types or selects as input to a system
system output	Text that a system displays or prints
Variable	A value or command-line parameter that the user provides
[ ]	Text or a value that is optional
{***value1*** | ***value2*** } {***variable1*** | ***variable2*** }	A choice of values or variables from which one value or variable is used

Related information

The following is a list of related documents:

Document No.	Title	Updated for this Release
8DG24621AAAA	1850 TSS-5C *Product Information and Planning Guide*	Yes
8DG24624AAAA	1850 TSS-5C *User Provisioning Guide*	Yes
8DG24622AAAA	1850 TSS-5C *Installation and System Turn-up Guide*	Yes
8DG24623AAAA	1850 TSS-5C *Maintenance and Trouble-*	Yes

Document No.	Title	Updated for this Release
	Clearing Guide	

Online Customer Support (OLCS)

The following hyperlink can be used to access the Online Customer Support (OLCS) website for technical support information, ordering documentation, and software ordering.

https://support.alcatel-lucent.com/portal/olcsHome.do

Technical support

For technical support, contact your local Alcatel-Lucent customer support team. See the Online Customer Support (OLCS) website for contact information. Once at the OLCS website, choose Product Technical Support on the right-hand side of the page.

Documentation and software ordering

To order Alcatel-Lucent documents, contact your local sales representative or use the Online Customer Support Site (OLCS) website. Once at the OLCS website, choose My Products on the right-hand side of the page. From the Product page, you can access hyperlinks to Documentation and Downloads.

Software ordering

The following table summarizes the software and documentation ordering information:

Ordering No.	Description
8DG 24619 AAAA	Initial Application 1. Alcatel-Lucent 1850 TSS-5C Release 1.0 Software and WaveStar® CIT Software on CD-ROM load R1.0.26. 2. Documentation on CD-ROM 3. Customer Release Notes on CD-ROM
8DG 24625 AAAA	Alcatel-Lucent 1850 TSS-5C Release 1.0 Customer Release Notes
8DG 24620 AAAA	Alcatel-Lucent 1850 TSS-5C Release 1.0 Customer Documents (CD-ROM)

Ordering No.	Description
8DG 24619 AMAA	Alcatel-Lucent 1850 TSS-5C Release 1.0 Software R1.0

How to comment

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

1 Features

Overview

Purpose

This chapter of the Customer Release Notes provides a list of supported hardware, new features in Release 1.0.

Contents

This chapter discusses the following topics:

Supported hardware

Supported hardware for Release 1.0

The following is a list of hardware included in Release 1.0:

Table 1-1 Hardware for Release 1.0

Circuit Pack/Module	Apparatus Code	Slot	Release	Comment
M4O12FEK	8DG24310AA	Main Board	R1.0	
M4O12FEB	8DG24310AB	Main Board	R1.0	
PD	8DG24330AA	Power Slot	R1.0	
PDK	8DG24330AB	Power Slot	R1.0	
O8FEK	8DG24350AA	Slot1,Slot2	R1.0	
O16E1	8DG24360AA	Slot1,Slot2	R1.0	
FAN	8DG24380AA	Fan Slot	R1.0	

Features in Release 1.0

Feature set for Release 1.0

A multi-function network interface circuit pack, housed in the MAIN slot

- Two optional slots for FE electrical boards, CES, and CES combo circuit packs
- One slot for AC/DC power supply. Temperature harden with or without EMI/EMC harden and K.21
- One slot for FAN tray
- Auxiliary interface
- Housekeeping 3 in + 1 out
  - Q-LAN interface
  - Console interface
  - Station clock interface (RJ-45) 1 in + 1 out
  - 1pps + ToD interface 2 * in/out

For the full list of features, see the Features chapter of the 1850 TSS-5C Product Information and Planning Guide, 8DG24621AAAA.

