



555-4031-905

Nortel Networks Communication Server 2100

# Software Upgrades

## Reference Manual

SE07 Standard 01.05 January 2005

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**NORTEL**



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# Software Upgrades

## Reference Manual

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## Publication history

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### January 2005

Issue 01.05, Standard SE07. This is the first Standard version of the document for customer delivery.



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## About this document

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### Purpose and audience

This manual acts as a roadmap for upgrading Communication Server 2100 network elements from SE06.2 to SE07. Most procedures are already available in other documents, in which case this manual references the appropriate document. If the upgrade procedure for a particular network element is not available in existing documentation, this manual includes the procedure.

The audience for this document are technicians, either customer or Nortel, who are upgrading a Communication Server 2100 site to SE07.

### How to check the version and issue of this document

The version and issue of the document are indicated by numbers (for example, 01.01).

The first two digits indicate the version. The version number increases each time the document is updated to support a new software release. For example, the first release of a document is 01.01. In the next software release cycle, the first release of the same document is 02.01.

The second two digits indicate the issue. The issue number increases each time the document is revised but re-released in the same software release cycle. For example, the second release of a document in the same software release cycle is 01.02.



#### FOR MORE INFORMATION

To determine whether you have the latest version of this document and how documentation for your product is organized, check the release information in the *Meridian SL-100 Master Index of Publications*.





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# Getting started

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## Upgrade sequence

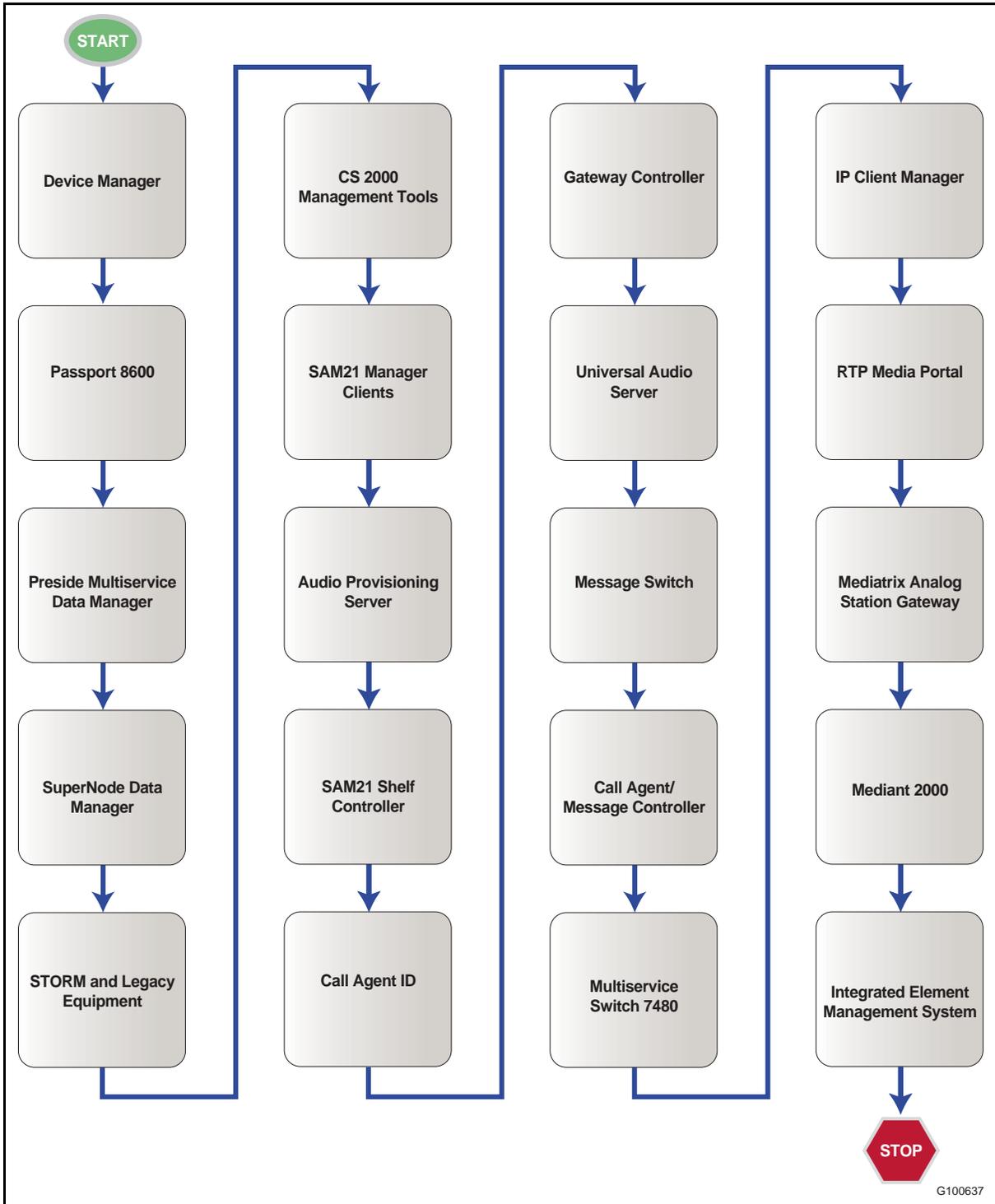
This document shows where to find information about how to upgrade a Communication Server 2100 network from the SE06.2 software release to the SE07 software release. An end-to-end Communication Server 2100 network upgrade involves upgrading all required components in a specific upgrade order.

