Job Aid: Replacing the S8300 Media Server or its hard drive

This job aid describes the procedures to replace an installed S8300 Media Server or its hard drive.

Note:

In this Job Aid, the term "S8300 hardware" refers to:

- the S8300C Media Server circuit pack (Material ID 700407810) including its 40 GB hard disk drive (Material ID 700406606)
- the S8300B Media Server circuit pack (Material ID 700394810) including its hard disk drive (Material ID 700394943)

Important:

Always check the Avaya Support Website for Product Correction Notices at http://support.avaya.com and select **Product Correction Notices (All Avaya products)** in the MOST POPULAR PRODUCTS IN SUPPORT section.

Assumptions

The following items are assumed for the successful completion of this replacement procedure. If any of these assumptions do not apply to your scenario, some steps in the on-site replacement procedures may need to be modified:

- The existing S8300 hardware may or may not be functional.
- The S8300 may be configured as a primary controller or as an LSP.
- The following information is available:
  - customer FTP server IP address, login, and password
  - contents of a Pre-Installation Worksheet
- The technician is familiar with the connection and access methods to the S8300, including setting up a direct connection to the S8300 Services port and using the Maintenance Web interface.

  Note:

  See *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Server*, 555-234-100, for detailed information about setting up connections to the G700 and S8300 and the associated laptop configurations.

Before you go to the site

There are several possible hardware replacement scenarios for S8300. You should determine which of the scenarios applies and ensure that you have

- Site-specific information
- Unity CD and USB reader
- Service packs
- Firmware files

Identify the replacement scenario

The most common replacement scenario in this document is to replace the S8300 Server with the same version. However, some earlier hardware versions are no longer available, requiring these considerations:

- Replacing an S8300A with an S8300B on page 2
- Replacing an S8300B with an S8300C on page 3
- Identify the replacement scenario on page 3

Replacing an S8300A with an S8300B

Important:
Do not use this Job Aid if you need to replace an S8300 version A with version B. Instead, refer to *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Server*, 555-234-100.

An S8300 version A will be replaced with an S8300 version B if:

- The system is a pre-2.1 release of Communication Manager running on an S8300A and the customer wishes to upgrade to release 2.1 or later.
- The S8300A is faulty and only S8300B replacement units are available.

When a pre-2.1 release of Communication Manager is running on an S8300A, and you want to upgrade to a 2.1 or later release, you must replace the S8300A with an S8300B. The B version supports any Communication Manager release but the A version supports only pre-2.1 releases. The replacement S8300B is normally shipped without Communication Manager software. In this case, the S8300 hard drive must be remastered, the Communication Manager software installed, and the server must be configured. These procedures are covered in *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Server*, 555-234-100.

Replacing an S8300B with an S8300C

Important:

Do not use this Job Aid if you need to replace an S8300 version B with version C. Instead, refer to *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Server*, 555-234-100.

An S8300 version B will be replaced with an S8300 version C if:

- The system is a pre-4.0 release of Communication Manager running on an S8300B and the customer wishes to upgrade to release 4.0 or later.
- The S8300B is faulty and only S8300C replacement units are available.

When a pre-4.0 release of Communication Manager is running on an S8300B, and you want to upgrade to a 4.0 or later release, you must replace the S8300B with an S8300C. The S8300C version supports only Communication Manager 4.0 and later releases. The replacement S8300C is normally shipped without Communication Manager software. In this case, the S8300C must be remastered, the Communication Manager software installed, and the server must be configured. These procedures are covered in *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Server*, 555-234-100.

In addition the S8300C does not support the CWY1 board that might be present with the S8300A/B. Refer to *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Server*, 555-234-100 for proper conversion and announcement transfer procedures.

Identify the replacement scenario

Eight scenarios for replacing the S8300 hardware are summarized in Table 1: Replacement scenarios on page 4. Each scenario requires a slightly different pre-installation preparation and a slightly different installation procedure. The different scenarios depend on whether the original (currently installed) hardware is functional, and whether the software releases installed on the original and new hardware are the same, different, or unknown.

Tip:

Scenario 8 is the most common replacement scenario for replacing the server/ hard drive.

