

Avaya Aura[®] Contact Center R6.4 Mission Critical High Availability: Patching Procedure for Least Downtime

Important Note – These procedures result in some data loss

Using this procedure accepts data loss as a tradeoff for reduced downtime. Any historical statistics generated while the standby server is having the Service Pack installed will be lost.

Overview

This document describes how to apply a Service Pack (SP) to a Mission Critical, High Availability (HA) Contact Center with the minimum of downtime. This will result in historical statistics gathered during the application of the SP to the standby server being lost.

These procedures have been tested applying SP15 from SP11, SP12, SP13 and SP14.

There are 2 scenarios covered in this document.

- Minimum downtime with data loss – Voice Contact Server with standalone Multimedia Contact Server, Avaya Media Server (MS) servers and Remote Geographic Node servers.
- Minimum downtime with data loss – Voice and Multimedia Contact Server, Avaya MS and Remote Geographic Node servers.

If you don't have Remote Geographic Node servers you can ignore the sections that relate to Remote Geographic Node servers.

Minimum downtime with data loss – Voice Contact Server with standalone Multimedia Contact Server, Avaya MS servers and Remote Geographic Node servers.

This procedure outlines the steps necessary to apply an SP to a Mission Critical High Availability Voice Contact Center server, with standalone Multimedia Contact servers, Avaya MS servers and Remote Geographic Node servers.

At the end of the procedure the servers will be in the same mode, active or standby, they were at the beginning of the procedure. The original active mode server will be running as the active mode server and the original standby server will be running as the standby server.

Where a backup and restore is indicated, the restore must be done within 24 hours of the backup as described in the AACC_Mission_Critical_High_Availability_Deployment_Guide.

You are advised to read and understand all the steps being described below before starting.

Terminology

The word Patches refers to both SPs and Designer Patches (DP).

The word upgrade refers to the application of an SP or a DP.

In the steps outlined below you need to know what server you are working with and what mode it is currently running in. The mode indicated is the mode the server will be in at the end of that particular step. The following terminology will be used.

Server(Mode)

CCMS Active(A)	This is the original Voice Contact active server, running in active mode.
CCMS Active(S)	This is the original Voice Contact active server, running in standby mode.
CCMS Standby(S)	This is the original Voice Contact standby server, running in standby mode.
CCMS Standby(A)	This is the original Voice Contact standby server, running in active mode.
CCMM Active(A)	This is the original Multimedia Contact active server, running in active mode.
CCMM Active(S)	This is the original Multimedia Contact active server, running in standby mode.
CCMM Standby(S)	This is the original Multimedia Contact standby server, running in standby mode.
CCMM Standby(A)	This is the original Multimedia Contact standby server, running in active mode.
CCMS RGNServer	This is the Voice Contact Remote Geographic Node server.
CCMM RGNServer	This is the Multimedia Contact Remote Geographic Node server.

The Voice Contact, Multimedia Contact Server and Avaya MS servers should be upgraded during the same maintenance window. This ensures that when the servers are brought back online, the Voice Contact Server, Multimedia Contact Server and Avaya MS servers are running on the same, or in the case of the Avaya MS servers, compatible releases of software.

High Level Detail

At a high level the steps to apply the SP are as follows:

- Remove any Remote Geographic Node servers from the environment.
 - This prevents them from becoming active during the upgrade.
- Data loss starts
 - Historical statistics will be lost from this point forward. Historical statistics will start being collected again when the standby server is restarted in active mode. This is described in the relevant step below.

- Apply the SP to the Voice Contact Standby server.
 - The active server can still process contacts during this step, although HA capability will not be available.
- Apply the SP to the Multimedia Contact Standby server.
 - The active server can still process contacts during this step, although HA capability will not be available.
- Downtime starts.
 - The next steps require the Contact Center on the active server to be shutdown.
- Apply the SP to the Avaya MS servers.
 - This can be done during the backup and restore of the Voice Contact server and Multimedia Contact servers.
 - Upgrading during the backup and restore of the Voice Contact server and Multimedia Contact servers will reduce the downtime further.
- Restart CCMS Standby server in active mode.
 - This allows the Contact Center to start processing contacts on the new release of software.
- Restart CCMM Standby server in active mode.
 - This allows the Contact Center to start processing contacts on the new release of software.
- Downtime ends.
 - The following steps require no further downtime and simply bring the rest of the servers up to the same release of software as the now active servers.
- Data loss ends
 - Historical statistics from this point forward will be available for reporting.
- Apply the SP to the old active Voice Contact server (now running in standby mode).
 - This includes a backup and restore to enable this server to be started as a standby server.
- Apply the SP to the old active Multimedia Contact server (now running in standby mode).
 - This includes a backup and restore to enable this server to be started as a standby server.
- Switchover to return the servers back to their original modes.
 - This puts the environment back to the original configuration.
- Apply the SP to the Remote Geographic Node servers.
 - Applying the SP to Remote Geographic servers requires no downtime.

Remove any Remote Geographic Node servers from the environment

Any Remote Geographic Node servers should be removed from the environment and upgraded separately. Perform the following steps on each Remote Geographic Node server.

1. CCMS RGNServer – Stop shadowing.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Stop Shadowing**.
2. CCMM RGNServer – Stop shadowing.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Tasks > System control – select Shadowing from the drop down list and click **Stop**.

Apply SP CCMS Standby server.

The HA option to switch over in the event of a failure on the Active server will be unavailable while the SP is being applied.

