Job Aid

Replacing the Hard Drive on the Avaya S8700 Media Server

Avaya S8700 Media Server with Avaya MCC1 or SCC1 Media Gateway
Avaya S8700 Media Server with Avaya G600 Media Gateway

This job aid describes the steps required to replace the hard drive on an Avaya S8700 Media Server. This job aid should be used only if a failure has occurred and it is determined that the hard drive should be replaced.

Upgrade Requirements

A software upgrade may be required when replacing a failed hard drive on an S8700 Media Server. The following table describes when an upgrade is required.

Software Release Before Disk Failure	Upgrade Requirement
Release 1.0, 1.1.x (R011x.01.xxx.x)	If used, upgrade all LSPs to Release 1.2 software. Because the replacement hard drive comes with Release 1.2 software, you need to upgrade the existing media server to Release 1.2 software.
Release 1.2.x (R011x.02.xxx.x)	No upgrade is required because the new hard drive contains R1.2 software. However, a software patch, if necessary, must be installed.
Release 1.3.x (R011x.03.xxx.x)	Because the new hard drive contains R1.2 software, the software must be upgraded to R1.3. You must also install the same patch(es) as that on the existing server. Neither the other media server nor the LSPs need to be upgraded because they already have R1.3 software.

Required Equipment

Verify that you have the following equipment and tools on site:

- Replacement hard drive
- CD-ROM(s) with appropriate software load(s) — R1.2 (1.0/1.1 replacement or for R1.0/1.1 LSPs) and/or R1.3 (R1.3 replacement)
- Ethernet crossover cable for direct connection of your laptop to the media servers
- Cross-point (Phillips) screwdrivers (#1 and #2)
- Hex-head (Allen) wrench (1/8 in. 3mm)
- Electrostatic wrist ground strap and mat

Pre-Site Tasks

Before you go on site, verify that the following tasks have been done.

- Ask the customer for the Product ID for the media server being replaced. If the customer does not have it, run the Avaya Registration Tool (ART) to obtain the Product ID number for the replacement media server.
- If the customer is using SNMP for alarming, you will need to get the IP addresses and community names from the customer as the SNMP programming is not saved after the replacement.
- If upgrading the software, verify that you have the correct software, software patches, and firmware. You must upgrade the firmware on the IPSIs, upgrade the software on both media servers, and install the required software patch.
- Verify that the customer has backed up all the system and translation files.

Checklist 1. Pre-Site Tasks for Replacing a Hard Drive on an S8700 Media Server

✓		Task	Description
	1	**(For R1.0/1.1.x, R1.3 replacements only)** Obtain CD-ROMs with the Correct Software Releases	Retrieve an R1.2 CD-ROM (1.0/1.1.x replacement or for R1.0/1.1 LSPs) and/or R1.3 CD-ROM (R1.3 replacement only). **Note:** R1.2 systems do not require the CD-ROM because the replacement hard drive already has the R1.2 software.
	2	Get Communication Manager Patch, If Appropriate	The latest Communication Manager patch file may be available on the CD-ROM. Otherwise, download it to your laptop from the Avaya Support Web site (http//www.avaya.com/support). Select **Software & Firmware Downloads > S8700 Media Server** > **Software Download**.
	3	Get Firmware for IPSI, C-LAN, MedPro, and/or VAL Circuit Pack, If Appropriate	Download the latest firmware to your laptop from the Avaya Support Centre Web site (http//www.avaya.com/support). Select **Software & Firmware Downloads > S8700 Media Server** > **Firmware Download**.
	4	Get the Product ID and Modem IP Address	Run ART to obtain the Product ID for the media server with the failed hard drive and the IP address for the customer's INADS line. Access the ART web site on your laptop at the URL http://art.dr.avaya.com/ARTidcrt.cgi.
	5	**(For R1.0/R1.1 replacement only)** Get License and Authentication Files	Go to the RFA Web site (http://rfa.avaya.com) to retrieve the License and Avaya Authentication files for the customer. You can use the files that were originally created.

