



Installing the upgrade memory kit in the G450 and G430 Media Gateway

Important:

Always check the Avaya Support Website for Product Support Notices at <http://www.avaya.com/support> and select Communication Manager > Product Support Notices.

This Job Aid describes the steps required to install the upgrade memory kit components in the Avaya G450 and Avaya G430 media gateways.

The upgrade memory kit enables increasing the number of announcement files on the gateway from 256 to 1024, by storing them on a removable compact flash. This also increases the total amount of announcement time from 45 minutes to four hours. Since the announcements are played from RAM, you must also increase RAM. The upgrade memory kit consists of:

- 1 GB compact flash memory card
- One RAM card. Use the RAM card applicable to your gateway, as detailed below

Related links

[Equipment ordering](#) on page 1

Equipment ordering

When ordering the upgrade memory kit, quote the relevant comcodes from the following:

Upgrade memory kit versions	Comcode
1.x	700510107
2.x and 3.x	700476419

Related links

[Installing the upgrade memory kit in the G450 / G430 Media Gateway](#) on page 1

Inserting or replacing a RAM card

Inserting or replacing a RAM card in the G450

About this task

Note:

There are two hardware versions of the G450, referred to as G450 1.x and G450 2.x and greater. The hardware version is the first number of the CS number that is printed on the label on the front of main board.

In cases where the instructions differ depending on the G450 version, instructions are given for both versions.

Warning:

Do not insert an additional RAM card into the second slot on the G450 2.x and greater.

The G450 has two RAM slots. The basic configuration includes one 256 MB RAM card.

The slots are located on the G450 main board. You must pull out the main board to remove or insert a memory card. The G450 supports hot insertion and removal of the main board without power drop. However, all services are suspended while the G450 main board is out, and all calls passing through the gateway are disconnected. Any translation and other data that is in the running configuration but has not been saved to the startup configuration is lost.

To increase RAM memory in the gateway:

- In the G450 1.x, replace the 256 MB card with the 512 MB RAM card provided in the kit.
- In the G450 2.x and greater, remove the RAM card from the main board and replace it with the 512 MB RAM card provided in the kit .

Procedure

1. [Removing the G450 main board](#) on page 2
2. Upgrade RAM memory:
 - For G450 1.x, see [Inserting a G450 1.x RAM card](#) on page 3
 - For G450 2.x and greater, see [Replacing the RAM card for G450 2.x and greater](#) on page 4.
3. [Reinserting the G450 main board](#) on page 5

Removing the G450 main board

About this task

Electrostatic alert:

Hold the module only by its edges to avoid damage from static electricity. Do not touch the top or bottom of the circuit board. If possible, wear a wrist-strap and use an anti-static bag.

⚠ Caution:

The connector pins can be bent or damaged if the module is handled roughly, or if misaligned and then forced into position.

Procedure

1. Unscrew the two captive screws, one at each side of the main board front panel, as shown in the figure.



2. Open the latches on both sides of the main board.
3. Grasp the latches and pull out the main board from its slot.
4. Place the main board carefully on a flat surface.

Inserting the G450 1.x RAM card

About this task

⚠ Electrostatic alert:

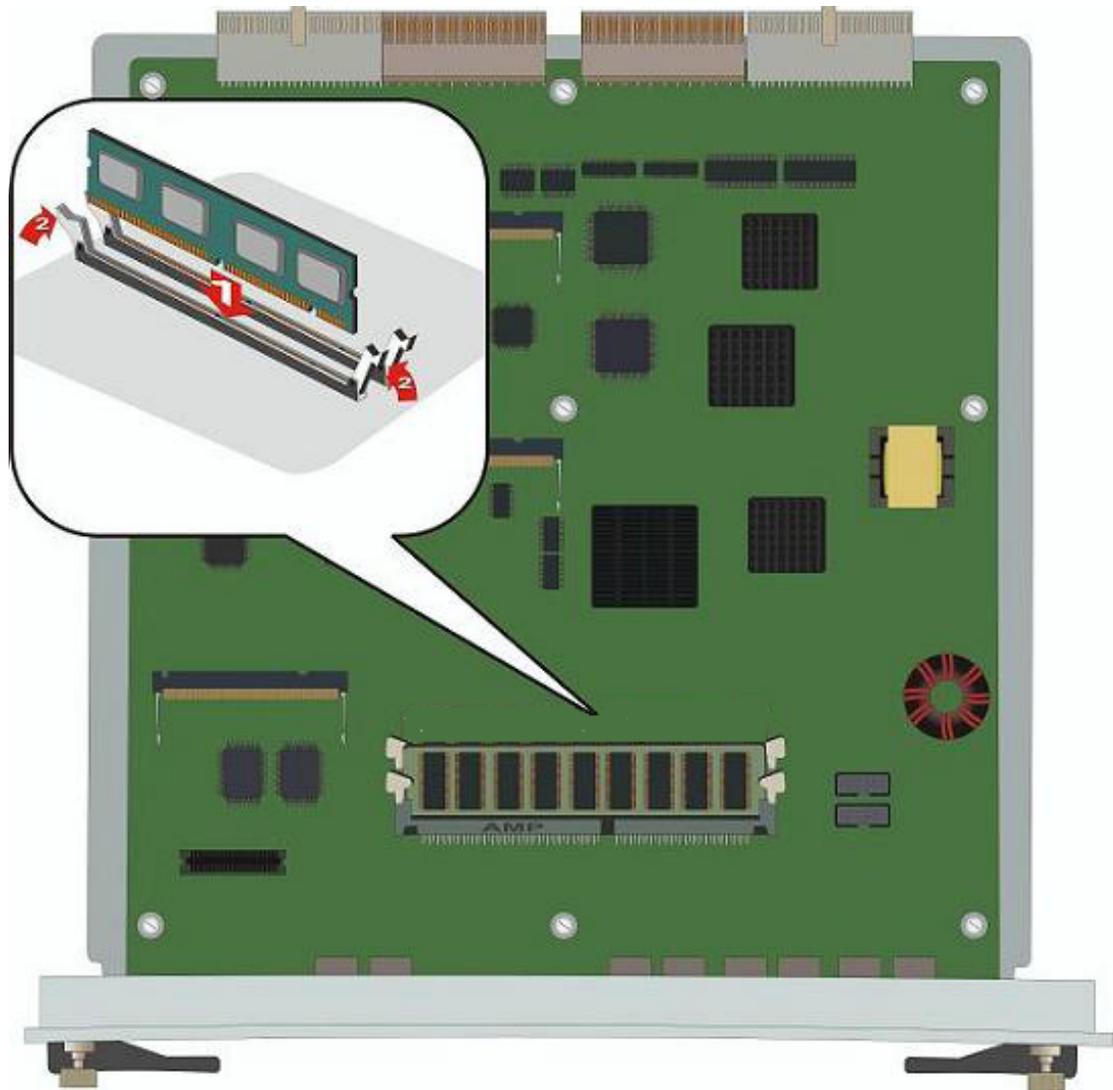
Hold the module only by its edges to avoid damage from static electricity. Do not touch the top or bottom of the circuit board. If possible, wear a wrist-strap and use an anti-static bag.

⚠ Caution:

The connector pins can be bent or damaged if the module is handled roughly, or if misaligned and then forced into position.

Procedure

1. Locate the RAM slots, as show in the figure.
2. Remove the 256 MB RAM card: Open the latches on both sides of the RAM slot housing. The RAM card lifts up. Pull out the RAM card.
3. Make sure the white latches on the empty RAM slot nearest the faceplate are open. Insert the 512 MB RAM card from the kit into this slot and push down, until the two latches on either side of the card lock into place.



Replacing the RAM card for G450 2.x and greater

About this task

Electrostatic alert:

Hold the module only by its edges to avoid damage from static electricity. Do not touch the top or bottom of the circuit board. If possible, wear a wrist-strap and use an anti-static bag.

