Adding an 8, 16, or 32 Gigabyte DIMM to a Cisco Nexus 9000 Series Switch

Overview

Cisco provides two modes of operation for Cisco Nexus 9000 Series Switches. Organizations can use Cisco NX-OS Software to deploy the switches in standard Cisco Nexus switch environments (NX-OS mode). Organizations can also deploy the infrastructure that is ready to support the Cisco Application Centric Infrastructure (Cisco ACI™) platform to take full advantage of an automated, policy-based, systems-management approach (ACI mode).

The following Nexus switches may require an upgrade in system memory if the customer ordered the switch with 16G for NXOS. The primary reason to upgrade the system memory is to support ACI software. Please note that some switches can be upgraded to 24G while others can be upgraded to up to 32G system memory. Nexus 9300 switches that can support up to 256K of ACI policy scale can be upgraded to 32G system memory.

Nexus 9300 Switch model	System memory of 16G (Supported in NXOS only)	System memory of 24G (Supported in NXOS and ACI)	System memory of 32G (Supported in NXOS and ACI)
N9K-C93240YC-FX2	Supported	Supported	Not supported
N9K-C93360YC-FX2	Supported	Supported	Not supported
N9K-C93216TC-FX2	Supported	Supported	Not supported
N9K-C93108TC-FX3P	Supported	Not supported	Supported
N9K-C93180YC-FX3	Supported	Not supported	Supported
N9K-C9364C-GX	Supported	Not supported	Supported
N9K-C9348D-GX2A	Not Supported	Not supported	Supported
N9K-C9364D-GX2A	Not Supported	Not supported	Supported

To upgrade the switch to system memory of 24G, we will need to add 8G of additional memory to the default 16G memory. Similarly, to get up to 32G of system memory, we will need to add 16G of additional memory to the default 16G memory.

To check on how much system memory is available, please reference the show system commands. Examples for NXOS and ACI below:

NXOS:

```
show system resources
Load average:   1 minute: 0.27   5 minutes: 0.23   15 minutes: 0.25
Processes   :   741 total, 2 running
CPU states  :   1.13% user,   1.25% kernel,   97.60% idle
        CPU0 states  :   3.00% user,   3.00% kernel,   94.00% idle
        CPU1 states  :   2.00% user,   4.00% kernel,   94.00% idle
        CPU2 states  :   0.00% user,   1.01% kernel,   98.98% idle
        CPU3 states  :   1.00% user,   1.00% kernel,   98.00% idle
```

```
          CPU4 states  :   1.00% user,   1.00% kernel,   98.00% idle
          CPU5 states  :   1.02% user,   0.00% kernel,   98.97% idle
          CPU6 states  :   1.02% user,   1.02% kernel,   97.95% idle
          CPU7 states  :   0.00% user,   1.02% kernel,   98.97% idle
    Memory usage:   24562056K total,   10591748K used,   13970308K free
    Kernel vmalloc:   0K total,   0K free
    Kernel buffers:   156248K Used
    Kernel cached :   8014072K Used
    Current memory status: OK

    ACI:
    cat /proc/meminfo
    MemTotal:       24437852 kB       => Total memory installed in the system
    MemFree:         8738680 kB
    MemAvailable:   10402204 kB       => Total available memory right now for the application/kernel to use.
```

Steps to upgrade:

Get the 8G DIMM as a spare, PID: NXK-MEM-8GB=

Get the 16G DIMM as a spare, PID: NXK-MEM-16GB=

Get the 32G DIMM as a spare, PID: NXK-MEM-32GB=

Switch upgrade:

- Before removing the switches access panel, make sure that the power to the switch has been turned off.
- Follow ESD procedures, which include wearing an ESD wrist strap and placing antistatic foam or antistatic padding where you will place the DIMM while working with it.
- To upgrade the switch in ACI, to achieve higher policy scale, remove the DIMM installed in slot-3 and add the new DIMM in addition to the standard 16-Gigabyte DIMM already installed in slot-1.

Step 1

Remove the screws and the DIMM access panel (see the following figure).