Table 1: Replacement scenarios *1 of 2*

Original hardware is:	Software release on new hardware is:	Scenario #	Replacement procedure:
Functional	Original *earlier than* New	**1**	l Upgrade software on original hardware l Back up data l Replace hardware l Install license and authentication files l Configure network data l Restore all data
	Original same as New	**2**	l Back up data l Replace hardware l Install license and authentication files l Configure network data l Restore all data
	Original *later than* New	**3**	l Back up data l Replace hardware l Install license and authentication files l Upgrade software on new hardware l Configure network data l Restore all data

1 of 2

Table 1: Replacement scenarios *2 of 2*

Original hardware is:	Software release on new hardware is:	Scenario #	Replacement procedure:
Not functional	Original *earlier than* New	**4**	l Replace hardware l Install license and authentication files l Use IW to configure server data l Restore only translations & Audix announcements
	Original *same as* New	**5**	l Replace hardware l Install license and authentication files l Configure network data l Restore all data
	Original *later than* New	**6**	l Replace hardware l Install license and authentication files l Upgrade software on new hardware l Configure network data l Restore all data
	Original SW release *unknown*	**7**	l Replace hardware l Install license and authentication files l Upgrade new hardware to latest bug-fix load, if needed l Use IW to fully configure server data l Restore only translations & Audix announcements
Either functional or not functional	No software*	**8**	l Replace hardware l Install Communication Manager software l Check for service packs l Configure network data l Restore all data l Install license and authentication files
			2 of 2

*. A blank hard drive/Compact Flash is the common replacement scenario.

Description of replacement scenarios

When the S8300 hardware is replaced, you need to reconfigure the S8300 Server. The easiest way to do this is to back up the configuration data from the original hardware and do a full restore to the new hardware.

Scenario **8** is the common replacement scenario in which the old and new hardware and software versions are the same. However, for scenarios **1**, **3**, and **6**, the original and new hardware are running different software releases. In these scenarios, you will need to do a software upgrade (on the original hardware for **1** and on the new hardware for **3** and **6**) to make the software releases the same. In scenario **6**, since the hardware is not functional, you cannot do a backup so you must restore the latest available backup. To do these upgrades, you must have a CD containing the appropriate server software load. The software load is typically be the latest GA bug-fix load, but it could be an earlier load depending on what is required to make the software releases the same on the original and new hardware.

For scenarios **2** and **5**, the original and new hardware are running the same software release so no upgrades are required. For scenario **5**, you must restore the latest available backup.

For scenario **4**, you cannot use the latest available backup to restore the configuration data. (You cannot upgrade the original hardware or backup the configuration data because the hardware is not functional. You cannot do a full restore of the latest available backup because the original and new hardware have different software releases). In this scenario, you must do a full configuration using the Installation Wizard or the Maintenance Web Interface and restore just the translations and AUDIX files from the latest available backup.

For scenario **7**, you (and the customer) do not know the software release on the original hardware, and you are unable to check the software release because the hardware is not functional. In this case, you must follow the replacement procedure in scenario **4**, with the additional step of upgrading the new hardware to the latest GA bug-fix load, if that load is not already installed on the new hardware. This upgrade step ensures that the system is not downgraded in case the original hardware had the latest GA bug-fix load installed.

Before going to the customer site

Perform the following steps before going to the customer site:

1. Download the current license file and authentication (password) file from the RFA website. The license file must be associated with the serial number of the G700 in which the defective hardware resides. Save the license and authentication files on the laptop that you use at the customer site.

2. For scenarios **4** and **7 — i**f the original hardware is not functional, and the original hardware has an earlier (or unknown) software release than the release installed on the new hardware, then you need to do a full configuration (rather than a full restore).

   Create a pre-installation server worksheet when configuring the S8300 after hardware replacement. There is an electronic version and a printable version of the pre-installation worksheet:

   - The electronic version is used with the Installation Wizard to directly load the configuration data onto the S8300.
   - The printable version is used to record the configuration data, which is then manually entered into the screens of the Installation Wizard or the Maintenance Web Interface.