Warning:

Insert the RAM card into the *first* RAM slot (SODIMM A) *only*.

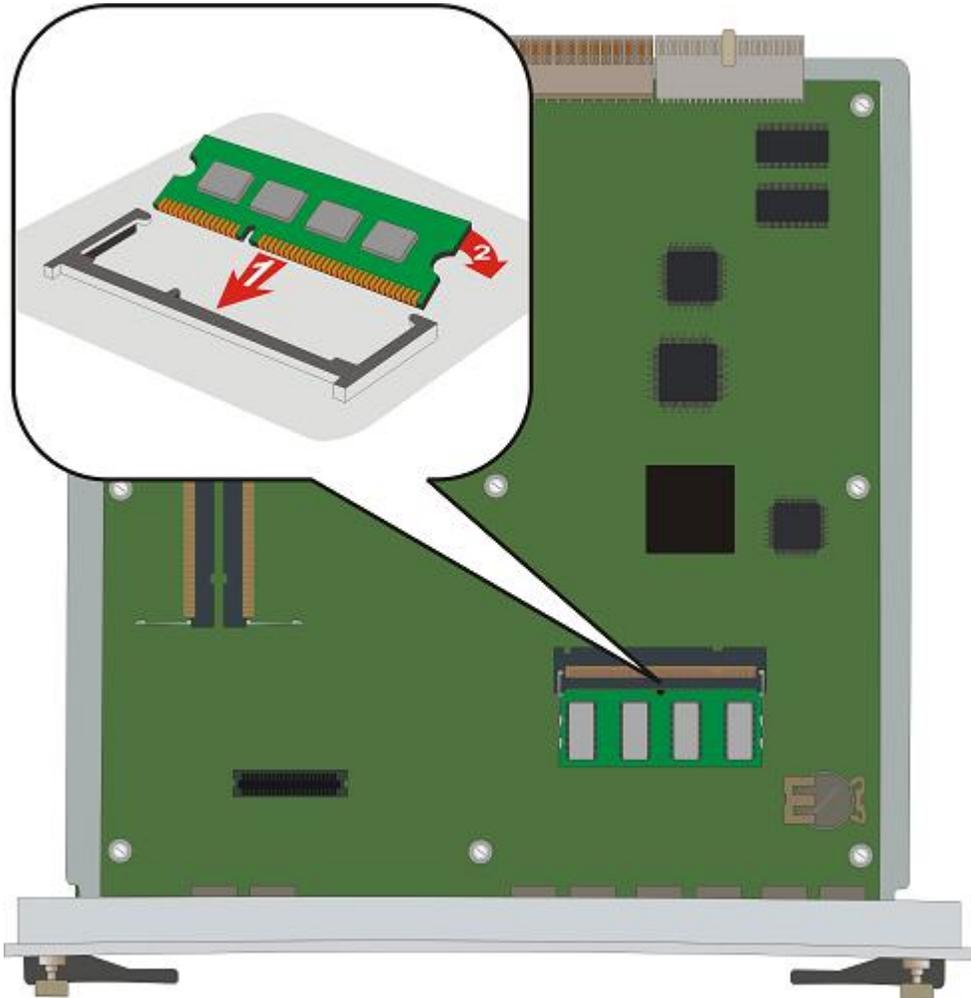
Procedure

1. Locate the RAM slot holding the RAM card, as shown in the figure.
2. Open the latches on both sides of the RAM slot. The RAM card lifts up.
3. Pull out the 256 RAM card.

Important:

Remove the RAM card in SODIMM slot A. You can only replace the RAM card in SODIMM slot A, you cannot add an extra card in SODIMM slot B.

4. Insert the 512 RAM card provided in the kit, or a replacement 256 RAM card, into the RAM slot, and push in all the way. Do not use too much force.
5. Flatten the RAM card so it is flush with the main board.



**Reinserting the G450 main board
Procedure**

1. Verify that the latches on both sides of the main board are open.
2. Insert the main board into the slot.
3. Push the main board in until the latches begin to close.
4. Close the latches.
5. Close and tighten the two captive screws on the front panel.