Step 2

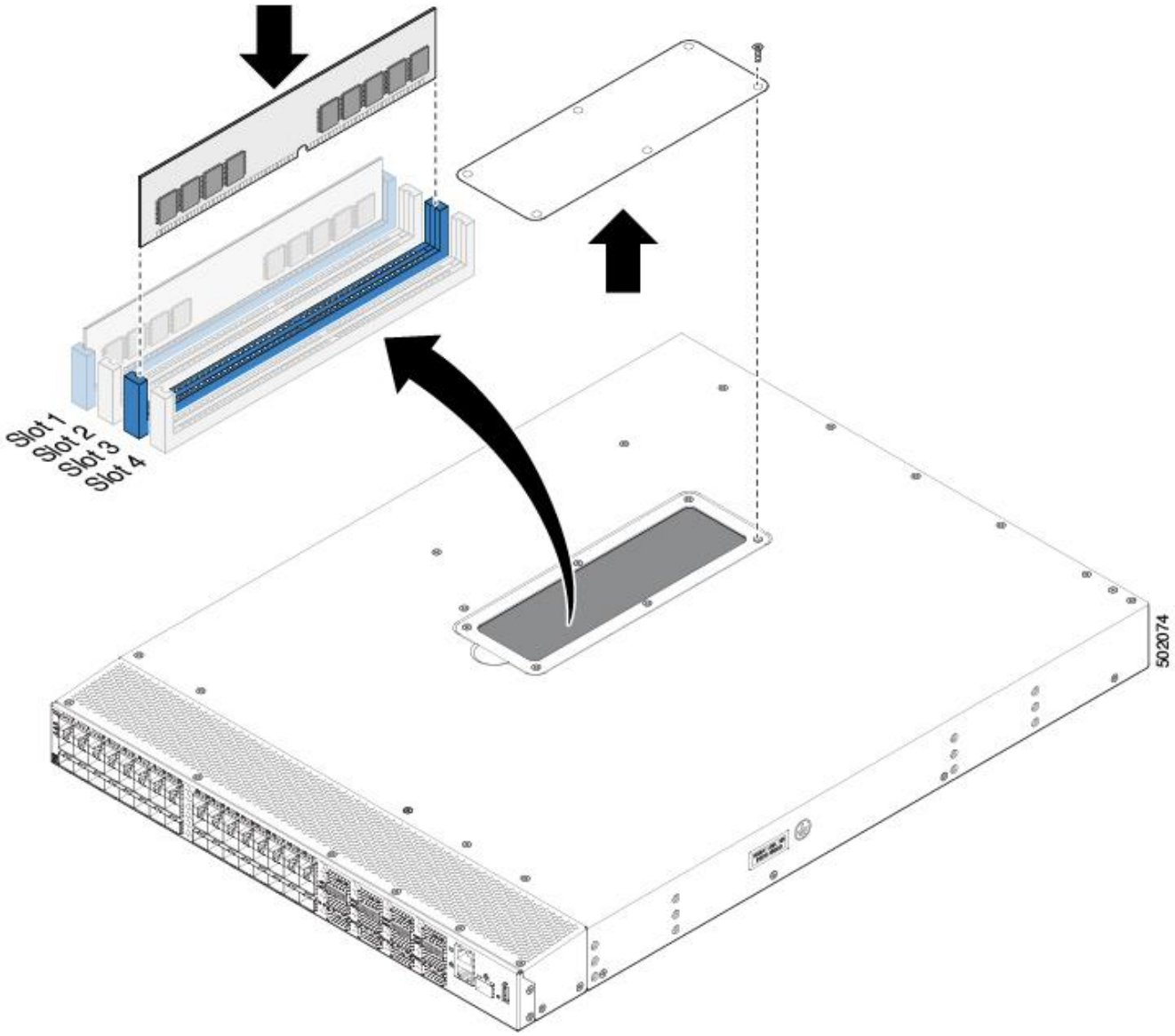
If this is an upgrade, remove the old DIMM from slot 3.

Step 3

Align the 8 or 16G DIMM card to DIMM slot 3 inside the chassis and push the DIMM card into the slot until it is fully inserted (see the following figure).

Step 4

Replace the DIMM access panel and secure it with the screws. Tighten the screws to 5.0 in-lb. (0.55 N-m), do not exceed 6.0 in-lb. (0.67 N-m).



Related Documentation

The entire Cisco NX-OS 9000 Series documentation set.

Release Notes

The entire Cisco NX-OS 9000 Series release notes set.

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