



## Replace Power Supply

The router provides a choice of two different power supplies:

- DC power—The DC power supply uses two-position terminal block-style connector with positive latching or securing, and labeled connections for +24/48V, GRD, -24/48V. The terminal block connector is of suitable size to carry the appropriate AWG wire size to handle the input current of the power supply. No ON/OFF switch is provided.
- AC power—The AC power supply has an IEC 320-type power receptacle and a 15 Amp service connector. You can use standard right angle power cords with the AC power supply. The power supply includes a power cord retainer. No ON/OFF switch is provided.

You can install dual power supplies for redundancy.



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**Note** Products that have an AC power connection are required to have an external SPD provided as part of the building installation to comply with the Telcordia GR-1089 NEBS standard for electromagnetic compatibility and safety.

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**Caution** Do not use interface module and power supply ejector handles to lift the chassis; using the handles to lift the chassis can deform or damage the handles.

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### PSU Redundancy Lost Alarm:

PSU redundancy lost alarms are generated when there is no proper input feed applied on any one of Power Modules (PMs) (PM0 or PM1). The alarms are also generated when the output for PM0 or PM1 is not proper.

The following alarms are raised for PSU redundancy lost event with a faulty PM0:

- Power Module Generic Fault
- Power Module Error
- Power Group Redundancy Lost

This is applicable to the following routers with modular PSUs:

- Cisco N540-FH-CSR-SYS
- Cisco N540-FH-AGG-SYS

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- [Remove the AC Power Supply Module, on page 4](#)
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## Remove the DC Power Supply Module

This section provides information about removing and replacing the DC power supply.



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**Warning** Before performing any of the following procedures, ensure that power is removed from the DC circuit. Statement 1003

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**Warning** Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030

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Follow these steps to remove and replace the DC power supply:

1. Before servicing the power supply, switch off the circuit breaker in your equipment area. As an additional precaution, tape the circuit-breaker switch in the Off position.
2. Slip on the ESD-preventive wrist strap that is included in the accessory kit.
3. Switch the power supply circuit-breaker switch to the Off (O) position.
4. Pull the terminal block plug cover out of the terminal block head in the power supply. (See the following figure.)
5. Unscrew the terminal block screws and remove the cables.
6. Grasp the power supply handle. Press the power supply lock towards the left and simultaneously pull the power supply out from the chassis while supporting it with the other hand.

## Install the DC Power Supply Module

This equipment is suitable for installation in network telecommunications facilities and locations where the NEC applies.

This equipment is suitable for installations utilizing the Common Bonding Network (CBN).

The grounding architecture of this product is DC-Isolated (DC-I) for DC-powered products. DC-powered products have a nominal operating DC voltage of 48 VDC.

Perform the following procedure to install the power supply module:

1. Ensure that the system (earth) ground connection is made. (See the following figure.)
2. If necessary, remove the blank power supply filler plate from the chassis power supply bay opening by loosening the captive installation screws.

3. Verify that power to the DC circuit connected to the power supply you are installing is turned off. To ensure that power has been removed from the DC circuits, locate the circuit breakers for the DC circuits, switch the circuit breakers to the OFF position, and tape the circuit-breaker switches in the OFF position.
4. Grasp the power supply handle with one hand. Place your other hand underneath the power supply. Slide the power supply into the power supply bay. Make sure that the power supply is fully seated in the bay.