6. Use the `show platform mainboard` CLI command to check the memory modules status. In the command output, the lower RAM slot is referred to as Memory socket #1, and the upper RAM slot is Memory socket #2.

- A G450 1.x with increased memory displays, for example:

```
MEMORY SOCKET #1
-----
Type                : 512MB DDR SDRAM memory module with ECC
Serial Number       : 749f5c9f
Manufacture Part Num : D1DI64M724G-A48ID
Faults              : No Fault Messages

MEMORY SOCKET #2
-----
Type                : UNKNOWN
Serial Number       : UNKNOWN
Manufacture Part Num : UNKNOWN
Faults              : UNKNOWN
```

- A G450 2.x and greater with increased memory displays, for example:

```
MEMORY SOCKET #1
-----
Type : 512MB DDR SDRAM memory module
Serial Number : 0550749f
Manufacture Part Num : 9VDDT3272AY-335G4
Faults : No Fault Messages
MEMORY SOCKET #2
-----
Type : UNKNOWN
Serial Number : UNKNOWN
Manufacture Part Num : UNKNOWN
Faults : UNKNOWN
```

Replacing a RAM card in the G430

About this task

The G430 has a single RAM slot housing a 256 MB RAM card. If you wish to support an increased number of announcement files, you must upgrade the G430 memory by replacing the 256 MB RAM card with a 512 MB RAM card.

The RAM slot is located on the G430 main board. You must remove the G430 cover to replace a RAM card.

Procedure

1. Removing the G430 cover.
2. Replacing the G430 RAM card.
3. Replacing the G430 cover.

Removing the G430 cover

About this task

Voltage:

Disconnect the G430 from the external power source before proceeding.

⚠ Electrostatic alert:

Do not touch any components on the printed circuit board.

Procedure

1. Disconnect the G430 power cable from the mains power supply.
2. Disconnect all cables (data and power) connected to the G430 and its media modules, both front and rear.
3. Remove the G430 from the rack or wall, if it is wall or rack mounted.

Note to which connector each cable is connected, so that you can reconnect them correctly.

4. If mounting brackets are attached to the G430, remove them.
5. Unscrew the eight cover screws, indicated by small arrows etched into the cover:
 - a. Remove one screw from the top. See first figure below.



- | | |
|----|-----------------------|
| 1. | G430 top cover screw. |
|----|-----------------------|

- b. Remove four screws from the right side.



- | | |
|-------|------------------------------------|
| 1 — 4 | Four G430 right-side cover screws. |
|-------|------------------------------------|

- c. Remove three screws from the left side. See third figure below.