1. CCMS Active(A) – Disable switchovers by performing the following steps.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Disable Switchover**.
2. CCMS Standby(S) – Stop HA by performing the following steps.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Stop HA System**.
 - b. Click **OK** to confirm.
3. CCMS Standby(S) – Confirm all Voice Contact Center services have stopped.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Launch SCMU**, confirm the Contact Center has stopped.
4. CCMS Standby(S) – Uninstall all existing patches
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select **Select All**. Click **Remove selected updates**.
 - b. Click **Yes** to confirm removal.
 - c. Click **Remove**.
 - d. If prompted Ignore the reboot request, just click **Close** and continue to the next step.
5. CCMS Standby(S) – Run Third Party Software Upgrade Utility
 - a. Browse to the location of the New Patches, select the ThirdParty folder, double click the AACCThirdPartySoftwareUpgradeUtility application.
 - b. The AACCThirdPartySoftwareUpgradeUtility application will indicate if any of the Third Party applications need to be upgraded.
 - c. Click **Upgrade** if any of the Third Party applications need to be Upgraded.
 - d. If prompted Ignore the reboot request, continue to the next step.
6. CCMS Standby(S) – Install CCCC update
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck everything, check the CCCC component. Click **Install Update(s)**.
 - b. Click **Yes** to continue.
 - c. Accept the License terms and click **Continue**.
 - d. Once the install has completed, click **Close** and continue to the next step.
7. CCMS Standby(S) – Reboot the server.
8. CCMS Standby(S) – Install remaining patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, click **Install Update(s)**.
 - b. Click **Yes** to continue.

- c. Accept the License terms and click **Continue**.
 - d. Once the install has completed, click **Close** and continue to the next step.
9. CCMS Standby(S) – Start SMMCTrayLauncher to disable next auto startup following the patch install.
 - a. Navigate to D:\Avaya\Contact Center\Manager Server\CCSMMC\SystemController\SMMC_SystemTray and dbl-click the SMMCTrayLauncher.
 - b. On the Windows system tray, right-click the SMMC system tray icon, and select **Disable Next Auto Startup**.
10. CCMS Standby(S) – Apply All in server Configuration
 - a. Choose Start > All Programs > Avaya > Contact Center > Manager Server > Server Configuration.
 - b. Click **Apply All**.
 - c. On the Prompt to restart your server, click **Yes**.
 - d. Click **OK** to close the HA System message box.
 - e. The server is automatically rebooted in 1 minute.
11. CCMS Standby(S) – Validate SMMC has started.
 - a. On the Windows system tray, right-click the SMMC system tray icon and confirm the Start HA System option is available.

The CCMS Standby Server has now been upgraded.

Upgrade the Multimedia Contact standby server

1. CCMM Active(A) – Disable switchovers by performing the following steps.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under configuration, select Server Mode, in the Server Mode Configuration section uncheck the Switchover checkbox.
 - b. Click **Save**.
2. CCMM Standby(S) – Stop Multimedia Contact server services by performing the following steps.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > System Control and Monitor Utility, click **Shut down Contact Center**.
 - b. Click **Yes** to confirm the Shutdown.
3. CCMM Standby(S) – Stop shadowing by performing the following steps.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Tasks select System control, select shadowing from the drop down list, click **Stop**.
4. CCMM Standby(S) – Uninstall all existing patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select **Select All**. Click **Remove selected updates**.
 - b. Click **Yes** to confirm removal.
 - c. Click **Remove**.

- d. Once the removal has completed, click **Close** and continue to the next step.
5. CCMM Standby(S) – Reboot the server.
6. CCMM Standby(S) – Install new patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. Click **Install**, browse to the location of the new Patches, click **Scan for Updates**, click **Install Update(s)**.
 - b. Click **Yes** to continue.
 - c. Accept the License terms and click **Continue**.
 - d. Once the install has completed, click **Close** and continue to the next step.
7. CCMM Standby(S) – Reboot the server.

The Multimedia Contact standby server has now been upgraded.

Change server modes of the Voice Contact servers

Downtime starts here.

1. CCMS Active(A) – Shutdown the Voice Contact Center.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Stop HA System** to Stop the Contact Centre on the Active server.
 - b. Click **OK** to confirm the Shutdown.
2. CCMS Active(A) – Confirm all Voice Contact Center services have stopped.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, confirm the Contact Center has stopped.
3. CCMS Active(S) – Switch server mode to standby.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Server Mode section, select Standby, click **Save**.
 - b. Click **Yes** to save the data.
 - c. Click **OK** to close the High Availability message box
4. CCMS Standby(A) – Switch server mode to active
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Server Mode section, select Active and click Save.
 - b. Click **Yes** to save the data.
 - c. Click **OK** to close the High Availability message box.
5. CCMS Standby(A) – Disable switchovers.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Switchover And Network Timeout section, ensure that the Enable Switchover checkbox is unchecked, click **Save**.

Change server Modes of the Multimedia Contact servers

Downtime starts here.

1. CCMM Active(A) – Stop Multimedia Contact Server services.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Tasks, select CC Applications, select System from the drop down list, click **Stop**.
 - b. Click **Yes** to continue.
2. CCMM Active(S) – Switch server mode to standby.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Configuration, select Server Mode, in the Server Mode Configuration section, select Standby, click **Save**.
3. CCMM Standby(A) – Switch server mode to active.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Configuration, select Server Mode, in the Server Mode Configuration section, select Active, click **Save**.
4. CCMM Standby(A) – Disable switchovers.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Configuration, select Server Mode, in the Server Mode Configuration section, ensure the Switchover checkbox is unchecked, click **Save**.

Avaya MS servers

These steps can be carried out at the same time that the backup and restore are being carried out on the Voice Contact server and Multimedia Contact server.

Carry out all steps below on both primary and backup Avaya MS servers during the maintenance window (no voice calls). These steps can be carried out in parallel on both Avaya MS servers (estimated time (not including file copy) is approximately 15 minutes).

Steps 1 to 9 can be carried out before the maintenance window and will not impact live operation.