Initial Onsite Tasks

NOTE:
Except where noted in the following checklist, see "Upgrading the Avaya S8700 Media Server Configurations" documentation on the *Avaya S8300 and S8700 Media Server Library CD-ROM,* 555-233-825, Issue 3, for details on tasks.

Checklist 2. Initial Tasks for Replacing a Hard Drive on an S8700 Media Server

✓		Task	Description
	1	Log into Web Interface of the Active S8700 Media Server	Connect to the Services port on the back of the media server. Open a browser on your laptop, and using **192.11.13.6,** log onto the Maintenance Web Interface. **Note:** You must use the initial installation craft password.
	2	Determine the Software Release of the Existing Media Server and Necessary Patches	**(For R1.2 and R1.3 replacement only)** Under Server Configuration and Upgrades, click **View Software Version**. **(For R1.0/R1.1.x replacement only)** The system must be upgraded to R1.2 software.
	3	**(For R1.0/R1.1 replacement only)** Determine If the Customer Has LSPs	Ask the customer, or check by using a terminal emulator to access the Communication Manager SAT command prompt screen. Use the **192.11.13.6** IP address. Type **list configuration media-gateway *number,*** where ***number*** is the number of a G700 media gateway. If **ICC** appears in slot 1, the device is an LSP. Repeat for each G700 Media Gateway.
	4	**(For R1.0/R1.1 replacement only)** If There Are LSPs, Upgrade LSPs and Their Respective G700 Media Gateways to R1.2	The LSPs must be on R1.2 before upgrading the other media server to R1.2. Also, upgrade the firmware for each G700 Media Gateway, including media modules and P330 stack processors. **Note:** Be sure to stop Communication Manager software on each LSP (use **stop -acfn** command) until the media server has been upgraded. For detailed information, see *Installation and Upgrades for the Avaya G700 Media Gateway Controlled by An S8300 Media Server or an S8700 Media Server*, 555-234-100.
	6	Determine If the Customer Has a Recent Backup of Data	On the Web Interface, select **View Backup Log** to search for backup files. Check for the types of data and dates. Verify that there are successful backups that could appropriately be restored, if necessary. Verify with the customer that if the backups were to a LAN server, you have access permissions to restore the data, if necessary.

Checklist 2. Initial Tasks for Replacing a Hard Drive on an S8700 Media Server

✓		Task	Description
	7	Resolve Alarms on the Active Media Server	Under Alarms and Notification click **View Current Alarms**. Use a terminal emulator to access the Communication Manager SAT command prompt screen. Use the **display alarms** command. For instructions on resolving alarms, see *Maintenance for the Avaya S8700 Media Server with an Avaya G600 Media Gateway*, 555-233-142. **Note:** You cannot resolve alarms on the standby media server. Also, DUP alarms on the active media server will re-occur. Ignore them for now.
	8	Back up All Data Sets from the Active S8700 Media Server	Under Data Backup/Restore select **Backup Now**. **Note:** Be sure to check the **Save ACP translations prior to backup** option on the Backup Now page.
	9	Suppress Alarm Origination on the Active S8700 Media Server	Use telnet to access the Linux command line on the active media server. Use the **almsuppress -t 120** command to suppress alarms for the duration of the replacement process. (Maximum time is 2 hours.)

