

# **Replace Cisco NCS 1001 Components**

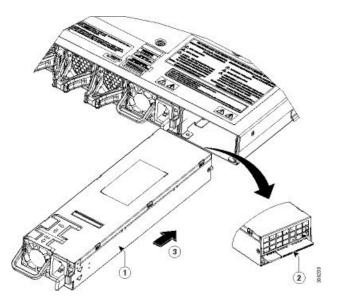
This chapter describes the procedures to replace Cisco NCS 1001 components.

- Insert Power Supply, on page 1
- Remove Power Supply, on page 2
- Insert Fans, on page 3
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- Insert Control Card, on page 4
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## **Insert Power Supply**

Use this procedure to insert the power supply units.

Figure 1: Insert Power Supply



1	Insert the PSU into the cage on the rear side of the unit in the direction shown (slots 0 or 1)
2	The PSU connecting PCB must always face the bottom during insertion
3	Direction to insert the power supply

## **Remove Power Supply**



Note

The inlet temperature of system during replacement must be less than 40 deg Celsius at sea level. The replacement time decreases for higher altitudes.



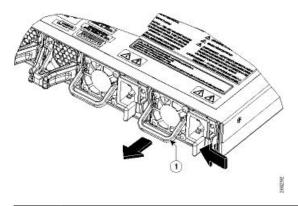
Note

In case of PSU failure, the failed PSU needs to be physically replaced within 2 minutes.

Figure 2: Hot Area on PSU Faceplate



Figure 3: Remove Power Supply

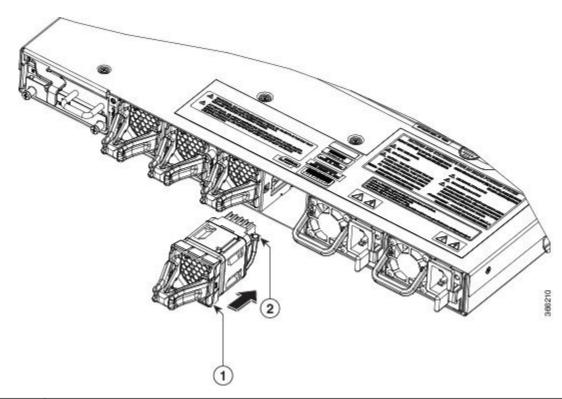


Release the lock of the PSU in the direction shown and pull the PSU gently using the handle.

### **Insert Fans**

Use this procedure to insert the fans.

Figure 4: Insert Fans



1	Push the fan into the fan slot as shown (slots 0, 1, 2, or 3)
2	Ensure that the fan connector always faces upwards

### **Remove Fans**



Note

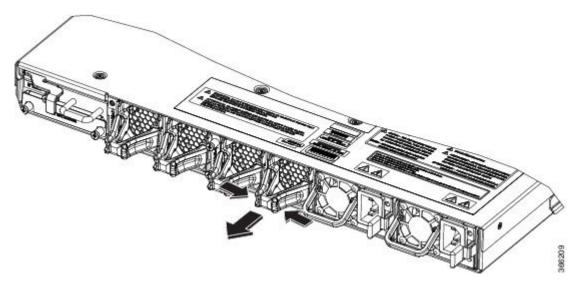
Cisco NCS 1001 has fan redundancy protection mechanism against a single fan failure for up to 96 hours. The inlet temperature of system during replacement must be less than 40 deg Celsius at sea level. The replacement time decreases for higher altitudes.



Note

It is not recommended to remove two fans simultaneously. When the failed fan is replaced, the new fan needs to be physically placed within 5 minutes. Otherwise, the performance of the system is affected.

Figure 5: Remove Fans

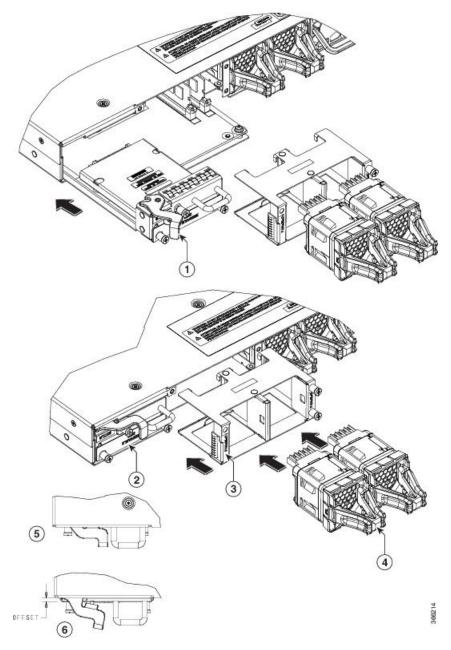


Press the lever of the fan and pull it to remove the fan out as shown.