If the customer configuration includes multiple Avaya MS HA Pairs or Avaya MS Remote Geographic Node servers, then these steps can be carried out on all Avaya MS servers in parallel. All Avaya MS servers must be at the same version before restarting AMS Services.

1. Create a Backup of Application Content and System Configuration using AMS EM (Note: This is only needed as a precaution in the case where the Avaya Aura® Contact Center upgrade fails and you need to return to the previous Avaya MS SP):
 - a. Go to Home>>Tools>> Backup and Restore>>Backup Tasks.
 - b. Click Add... button
 - c. Enter Backup task name: “AMS”
 - d. Tick both Backup Types: “System Configuration” and “Application Content”
 - e. Click Save button
 - f. Select the created task and click “Run Now” followed by “Confirm”.
 - g. Backup files are stored in: \$MASHOME/platdata/EAM/Backups (Note: These files are preserved during an upgrade and even a full uninstall so there is no requirement to copy the files to another location).

2. If using PLIC/KRS licensing on Avaya Aura® Contact Center, then copy the AMS PLIC license from the Primary Avaya MS Server by: (Note: This is only needed as a precaution in the case where the Avaya Aura® Contact Center upgrade fails and you need to return to the previous Avaya MS SP):
 - a. On Primary Avaya MS Go to Home>>Licensing>>General Settings.
 - b. Copy the license from the “Replace License Keys” field into a text file.
3. Stop AMS Services using AMS Element Manager: Home>>System Status>>Element Status, click ‘Stop’ button followed by ‘Confirm’ button.
4. Launch an SSH session to both servers and log in with root access.
5. Create temporary folders in both Primary and Backup Avaya MS servers by running Linux command


```
mkdir -p /tmp/AvayaMS
mkdir -p /tmp/AvayaMS/OldSP
```
6. Locate the current Service Pack software and copy the following files from “Install Software\AMS\Linux” to the /tmp/AvayaMS/OldSP folder (Note: These binaries will only be needed in the event where a rollback of the Avaya MS Services is required):


```
ContactCenterServicesForAMS_xxxx.bin
MediaServer_7.6.0.xxx_xxxx.xx.xx.bin
```
7. Make the binaries runnable by running command:


```
cd /tmp/AvayaMS/OldSP
chmod +x *
```
8. Locate the new Service Pack software and copy the following files from “Install Software\AMS\Linux” to the /tmp/AvayaMS/ folder:


```
ContactCenterServicesForAMS_yyyy.bin
MediaServer_7.6.0.yyy_yyyy.yy.yy.bin
```
9. Make the binaries runnable by running command:


```
cd /tmp/AvayaMS
chmod +x *
```
10. Run the following command which will upgrade the Avaya MS server:


```
cd /tmp/AvayaMS
./ContactCenterServicesForAMS_xxxx.bin
```
11. Accept License Agreement
12. When upgrade is complete on both Avaya MS servers, verify that Element Status is “Normal” in AMS EM: Home>>System Status>>Element Status

Restart the Voice Contact standby server in active mode

The next step will bring the voice part of the Contact Center back online. It would be advisable to perform some acceptance tests at this time before allowing Agents to log back in and before you upgrade the old active server.

1. CCMS Standby(A) – Start the Voice Contact server.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Start HA System** to Start the Contact Centre on the Active server.
 - b. Click **OK** to confirm.
2. CCMS Standby(A) – Confirm all Voice Contact server services have started.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, confirm the Contact Center has started.

If for some reason the acceptance tests fail, the modes of the servers should be reversed again to bring the old active server back online as the active server. See details at the end of this document on how to perform this action.

Restart the Multimedia Contact standby server in active mode

The next step will bring the Multimedia part of the Contact Center back online. It would be advisable to perform some acceptance tests at this time before allowing Agents to log back in and before you upgrade the old active server.

1. CCMM Standby(A) – Start the Multimedia Contact server services.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Tasks, select CC Applications, select System from the drop down list, click **Start**.
 - b. Click **Yes** to continue.
2. CCMM Standby(A) – Confirm all the Multimedia Contact server services have started.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > System Control and Monitor Utility, confirm the Contact Center has started.

If for some reason the acceptance tests fail, the modes of the servers should be reversed again to bring the old active server back online as the active server. See details at the end of this document on how to perform this action.

Apply the SP to the old active Voice Contact server.

The old active servers can now have the same SP applied.

1. CCMS Active(S) – Uninstall all existing patches
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select **Select All**. Click **Remove selected updates**.
 - b. Click **Yes** to confirm removal.
 - c. Click **Remove**.

- d. If prompted Ignore the reboot request, just click **Close** and continue to the next step.
2. CCMS Standby(S) – Run Third Party Software Upgrade Utility
 - a. Browse to the location of the New Patches, select the ThirdParty folder, double click the AACCThirdPartySoftwareUpgradeUtility application.
 - b. The AACCThirdPartySoftwareUpgradeUtility application will indicate if any of the Third Party applications need to be upgraded.
 - c. Click **Upgrade** if any of the Third Party applications need to be Upgraded.
 - d. If prompted Ignore the reboot request, continue to the next step.
3. CCMS Active(S) – Install CCCC update
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck everything, check the CCCC component. Click **Install Update(s)**.
 - b. Click **Yes** to continue.
 - c. Accept the License terms and click **Continue**.
 - d. Once the install has completed, click **Close** and continue to the next step.
4. CCMS Active(S) – Reboot the server.
5. CCMS Active(S) – Install remaining patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck the CCCC component. Click **Install Update(s)**.
 - b. Click **Yes** to continue.
 - c. Accept the License terms and click **Continue**.
Once the install has completed, click **Close** and continue to the next step.
6. CCMS Active(S) – Start SMMCTrayLauncher to disable next auto startup following the patch install.
 - a. Navigate to D:\Avaya\Contact Center\Manager Server\CCSMMC\SystemController\SMMC_SystemTray and dbl-click the SMMCTrayLauncher.
 - b. On the Windows system tray, right-click the SMMC system tray icon, and select Disable Next Auto Startup.
7. CCMS Active(S) – Apply All in Server Configuration
 - a. Choose Start > All Programs > Avaya > Contact Center > Manager Server > Server Configuration.
 - b. Click **Apply All**.
 - c. On the Prompt to restart your server, click **Yes**.
 - d. Click **OK** to close the HA System message box.
 - e. The server is automatically rebooted in 1 minute.