Tasks to Replace the Hard Drive

Checklist 3. Tasks for Replacing a Hard Drive on an S8700 Media Server

✓		Task	Description
	1	Unplug the Media Server with the Failed Hard Drive	Unplug the media server from its power source. **Caution:** Turning off power in this way can corrupt data on the hard drive. Use this method to power down the media server only when you are ready to replace the failed hard drive.
	2	Disconnect All the Cables	Disconnect all the cables from the back of the media server with the failed hard drive. **Note**: Be sure to label the cables for easy reconnection. See *Getting Started with the Avaya S8700 Media Server with the G600 Media Gateway*, 555-234-240, *Getting Started with the Avaya S8700 Media Server with MCC1 or SCC1 Media Gateway*, 555-234-241, or *Server and CSS Separation—Avaya S8700 Media Server Job Aid.*
	3	Remove Media Server from Rack	Remove the media server from the rack. See *Getting Started with the Avaya S8700 Media Server with the G600 Media Gateway*, 555-234-240, or *Getting Started with the Avaya S8700 Media Server with MCC1 or SCC! Media Gateway*, 555-234-241.
	4	Remove the Cover of the S8700 Media Server	See ‘‘Remove the Cover of the S8700 Media Server’’ on page 11.
	5	Replace the Hard Drive	See ‘‘Replace the Hard-drive’’ on page 11.
	6	Replace the Cover of the S8700 Media Server	See ‘‘Replace the Cover of the S8700 Media Server’’ on page 14.
	7	Reinstall the Media Server in the Rack	Reinstall the media server in the rack. Leave all the cables unconnected.
	8	Power up the Media Server with the Replaced Hard Drive.	Plug the media server into the appropriate UPS to power it up. If it does not power up, press the power button and release it quickly. **Note:** Wait at least 3 minutes for the media server to complete its power up. Watch the LEDs on the media server to see when they stop flashing and stay solidly lit.

Final Tasks

Checklist 4. Final Tasks for Replacing a Hard Drive in an S8700 Media Server

✓		Task	Description
	1	Log into the Maintenance Web Interface on the Media Server with the New Hard Drive	Connect to the Services port on the back of the media server. Open a browser on your laptop, and using **192.11.13.6,** log onto the Maintenance Web Interface. **Note:** You must use the initial installation craft password.
	2	Check That Processes Are Running	Under Server click **View Process Status** and select "Summary and Display once." Make sure all processes are up except dupmgr (the duplication cables are not connected yet).
	3	Set the Time and Date	Under Server click **Set Server Time/Timezone**. Make changes as necessary.
	4	Select Correct Configuration	Under Server Configuration and Upgrades click **Configure Server** and select IP Connect or Multi-Connect configuration, whichever is the appropriate configuration. **Note:** The existing media server does not have this page because it disappears once the media server's offer type is configured.
	5	**(For R1.0/R1.1.x replacement only)** Download and Install the License and Authentication Files	Under Miscellaneous click **Upload Files to Server (via browser)** to upload the files from the laptop to the media server. Click **Install License** and **Install Authentication** to install the files. **Note**: The next time you log in, you will be ASG challenged.
	6	**(For R1.3 replacement only)** Upgrade Software on the Media Server with the New Hard Drive to Match the Software Release on the Existing Media Server	Insert the software CD into the media server CD-ROM drive. Click **Install New Software Release** and continue through the software installation. **Note:** Be sure to select **Make Server Upgrade Permanent** when the software upgrade is complete.
	7	Install Communication Manager Software Patch	Click **Upload Files to Server (via browser)** to copy the patch to the /var/home/ftp directory. Use telnet to access the Linux command prompt screen. Refer to *Avaya S8300 & S8700 Media Server Patching Procedures* available at http://avaya.com/support for the patch installation procedures. **Note**: Installing the patch releases the media server into active service.