There are many sources of upgrade documentation which are available on the Communication Server 2100 SE07 customer documentation CD-ROM or Nortel Helmsman web page. In order to access the information required for your upgrade, use this guide as a “roadmap” for where to find the procedure and corresponding documentation.

[Figure 1 on page 12](#) shows the upgrade order for each component used in the solution. [Table 1 on page 13](#) lists the name of the document in which the procedure is described. If the procedure is contained in this manual, the table will contain a reference it in the chapter “[Upgrade procedures](#)” on page 17.

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**Figure 1**  
**SE06.2 to SE07 upgrade sequence flowchart**



## Where to find the upgrade procedure

Table 1 lists where you can find the detailed procedures to complete a Communication Server 2100 SE06.2 to SE07 software upgrade.

**Note 1:** If this is a first time upgrade from a Meridian SL-100 SuperNode (SN) or SuperNode SE (SNSE) Computing Module to a Communication Server 2100 Compact Core, the *Meridian SL-100 SN/SNSE CM to Compact Core Upgrade Method of Procedure*, 555-4001-213 contains site preparation and Night of Cutover procedures.

**Note 2:** Reference documents do not site page numbers, because these page numbers may vary if the reference document is up-issued.

**Table 1**  
**SE06.2 to SE07 upgrade procedure cross reference (Sheet 1 of 4)**

Step	Component	Reference
1	Device Manager for Passport 8600  Version: P86S0070	<i>IP Solutions Upgrades</i> , NN10344-450.  <b>Procedure:</b> "Device Manager for Passport 8500" section.
2	Passport 8600  Version: P86S0070	<i>IP Solutions Upgrades</i> , NN10344-450.  <b>Procedure:</b> "Passport 8600 Software Upgrade for the CS-LAN" section.
3	Preside Multiservice Data Manager  Version: N/A	<i>IP Solutions Upgrades</i> , NN10344-450.  <b>Preparation:</b> "Preparing to upgrade Preside MDM in Succession SN07" section.  <b>Procedure:</b> "Upgrading Preside MDM" section.
4	Communication Server 2000 Core Manager (SDM)  Version: CS2E0070	<i>IP Solutions Upgrades</i> , NN10344-450.  <b>Preparation:</b> "Preparing to upgrade the Core Manager" section.  <b>Procedure:</b> "Upgrading the CS 2000 Core Manager" section.  <b>Post upgrade:</b> "Completing the CS 2000 Core Manager upgrade" section.
5	Legacy Peripheral Modules: STORM, Enhanced Network (ENET) and Input/Output Module (IOM)  Version: STRM0006	<b>STORM procedure:</b> <i>Upgrading the STORM</i> , NN10066-461.  <b>ENET and IOM procedures:</b> <i>Peripheral Module Release Documents</i> , 555-4001-599 and 297-2663-599.  <b>Message Controller (MC):</b> <i>Upgrading the Call Agent</i> , NN10065-461.