The electronic version, used with the Installation Wizard, is recommended because it simplifies the data-entry task and is more accurate. You can obtain the pre-installation worksheet from http://support.avaya.com/.

Note:

You do not need to create a pre-installation worksheet for the other scenarios (**1**, **2**, **3**, **5**, and **6**).

3. For scenario **7** — if the software release on the original hardware is unknown, check to see if the software release on the new hardware is the latest GA bug-fix load. If not, obtain a CD with the latest GA bug-fix load.
4. Determine backup location, user name, ftp host name, directory, and password to do an FTP backup when on site. Keep this information handy for the restore.
5. For scenarios **1**, **3**, and **6** — if an upgrade is needed, obtain a CD with the appropriate release of the server software to be used for upgrading the original or new hardware. (The appropriate release is whatever makes the releases on the original and new hardware the same after the upgrade).
6. For scenarios **1**, **2**, and **3**, obtain information about the customer's FTP backup server: IP address, user name, password, ftp host name, and directory.
7. Determine whether software service packs will be needed and, if so, download the appropriate software service pack to your laptop.
8. If the new hardware has a release of the server software that is later than the release installed on the original hardware, you may need to upgrade the G700 firmware.
   - If you need to upgrade the G700 firmware, go to the Avaya Support Web site (http://support.avaya.com/downloads) then choose **G700 Media Gateway**.
   - Instructions for upgrading the G700 firmware are in *Job Aid: Firmware Download Procedure for the G700 Media Gateway*, 555-245-758.

At the customer site

Use the following procedure to replace the S8300 hard drive or the S8300 Server circuit pack (including its hard drive).

Procedure to replace the S8300 hardware

Note:

Some of the link names on the Maintenance Web Interface referenced in this procedure might vary depending on the version of Communication Manager you are using.

1. If the S8300 hardware is still functional or can be made functional, connect your laptop to the Services port on the S8300 and access the Maintenance Web Interface.

   If you do not know whether the S8300 hardware is functional, perform the following procedure to determine if it is functional:

   a. Connect your laptop (with a crossover cable) to the Services port on the S8300, open the IE browser, and connect to http://192.11.13.6.

   b. If you do not get the Welcome screen, skip to Step e.

   c. If you get the Welcome screen, click **Continue,** log in, and launch the Maintenance Web Interface.

   d. In the Server Upgrades section select **Boot Partition**.

      - If the View Partition Status table shows the status of the hda1 and hda6 partitions, the S8300 hardware is functional; skip to Step 2
      - If the View Partition Status table is not displayed, or you get an error message, the S8300 hardware may not be functional; continue with Step e.

   e. If the previous steps indicate that the S8300 hardware may not be functional, unseat and reseat the S8300 server and repeat Steps **a** - **d** above. If you do not get the Welcome screen in Step b or if the View Partition Status table is not displayed in Step d, then the S8300 hardware is not functional.

   Note:

   If the S8300 hardware is not functional, skip Step 2 and Step 3 and continue with Step 4.

2. Check to see if the new hardware has a higher software release than the current system. If so, upgrade the server software on the original hardware to the same release as is on the new hardware. This applies to dot releases as well as major releases.

Note:

The new hardware (S8300B or S8300C or new hard disk drive is usually shipped with no software loaded.

3. Back up data:

   a. On the Maintenance Web Interface navigational panel, select **Backup Now** under the "Data Backup / Restore" heading.

   b. On the Backup Now screen, check all of the following data sets:

      - If the S8300 is ***not*** an LSP, select **ACP Translations**; select the radio button for **Save ACP translations before backup**.
      - Server and System Files
      - Security Files
      - If IA770 is installed on the S8300, also select **Audix Names, Translations and Messages**.

   c. Select the Backup Method (SCP, SFTP, or FTP) and enter the customer-supplied information for:

      - User Name
      - Password
      - Host Name
      - Directory

   Note:

   The S8300C supports backup to the external Compact Flash.

   d. Click the **Start Backup** button.

   e. If IA770 is installed on the S8300, back up AUDIX announcements:

      - Return to the **Backup Now** screen and uncheck all but **Audix Announcements**.
      - Select the Backup Method and enter the login destination information as in Step c.
      - Click the **Start Backup** button.