Configure HA using the new standby server. This will re-enable HA with the servers but not in their original modes. Once HA is configured a manual switchover is performed to return the servers to their original modes.

8. CCMS Standby(A) – Take an immediate backup.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Immediate Backup, select a Backup Location, click **Backup**.
 - b. Click **Yes** to continue.
 - c. Click **OK** on the dialogue box when the Backup has finished.
 9. CCMS Active(S) – Restore backup to standby server.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Restore, select the Backup Location that was used for the Backup, click **Restore**.
 - b. Click **Yes** to continue.
 - c. Click **OK** on the dialogue box when the Restore has finished.
 10. CCMS Active(S) – Start the Voice Contact Center HA standby server.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Start HA System to Start the Contact Centre.
 11. CCMS Active(S) – Confirm standby server has started.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select System information and confirm the local phase is Running.
 12. CCMS Standby(A) – Enable switchovers on the active server.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Enable Switchover.
- You now have a fully working Voice Contact Center with HA enabled, although the servers are not running in their original modes. The final step is to perform a manual switchover to put the servers back in their original modes.
13. CCMS Active(A) – Perform a manual switchover.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Manual Switchover.
 - b. Click **OK** to confirm the Manual Switchover.
 14. CCMS Standby(S) – Start HA System
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Start HA System.
 - b. Click **OK** to confirm the Start HA System.
 15. CCMS Active(A) – Enable Switchovers on the active server.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Enable Switchover.

The Voice Contact servers are now fully upgraded and running in their original modes.

Apply the SP to the old active Multimedia Contact server.

The old active servers can now have the same SP applied.

1. CCMM – Active(S) – Uninstall all existing patches.

- a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select Select All. Click Remove selected updates.
 - b. Click **Yes** to confirm removal.
 - c. Click **Remove**.
 - d. Once the removal has completed, click **Close** and continue to the next step.
2. CCMM Active(S) – Reboot the server.
3. CCMM Active(S) – Install new patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patch, click **Scan for Updates**, click **Install Update(s)**.
 - b. Once the install has completed, click **Close** and continue to the next step.
 - c. Click **Yes** to continue.
 - d. Accept the License terms and click **Continue**.
 - e. Once the install has completed, click **Close** and continue to the next step
4. CCMM Active(S) – Reboot the server.
5. CCMM Standby(A) – Take an immediate backup
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Immediate Backup, select a Backup Location, click **Backup**
 - b. Click **Yes** to continue.
 - c. Click **OK** on the dialogue box when the Backup has finished.
6. CCMM Active(S) – Restore backup to standby server.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Restore, select the Backup Location that was used for the Backup, click **Restore**.
 - b. Click **Yes** to continue.
 - c. Click **OK** on the dialogue box when the Restore has finished.
7. CCMM Active(S) – Start shadowing.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Tasks, select System Control, select Shadowing from the drop down list, click **Start**.
 - b. Click **Yes** on the Start Shadowing Notification.
8. CCMM Standby(A) – Enable switchovers.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Configuration, select Server Mode, in the Server Mode Configuration section, ensure the Switchover checkbox is checked, click **Save**.

You now have a fully working Multimedia Contact Center with HA enabled, although the servers are not running in their original modes. The final step is to perform a manual switchover to put the servers back in their original modes.

9. CCMM Active(A) – Perform a manual switchover.

- a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Tasks, select System Control, select Switchover from the drop down list, click **Start**.
- b. Click **Yes** to continue.

Your Mission Critical High Availability Contact Center now have the SP applied. Any Remote Geographic Node servers can now have the SP applied and be added back into the environment.

Apply the SP to the Voice Contact Remote Geographic Node server

1. CCMS RGN – Uninstall all existing patches and install CCCC update
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select **Select All**. Click **Remove selected updates**.
 - b. If prompted Ignore the reboot request.
 - c. Click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck everything, check the CCCC component. Click **Install Update(s)**.
 - d. Reboot the server
2. CCMS RGN – Install remaining patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck the CCCC component. Click **Install Update(s)**.
3. CCMS RGN – Apply All in Server Configuration
 - a. Choose Start > All Programs > Avaya > Contact Center > Manager Server > Server Configuration.
 - b. Click **Apply All**.
 - c. On the Prompt to restart your server, click **Yes**.
 - d. Click **OK** to close the HA System message box.
 - e. The server is automatically rebooted in 1 minute.
4. CCMS RGN – Restore backup to Remote Geographic Node server.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Restore, select the Backup Location that was used for the Backup, click **Restore**.
5. CCMS RGN – Start HA System
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Start HA System.
 - b. Click **OK** to confirm the Start HA System.