Power consumption for typical configuration:

CMCC Model	Power Consumption(W)
Type 1 (2xGE, 4xFE, 8xE1	44.0
Small (2xGE, 8xFX, 16xE1)	47.5
Type 2 (4xGE, 8xFE, 8xE1)	44.0
Medium (4xGE, 4xFX, 16xE1)	47.5
Type 3 (4xGE, 12xFE, 16xE1)	44.0
Maximum	80

Features and/or hardware removed

This section is not applicable since this is the first release of the Alcatel-Lucent 1850 TSS-5C.

2 Issues

Overview

Purpose

This chapter of the Customer Release Notes provides a list of resolved issues, known issues, and restrictions (which includes the workarounds and resolved restrictions in Release 1.0).

Contents

This chapter covers the following topics:

Resolved issues

Resolved issues in Release 1.0:

This section is not applicable since this is the first release of the Alcatel-Lucent 1850 TSS-5C.

Known issues

Known issues in Release 1.0:

ZIC

Issue 1.0-001 Some ZIC Web GUI weakness.

The following ZIC Web GUI functional areas require enhancements:

- 802.3ah Rx ignore status is not correctly displayed;

- Data TLV value for VPWS is not correctly displayed;

- Loopback Message (LBM) parameters are not correctly displayed;

- Incorrect error message displayed when input value is out-of-range;

- Search range for EVPL is limited;

- Alarm synchronization is slow

- Temporary inconsistency between total alarm number and sum of specific alarms.

Workaround: None

Network element

- **Issue 1.0-001** Wrong TMPLS frames forwarded

  TMPLS frames on NNI with no provisioned VLAN tag are forwarded instead to beof being dropped.

  Workaround: None. This is not an issue with NNI.
- **Issue 1.0-002** Inaccurate Unicast counters on NNI

  When broadcast frames are received, they are counted correctly as broadcast frames. However, they are simultaneously also counted as inner Ethernet Unicast frames.

  Workaround: None
- **Issue 1.0-003** Tunnel profile modification is not applied

When tunnel cross-connection is defined, modification of tunnel profile (L2ENCAP in ZIC) is incorrectly accepted.

Workaround: Delete the cross-connection before performing tunnel profile modification.

- **Issue 1.0-004** TMPLS Tunnel and PW counters is inaccurate

  TMPLS Tunnel and PW counters include outer Ethernet header or TMPLS label, which is causing an inaccuracy on the tunnel and the PW counters.

  Workaround:

  - For PW byte counters (PWRB,PWFB), the Ethernet header(14 bytes) and Tunnel header (4 bytes) can be removed manually.

  - For Tunnel byte counters (TURB,TUFB), the Ethernet header (14 bytes) can be removed manually.

- **Issue 1.0-005** DMM/DMR frame counters are not displayed on ZIC.

  DMM/DMR frame counters are not displayed for an activated proactive ETH-DM instance

  Workaround: Use the SNMP agent to obtain the counters.

- **Issue 1.0-006** Creating a new ACL with an existing name is allowed

  If the user creates a new ACL with an existing name, an error message will be displayed on ZIC. However, the new ACL is created. The name of this new ACL is NULL.

  Workaround: The name of the new ACL can be modified later, or delete and another ACL can be created with a different name.

- **Issue 1.0-007** Session parameters changed to default value

  Encapsulation type is the key parameter in session table. When setting the encapsulation type, other parameters in the session table are set to the default value.

  Workaround: Use the following procedure to set session parameters:

  Step1. encapsulation type

  Step2. multicast

  Step3. others

- **Issue 1.0-008** CCM frames for UP MEP need additional configuration

One additional static multicast entry needs to be provisioned in order for UP MEP CCM frames to be forwarded.

Workaround: The user should have following configuration in VPLS:

For UP MEP with level (x) on Ethernet UNI port, one static multicast entry should be configured as:

- MAC address: 0180C200003x (in hex format, x=0..7)
- Member ports should include all Eth UNI and PW port of the VPLS instance

- **Issue 1.0-009** No customized ASAP for some alarms

  The following alarms do not have customized ASAP and alarm severity can not be changed:

  - CES alarms.

  - Sync-E and 1588 v2 alarms.