Checklist 4. Final Tasks for Replacing a Hard Drive in an S8700 Media Server

✓		Task	Description
	8	Restore Configuration on the Media Server with the New Hard Drive	Get the configuration data from the customer. Alternatively, log into the existing media server and under Server Configuration and Upgrades click **Configure Server** to view the configuration screens. On the media server with the new hard drive, click **Configure Server** to restart the configure media server process. Use the configuration screens for the existing media server to determine the values for the media server you are configuring. **Exception**: make sure that one media server is 1 and the other is 2. **Caution:** If you use the existing media server to retrieve the configure media server data, do **not** click Continue at the Update Server (Warning) screen. *You do not want to reconfigure the existing media server.*
	9	Restore Data on the Media Server with the New Hard Drive	Restore translations only. Under Data Backup/Restore click **View/Restore Data**. **For 1.0/1.1.x only:** You must select **Force restore if backup version mismatch** also for the data to be restored to a different release of software.
	10	Verify the Software Version.	Under Server Configurations and Upgrades click **View Software Version** to verify that the media server with the new hard drive is on release 1.2 or 1.3 software, as appropriate, and has the appropriate patches.
	11	**(For 1.0/1.1.x Replacement Only)** Reset the System	At the SAT command prompt screen, use the **reset system 4** command.
	12	**(For 1.0/1.1.x Replacement Only)** Verify translations	At the SAT command prompt screen, use the **list station** command, and verify that the customer's stations are listed.
	13	**(For R1.0/R1.1.x replacement only)** Save Translations	At the SAT command prompt screen, use the **save translation** command.
	14	**(For R1.0/R1.1.x and R1.2 replacements only)** Upgrade IPSI, C-LAN, MedPro, and VAL Circuit Pack Firmware	The IPSI circuit packs must be on the latest firmware for an R1.2 system. At the same time, upgrade the firmware on the C-LAN, MedPro, and VAL circuit packs. Refer to "Upgrading the S8700 Media Server Configuration" section of the *Avaya S8300 and Avaya S8700 Media Server Library* CD-ROM*,* 555-233-825 **Caution**: Upgrading the firmware on a circuit pack requires a reset of that circuit pack.
	15	Check the Configuration	At the SAT command prompt screen, use the **list configuration all** command. Check that all the hardware is displayed.

Checklist 4. Final Tasks for Replacing a Hard Drive in an S8700 Media Server

✓		Task	Description
	16	Stop Communication Manager and Busy Out the Media Server	At the Linux command line, type **stop -acf**. On the Maintenance Web Interface, under Server click **Busy Out Server** to busy out the media server.
	17	Restart Communication Manager on the Media Server	At the Linux command line, type **start -ac** to bring the media server up in the busied out, standby mode.
	18	Verify Busied Out Status	On the Maintenance Web Interface under Server click **View Summary Status**. Make sure the media server is busied out.
	19	Reattach All Cables	Connect the fiber duplication cable and the Ethernet duplication cable to the media server with the new hard drive. Connect all the other cables.
	20	Check the Status of the Standby Media Server from the Active Media Server	Connect to the active media server. Click **View Summary Status**. Make sure that the active media server shows data for the standby media server.
	21	Check the Status of the Active Media Server from the Standby Media Server	Connect to the standby media server. Click **View Summary Status**. Make sure that the standby media server shows data for the active media server and that the data from both media servers matches.
	22	Ping the Connections on the Media Server with the New Hard Drive	Under Diagnostics click **Execute Pingall**. Ensure that all connections, including the active media server, the IPSI boards, and all administered connections respond.
	23	Check Alarms on Both Media Server	Under Alarms and Notification click **View Current Alarms**. Clear any alarms that appear. Connect to the active media server. On the SAT command prompt screen, use the **display alarms** command. Clear any alarms that appear. **Caution**: *If you cannot clear alarms, stop.* Call your service support group. Do not continue with this task list until alarms have been resolved.
	24	Check the Health of the Active Media Server	At the SAT command prompt screen, use the **list ipserver-interface** and the **status health** commands. Check that all connections are working correctly.

