



Job Aid: Replacing the Field Replaceable Units (FRUs) for the Avaya G450 Media Gateway

▲ Important:

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

This Job Aid describes the steps required to complete the following replacement procedures for Avaya G450 Media Gateway replaceable parts:

- [Ordering equipment](#)
- [Replacing or inserting an MP20 or MP80 VoIP module](#)
- [Replacing the fan tray](#)
- [Replacing a power supply unit](#)

Ordering equipment

When ordering any of the field replaceable units, quote the following comcode:

Table 1: Avaya G450 Media Gateway comcodes for customer and services ordering

Product	Comcode
80 channels DSP daughterboard (MP80 VoIP module)	700432503
20 channels DSP daughterboard (MP20 VoIP module)	700432511
G450 fan tray	700438278
G450 power supply unit 400W AC	700432529

Replacing or inserting an MP20 or MP80 VoIP module

The G450 has four slots for media resources modules. Each slot can accommodate either an MP20 or an MP80 DSP daughterboard, each providing 20 or 80 VoIP channels, respectively. The basic configuration includes one MP20 or MP80 daughterboard in one of the four slots. You can replace an MP20 or MP80 daughterboard or insert one into an empty slot.

The slots are located on the G450 main board. You must pull out the main board to remove or insert a media resources module. 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 are disconnected. Any translation and other data that is in the running configuration but has not been saved to the startup configuration is lost.

This procedure requires the following steps:

1. [Removing the main board](#)
2. [Removing an MP20 or MP80 module](#) — Skip this step if you are inserting a daughterboard into an empty slot.
3. [Inserting an MP20 or MP80 module](#)
4. [Reinserting the main board](#)

Removing the main board



ELECTROSTATIC ALERT:

Hold the module only by the 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.

To remove the main board:

1. Unscrew the two captive screws, one at each side of the main board front panel (see [Figure 1](#)).
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 table.

Figure 1: Removing and inserting the main board



Removing an MP20 or MP80 module



ELECTROSTATIC ALERT:

Hold modules only by the 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.

To remove an MP20 or MP80 module:

1. Locate the MP20 or MP80 module slot (see [Figure 2](#)).

Figure 2: Locations of MP20 and MP80 module slots

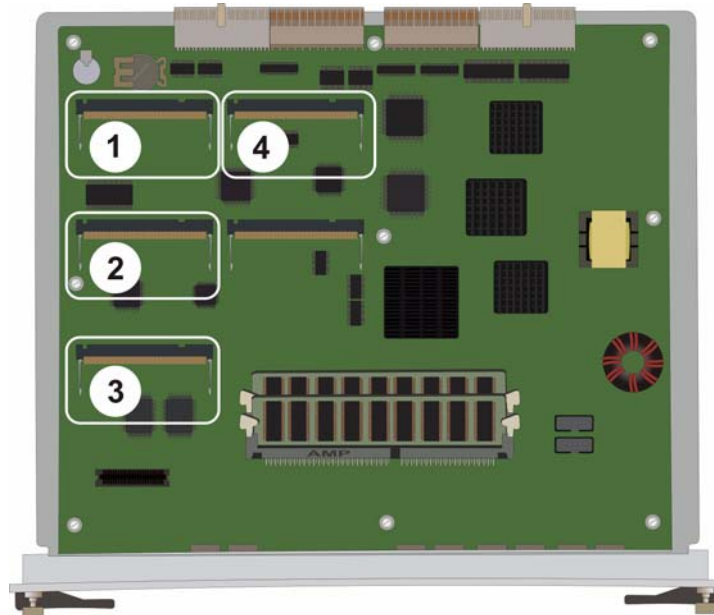


Figure notes:

- | | |
|-----------------------------|-----------------------------|
| 1. MP20 or MP80 module slot | 3. MP20 or MP80 module slot |
| 2. MP20 or MP80 module slot | 4. MP20 or MP80 module slot |

2. Open the latches on both sides of the module slot. The module lifts up.
3. Pull out the module. Touch the module only at the edges.

Inserting an MP20 or MP80 module



ELECTROSTATIC ALERT:

Hold modules only by the 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.



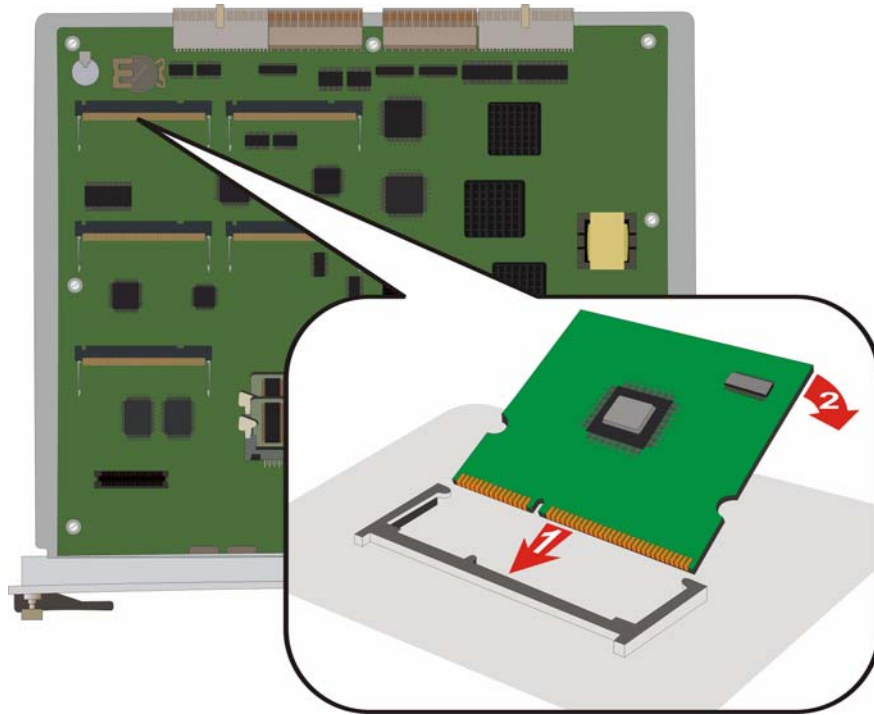
CAUTION:

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

To insert an MP20 or MP80 module:

1. Position the MP20 or MP80 module at a 45 degree angle to the main board, and start inserting it into an MP20 or MP80 slot (see [Figure 3](#)).

Figure 3: Inserting an MP20 or MP80 module



2. Push the module in all the way. Do not use too much force.
3. Flatten the module so it is flush with the main board. The latches at both sides click shut.

Reinserting the main board

To insert the main board:

1. Open the latches on both sides of the slot.
2. Insert the main board vertically 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 make sure everything is OK. For example, when the main board is successfully installed, the output includes:

```
MAINBOARD BOARD:
-----
Type           : G450 mainboard
Description    : G450 field replaceable mainboard
Serial Number  : 0725IS123456
HW Vintage    : 0
HW Suffix     : A
FW Version    : 1
Faults       : No Fault Messages
```

When a VoIP module is successfully installed in a given VoIP module slot, the output for the slot includes:

```
MEDIA SOCKET #1:
Type           : MP80 VoIP DSP Module
Description    : VoIP DSP resource with 80 channels
Serial Number  : 0715IS812717
HW Vintage    : 0
HW Suffix     : A
Faults       : No Fault Messages
```

When no VoIP module is installed in a given VoIP module slot, the output for the slot includes:

```
MEDIA SOCKET #1:
Type           : UNKNOWN
Description    : UNKNOWN
Serial Number  : UNKNOWN
HW Vintage    : UNKNOWN
HW Suffix     : UNKNOWN
Faults       : NOT PRESENT
```

Replacing the fan tray

The fan system is field replaceable. It is mounted on a fan tray that can be replaced as one unit.

The G450 supports hot swap of the fan tray. There is no need to power down or reset the G450 when replacing a faulty fan tray unit.

Prepare the new fan tray for insertion before removing the current the fan tray: take the new fan tray out of its package and place it nearby.

 **Important:**

Replace the fan tray within one minute, to avoid overheating the G450. If the G450 exceeds its allowed heat level, it shuts down.

Figure 4: Replacing the fan tray

To remove the fan tray:

1. Move away any cables that may obstruct the removal of the tray.
2. Unscrew the two captive screws on the front panel of the fan tray.
3. Grasp the screws and pull the fan tray out of its slot.

To insert the fan tray:

1. Insert the fan tray all the way into the slot.
2. Close and tighten the two captive screws on the front panel.

The fans start operating immediately.

3. Wait one minute and then use the **show platform fans** CLI command to make sure everything is OK. For example:

```
G450-001(super)# show platform fans
FAN TRAY UNIT #1:
-----
Type           : G450 FAN TRAY
Description    : G450 FAN TRAY UNIT
Serial Number  : 0728IS123123
HW Vintage     : 1
HW Suffix      : A
Faults        : No Fault Messages
```

Replacing a power supply unit

The G450 provides full redundant, load sharing power supply units (1 + 1). A single power supply unit (PSU) provides sufficient power for any G450 configuration. If you choose to install two PSUs, they operate in a load sharing mode.

The G450 supports hot swap of the PSU. Even if you have only one PSU installed, there is no need to power down or reset the G450 when replacing a faulty PSU. You can install the replacement PSU in the second PWR slot, and it will become the active PSU once you remove the faulty PSU.

Figure 5: Replacing a power supply unit



To remove a PSU:

1. Disconnect the G450 power cable from the mains socket.
2. Disconnect the G450 power cable from the power connector, located on the front panel of the PSU, at the rear of the G450.
3. Loosen the two captive screws, one on each side of the PSU.
4. Grasp the two side handles and pull the PSU out of its slot.

To insert a PSU:

1. Position the PSU before the opening and engage both sides of the unit in the interior guides.
2. Slide the PSU slowly into the chassis, maintaining an even pressure to assure that the unit does not become twisted or disengaged from the guides.
3. Close and tighten the two captive screws on the front panel.
4. Connect the power cable to the power connector on the PSU.
5. Plug the power cable into a mains socket. When the PSU is powered, the green LED on the PSU panel lights.

6. After powering up, use the **show platform power** CLI command to make sure everything is OK. The upper PSU is referred to as PSU #1, and the lower PSU is PSU #2. For example:

```
G450-001(super)# show platform power
POWER SUPPLY UNIT #1:
-----
Type           : G450 PSU
Description    : G450 FR Power Supply 400W
Serial Number  : 0735IS123321
HW Vintage    : 0
HW Suffix     : A
Faults        : No Fault Messages

POWER SUPPLY UNIT #2:
-----
Type           : G450 PSU
Description    : G450 FR Power Supply 400W
Serial Number  : 0735IS654321
HW Vintage    : 0
HW Suffix     : A
Faults        : No Fault Messages
```

