Enabling and Disabling Hardware Components of a Routing Matrix with a TX Matrix Plus Router

You can temporarily disable certain hardware components (such as FPCs, PICs, and SIBs) that belong to the TX Matrix Plus router and T1600 routers in the routing matrix. To do so, issue the appropriate request chassis command and include the sfc or lcc option as needed.

NOTE: If you issue a chassis-related command that references FPCs, we recommend that you use the FPC hardware slot number (0 through 7) of the specific T1600 router and specify its corresponding LCC number.

```
user@host> request chassis ?
Possible completions:
  cb                   Change Control Board status
  cip                  Change Connector Interface Panel status
  fpc                  Change Flexible PIC Concentrator status
  fpm                  Change craft interface status
  lcc                  Change LCC status
  pic                  Change Physical Interface Card status
  routing-engine       Change Routing Engine status
  scg                  Change SONET Clock Generator status
  sib                  Change Switch Interface Board status
  spmb                 Change Switch Processor Mezzanine Board status
user@host> request chassis cb ?
Possible completions:
  lcc                  Change Control Board status (0..3)
  offline              Take CB offline
  online               Bring CB online
  sfc                  Change Control Board status (0..0)
  slot                 CB slot number (0..1)
user@host> request chassis cip ?
Possible completions:
  offline              Take CIP offline
  online               Bring CIP online
  slot                 CIP slot number (0..1)
user@host> request chassis fpc ?
Possible completions:
  lcc                  Change Flexible PIC Concentrator status of specific LCC
  offline              Take FPC offline
  online               Bring FPC online
  restart              Restart FPC
  slot                 FPC slot number (0..31)
user@host> request chassis fpm ?
Possible completions:
  lcc                  Change craft interface status (0..3)
  resync               Resynchronize craft interface
  sfc                  Change craft interface status (0..0)
user@host> request chassis lcc ?
Possible completions:
  offline              Take LCC offline
  online               Bring LCC online
  slot                 LCC Slot (0..3)
user@host> request chassis pic ?
```

```
Possible completions:
  fpc-slot             Slot number of FPC that houses PIC (0..31)
  lcc                  Change Physical Interface Card status of specific LCC
  offline              Take PIC offline
  online               Bring PIC online
  pic-slot             PIC slot number (0..3)
user@host> request chassis routing-engine ?
Possible completions:
  master               Set Routing Engine mastership
user@host> request chassis scg ?
Possible completions:
  lcc                  Change SONET Clock Generator status (0..3)
  offline              Take SCG offline
  online               Bring SCG online
  slot                 SCG slot number (0..1)
user@host> request chassis sib ?
Possible completions:
  all-lcc              Change Switch Interface Board status
  f13                  Change SIB F13 status
  f2s                  Change SIB F2S status
  lcc                  Change Switch Interface Board status (0..3)
  offline              Take SIB offline
  online               Bring SIB online
  slot                 SIB slot number (0..15)
user@host> request chassis spmb ?
Possible completions:
  lcc                  Control operation of an SPMB (0..3)
  restart              Restart SPMB
  sfc                  Control operation of an SPMB (0..0)
  slot                 SPMB slot number (0..1)
```

The routing matrix extends the concept of taking specific hardware components offline or online to include an entire T1600 router in a routing matrix. To enable or disable a T1600 router in a routing matrix, issue the request chassis lcc slot *lcc-number* (offline | online) command:

```
user@host> request chassis lcc ?
Possible completions:
  offline              Take LCC offline
  online               Bring LCC online
  slot                 LCC Slot (0..3)
```

Although you can enter the routing matrix-based slot number when you issue the request chassis fpc command, output from show chassis commands always references the FPC hardware slot number (0 through 7) of the specific T1600 router and its corresponding LCC number. As a result, we recommend that you include the FPC hardware slot number when you issue request chassis or show chassis commands, as shown in the following example.

First, issue the request chassis fpc command with the routing matrix-based FPC slot number of 19:

```
user@host> request chassis fpc offline slot 19
lcc2-re0:
--------------------------------------------------------------------------
Offline initiated, use "show chassis fpc" to verify
```

However, when you issue the show chassis fpc command to check the result, the output displays the change using node-centric terminology: FPC slot number 3 on T1600 router LCC2 (the equivalent of routing matrix slot 19).

```
user@host> show chassis fpc
lcc0-re0:
--------------------------------------------------------------------------
                     Temp  CPU Utilization (%)   Memory    Utilization (%)
Slot State            (C)  Total  Interrupt      DRAM (MB) Heap     Buffer
  0  Empty
  1  Online            31      2          0       256         7         44
  2  Online            28      1          0       256         7         44
  3  Online            31      2          0       256        14         44
  4  Empty
  5  Empty
  6  Empty
  7  Empty

lcc2-re0:
--------------------------------------------------------------------------
                     Temp  CPU Utilization (%)   Memory    Utilization (%)
Slot State            (C)  Total  Interrupt      DRAM (MB) Heap     Buffer
  0  Online            31      2          0       256        14         44
  1  Online            30      2          0       256         7         44
  2  Empty
  3  Offline         --- Offlined by cli command ---
  4  Empty
  5  Empty
  6  Empty
  7  Empty
```

To bring the same FPC back online, use the slot number and LCC number from the previous command output:

```
user@host> request chassis fpc online lcc 2 slot 3
lcc2-re0:
--------------------------------------------------------------------------
Online initiated, use "show chassis fpc" to verify
```

Once you bring the FPC back online, reissue the show chassis fpc command to see that the FPC slot and LCC number you used in the last command now matches the command output:

```
user@host> show chassis fpc
lcc0-re0:
--------------------------------------------------------------------------
                     Temp  CPU Utilization (%)   Memory    Utilization (%)
Slot State            (C)  Total  Interrupt      DRAM (MB) Heap     Buffer
  0  Empty
  1  Online            31      1          0       256         7         44
  2  Online            28      1          0       256         7         44
  3  Online            31      3          0       256        14         44
  4  Empty
  5  Empty
  6  Empty
  7  Empty

lcc2-re0:
--------------------------------------------------------------------------
                     Temp  CPU Utilization (%)   Memory    Utilization (%)
```

```
Slot State            (C)  Total  Interrupt      DRAM (MB) Heap     Buffer
  0  Online           31      3          0       256         14         44
  1  Online           30      1          0       256          7         44
  2  Empty
  3  Present           0      0          0         0          0          0
  4  Empty
  5  Empty
  6  Empty
  7  Empty
```

For more information about converting FPC hardware slot numbers on a T1600 router to the global FPC numbers used in a routing matrix and vice versa, see Global FPC Numbering for Interfaces in a Routing Matrix with a TX Matrix Plus Router and Displaying Chassis Physical Locations for a Routing Matrix with a TX Matrix Plus Router.

Related Topics

- Routing Matrix with a TX Matrix Plus Router Solutions Page
- Overview of a Routing Matrix with a TX Matrix Plus Router
- Roadmap for Configuring the Routing Matrix
- Example Configuration for the Routing Matrix
- Upgrading the JUNOS Software on the Routing Matrix

Published: 2010-04-15