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**Table 1**  
**SE06.2 to SE07 upgrade procedure cross reference (Sheet 2 of 4)**

Step	Component	Reference
6	<p>Communication Server 2000 Management Tools (CMT), Succession Server Platforms Foundation Software (SSPFS) and Succession Element and Sub-network Manager (SESM)</p> <p><i>Version: CS2M0070 and SPFS0070</i></p>	<p><i>IP Solutions Upgrades, NN10344-450.</i></p> <p><b>Preparation:</b> "Preparing to upgrade the CS 2000 Management Tools software" section.</p> <p><b>Procedure:</b> "Upgrading the CS 2000 Management Tools software" section.</p> <p><b>Post upgrade:</b> "Completing the CS 2000 Management Tools upgrade" section.</p>
7	<p>Communication Server 2000 Core Manager SAM21 Manager Clients</p> <p><i>Version: CSM0070</i></p>	<p>The SAM21 Manager Client runs on the SUN (typically provided by the customer). It is used to view the SAM21 and run the SAM 21 Manager GUI (context-sensitive) application for the SAM21 Shelf controller.</p> <p><i>IP Solutions Upgrades, NN10344-450.</i></p> <p><b>Preparation:</b> "Preparing to upgrade the Core Manager" section.</p> <p><b>Procedure:</b> "Upgrading the CS 2000 Core Manager" section.</p> <p><b>Post upgrade:</b> "Completing the CS 2000 Core Manager upgrade" section.</p>
8	<p>Audio Provisioning Server</p> <p><i>Version: APS0090</i></p>	<p><i>IP Solutions Upgrades, NN10344-450.</i></p> <p><b>Procedure:</b> "Upgrading APS software" section.</p>
9	<p>SAM21 Shelf Controller and SAM21 Manager</p> <p><i>Version: SAM20070</i></p>	<p><i>IP Solutions Upgrades, NN10344-450.</i></p> <p><b>Installation:</b> "Installing SAM21 Platform software" section.</p> <p><b>Migration:</b> "Migrating the CS 2000 SAM21 Manager data" section.</p> <p><b>Procedure:</b> "Upgrading the CS 2000 Management Tools software" section.</p>

**Table 1**  
**SE06.2 to SE07 upgrade procedure cross reference (Sheet 3 of 4)**

Step	Component	Reference
10	Call Agent Identifier <i>Version: N/A</i>	<p>Each Communication Server 2100 in a VoIP network must be allocated a unique Call Agent Identifier between 1 and 255. The user is responsible for administration of this number and its allocation among the CS 2100s. Once a CS 2100 has been allocated a Call Agent ID, it should be provisioned into the CS 2000 Manager using the capabilities provided by the Common Topology Identifier Provisioning feature (A00002644).</p> <p>The Call Agent ID value must be set before the user can specify Middlebox IDs for Network Address Translations (NATs) during NAT provisioning.</p> <p><i>IP Solutions Upgrades</i>, NN10344-450.</p> <p><b>Procedure:</b> “CS 2000 call agent identifier required in SN07” section.</p> <p><b>Note:</b> That in order to ensure optimum system operation is maintained during an upgrade, the Call Agent ID should be set just prior to the upgrade of Gateway controllers to SE07. More detailed information is available in section “28.11 Upgrade to SN07” of the <i>SN07 Release Change Reference Manual DMS on Succession</i>, PLN-SN07-004.</p>
11	Gateway Controller <i>Version: GWC0070</i>	<p><i>IP Solutions Upgrades</i>, NN10344-450.</p> <p><b>Preparation:</b> “Preparing to upgrade the Gateway Controller” section.</p> <p><b>Procedure:</b> “Upgrading the Gateway Controller” section.</p> <p><b>Note:</b> The order of a Gateway Controller upgrade is as follows:</p> <ul style="list-style-type: none"> <li>• Audio Controller (UAS)</li> <li>• Trunks</li> <li>• H.323</li> <li>• Lines</li> </ul>
12	Universal Audio Server <i>Version: UASA0070</i>	<p><i>IP Solutions Upgrades</i>, NN10344-450.</p> <p><b>Procedure:</b> “Upgrading the UAS” section.</p>
	Media Server 2010	<p>The Media Server 2010 is an enhanced replacement for the Universal Audio Server (the Universal Audio Server is no longer orderable in SE07, although new software loads will continue to be available for installed Universal Audio Servers in SE07). The Media Server 2010 and Universal Audio Server can co-exist in the same CS 2100 network.</p> <p><i>Upgrading the Media Server 2000 Series</i>, NN10335-461.</p>

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**Table 1**  
**SE06.2 to SE07 upgrade procedure cross reference (Sheet 4 of 4)**