Apply the SP to the Multimedia Contact Remote Geographic Node server

1. CCMM RGN Server – Uninstall all existing patches.

- a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select Select All. Click Remove selected updates.
2. CCMM RGN Server – Reboot the server.
3. CCMM RGN Server – Install patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. Click **Install**, browse to the location of the new Patches, click **Scan for Updates**, click **Install Update(s)**.
4. CCMM RGN Server – Reboot the server.
5. CCMM RGN Server – Restore backup to Remote Geographic Node server.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Restore, select the Backup Location that was used for the Backup, click **Restore**.
6. CCMM RGN Server – Start shadowing.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Tasks, select System Control, select Shadowing from the drop down list, click **Start**.
 - b. Click **Yes** on the Start Shadowing Notification.

Recovery information

A decision should be made after sanity testing on whether or not to continue with the upgrade or return back to the previous version of software.

If the decision is to return back to the previous version, use the following procedures to complete this task.

Recover to previous version of the Voice Contact server

1. CCMS Standby(A) – Shutdown the Contact Center.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Stop HA System to Stop the Contact Centre on the Active server.
2. CCMS Standby(A) – Confirm all Contact Center services have stopped.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, confirm the Contact Center has stopped.
3. CCMS Standby(S) – Switch server mode to standby.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Server Mode section, select Standby, click **Save**.
 - b. Click **Yes** to save the data.
 - c. Click **OK** to close the High Availability message box
4. CCMS Active(A) – Switch server mode to active

- a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Server Mode section, select Active and click Save.
 - b. Click **Yes** to save the data.
 - c. Click **OK** to close the High Availability message box.
5. CCMS Active(A) – Disable switchovers.
- a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Switchover And Network Timeout section, ensure that the Enable Switchover checkbox is unchecked, click **Save**.

The next step will bring the Voice part of the Contact Center back online. The active mode server will be running as it was prior to the application of the SP, the High Availability option will not be available until the standby mode server has been rolled back to the same patch level as the active mode server

6. CCMS Active(A) – Start the Contact Center.
- a. On the Windows system tray, right-click the SMMC system tray icon, and select Start HA System to Stop the Contact Centre on the Active server.
7. CCMS Active(A) – Confirm all Contact Center services have started.
- a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, confirm the Contact Center has started.

Recover to previous version of the Multimedia Contact Server.

This step will return Multimedia Contact handling to the original active server.

1. CCMM Standby(A) – Shutdown the Contact Center.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > System Control and Monitor Utility, click **Shut down Contact Center**.
2. CCMM Standby(A) – Switch server mode to standby.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Configuration, select Server Mode, in the Server Mode Configuration section, select Standby, click **Save**.
3. CCMM Active(A) – Switch server mode to active.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Configuration, select Server Mode, in the Server Mode Configuration section, select Active, click **Save**.
4. CCMM Active(A) – Disable switchovers.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Configuration, select Server Mode, in the Server Mode Configuration section, ensure the Switchover checkbox is unchecked, click **Save**.
5. CCMM Active(A) – Start the Contact Center.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > System Control and Monitor Utility, click **Start Contact Center**.

Recover to previous version of the Avaya MS servers

In the event where the application of the SP fails and a decision has been made to return to the previous SP, then follow the steps below to return the Avaya MS back to the previous SP.

Carry out all steps below on both primary and backup Avaya MS servers. These steps can be carried out in parallel on both Avaya MS servers (estimated time is approximately 30 minutes (including the reboot)).

1. Open putty SSH session and log in as root.
2. Change Directory to: /opt/avaya and run command ./UninstallCCSA
3. Answer 'Yes' to "Also remove Avaya Media Server?"
4. Answer 'Yes' to "Are you sure?"
5. Change directory to /tmp/AvayaMS/OldSP
6. Run ./ContactCenterServicesforAMS_xxxx.bin
7. Answer 'Yes' to "Primary server?" (Note: do this for both Primary and Backup Avaya MS server).
8. Answer yes to "upgrade"
9. Answer preference for "Disable root SSH access on completion of installation?"
10. Go to EM: Home>>Tools>> Backup and Restore>>Restore
11. Select both "Application Content" and "System Configuration"
12. Click "Restore Now" and "Confirm"
13. Reboot both servers after Restore.

Minimum downtime with data loss – Voice Contact server with co-resident Multimedia Contact server and standalone Avaya MS servers and Remote Geographic Node servers

This procedure outlines the steps necessary to apply an SP to a Mission Critical High Availability Contact Center, with co-resident CCMM servers and standalone Avaya MS servers and Remote Geographic Node servers.

At the end of the procedure the servers will be in the same mode they were at the beginning of the procedure. The original active server will be running as the active server and the original standby server will be running as the standby server.

You are advised to read and understand all the steps being described below before starting.

Server Terminology

In the steps outlined below you need to know what server you are working with and what mode it is currently running in. The mode indicated is the mode the server will be in at the end of that particular step. The following terminology will be used.

Server(Mode)

CCMS Active(A) This is the original Voice and Multimedia Contact active server, running in active mode.

CCMS Active(S)	This is the original Voice and Multimedia Contact active server, running in standby mode.
CCMS Standby(S)	This is the original Voice and Multimedia Contact standby server, running in standby mode.
CCMS Standby(A)	This is the original Voice and Multimedia Contact standby server, running in active mode.
CCMS RGNServer	This is the Voice and Multimedia Contact Remote Geographic Node Server.

The Voice and Multimedia Contact servers and Avaya MS servers should be upgraded together. This ensures that when the servers are brought back online after the downtime the Voice and Multimedia Contact servers and Avaya MS servers are running on the same, or in the case of the Avaya MS servers, compatible releases of software.