  - Equipment alarms

  - TMPLS alarms

  Workaround: None

- **Issue 1.0-010** Wrong flag for incomplete TMPLS PM bin

  When the NE time is changed and the current 15 minutes TMPLS PM bin is incomplete, the completed flag is set.

  Workaround: None

- **Issue 1.0-011** T-MPLS Tunnel/PW PM counters can not be initialized to zero

  Initializing T-MPLS tunnel/PW PM counters are not supported.

  Workaround: None

- **Issue 1.0-012** Inconsistent port operational state after warm restart

  While changing the port admin status of O8FKE from "up" to "down", the port admin status may change to "not present" after warm restart. The admin status can still be changed to "up" if necessary.

  Workaround: None

- **Issue 1.0-013** Wrong alarm for unconfigured SFP

Assigning an OTRI card may cause "UNCONFIGURED-EQUIPEMENT" alarm on the main board not able to clear.

Workaround: Clear the alarm before assigning the OTRI card.

- **Issue 1.0-014** Incorrect 802.1x table display

When a GE port is changed from UNI to NNI, the port should be removed from 802.1x table manually; otherwise the 802.1x table may not be displayed correctly.

Workaround: Remove the GE port from the 802.1x table manually when changing it from UNI to NNI.

Restrictions

Known restrictions in Release 1.0

The following is a list of restrictions in Release 1.0:

- **Restriction 1.0-001:** AC power module not available at DR4.

  Workaround: None.
- **Restriction 1.0-002:** 4xGE interface on main unit does not support 100Base-FX.

  Workaround: 100Base-FX interface will be supported with an 8xFX card.
- **Restriction 1.0-003:** NE auto discovery by NMS is not supported.

  Workaround: Manually connect to NE on NMS.
- **Restriction 1.0-004:** Radius, keys and certificate differentiation are not supported.

  Workaround: None.
- **Restriction 1.0-005:** Management port segregation and ICMP security are not supported.

  Workaround: None.
- **Restriction 1.0-006:** Not able to initiate Threshold Crossing Alert (TCA) for Ethernet Port-based PM counters.

  Workaround: Alternative is to use T-MPLS OAM TCA.
- **Restriction 1.0-007:** Interface MAU counters are not supported.

  Workaround: None.
- **Restriction 1.0-008:** VLAN push/pop is not supported.

  Workaround: Mobile backhaul application can still be supported. Without this feature. T-MPLS label push/pop is supported.
- **Restriction 1.0-009:** 24V DC Power module is not supported

  Workaround: None

3 Software installation and upgrade

Overview

Purpose

This chapter provides the procedures to download the 1850 TSS-5C Release 1.0 software into a 1850 TSS-5C system.

Contents

This chapter covers these topics.

New software installation

Description

File Transfer Protocol (FTP) services should be installed and administered by the local customer organization responsible for workstation operations. Follow customer guidelines.

This procedure is used to determine if an FTP service is running, install generic Microsoft 2000 Professional, Internet Information Services (ISS) and/or configure a generic FTP service. Customer guidelines may vary. Consult appropriate local organization before installing any Microsoft products.

Prerequisites

The following items are the pre-requisites:

PC Requirements	Minimum Requirements
Processor	Pentium III 733 MHz
RAM	256 Mbytes (512 Mbytes is recommended)
Free disk space	100 Mbytes available for installation plus 100 Mbytes available for log files.
Graphics	Resolution supporting 64K colors with 16 Mbyte RAM on video card.
LAN card	IEEE 802.3 LAN card (TCP/IP via 10baseT Ethernet)
Serial port	Standard RS232-C
CD-ROM drive	Required
Operating system	Microsoft Windows 2000 or XP

PC setup procedure:

Use the following procedures to set up and check the PC running the CIT software:

1 Is there currently a Microsoft FTP server set up on the local machine?

If yes, proceed to Step 2.

If unsure, proceed to Step 3.

If no, proceed to Step 18.

2 Is the Local Path information known?

If yes, proceed to Step 43.

If no, proceed to Step 3.

Check if Microsoft FTP server is Installed

3 Open the Control Panel. Select **Start > Settings > Control Panel**.

If yes, proceed to Step 43.