4. Install the new hard drive or S8300 Server.

   CAUTION:

   Be sure to wear a properly grounded ESD wrist strap when handling the S8300 Server, hard drive, and the (optional) CWY1. Place all components on a grounded, static-free surface when working on them. When picking up the hard drive, be sure to hold it only on the edges — do not touch the bottom of the hard drive.

   a. Shutdown the S8300 Server using either the Web interface or the manual Shutdown button on the S8300 faceplate.

- On the Maintenance Web Interface, select **Shutdown Server** under the "Server" heading. Select the **Delayed Shutdown** option, uncheck the "Restart server after shutdown" checkbox, and click **Shutdown**.
- Alternatively, you can manually initiate a shutdown by pressing the Shutdown button on the S8300 faceplate. Hold the button in until the green "OK to Remove" LED starts blinking.

b. When the "OK to Remove" LED is on steady or when you are certain that the server has powered down you can continue with Step c. If you are also replacing the G700, you can power it down.

c. Loosen the two thumb screws on the S8300.

Note:

S8300B: When removing or inserting the S8300B circuit pack, the LED module (above slot V1) must also be removed or inserted together with the S8300B.

S8300C: The S8300C can be removed independently of the LED module.

d. Remove the S8300 circuit pack (and LED module for S8300B) from the G700.

Important:

S8300B: If you are replacing the hard drive use Step e through Step m and Figure 1: S8300B hard drive replacement on page 11. If you are replacing the entire S8300 Server (including its hard drive), skip to Step 6.

S8300C: If you are replacing the hard drive use Step n through Step u and Figure 2: S8300C hard drive replacement on page 13. If you are replacing the entire S8300 Server (including its hard drive), skip to Step 6.

e. **S8300B**: Unscrew the four screws on the bottom of the S8300 circuit pack that attach to the hard-drive standoffs (Refer to Figure 1: S8300B hard drive replacement on page 11).