Step	Component	Reference
13	Message Switch  Version: 3PC00070	<i>Peripheral Module Release Documents</i> , 555-4001-599 and 297-2663-599.  <i>Global Software Delivery One Night Process Software Delivery Procedures</i> , 297-8991-303 on your Helmsman DMS collection.
14	Call Agent and Message Controller  Version: 3PC00070	<i>IP Solutions Upgrades</i> , NN10344-450.  <b>Preparation:</b> "Preparing to upgrade CS 2000 Compact" section.  <b>Procedure:</b> "Upgrading the CS 2000 Compact" section.
15	Passport Packet Voice Gateway 7480 (Note this was rebranded as the Multiservice Switch Packet Voice Gateway 7480)	<i>Nortel Multiservice Switch 7400/15000/20000 Upgrading Software</i> , NN10600-272.
16	IP Client Manager  Version: CICM0070 and CICE0070	<i>IP Solutions Upgrades</i> , NN10344-450.  <b>Preparation:</b> "Preparing to upgrade CICM" section.  <b>Procedure:</b> "Upgrading CICM" section.  Additional information is available in <i>CICM Upgrades</i> , NN10230-461.  <b>Note:</b> CICM is the carrier name for the IP Client Manager (IPCM).
17	RTP Portal  Version: RMPP0070, RMPF0070, RMPD0070 and RMPC0070	<i>IP Solutions Upgrades</i> , NN10344-450.  <b>Preparation:</b> "Upgrading the MCS Management Server" section.  <b>Procedure:</b> "RTP Media Portal full release upgrades" section.
18	Mediatrix Analog Station Gateway  Version: v4.6r2.5	<a href="#">"Mediatrix Analog Station Gateway" on page 18.</a>
19	AudioCodes Mediant 2000 Voice over Packet (VoP) Media Gateway	<i>Mediant 2000 Configuration</i> , LTRT-72901 (Version 4.4).
20	Integrated Element Management System  Version: IEMS0070	This is new to SE07; no upgrade required.



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# Upgrade procedures

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## Summary of procedures

This chapter contains procedure for upgrading the following components from SE06.2 to the SE07 software release:

- [“Mediatrix Analog Station Gateway” on page 18](#)

**Note:** This chapter only describes procedures for updating Communication Server 2100 network elements that are not already covered in other documents. For more information about the end-to-end upgrade strategy, see [“Getting started” on page 11](#).

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### Mediatrix Analog Station Gateway Application



#### CAUTION

##### Possible service interruption

Perform this procedure during a maintenance window or a period of low traffic.

Use this procedure to update the Media Gateway Control Protocol (MGCP) version to the current version on a Mediatrix Analog Station Gateway.



#### FOR MORE INFORMATION

Refer to the *Communication Server 2100 Mediatrix 1124, 1004 and 1102 Installation and Setup Guide*, 555-4031-902 additional information about the Mediatrix Analog Station Gateway.

**Note:** The Mediatrix units do not have to be upgraded at the same time the Communication Server 2100 is upgraded to a new SExx release.

#### Prerequisites

This procedure has the following prerequisites:

- The Mediatrix Analog Station Gateway must be connected to the network.
- The Unit Manager Network application must be installed.



#### FOR MORE INFORMATION

Unit Manager Network installation information is contained in the *Unit Manager Express User's Manual* that comes with the Mediatrix software CD. This manual also contains information about how to upgrade the Unit Manager Network application.

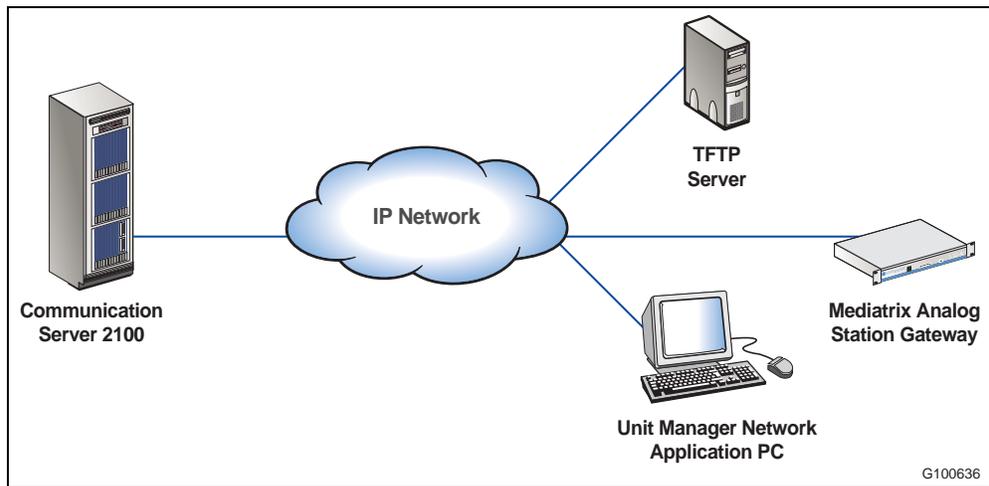
#### Required information

None.