### **Insert Control Card**

Use this procedure to insert the control card.

Figure 6: Insert Control Card



1	Ejector lever. Rotate and push ejector lever to engage control card to the connector.
2	Control card faceplate. Push this surface area with additional force needed to engage control card.
3	Fan tray
4	Fans
5	The control card is properly seated.

6	The control card is not properly seated. Repeat the instructions mentioned in callout 2 to push the
	control card.

#### **Procedure**

- **Step 1** Insert the control card in the NCS 1001 box guides.
- Step 2 Slide the control card while keeping the ejector open until the faceplate is close to the box and the ejector is engaged.
- **Step 3** Press the ejector to insert the control card partially.
- **Step 4** Apply pressure on the control card faceplate to complete the insertion.
- **Step 5** Ensure that the control card faceplate is aligned to the top cover edge of NCS 1001.
- **Step 6** Verify that the position of the ejector is final.
- **Step 7** Fix the screw to lock the ejector.
- **Step 8** Push the fan tray inside the chassis.
- **Step 9** Ensure that the captive screws are aligned properly and fasten the captive screws.
- **Step 10** Insert the fans inside the cage. See Insert Fans, on page 3.

### **Remove Control Card**



Note

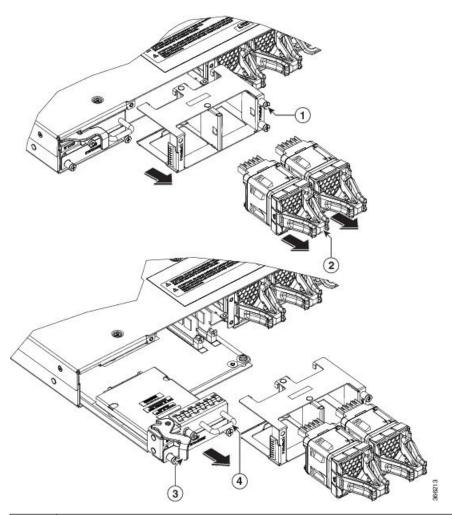
The inlet temperature of system during replacement must be less than 40 deg Celsius at sea level. The replacement time decreases for higher altitudes.



Note

In case of card failure, the failed control card needs to be physically replaced within 2 minutes. Otherwise, the performance of the system is affected.

Figure 7: Remove Control Card



1	Fan tray screws
2	Fans
3	Ejector lever
4	Control card handle

#### **Procedure**

- **Step 1** Remove the fans from slots 2 and 3. See Remove Fans, on page 4.
- **Step 2** Unfasten the fan tray screws as shown.
- **Step 3** Pull out the fans from the chassis as shown.
- **Step 4** Use the ejector lever to eject the control card from the chassis.

**Step 5** Use the control card handle to remove the control card completely.

### **Remove and Replace SSD**



Note

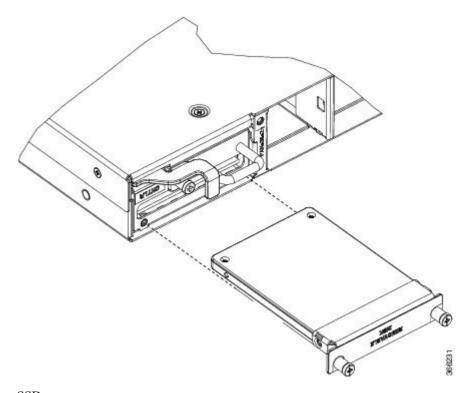
If the SSD is removed, it needs to be physically replaced within 10 minutes. If NCS 1001 runs without the SSD, the SSD metallic cover must be placed to close the SSD slot.

To remove a SSD:

#### **Procedure**

- **Step 1** Loosen the two captive screws in the Removable Disk slot on the back side.
- **Step 2** Slide out the SSD from the Removable Disk slot.