Figure 1: S8300B hard drive replacement

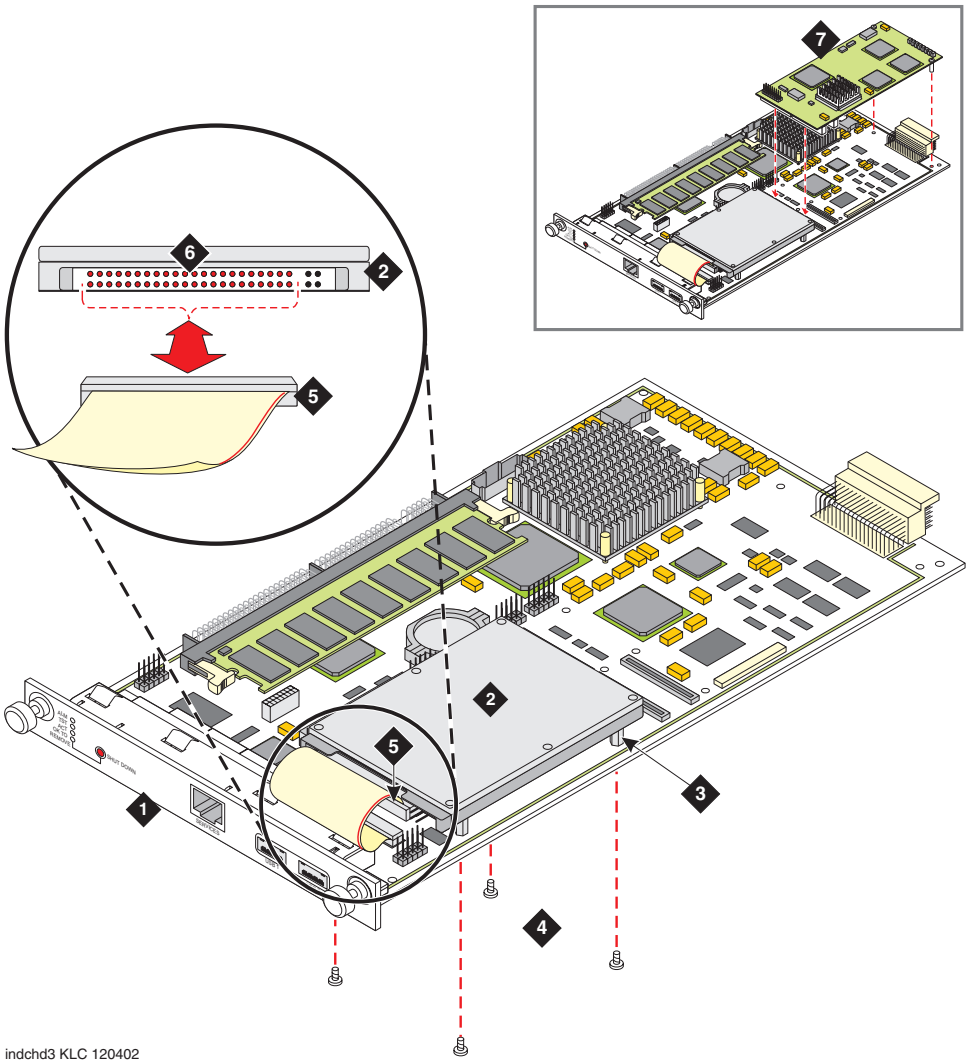

Figure notes:

1.	S8300 circuit pack	**5.**	Ribbon Cable Connector
2.	Hard drive	**6.**	Hard-Drive Connector Pins
3.	Hard-drive standoffs	**7.**	Optional IA770 Module. **Note:** this module is unnecessary if running Communication Manager 3.0 or later because its functionality is supported in software.
4.	Four (4) hard drive mounting screws		

f. **S8300B**: Detach the hard-drive ribbon cable from the hard drive (leave cable attached to the S8300 circuit pack).

g. **S8300B**: Unpack and install the new hard drive on the S8300. Standoffs for the new hard drive should be included in the new hard drive package.

Note:

If standoffs are not included with the new hard drive, remove the standoffs from the old drive and reuse them. ***Before screwing the standoffs into the new hard drive, clean the threads thoroughly with a damp cloth or paper towel.***

h. **S8300B**: Screw the standoffs into the new hard drive.

CAUTION:

In Step i, be careful not to bend the pins on the hard drive. Leave the four jumper pins to the right of the ribbon cable open and unconnected, as shown in Figure 1: S8300B hard drive replacement on page 11.

i. **S8300B**: Connect the open end of the hard-drive ribbon cable (which is attached to the S8300 circuit pack) to the replacement hard drive, as shown in Figure 1: S8300B hard drive replacement on page 11. Connect pin number one to the end of the ribbon connector marked with the red stripe.

j. **S8300B**: Place the hard drive on the S8300 circuit pack with the standoffs aligned with the screw holes.

k. **S8300B**: Hold the S8300 circuit pack on its side, with the hard drive in place, and screw the four screws through the bottom of the S8300 circuit pack into the hard-drive standoffs.

l. **S8300B**: If you are replacing the S8300 circuit pack, and if the CWY1 board is installed on the original S8300, remove the CWY1 board from the original S8300 and install it on the new S8300 circuit pack.

m. **S8300B**: Insert the S8300 into slot V1 of the G700. The LED panel (above slot V1) must be removed and reinserted together with the S8300 circuit pack. Insert both the LED panel and S8300 circuit pack about one-third (1/3) of the way into the guides (the guides are in slot V1 for the S8300 and above slot V1 for the LED panel). Push both circuit packs (together) back into the guides, gently and firmly, until the front of each circuit pack aligns with the front of the G700.

Important:

Step n through Step u apply to the S8300C only.

n. **S8300C**: From the bottom of the S8300 circuit pack remove the two screws that attach to the hard-drive standoffs (Refer to Figure 2: S8300C hard drive replacement on page 13).