Checklist 4. Final Tasks for Replacing a Hard Drive in an S8700 Media Server

✓		Task	Description
	25	Release the Busied Out Standby Media Server	Connect to the standby media server. Under Server click **Release Server** to release the media server from busy out mode. The active media server will begin to refresh the translations and security files of the standby media server.
	26	Monitor the Refresh of the Standby Media Server	Connect to the active media server. Under Server click **View Summary Status** to monitor the refresh of the standby media server until the refresh is complete.
	27	Save Translations on the Active Media Server	Once the media server is refreshed, on the SAT command prompt screen, use the **save translation** command.
	28	Log in Again to the Standby Media Server Web Interface	Connect to the standby media server. Open a browser on your laptop, and using **192.11.13.6,** log into the Maintenance Web Interface. You should be ASG challenged in order to log in. **Note:** You should no longer be able to use the initial installation craft password. **(For R1.2 and R1.3 replacements only)** Go to ''Set the Product ID on the Media Server with the New Hard Drive'' on page 10.
	29	**(For R1.0/R1.1.x replacement only)** Make the Standby Media Server the Active Media Server	Under Server click **Interchange Servers.** Also, select **Force interchange regardless of server status** to make the standby media server the active media server. **Note**: This forces a reset system 4. Monitor the media server to make sure it is healthy before continuing.
	30	**(For R1.0/R1.1.x replacement only)** Check the Status of the Active Media Server	At the SAT command prompt screen, use the **list trunks**, **list stations**, **list hunt**, and **list data** commands to make sure that the same items that were in service before the replacement are still in service.
	31	**(For R1.0/R1.1.x replacement only)** Resolve Alarms on Both Media Servers	On the active media server first, click **View Current Alarms**. Then resolve alarms. Connect to the standby media server and resolve alarms on the standby media server. On the SAT command prompt screen, use the **display alarms** command.
	32	**(For R1.0/R1.1.x replacement only)** Log into the Existing Media Server	Connect to the Services port on the back of the media server that did *not* need a hard drive replacement and using **192.11.13.6,** log into the Maintenance Web Interface

Checklist 4. Final Tasks for Replacing a Hard Drive in an S8700 Media Server

✓		Task	Description
	33	**(For R1.0/R1.1.x replacement only)** Upgrade the Existing Media Server	Insert the R1.2 software CD into the existing media server CD-ROM drive. Under Server Configuration and Upgrade click **Install New Software Release** and continue through the software installation. **Note:** Be sure to select **Make Server Upgrade Permanent** before continuing.
	34	**(For R1.0/R1.1.x replacement only)** Install Software Patch on Existing Media Server	Under Miscellaneous click **Upload Files to Server (via browser)** to copy the patch to the /var/home/ftp directory. Refer to *Avaya S8300 & S8700 Media Server Patching Procedures* available at http://avaya.com/support.
	35	**(For R1.0/R1.1.x replacement only)** Release the Existing Media Server from Busy Out Mode	Under Server click **Release Server** to verify that the media server is released from the busy out mode.
	36	**(For R1.0/R1.1.x replacement only)** Start Call Processing on LSPs, If Present	Connect to each LSP, telnet to the IP address for that LSP and use the **start -afcn** command to restart call processing.
	37	Set the Product ID on the Media Server with the New Hard Drive	Type **productid -p *product_id, where product_id*** is the product ID you received from the customer or the ART tool. It should be the same product ID as the old hard drive.
	38	Enable Alarms to INADS on the Media Server with the New Hard Drive	Using telnet on the Linux command prompt screen, type **almcall** to find out phone numbers, **almenable -d** to enable dial-out alarms, **almenable -s** to enable SNMP alarm traps, and **almenable** to verify that the alarms are enabled.
	39	Administer Backup Schedule on the Media Server with the New Hard Drive	On the Maintenance Web interface under Data Backup/Restore, click **Schedule Backup** to readminister the media server's backup schedule.
	40	Backup System Files on Active Media Server	Click **Backup Now** and select "Save ACP translations prior to backup" to save translations and backup system files to the PCMCIA flashcard or to the customer's LAN backup media server.
	41	Log Off All Administration Applications	When you have completed all the administration, log off of the media server.