High Level Detail

At a high level the steps to apply the SP are as follows:

- Remove any Remote Geographic Node servers from the environment.
 - This prevents them from becoming active during the upgrade.
- Data loss starts
 - Historical statistics will be lost from this point forward. Historical statistics will start being collected again when the standby server is restarted in active mode. This is described in the relevant step below.
- Apply the SP to the Voice and Multimedia Contact standby server.
 - The active server can still process contacts during this step, although HA capability will not be available.
- Downtime starts.
 - The next steps require the Contact Center on the active server to be shutdown.
- Apply the SP to the Avaya MS servers.
 - This can be done during the backup and restore on the Voice and Multimedia Contact server.
 - Upgrading during the backup and restore of the Voice and Multimedia Contact server will reduce the downtime further.
- Restart the Voice and Multimedia Contact standby server in active mode.
 - This allows the Contact Center to start processing contacts on the new release of software.
- Downtime ends.
 - The following steps require no further downtime and simply bring the rest of the servers up to the same release of software as the now active servers.
- Data Loss ends
 - Historical statistics from this point forward will be available for reporting.
- Apply the SP to the old active Voice and Multimedia Contact server (now running in standby mode).
 - This includes a backup and restore to enable this server to be started as a standby server.
- Switchover to return the servers back to their original modes.

- This puts the environment back to the original configuration.
- Apply the SP to any Remote Geographic Node servers.
 - Applying the SP to Remote Geographic Node servers requires no downtime.

Remove any Remote Geographic Node servers from the environment

Any Remote Geographic Node servers should be removed from the environment and upgraded separately. Perform the following steps on each Remote Geographic Node server.

1. CCMS RGNServer – Stop shadowing.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Stop Shadowing**.

Apply the SP to the Voice and Multimedia Contact standby server.

The HA option to switch over in the event of a failure on the Active server will be unavailable while the SP is being applied.

1. CCMS Active(A) – Disable switchovers by performing the following steps.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Disable Switchover**.
2. CCMS Standby(S) – Stop HA by performing the following steps.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Stop HA System**.
 - b. Click **OK** to confirm.
3. CCMS Standby(S) – Confirm all Contact Center services have stopped.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Launch SCMU**, confirm the Contact Center has stopped.
4. CCMS Standby(S) – Uninstall all existing patches
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select **Select All**. Click **Remove selected updates**.
 - b. Click **Yes** to confirm removal.
 - c. Click **Remove**.
 - d. If prompted Ignore the reboot request, just click **Close** and continue to the next step.
5. CCMS Standby(S) – Run Third Party Software Upgrade Utility
 - a. Browse to the location of the New Patches, select the ThirdParty folder, double click the AACCThirdPartySoftwareUpgradeUtility application.
 - b. The AACCThirdPartySoftwareUpgradeUtility application will indicate if any of the Third Party applications need to be upgraded.
 - c. Click **Upgrade** if any of the Third Party applications need to be Upgraded.
 - d. If prompted Ignore the reboot request, continue to the next step.
6. CCMS Standby(S) – Install CCCC Update

- a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck everything, check the CCCC component. Click **Install Update(s)**.
 - b. Click **Yes** to continue.
 - c. Accept the License terms and click **Continue**.
 - d. Once the install has completed, click **Close** and continue to the next step.
7. CCMS Standby(S) – Reboot the server.
8. CCMS Standby(S) – Install remaining patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, click **Install Update(s)**.
 - b. Click **Yes** to continue.
 - c. Accept the License terms and click **Continue**.
 - d. Once the install has completed, click **Close** and continue to the next step.
9. CCMS Standby(S) – Start SMMCTrayLauncher to disable next auto startup following the patch install.
 - a. Navigate to D:\Avaya\Contact Center\Manager Server\CCSMMC\SystemController\SMMC_SystemTray and dbl-click the SMMCTrayLauncher.
 - b. On the Windows system tray, right-click the SMMC system tray icon, and select **Disable Next Auto Startup**.
10. CCMS Standby(S) – Apply All in Server Configuration
 - a. Choose Start > All Programs > Avaya > Contact Center > Manager Server > Server Configuration.
 - b. Click **Apply All**.
 - c. On the Prompt to restart your server, click **Yes**.
 - d. Click **OK** to close the HA System message box.
 - e. The Server is automatically rebooted in 1 minute.
11. CCMS Standby(S) – Validate SMMC has started.
 - a. On the Windows system tray, right-click the SMMC system tray icon and confirm the Start HA System option is available.

The Voice and Multimedia Contact standby server has now been upgraded.

Change server modes of the Voice and Multimedia Contact servers

Downtime starts here.

1. CCMS Active(A) – Shutdown the Contact Center.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Stop HA System** to Stop the Contact Centre on the Active Server.
 - b. Click **OK** to confirm the Shutdown.

2. CCMS Active(A) – Confirm all Contact Center services have stopped.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, confirm the Contact Center has stopped.
3. CCMS Active(S) – Switch server mode to standby.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Server Mode section, select Standby, click **Save**.
 - b. Click **Yes** to save the data.
 - c. Click **OK** to close the High Availability message box
4. CCMS Standby(A) – Switch server mode to active
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Server Mode section, select Active and click Save.
 - b. Click **Yes** to save the data.
 - c. Click **OK** to close the High Availability message box.
5. CCMS Standby(A) – Disable switchovers.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Switchover And Network Timeout section, ensure that the Enable Switchover checkbox is unchecked, click **Save**.

Avaya MS servers

These steps can be carried out at the same time that the backup and restore is being carried out on the Voice and Multimedia Contact server

Carry out all steps below on both primary and backup Avaya MS servers during the maintenance window (no voice calls). These steps can be carried out in parallel on both Avaya MS servers (estimated time (not including file copy) is approximately 15 minutes).

Steps 1 to 9 can be carried out before the maintenance window and will not impact live operation.

If the customer configuration includes multiple Avaya MS HA Pairs or Avaya MS Remote Geographic Node servers, then these steps can be carried out on all Avaya MS servers in parallel. All Avaya MS servers must be at the same version before restarting Avaya MS services.