Figure 2: S8300C hard drive replacement

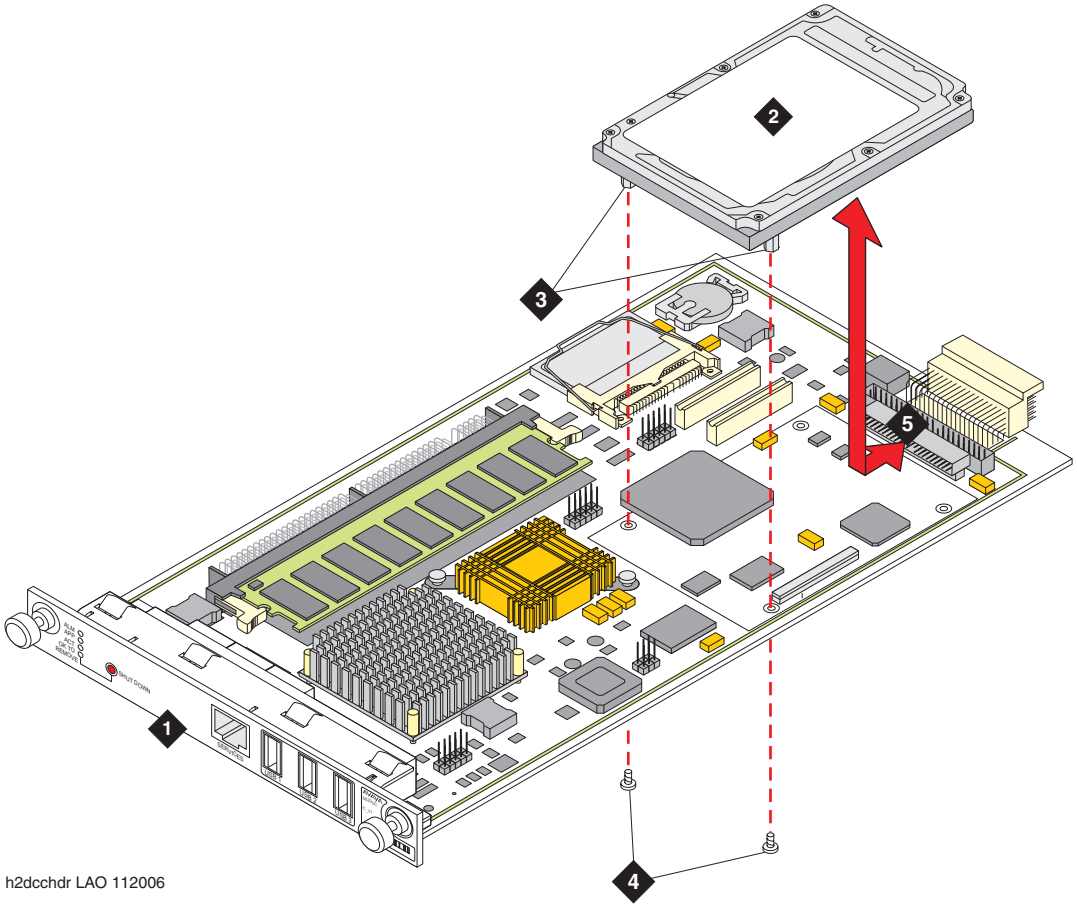

Figure notes:

1.	S8300C circuit pack	**4.**	Hard drive mounting screws (2)
2.	Hard drive	**5.**	Hard drive connector
3.	Hard drive standoffs (2)		

o. **S8300C**: Detach the hard drive by pulling it directly out of the connector.

p. **S8300C**: Locate the standoffs for the new hard drive. If standoffs are not included with the new hard drive, remove the standoffs from the old drive and reuse them.

q. **S8300C**: Screw the standoffs into the new hard drive.

r. **S8300C**: Connect the hard drive to the hard-drive connector (Figure 2: S8300C hard drive replacement on page 13).

s. **S8300C**: Align the hard drive standoffs with the mounting holes on the S8300 circuit pack.

t. **S8300C**: Hold the S8300 circuit pack on its side with the hard drive aligned with the mounting holes, and screw the two screws through the bottom of the S8300 circuit pack into the hard-drive standoffs.

u. **S8300C**: Guide the S8300 into slot V1 of the G700, *but do not completely insert the server in the slot*.