If no, proceed to Step 3.

Check if Microsoft FTP server is Installed

4 Double-click the **Administrative Tools** icon.

5 Double-click the **Computer Management** icon.

6 In the Computer Management window, expand the **Services and Applications** node.

7 Are the Internet Information Services listed?

If yes, proceed to Step 8.

If no, there is currently no FTP server installed. Close the Computer Management window and proceed to Step 18.

8 Select Internet Information Services.

9 Is an FTP site listed in the details window?

If yes, proceed to Step 10.

If no, proceed to Step 18.

10 The FTP server is set up on local machine. Is current FTP site to be configured with the Alcatel default configuration?

If yes, proceed to Step 34.

If no, proceed to Step 11.

11 Right-click to select the FTP site and select **Properties**.

12 Select the **Home Directory** tab.

13 Write down the value entered for the Local Path for future use.

14 Check whether the **Read** and **Write** boxes are checked.

15 Click **OK**.

16 Close the Computer Management window.

17 Proceed to Step 43.

Install Microsoft FTP server software

18 Open the Control Panel. Select **Start > Settings > Control Panel**.

19 Double-click **Add/Remove Programs**.

20 On the left side of the Add/Remove Programs window, select **Add/Remove Windows Components**.

21 In the Components window, highlight **Internet Information Services (IIS)** and click the **Details...** button.

22 Select the **File Transfer Protocol (FTP) Server/Service** checkbox.

23 Click **OK**.

24 In the Windows Components window, click **Next** to initiate the installation.

25 As the installation continues, the user may be asked to provide Windows media. Either insert the disk or browse to location of files.

26 In the completion window, click **Finish**.

27 Close the Add/Remove Programs window.

Configure FTP Site

28 Open the Control Panel. Select **Start > Settings > Control Panel**.

29 Double-click on the **Administrative Tools** icon.

30 Double-click on the **Computer Management** icon.

31 In the Computer Management window, expand the **Services and Applications** node.

32 Select the **Internet Information Services** node.

33 Right-click **Default FTP Site** in the details window and select **Properties**.

34 Select the **Security Accounts** tab.

35 Uncheck the **Allow Anonymous Connections** box.

36 If prompted, click **Yes** in the confirmation window.

37 Select the **Home Directory** tab.

38 Under the FTP Site Directory pane, set the Local Path to where the NE database backups and NE generic software is to be stored.

The Alcatel-Lucent preferred path is: C:\ALCATEL-LUCENT

Note: If a different directory is selected, note the location for future use.

Note: If the input to set Local Path is not active, reboot PC to activate.

39 Verify that the **Read** and **Write** check boxes are selected.

40 Click **OK**.

41 Close the Computer Management window.

42 Close the Administrative Tools window.

Configure FTP user account

43 Open the Control Panel. Select **Start > Settings > Control Panel**.

44 Double-click **Users and Passwords**. (For Windows XP, double-click **User Accounts**.)

45 In the Users and Passwords/User Accounts window, select the **Advanced** tab.

46 Under Advanced User Management, click the **Advanced** button.

47 Right-click the **Users** node and select **New User...**

48 Enter the name **gemftp** for the User name.

49 Enter and confirm password.

Note: Record this password for future reference and protect it to prevent unauthorized use.

50 Uncheck the **User must change password at next login** box.

51 Check the **User cannot change password** and **Password never expires** boxes.

52 Click **Create**.

53 Click **Close**.

54 Close the Local Users and Groups window.

55 In the Users and Passwords/User Accounts window, click **OK**.

56 Is the PC running Windows XP Service Pack 2?

If yes, proceed to Step 57.

If no, proceed to Step 65.

Create exception for FTP port

57 Open the Control Panel. Select **Start > Settings > Control Panel**.

58 Double-click the **Windows Firewall** icon.

59 Click the **Exceptions** tab.

60 Click the **Add Port...** button.

61 In the name field, enter **FTP**.

62 In the Port number field, enter **21**.

63 Click **OK**.

64 Click **OK** to close the Windows Firewall box.

65 STOP! This procedure is complete.

END OF STEPS

Shelf preparation

- Verify that the 1850 TSS-5C shelf is installed and powered according to the 1850 TSS-5C Installation Manual, 8DG24622AAAA.
- Verify that the software generic Release 1.0 is loaded onto a PC.
- No circuit packs should be in the shelf.