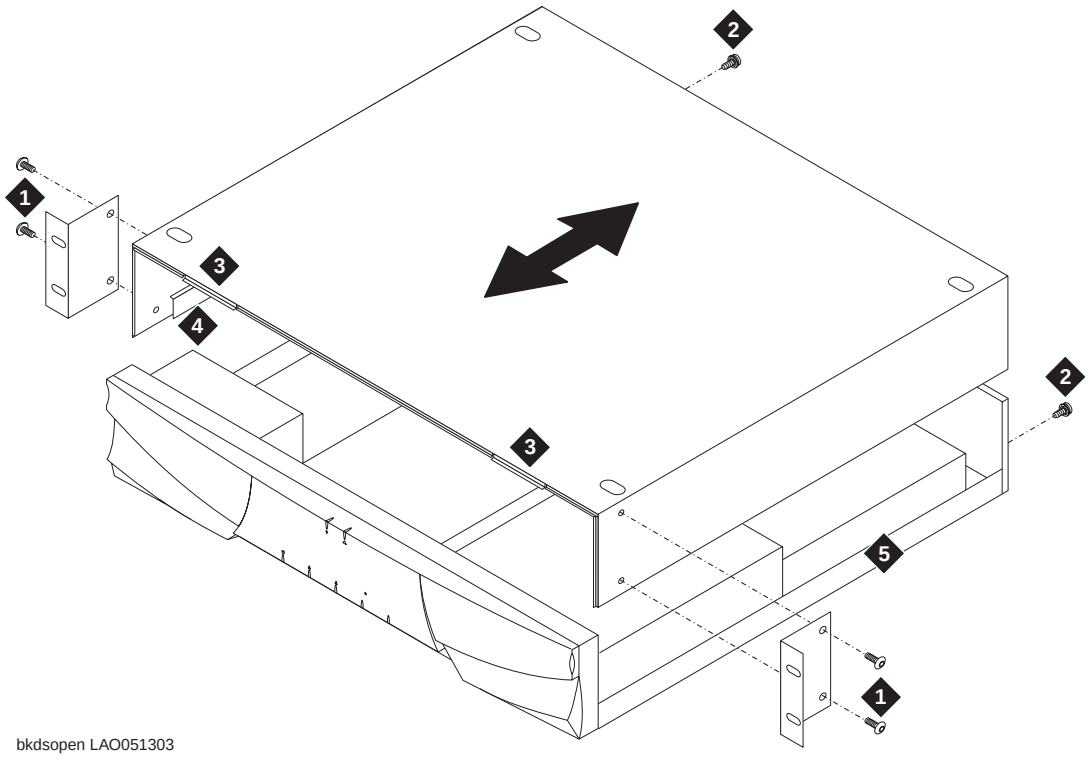
Replace the Hard-drive

CAUTION:
Wear an antistatic wrist ground strap whenever handling components such as the hard drive of an Avaya S8700 Media Server. Connect the strap to an approved ground, such as an unpainted metal surface. Also, place the hard drive on an antistatic mat that is similarly grounded. Do not place the new or the old drive on a bare surface.

Remove the Cover of the S8700 Media Server

1. Set the media server down on a flat surface with an electrostatic mat.
2. With your hex-head wrench, remove the 4 screws (''Media Server Cover Removal and Replacement'' on page 12) that hold the brackets on to the side of the media server. Removing these screws also allows you to release the media server cover on the sides.
3. Use a #1 cross-point (Phillips) screwdriver to unscrew the two screws at the back of the media server that hold the cover in place (''Media Server Cover Removal and Replacement'' on page 12).
4. Slide the media server cover back from the front panel (''Media Server Cover Removal and Replacement'' on page 12) until the cover's tabs are released from the top slot of the front panel.
5. Lift the cover straight up and remove it from the media server.

Figure 1. Media Server Cover Removal and Replacement



1. Hex-head bracket screws
2. Cross-point (Phillips) cover screws
3. S8700 media server cover tabs
4. Inner rail guide
5. Bottom rail of media server