#### Update sequence

[Figure 2 on page 19](#) shows the update sequence to perform for a Mediatrix Analog Station Gateway upgrade.

**Figure 2**  
**Node configuration for Mediatrix**

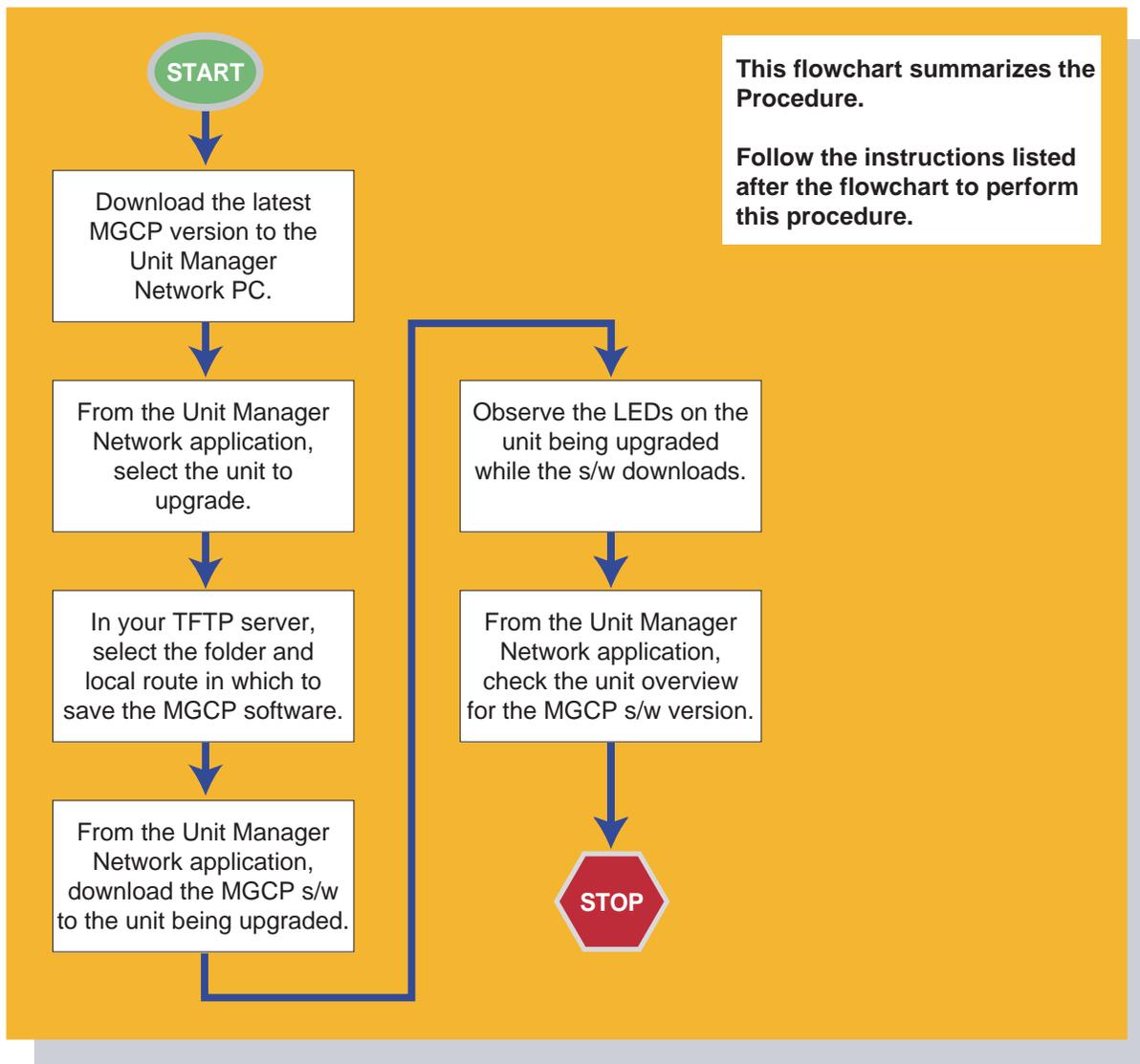


**Notes**

None.