Replacing the G430 RAM card

About this task

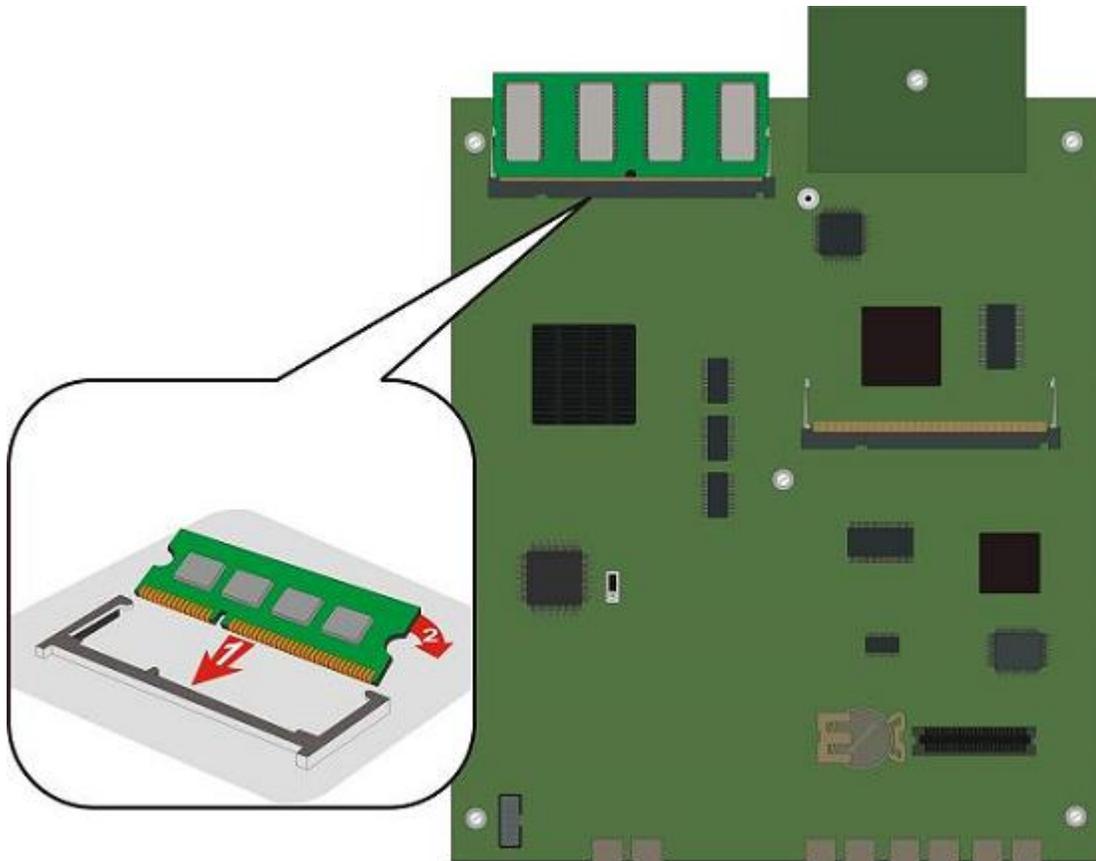
Electrostatic alert:

Hold the module only by its edges to avoid damage from static electricity. Do not touch the top or bottom of the circuit board. If possible, wear a wrist-strap and use an anti-static bag.

Procedure

1. Locate the RAM slot holding the RAM card, as shown in the figure.
2. Open the latches on both sides of the RAM slot. The RAM card lifts up.
3. Pull out the 256 RAM card.
4. Insert the 512 RAM card provided in the kit, or a replacement 256 RAM card, into the RAM slot, and push in all the way. Do not use too much force.
5. Flatten the RAM card so it is flush with the main board.

The latches at both sides click shut.



Replacing the G430 cover

About this task

Electrostatic alert:

Do not touch any components on the printed circuit board.

Procedure

1. Place the G430 cover back on the unit.
2. Screw in the eight cover screws you previously removed. Their locations are indicated by small arrows etched into the cover:

- One screw on the top as shown in the following figure.



1.	G430 top cover screw.
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- Four screws on the right side as shown in the following figure.



1 — 4	Four G430 right-side cover screws.
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- Three screws on the left side as shown in the following figure.



1 — 3	Three G430 left-side cover screws.
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3. Attach the mounting brackets to the G430, if applicable.

4. Replace the G430 in the rack or mount on the wall, if applicable.
5. Reconnect all cables (data and power) that you disconnected from the G430 and its media modules, both front and rear
6. Connect the G430 power cable into a mains socket.
7. Use the `show platform mainboard` CLI command to check the status of the G430 and its memory module. For example, when the G430 is working properly, sample output includes:

```

MAINBOARD BOARD
-----
Type                : G430 mainboard
Description          : Avaya Inc., G430 Media Gateway
Serial Number       : 08IS26191011
HW Vintage          : 1
HW Suffix           : C
FW Version          : 29.22.50
Faults              : No Fault Messages

RAM MEMORY SOCKET #1
-----
Type                : 512MB DDR SDRAM memory module
Serial Number       : 0b2c7605
Manufacture Part Num : 64A6M64M8L-A06EWQU
Faults              : No Fault Messages

```

Inserting or removing a compact flash memory card

The G450 and G430 support hot insertion and removal of a compact flash memory card without power drop, provided the compact flash is not in use when you remove it.