Remove the Hard Drive

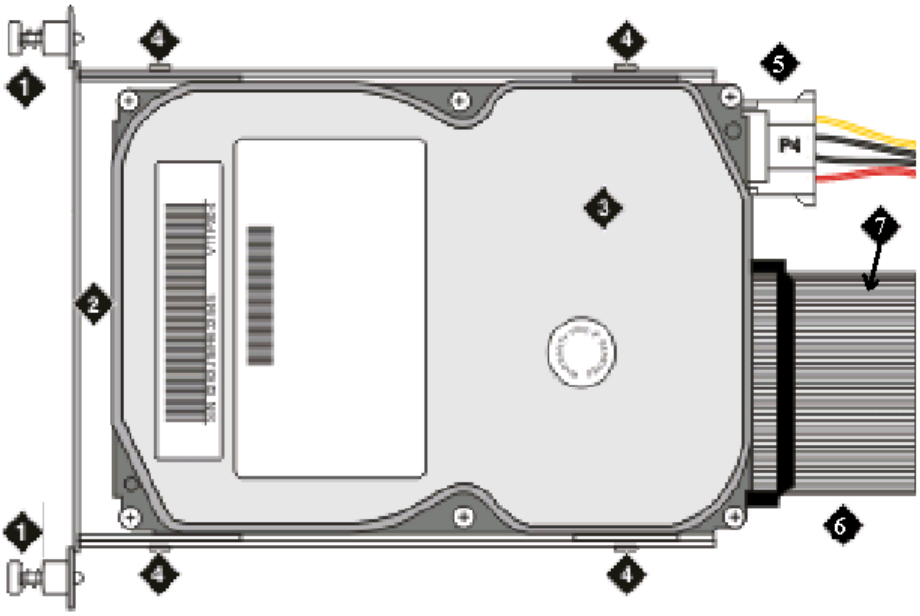
1. Open the bezel on the front of the media server, if necessary, and use a #2 cross-point (Phillips) screwdriver to unscrew the two screws on the faceplate of the hard drive bracket.

NOTE:
The hard drive bracket is on the front right-hand side of the S8700 Media Server.

2. Partially pull out the hard drive bracket (''Hard Drive Bracket and Hard Drive'' on page 13) so that you can disconnect the cables. Note the position of the ribbon cable within the chassis so you can return it to exactly the same position later.
3. Unplug the 4-wire power cable from the back of the hard drive (''Hard Drive Bracket and Hard Drive'' on page 13).

4. Unplug the ribbon cable from the back of the hard drive (“Hard Drive Bracket and Hard Drive” on page 13). Note that the red stripe on the ribbon cable is on the side closest to the power cable.
5. Pull the hard drive bracket from the media server, and place the hard drive and bracket assembly on your antistatic mat.
6. Unscrew the four screws holding the hard drive in the hard-drive bracket (“Hard Drive Bracket and Hard Drive” on page 13). Remove the hard drive from the bracket.

Figure 2. Hard Drive Bracket and Hard Drive



1. Faceplate Screw
2. 1/8 to 1/4 inch gap
3. Hard Drive
4. Bracket Screws
5. Power Cable
6. Ribbon Cable
7. Position of Red Stripe

Install New Hard Drive

1. Insert the new hard drive into the hard drive bracket so that the end of the hard drive is 1/8 to 1/4 inches from the faceplate of the bracket (''Hard Drive Bracket and Hard Drive'' on page 13).
2. Reinsert the four bracket screws to attach the hard drive to the bracket (''Hard Drive Bracket and Hard Drive'' on page 13).
3. Reattach the ribbon cable. Be sure the red stripe on the cable is on the side closest to the power cable.
4. Reattach the power cable (''Hard Drive Bracket and Hard Drive'' on page 13).
5. Lay the ribbon cable into the media server housing as it was before disconnecting it. This prevents bunching of the cable when you slide the hard drive bracket back into the media server.
6. Slide the hard drive bracket into the media server, and hand-tighten the screws on the faceplate to secure it to the media server. Do *not* tighten the screws with a screwdriver.

CAUTION:

Be sure the ribbon cable is pushed completely inside the media server and is not bunched, pinched, or caught between the top of the hard drive and the hard drive slot.

Replace the Cover of the S8700 Media Server

1. Replace the cover onto the media server (''Media Server Cover Removal and Replacement'' on page 12). Be sure the inner rail guides of the cover set correctly on the bottom rails of the media server.
2. Slide the media server cover forward so the covers' tabs slide into place under the top slots of the front panel.
3. Screw the two cross-point (Phillips) screws into the back of the media server to hold the cover in place (''Media Server Cover Removal and Replacement'' on page 12).
4. Reattach the brackets to the sides of the cover with the hex-head bracket screws.
5. Return to ''Tasks for Replacing a Hard Drive on an S8700 Media Server'' on page 5 to continue with the listed tasks.