1. Create a Backup of Application Content and System Configuration using AMS EM (Note: This is only needed as a precaution in the case where the Avaya Aura® Contact Center upgrade fails and you need to return to the previous Avaya MS SP):
 - a. Go to Home>>Tools>> Backup and Restore>>Backup Tasks.
 - b. Click Add... button
 - c. Enter Backup task name: “AMS”
 - d. Tick both Backup Types: “System Configuration” and “Application Content”
 - e. Click Save button
 - f. Select the created task and click “Run Now” followed by “Confirm”.

- g. Backup files are stored in: \$MASHOME/platdata/EAM/Backups (Note: These files are preserved during an upgrade and even a full uninstall so there is no requirement to copy the files to another location).
2. If using PLIC/KRS licensing on Avaya Aura® Contact Center, then copy the AMS PLIC license from the Primary Avaya MS Server by: (Note: This is only needed as a precaution in the case where the AACC upgrade fails and you need to return to the previous Avaya MS SP):
 - a. On Primary Avaya MS Go to Home>>Licensing>>General Settings.
 - b. Copy the license from the “Replace License Keys” field into a text file.
3. Stop AMS Services using AMS Element Manager: Home>>System Status>>Element Status, click ‘Stop’ button followed by ‘Confirm’ button.
4. Launch an SSH session to both servers and log in with root access.
5. Create temporary folders in both Primary and Backup Avaya MS server by running Linux command


```
mkdir -p /tmp/AvayaMS
mkdir -p /tmp/AvayaMS/OldSP
```
6. Locate the current Service Pack software and copy the following files from “Install Software\AMS\Linux” to the /tmp/AvayaMS/OldSP folder (Note: These binaries will only be needed in the event where a rollback of the Avaya MS Services is required):


```
ContactCenterServicesForAMS_xxxx.bin
MediaServer_7.6.0.xxx_xxxx.xx.xx.bin
```
7. Make the binaries runnable by running command:


```
cd /tmp/AvayaMS/OldSP
chmod +x *
```
8. Locate the new Service Pack software and copy the following files from “Install Software\AMS\Linux” to the /tmp/AvayaMS/ folder:


```
ContactCenterServicesForAMS_yyyy.bin
MediaServer_7.6.0.yyy_yyyy.yy.yy.bin
```
9. Make the binaries runnable by running command:


```
cd /tmp/AvayaMS
chmod +x *
```
10. Run the following command which will upgrade the Avaya MS server:


```
cd /tmp/AvayaMS
./ContactCenterServicesForAMS_xxxx.bin
```
11. Accept License Agreement
12. When upgrade is complete on both Avaya MS servers, verify that Element Status is “Normal” in AMS EM: Home>>System Status>>Element Status

Restart the Voice and Multimedia Contact standby server in active mode

The next step will bring the Contact Center back online. It would be advisable to perform some acceptance tests at this time before allowing Agents to log back in and before you upgrade the old active server.

1. CCMS Standby(A) – Start the Contact Center.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select **Start HA System** to Start the Contact Centre on the Active Server.
 - b. Click **OK** to confirm.
2. CCMS Standby(A) – Confirm all Contact Center services have started.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, confirm the Contact Center has started.

If for some reason the acceptance tests fail, the mode of the server should be reversed again to bring the old active server back online as the active server. See details at the end of this document for details on how to perform this action.

Apply the SP to the old active Voice and Multimedia Contact server

The old active server can now have the same SP applied.

1. CCMS Active(S) – Uninstall all existing patches
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select **Select All**. Click **Remove selected updates**.
 - b. Click **Yes** to confirm removal.
 - c. Click **Remove**.
 - d. If prompted Ignore the reboot request, just click **Close** and continue to the next step.
2. CCMS Active(S) – Run Third Party Software Upgrade Utility
 - a. Browse to the location of the New Patches, select the ThirdParty folder, double click the AACCThirdPartySoftwareUpgradeUtility application.
 - b. The AACCThirdPartySoftwareUpgradeUtility application will indicate if any of the Third Party applications need to be upgraded.
 - c. Click **Upgrade** if any of the Third Party applications need to be Upgraded.
 - d. If prompted Ignore the reboot request, continue to the next step.
3. CCMS Active(S) – Install CCCC Update
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck everything, check the CCCC component. Click **Install Update(s)**.
 - b. Click **Yes** to continue.
 - c. Accept the License terms and click **Continue**.
 - d. Once the install has completed, click **Close** and continue to the next step.

4. CCMS Active(S) – Reboot the server.
 5. CCMS Active(S) – Install remaining patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck the CCCC component. Click **Install Update(s)**.
 - b. Click **Yes** to continue.
 - c. Accept the License terms and click **Continue**.
Once the install has completed, click **Close** and continue to the next step.
 6. CCMS Active(S) – Start SMMCTrayLauncher to disable next auto startup following the Patch install.
 - a. Navigate to D:\Avaya\Contact Center\Manager Server\CCSMMC\SystemController\SMMC_SystemTray and dbl-click the SMMCTrayLauncher.
 - b. On the Windows system tray, right-click the SMMC system tray icon, and select Disable Next Auto Startup.
 7. CCMS Active(S) – Apply All in Server Configuration
 - a. Choose Start > All Programs > Avaya > Contact Center > Manager Server > Server Configuration.
 - b. Click **Apply All**.
 - c. On the Prompt to restart your server, click **Yes**.
 - d. Click **OK** to close the HA System message box.
 - e. The Server is automatically rebooted in 1 minute.
- Configure HA using the new standby server. This will re-enable HA with the server but not in the original mode. Once HA is configured a manual switchover is performed, to return the server to the original modes.
8. CCMS Standby(A) – Take an immediate backup.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Immediate Backup, select a Backup Location, click **Backup**.
 - b. Click **Yes** to continue.
 - c. Click **OK** on the dialogue box when the Backup has finished.
 9. CCMS Active(S) – Restore backup to standby server.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Restore, select the Backup Location that was used for the Backup, click **Restore**.
 - b. Click **Yes** to continue.
 - c. Click **OK** on the dialogue box when the Restore has finished.
 10. CCMS Active(S) – Start the Voice and Multimedia Contact Center HA standby server.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Start HA System to Start the Contact Centre on the Active Server.
 11. CCMS Active(S) – Confirm the standby server has started.