## 20 Upgrade procedures

**Figure 3**  
Summary of procedure



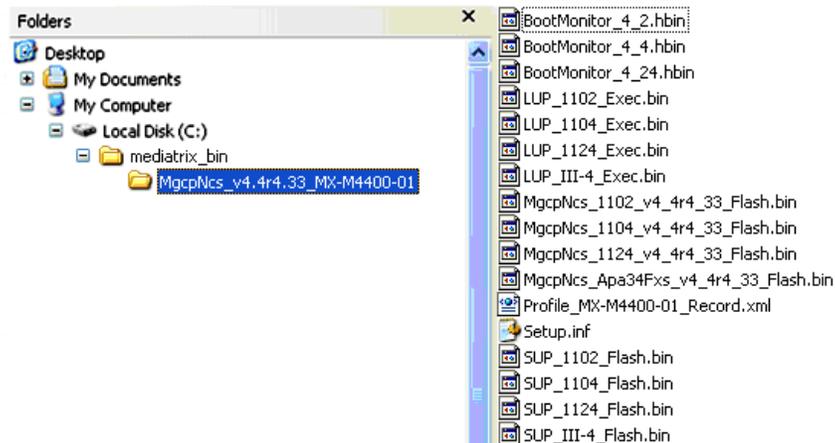
G100645

## Procedure 1 Upgrade the Mediatrix Media Gateway Control Protocol application version

### From your Unit Manager Network application

- 1 The Mediatrix Technical Assistance Center will send you an email with a link to the Mediatrix FTP server, where the new MGCP version software you need to install will be available.
  - a Create a folder called **mediatrix\_bin** directly in the C: drive.
  - b Click on the link to the Mediatrix FTP site and search for the application folder. Extract the zip file to your local disk under the folder `c:\mediatrix_bin`. Be sure to use the option **use folder name** when you unzip.
  - c The zip file is named with the protocol type, software, release version, and the profile name. For example, for protocol MGCP version 4.4 release 4.33 profile Mediatrix, the zip file is named as follows:  
***MgcpNcs\_v4.4r4.33\_MX-M4400-01.zip***

**Figure 4**  
**Local Disk (C:) location of Mediatrix files**



- 2 In the Unit Manager Network application, select the Mediatrix unit to be upgraded.
 

Edit the "Administration" option and set the Software Download Servers as follows (see [Figure 5 on page 22](#)):

  - a Uncheck the **Use DHCP** check box to enable only the Static IP address.
  - b Set the TFTP Server IP address in the "Primary Server" field.
  - c If a secondary TFTP Server is available, set the "Secondary Server" field to the IP address of the secondary TFTP Server.
  - d Inside the "Pathname" field, set the folder name created on your local disk containing the MGCP software to upgrade. Following this example, the folder name would be ***MgcpNcs\_v4.4r4.33\_MX-M4400-01***.
  - e Click **OK**.

**Figure 5**  
**Unit Manager Network Administration window**

The screenshot shows the 'Administration' window with the following configuration details:

- IP Configuration:**
  - Use DHCP  Static
  - Local IP Address: 192.168.0.11
  - Subnet Mask: 255.255.255.0
  - Default Router: 192.168.0.10
  - Primary DNS: 192.168.0.10
  - Secondary DNS: 192.168.0.10
- Unit Manager Server:**
  - Enable
  - Use DHCP  Static
  - Unit Manager: [Empty text field]
- Syslog Daemon:**
  - Use DHCP  Static
  - Syslog Daemon: 192.168.0.9
  - Messages: Informational
- Software Download Servers:**
  - Use DHCP  Static
  - Primary server: 192.168.0.9
  - Secondary Server: 192.168.0.9
  - Pathname: MgcpNcs\_v4.4r4.33\_MX-M4400-01