Inserting a compact flash memory card

About this task

Procedure

1. Remove the blank plate covering the compact flash memory card slot, located in the center of the main board.
2. Position the compact flash memory card so that the vendor name is facing up and the connector is pointing toward the gateway, and gently insert it into the compact flash slot.
3. After installing the compact flash memory card and the additional 256 MB RAM card, the announcement files are not automatically moved from the internal flash to the compact flash. To move them:
 - a. Make sure the gateway is registered to CM.
 - b. At the CM, set **enable CF** to `y` in the change media-gateway screen.
 - c. In the SAT interface of the CM, enter `enable announcement-board`.

The announcement files are copied from internal flash to the compact flash, and the yellow CARD IN USE LED associated with the compact flash lights up.

4. Use the `show platform mainboard gateway` CLI command to check the compact flash status.

Sample output includes:

```
COMPACT FLASH MEMORY
-----
Type           : 2.0 GB
Serial Number  : STI1M28407353000355
Model Number   : STI Flash 8.0.0
Faults        : OK
```

Removing a compact flash memory card

After installing a compact flash memory card, you may decide to remove it for one of several reasons. The following sections provide instructions for safe removal of a compact flash memory card in each possible scenario.

- [Replacing a compact flash memory card with a different compact flash memory card](#) on page 11.
- [Replacing a compact flash memory card while retaining the current announcements](#) on page 11. You may wish to do this because the current compact flash memory card failed, or you want to have two copies of the announcement files, or you want to use a faster compact flash card.
- [Downgrading from a compact flash to internal flash memory](#) on page 12.

Replacing a compact flash memory card with a different compact flash memory card Procedure

1. At the SAT interface of the CM, enter `disable announcement-board`.

Important:

If you do not enter the SAT command `disable announcement-board`, then, when you insert the new compact flash, its contents will be overwritten by the contents of the old compact flash.

2. Make sure the yellow CARD IN USE LED associated with the compact flash is off.

 **Warning:**

If you remove a compact flash while it is in use, the announcement files on the compact flash may become corrupted and the gateway may reset, causing all announcement files in RAM to be lost.

3. Remove the compact flash memory card.
4. Insert the new compact flash memory card into the compact flash slot.
5. At the SAT interface of the CM, enter `enable announcement-board`.

Replacing a compact flash memory card while retaining the current announcements Procedure

1. Make sure the yellow CARD IN USE LED associated with the compact flash is off.

 **Warning:**

If you remove a compact flash while it is in use, the announcement files on the compact flash may become corrupted and the gateway may reset, causing all announcement files in RAM to be lost.

2. Remove the compact flash memory card.
3. Insert the new compact flash memory card into the compact flash slot.

The announcement files of the old compact flash are written to the new compact flash.

Downgrading from a compact flash to internal flash memory

About this task

You can downgrade from using up to 1024 announcements on a compact flash to using up to 256 announcements on the internal flash.

 **Warning:**

The internal flash can only store up to 256 announcement files, totaling no more than 45 minutes.

Procedure

1. Backup the announcements from the compact flash to a USB device by entering the gateway CLI command `backup config usb usb-device backup-name announcements-compact-flash`.

Note:

If you have only a few announcement files, you can use the gateway CLI command `copy announcement-file usb` to copy them one by one.

2. At the SAT interface of the CM, enter `disable announcement-board`, and then set **enable CF** to `n` in the change media-gateway screen.
3. Remove the compact flash memory card.
4. Optionally remove the second RAM card.
5. At the SAT interface of the CM, enter `enable announcement-board`.
6. Make sure there are no more than 256 announcement files in the backup.

If the number of announcement files exceeds 256, manually delete as many as necessary in the backup directory.

7. Restore the announcements from the USB device to internal flash by entering the gateway CLI command `restore usb usb-device backup-name announcements-internal-flash`.

Note:

If you copied the announcement files one by one, you can restore them one by one using the gateway CLI command `copy ftp announcement-file`.

8. Screw on the blank plate to cover the compact flash slot.