- a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select System information and confirm the local phase is Running.
12. CCMS Standby(A) – Enable Switchovers on the active server.
- a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Enable Switchover.

You now have a fully working Voice and Multimedia Contact Center with HA enabled, although the servers is not running in its original modes. The final step is to perform a manual switchover to put the server back in its original modes.

13. CCMS Active(A) – Perform a Manual Switchover.
- a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Manual Switchover.
 - b. Click **OK** to confirm the Manual Switchover.
14. CCMS Standby(S) – Start HA System
- a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Start HA System.
 - b. Click **OK** to confirm the Start HA System.
15. CCMS Active(A) – Enable Switchovers on the Active Server.
- a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, select Enable Switchover.

The Voice and Multimedia Contact servers now have the SP applied and are running in their original modes.

Apply SP to the Voice and Multimedia Remote Geographic Node Server

1. CCMS RGN – Uninstall all existing Patches and Install CCCC Update
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager. In the Installed Updates pane select **Select All**. Click **Remove selected updates**.
 - b. If prompted Ignore the reboot request.
 - c. Click **Install**, browse to the location of the new Patches, click **Scan for Updates**, in the Select components to update section uncheck everything, check the CCCC component. Click **Install Update(s)**.
 - d. Reboot the Server
2. CCMS RGN – Install remaining patches.
 - a. Choose Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager, click **Install**, browse to the location of the new SP, click **Scan for Updates**, in the Select components to update section uncheck the CCCC component. Click **Install Update(s)**.
3. CCMS RGN – Apply All in Server Configuration
 - a. Choose Start > All Programs > Avaya > Contact Center > Manager Server > Server Configuration.
 - b. Click **Apply All**.

- c. On the Prompt to restart your server, click **Yes**.
 - d. Click **OK** to close the HA System message box.
 - e. The Server is automatically rebooted in 1 minute.
4. CCMS RGN – Restore backup to Remote Geographic Node Server.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance, select Restore, select the Backup Location that was used for the Backup, click **Restore**.
5. CCMS RGN – Start shadowing.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, under Tasks, select System Control, select Shadowing from the drop down list, click **Start**.
 - b. Click **Yes** on the Start Shadowing Notification.

Recovery information

A decision should be made after sanity testing on whether or not to continue with the applied SP or return back to the previous version of software.

If the decision is to return back to the previous version, use the following procedures to complete this task.

Recover to previous version of the Voice and Multimedia Contact server

1. CCMS Standby(A) – Shutdown the Contact Center.
 - b. On the Windows system tray, right-click the SMMC system tray icon, and select Stop HA System to Stop the Contact Centre on the Active Server.
2. CCMS Standby(A) – Confirm all Voice and Multimedia Contact Center services have stopped.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, confirm the Contact Center has stopped.
3. CCMS Standby(S) – Switch server mode to standby.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Server Mode section, select Standby, click **Save**.
 - b. Click **Yes** to save the data.
 - c. Click **OK** to close the High Availability message box
4. CCMS Active(A) – Switch server mode to active
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Server Mode section, select Active and click Save.
 - b. Click **Yes** to save the data.
 - c. Click **OK** to close the High Availability message box.
5. CCMS Active(A) – Disable Switchovers.
 - a. Choose Start > All Programs > Avaya > Contact Center > Database Utilities > High Availability, select Server Mode, in the Switchover And Network Timeout section, ensure that the Enable Switchover checkbox is unchecked, click **Save**.

The next step will bring the Contact Center back online. The active mode server will be running as it was prior to the start of applying the SP, the HA option will not be available until the standby mode server has been rolled back to the same SP as the active mode server

6. CCMS Active(A) – Start the Voice and Multimedia Contact Center.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Start HA System to Stop the Contact Centre on the Active Server.
7. CCMS Active(A) – Confirm all Voice and Multimedia Contact Center services have started.
 - a. On the Windows system tray, right-click the SMMC system tray icon, and select Launch SCMU, confirm the Contact Center has started.

Recover to previous version of the Avaya MS servers

In the event where the Voice and Multimedia Contact Center SP application fails and a decision has been made to return to the previous SP, follow the steps below to return the Avaya MS back to the previous SP.

Carry out all steps below on both primary and backup Avaya MS servers. These steps can be carried out in parallel on both Avaya MS servers (estimated time is approximately 30 minutes (including the reboot)).

1. Open putty SSH session and log in as root.
2. Change Directory to: /opt/avaya and run command ./UninstallCCSA
3. Answer 'Yes' to "Also remove Avaya Media Server?"
4. Answer 'Yes' to "Are you sure?"
5. Change directory to /tmp/AvayaMS/OldSP
6. Run ./ContactCenterServicesforAMS_xxxx.bin
7. Answer 'Yes' to "Primary server?" (Note: do this for both Primary and Backup Avaya MS Server).
8. Answer yes to "upgrade"
9. Answer preference for "Disable root SSH access on completion of installation?"
10. Go to EM: Home>>Tools>> Backup and Restore>>Restore
11. Select both "Application Content" and "System Configuration"
12. Click "Restore Now" and "Confirm"
13. Reboot both Servers after Restore.