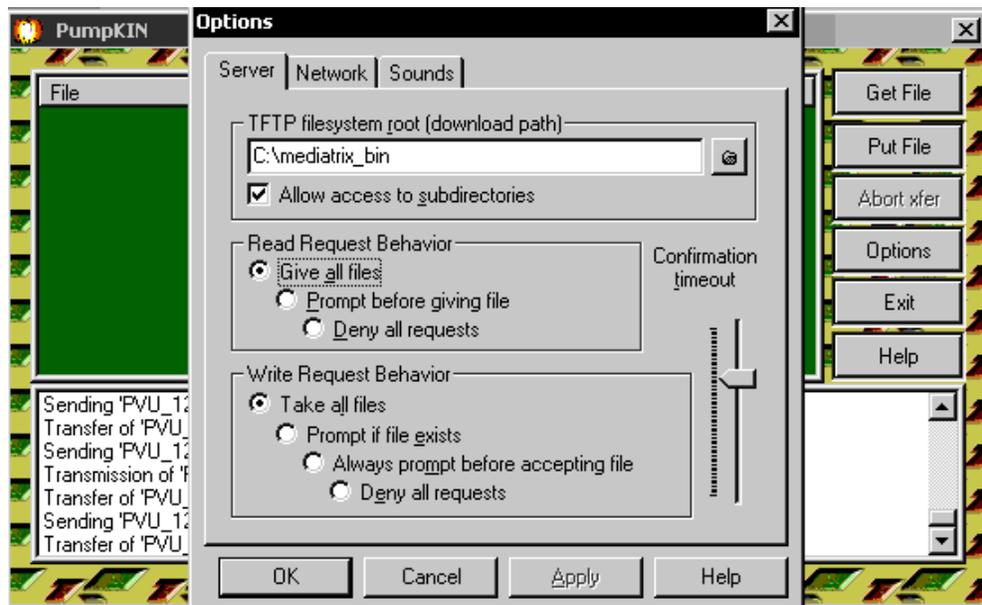
Buttons at the bottom: Set target units..., Exclude IP Configuration on multiple targets, OK, Cancel.

**3 From your TFTP Server**

In your TFTP Server, set the folder to the local route where the MGCP software is saved.

For example, if you are using the PumpKin TFTP Server, go to the **Options** menu, in the "TFTP filesystem root (download path)" field. For this example, the route to set is "c:\mediatrix\_bin" (see [Figure 6 on page 23](#)).

**Figure 6**  
Options window (PumpKin TFTP Server example)

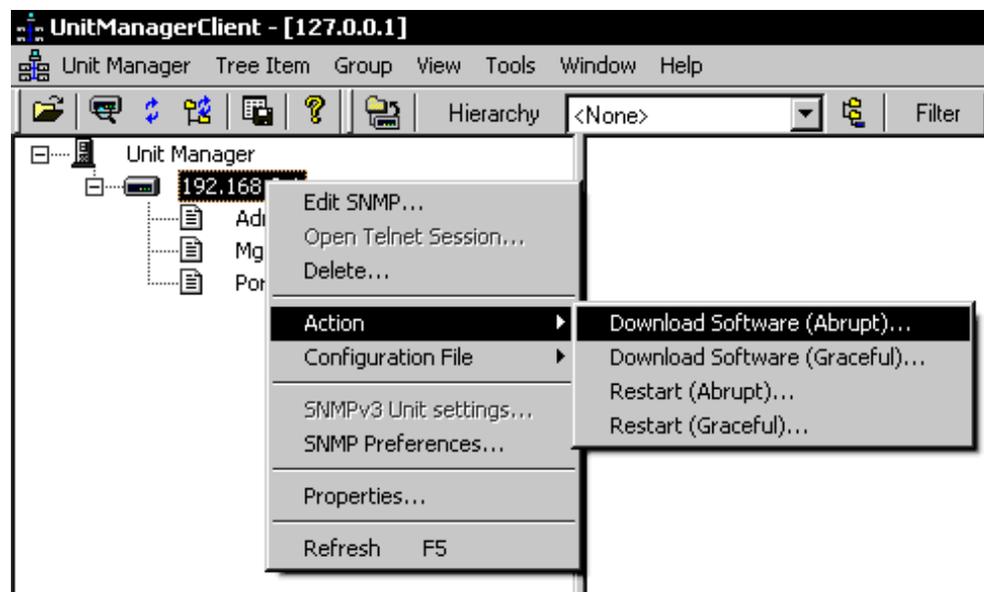


**4** *From the Unit Manger Network application*

Go back to the Unit Manager Network application and right-click the unit to be upgraded (see Figure 6).

- a Click on **Action** and select **Download Software (Abrupt)...**
- b Click **OK**.