5. Before completely inserting the S8300B/C into slot V1 of the G700, connect the USB DVD-ROM/CD-R/W drive to the S8300.
6. Completely insert the S8300B/C in slot V1 and secure the S8300 faceplate with the thumb screws. Tighten the thumb screws with a screwdriver.
7. Place the Communication Manager CD in the USB DVD-ROM/CD-R/W reader and close the tray.
8. Power up the G700 if the power was removed earlier.
9. Install Communication Manager from the CD (refer to *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Server*, 555-234-100).

   The server reboots after installation.
10. Connect your laptop to the Services port on the S8300 and access the Maintenance Web Interface.
11. Set server date and time:

    a. At the Maintenance Web Pages select **Server > Server Date/Time**.

       The **Server Date/Time** window displays.

    b. Set the server time within five (5) minutes of the Network Timer Server (NTS) time, date and time zone so that synchronization can occur.
12. If necessary, upgrade the server software on the new hardware:

    - If the software release installed on the new hardware is earlier than the release on the original hardware, upgrade the software on the new hardware to match the release on the original hardware.
    - If the software release on the original hardware is unknown, and the software on the new hardware is not the latest bug-fix load, upgrade the software on the new hardware to the latest bug-fix load.
13. **S8300B only:** Disable RAM disk on the server:

    a. Access the server's command line interface using an SSH client, like PuTTY, and an IP address of **192.11.13.6**.

    b. At the command line type **`sudo ramdisk -v -f disabled`** and press **Enter**.

       The system does not display any information to the screen if there are no errors.

    c. At the command line type **`ramdisk -v -s`** and press **Enter** to confirm the setting.

       Confirm that the setting in the ecs.conf file is the desired state after the next reboot.
14. Reboot the server.

15. Install any software service packs required.
16. Configure the S8300 and restore data. Do either Step a or Step b below:
    a. If the original hardware is functional ***or*** if the software release installed on the original hardware is the ***same as*** or ***later than*** the release installed on the new hardware, then:
        - If you are restoring data from the network, configure the network data (Host Name, IP address, subnet mask, default gateway IP address).
        - Restore all data.
    b. If the original hardware is ***not*** functional ***and*** the software release installed on the original hardware is either ***unknown or earlier than*** the release installed on the new hardware, then:
        - Configure the S8300 as you would a new install using either the Avaya Installation Wizard and the Pre-Installation Worksheet previously created, or using the Maintenance Web Interface.
        - Upgrade to the same or later software
        - Restore only the translations and the Audix announcements
17. If the new hardware has a later software release than the original hardware, check to see if you need to upgrade the G700 firmware as described in Step 8 in Before going to the customer site on page 6.
18. Check for and resolve any new alarms.
19. Test as appropriate — for example, make station and trunk calls.
20. Save translations. If the S8300 on which you replaced the hardware is configured as an LSP, save translations on the primary controller, not the LSP.
21. **S8300B only:** Enable RAM disk on the server:
    a. Access the server's command line interface using an SSH client, like PuTTY, and an IP address of **192.11.13.6**.
    b. At the command line type **`sudo ramdisk -v -f enabled`** and press **Enter**.

       The system does not display any information to the screen if there are no errors.
    c. At the command line type **`ramdisk -v -s`** and press **Enter**.

       Confirm that the setting in the ecs.conf file is the desired state after the next reboot.

    Important:
    DO NOT OMIT THE NEXT STEP.
22. **S8300B and S8300C:** Reboot the server.
23. Install the license and authentication files.
24. If this server is a LSP or an ESS, issue these commands from the server command line:
    a. **`stop -af`** or **`stop -caf`** to stop the LSP/ESS

b. **`start -a`** or **`start -ca`** to start the LSP/ESS

25. Re-enable alarm origination:
    a. At the server command line type **`almenable -d b -s y`** and press **Enter**, where:
        - **`-d b`** sets the dialout option to both numbers
        - **`-s y`** enables sending SNMP traps.
    b. Type **`almenable`** without any options and press **Enter** to verify that alarm origination is enabled.
26. Logoff the system.