Software installation procedure

Proceed as follows:

The preferred method of software installation, maintenance and backup of the Alcatel-Lucent 1850 TSS-5C is to/from an FTP server. Software and maintenance back-up information resides on the FTP server, freeing additional space on disks and allowing a standard practice off-line storage of software, file systems, and databases.

In this document, the term “FTP server” is used as a general descriptor for a server with file transfer capability. The term is used interchangeably with File Transfer Protocol (FTP) or Trivial File Transfer Protocol (TFTP) according to the step being performed. For example, generic software transfer utilizes an FTP server, but the transfer protocol is TFTP.

It is recommended that field service engineers use their laptop as the FTP server location and use generic or customer provided IP addresses during the software installation process while being locally connected to the new Alcatel-Lucent 1850 TSS-5C.

Load software generic

CAUTION

Service disruption hazard

Use this procedure only for initial turn-up of system. Use this procedure only on a nontraffic-carrying system. Never use this procedure on a traffic-carrying system.

1 Record the predetermined FTP server IP Address _____.

It is recommended that, for new installations, the field technician's laptop be designated as the FTP server.

2 Record the designated IP address for the TSS-5C system being installed. The address should be obtained from the site engineering specification.

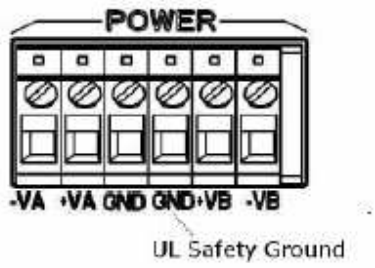
Confirm the planned IP address with the customer and record for reference. _____.

3 Connect the laptop serial port to the TSS-5C *CON* port with a standard USB cable and open a HyperTerminal session on the laptop.

4 Verify the CD-ROM supplied with the TSS-5C contains the appropriate generic software. Two files are required: "uImage.nand" and "tss3.jffs2". Transfer both files to the laptop FTP server home directory.

5 Begin power-up initialization by connecting AC power to the TSS-5C or, for DC-powered systems, by inserting the assigned fuses or operating the assigned circuit breaker switches.

CAUTION: When taking power measurements at the DC power block, use thin and isolated probes to avoid shorting. Take measurements at the screw slots above the wire terminations.



6 Autoboot will be indicated by the green *Active* indicator flashing. During the flashing, stop the autoboot when the *"Hit any key to stop autoboot....."* message prompt appears on the hyperterminal display.

The following steps will download software from the laptop (FTP server) to the TSS-5C.

7 With autobooting stopped, enter the following commands:

a. **setenv ipaddr 192.168.0.10** (to set the local IP address of the TSS-5C)

b. **printenv** (to display the TSS-5C and server addresses) Check that the server IP address

is192.168.0.1. If yes, go to step e.

c. If no, **setenv serverip 192.168.0.1** (to designate the IP address of the TFTP server)

d. **printenv** (to recheck the TSS-5C and server addresses)

e. **saveenv**

f. **nand erase** (to erase the file system block on flash; the */opt/config* directory is not impacted)

g. **tftp 0x350000 TSS5CAPP.bin** (to download image from tftp server root directory)

h. **nand write.jffs2 0x350000 0 0x22b0000** (should be larger than tftp download finish value; to write downloaded image to flash)

i. boot

j. telnet 127.0.0.1 3083;

k. act-user::ALCATEL:::Alcatel_1;

l. ed-lan:::C000:::LANIP=135-252-201-131, LANMASK=255-255-0-0;

m. **rtrv-lan:::c0001;**

8 STOP. This procedure is complete.

END OF STEPS

Upgrade procedure

This section is not applicable since this is the first release of the Alcatel-Lucent 1850 TSS-5C.