Figure 8: Remove SSD



To replace a SSD:

- **Step 3** Slide the SSD into the Removable Disk slot.
- **Step 4** Tighten the two captive screws to secure the SSD into place.

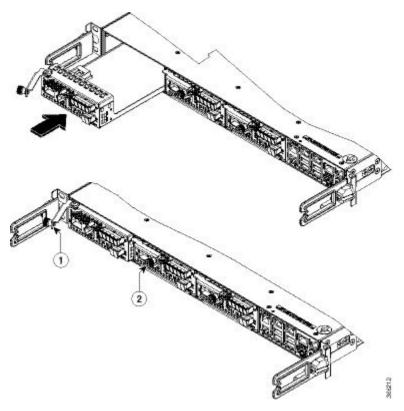
# **Insert Optical Modules**

Use this procedure to insert the optical modules.

#### **Procedure**

- **Step 1** Arrange the ejector lever of the optical module approximately at 60 degrees as shown.
- **Step 2** Push the module gently inside the slot (1, 2, or 3) with the ejector lever on top.
- **Step 3** Use the ejector lever force to push the module inside.
- **Step 4** When the ejector is aligned to the faceplate, fasten the captive screw in the clockwise direction to complete the assembly.

Figure 9: Insert Optical Modules



1	Ejector lever
2	Captive screw

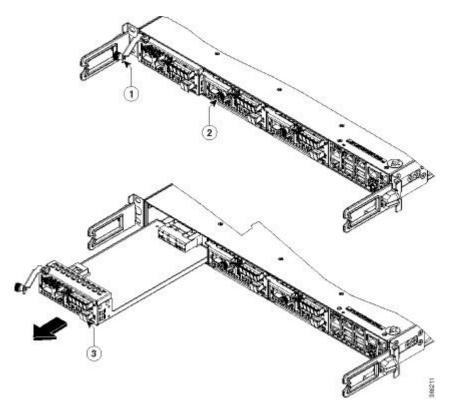
### **Remove Optical Modules**

Use this procedure to remove the optical modules.

#### **Procedure**

- **Step 1** Unfasten the captive screws in anti-clockwise direction.
- **Step 2** Use the ejector lever to pull the module outside.
- **Step 3** Once the module is partially out, pull the module from the chassis.

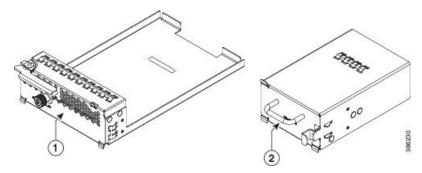
#### Figure 10: Remove Optical Modules



1	Ejector lever
2 and 3	Captive screw

### **Filler Modules**

Figure 11: Filler Modules

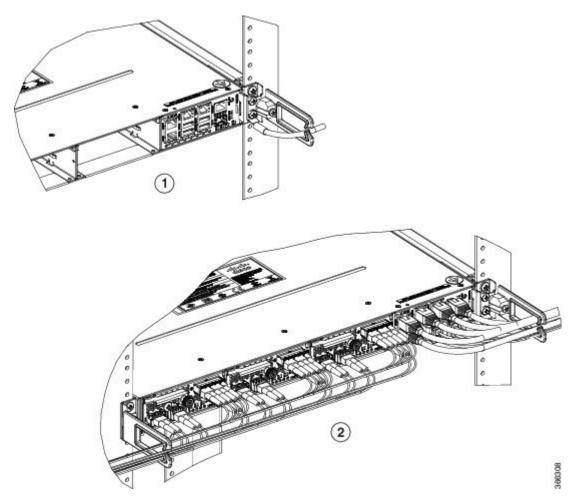


1	Optical filler module
2	PSU filler module

The insertion and removal procedure of the optical filler modules (left) and the PSU filler modules (right) is the same as the module replacement.

## **Cable Routing**

Figure 12: Cable Routing



Routing of ground cable: If there is a requirement to route ground cable separately from other electrical cables, it can be passed under the cable managed bracket and tied with bracket arm.

Routing of other cables: If there is a requirement of separate routing of fibre and copper cables, there are several 1 RU fibre management trays available which can be made use of during installation.