**Figure 7**  
Menu that appears when right-clicking on the unit being upgraded



## 24 Upgrade procedures

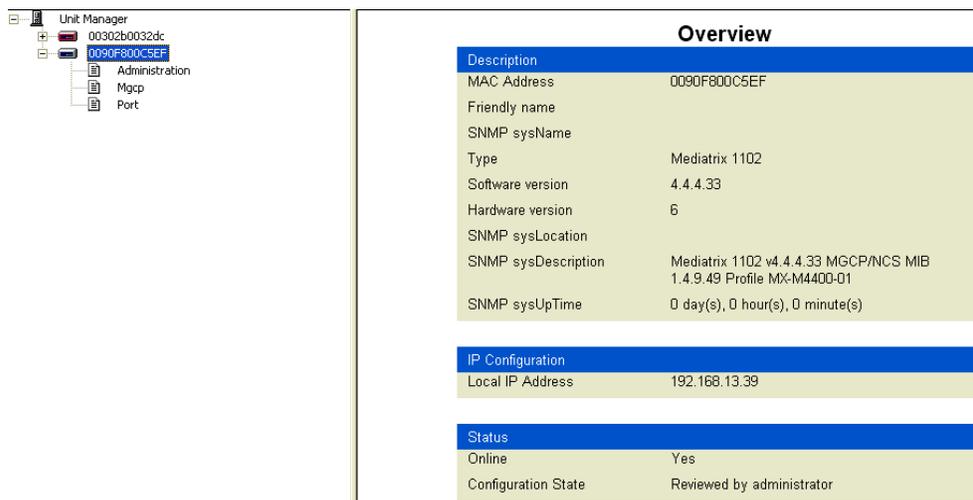
- 5 When the software download is in progress, all the LEDs will start blinking, one at a time, from left to right. The overall process should take a few minutes. During the software download, you will not be able to use the unit.

***Do not turn the Mediatrix unit off while in this state.***

Once the software download is finished, the Mediatrix unit will restart. When done, the “Power” LED should be On and the “LAN” LED should be On or blinking, depending on the network traffic.

- 6 In the Unit Manager Network, go back to the unit overview and look at the new MGCP software in the “SNMP sysDescription” field (see Figure 8).

**Figure 8**  
**Unit overview window**



The screenshot shows the Unit Manager interface. On the left is a tree view with the following structure:

- Unit Manager
  - 00302b0032dc
    - 0090f800c5ef
      - Administration
      - Mgcp
      - Port

The main area displays the Overview window for the selected unit (0090f800c5ef). The Overview window is divided into three sections:

Description	
MAC Address	0090F800C5EF
Friendly name	
SNMP sysName	
Type	Mediatrix 1102
Software version	4.4.4.33
Hardware version	6
SNMP sysLocation	
SNMP sysDescription	Mediatrix 1102 v4.4.4.33 MGCP/NCS MIB 1.4.9.49 Profile MX-M4400-01
SNMP sysUpTime	0 day(s), 0 hour(s), 0 minute(s)

IP Configuration	
Local IP Address	192.168.13.39

Status	
Online	Yes
Configuration State	Reviewed by administrator

***This procedure is now complete***



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## List of terms

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<b>APS</b>	Audio Provisioning Server
<b>ASG</b>	Analog Station Gateway
<b>CA</b>	Call Agent
<b>CMT</b>	Communication Server 2000 Management Tools
<b>CS</b>	Communication Server
<b>CS 2100</b>	Communication Server 2100
<b>CS LAN</b>	Communication Server LAN
<b>DHCP</b>	Dynamic Host Control Protocol
<b>IEMS</b>	Integrated Element Management System
<b>IOM</b>	Input/Output Module
<b>IP</b>	Internet Protocol
<b>IPCM</b>	IP Client Manager
<b>ENET</b>	Enhanced Network
<b>LAN</b>	Local Area Network
<b>MAP</b>	Maintenance and Administration Position
<b>MAPCI</b>	Maintenance and Administration Position Command Interpreter
<b>MC</b>	Message Controller
<b>MCS</b>	Multimedia Communications Server
<b>MDM</b>	Multiservice Data Manager
<b>MGCP</b>	Media Gateway Control Protocol
<b>MS</b>	Message Switch
<b>MS 2010</b>	Media Server 2010
<b>MS 7480</b>	Multiservice Switch 7480
<b>PM</b>	Peripheral Module
<b>PVG</b>	Packet Voice Gateway

## 26 List of terms

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<b>RTP</b>	Real-time Protocol
<b>SAM21</b>	Service Application Module 21
<b>SDM</b>	SuperNode Data Manager
<b>SESM</b>	Succession Element and Sub-network Manager
<b>SNMP</b>	Simple Network Management Protocol
<b>SSPFS</b>	Succession Server Platforms Foundation Software
<b>TFTP</b>	Trivial File Transfer Protocol
<b>STORM</b>	Storage Management
<b>UME</b>	Unit Manager Express
<b>UAS</b>	Universal Audio Server
<b>VoP</b>	Voice over Packet



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Nortel Networks Communication Server 2100

## Software Upgrades

### Reference Manual

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