**Figure 1: Install DC Power Supply Module for N540-FH-CSR-SYS**



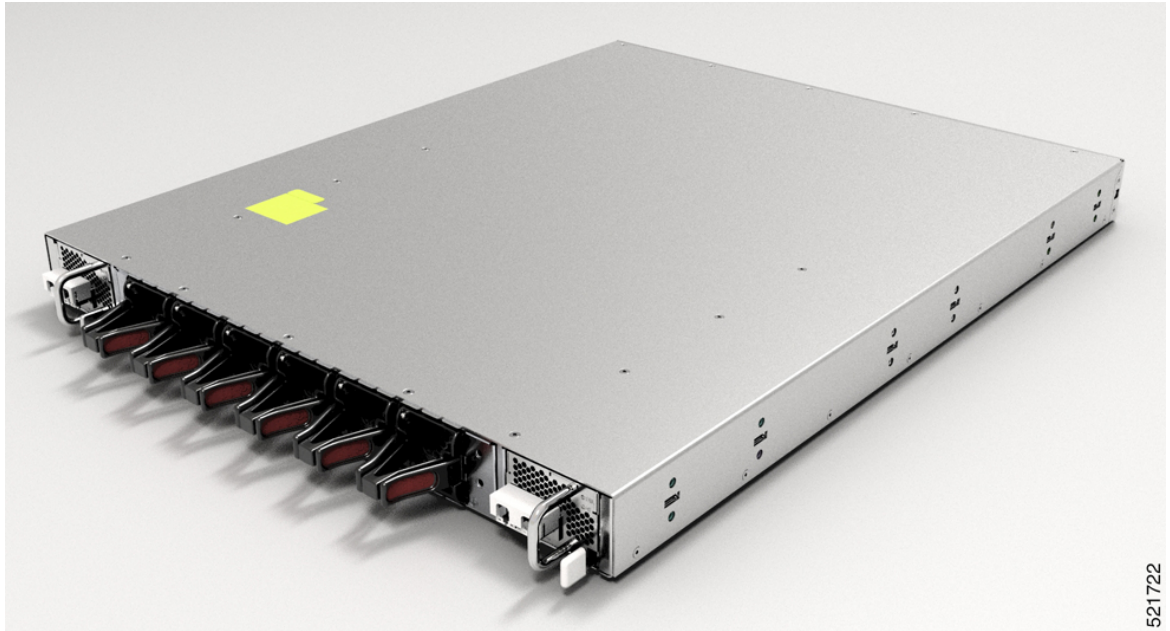
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**Figure 2: Install DC Power Supply Module for N540-FH-AGG-SYS**



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Figure 3: Assembled DC Power Supply Module with N540-FH-AGG-SYS Chassis



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## Remove the AC Power Supply Module

This section describes how to remove and replace the AC power supply.



**Warning** When you install the unit, the ground connection must always be made first and disconnected last. Statement 1046



**Warning** Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030



**Warning** Installation of the equipment must comply with local and national electrical codes. Statement 1074

Follow these steps to remove and replace the AC power supply:

- Step 1** Disconnect the power cord from the power source. Do not touch any metal on the power cord when it is still connected to the power supply.
- Step 2** Loosen the tie and remove the power cord from the tie-and holder.
- Step 3** Remove the power cord from the power connection on the power supply. Do not touch the metal prongs embedded in the power supply.

- Step 4** Grasp the power supply handle. Press the power supply lock towards the left and simultaneously pull the power supply out from the chassis while supporting it with the other hand.
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## Install the AC Power Supply Module

Follow these steps to install the AC power supply module:

1. Ensure that the system (earth) ground connection is made.
2. If necessary, remove the blank power supply filler plate from the chassis power supply bay opening by loosening the captive installation screws.
3. Grasp the power supply handle with one hand. Place your other hand underneath the power supply. Slide the power supply into the power supply bay. Make sure that the power supply is fully seated in the bay. (See the following figure.)

**Figure 4: Install AC Power Supply Module for N540-FH-CSR-SYS**



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*Figure 5: Install AC Power Supply Module for N540-FH-AGG-SYS*



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*Figure 6: AC Power Supply Module Assembled with N540-FH-AGG-SYS Chassis*



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4. Slide the AC power supply cord inside the tie of the tie-and-holder and tighten the tie around the power supply cord.
5. Plug the power supply cord into the AC power supply. For N540-FH-AGG-SYS, the PSU installation is from rear side of the chassis.