Cisco 11500 Series Content Services Switch
Session Accelerator Module Reference

The CSS 11500 series Session Accelerator Module (SAM) is a cost-effective way to add flow performance when additional connectivity is not required. Using the same flow setup and forwarding processors as the I/O modules, it provides the flexibility to optimize the system for port density and performance. Figure 1 shows the SAM (CSS5-SAM=).

Figure 1   Session Accelerator Module

1  Bicolor status LED (green and red)
2  Amber status LED
3  Spring-loaded screws (one of two)
4  Ejectors (one of two)

Note
Before you remove or install a module, make sure you properly ground yourself prior to handling the module. For example, wear an antistatic wrist strap (included in the kit with the module) and stick the copper-tape end of the strap to an unpainted metal surface on the chassis. Make sure that the wrist strap makes good contact with your skin.
Removing the SAM

Caution

You must power down the CSS to remove a SAM. If you remove a powered-on SAM from an operational CSS, the CSS terminates all communications and reboots.

To remove a SAM (refer to Figure 1):

1. Locate the failed module (its Status LEDs will be off).
2. If necessary, power down the CSS.
3. Using a Phillips screwdriver, loosen the spring-loaded screws on the front of the module faceplate.
4. Extend both ejectors simultaneously to unseat the module connector from the backplane and slide the module out of the slot.

Note

The replacement SAM contains a 144 MB Small Outline RamBus Inline Memory Module (SO-RIMM). If your failed module has a 288 MB SO-RIMM, you must remove its SO-RIMM, and place it in the replacement SAM. See “Removing and Replacing the Memory Module” later in this document.

Installing the SAM

To install a SAM (refer to Figure 1):

1. Properly ground yourself prior to handling the module, as noted on the previous page.
2. If you are upgrading the CSS by adding a SAM, locate an open slot in the chassis. SAMs are restricted to slots 2 and 3 in a CSS 11503, and slots 2 through 6 in a CSS 11506. If necessary, remove a blank panel from the chassis to expose a slot for the module.
3. Insert the module into the board guides at the left and right sides of the slot, and then slide the module into the chassis by pressing firmly at the left and right of the faceplate.
4. Close both ejectors simultaneously to seat the module connector into the backplane.
5. Using a Phillips screwdriver, tighten the spring-loaded screws on the front of the module faceplate.
6. Reboot the CSS.
Table 1 describes the LEDs on the SAM and their possible states.

<table>
<thead>
<tr>
<th>LED Name (left)</th>
<th>Color</th>
<th>State</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Green</td>
<td>Solid</td>
<td>The module is ready.</td>
</tr>
<tr>
<td>Red</td>
<td>Solid</td>
<td></td>
<td>The module failed the power-up self test during the boot process.</td>
</tr>
<tr>
<td>Slow blink</td>
<td></td>
<td></td>
<td>The module failed.</td>
</tr>
<tr>
<td>No color</td>
<td>Off</td>
<td></td>
<td>The module failed and has no power.</td>
</tr>
<tr>
<td>Status (right)</td>
<td>Amber</td>
<td>Slow blink</td>
<td>The module is offline and active.</td>
</tr>
<tr>
<td></td>
<td>Solid</td>
<td></td>
<td>The module is online and not active.</td>
</tr>
</tbody>
</table>

**Related CLI Commands**

To view the current state of the SAM and verify it is powered on, use the `show chassis` command.

**Removing and Replacing the Memory Module**

To remove and replace a memory module:

1. Place the SAM face up on a flat antistatic surface.
2. Locate the SO-RIMM connector on the rear of the module. See Figure 2.

**Figure 2 Memory Module Location**

![Memory Module Location Diagram]

1. Memory module
3. Slightly extend the locking tabs on both sides of the memory module to release it. Gently pull the module out of the connector. See Figure 3.

**Figure 3 Memory Replacement**

4. Align the replacement memory module so that the row of gold contacts on the memory module are facing the row of gold pins inside the connector.

5. Insert the memory module into the connector at approximately a 30 degree angle (see Figure 3) and, with gentle pressure, push the module into the connector until the module fits snugly against the back of the connector. At this point, the module is still at an angle *above* the locking tabs.

6. Gently push straight down on the edges of the module until the tabs lock it into place.