Cisco C9300-NM-8X=

Cisco Catalyst 9300 8 x 10GE Network Module User Manual

Model: C9300-NM-8X=

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Cisco Catalyst 9300 8 x 10GE Network Module (C9300-NM-8X=). This module is designed to expand the networking capabilities of compatible Cisco Catalyst 9300 series switches, offering high-speed 10 Gigabit Ethernet connectivity.
The C9300-NM-8X= is a spare network module, providing 8 x 10GE ports for data networking applications. It supports twisted pair media and utilizes 10 Gigabit Ethernet technology with 10GBase-X network technology.

2. PRODUCT OVERVIEW

The Cisco Catalyst 9300 8 x 10GE Network Module is a critical component for enhancing network performance and scalability. Below is an image of the module, highlighting its physical characteristics.

Figure 2.1: Cisco Catalyst 9300 8 x 10GE Network Module. This image shows the network module with its 8 x 10GE ports and the integrated handle for insertion and removal. The module features a green circuit board and a silver-colored metal housing for the ports.

Key Features:

- **Application/Usage:** Data Networking
- **Interfaces/Ports Details:** 8 x 10GBase-X network ports
- **Media Type Supported:** Twisted Pair
- **Ethernet Technology:** 10 Gigabit Ethernet
- **Network Technology:** 10GBase-X

3. SETUP AND INSTALLATION

Before installing the network module, ensure the host Cisco Catalyst 9300 series switch is powered off and disconnected from its power source to prevent electrical shock or damage to the equipment.

3.1 Safety Precautions

- Always wear an anti-static wrist strap when handling the module to prevent electrostatic discharge (ESD) damage.
- Ensure the installation environment is clean and free of dust.

- Do not force the module into the slot; if it does not slide in easily, recheck its orientation.

3.2 Installation Steps

1. Locate an available network module slot on your Cisco Catalyst 9300 series switch.
2. Carefully align the network module with the slot. The module is keyed to fit in only one orientation.
3. Gently slide the module into the slot until it is fully seated. Use the integrated handle for better grip.
4. Secure the module by tightening any captive screws or engaging the ejector levers, if present, to lock it into place.
5. Once installed, reconnect the switch to its power source and power it on.
6. Verify the module's status indicators (LEDs) to ensure it is properly recognized and operational. Refer to the switch's documentation for LED interpretations.

4. OPERATING THE NETWORK MODULE

After successful installation, the network module becomes an integral part of your Cisco Catalyst 9300 switch. Configuration and management of the 10GE ports are performed through the switch's operating system (Cisco IOS XE).

4.1 Connecting Devices

- Connect 10 Gigabit Ethernet compatible devices (e.g., servers, other switches) to the 8 x 10GE ports using appropriate twisted pair cabling.
- Ensure cables are securely connected to both the module port and the connected device.

4.2 Basic Configuration (via Cisco IOS XE)

Access the switch's command-line interface (CLI) to configure the network module's ports. Common tasks include:

- **Interface Configuration:** Assigning IP addresses, configuring VLANs, and setting port modes.
- **Speed and Duplex Settings:** While 10GE ports typically operate at fixed speeds, verify settings if issues arise.
- **Link Aggregation (EtherChannel):** Grouping multiple 10GE ports for increased bandwidth and redundancy.

Refer to the Cisco Catalyst 9300 Series Switch Software Configuration Guide for detailed command syntax and advanced configurations.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your network module.

5.1 Cleaning

- Periodically inspect the module's ports for dust accumulation.
- Use a can of compressed air to gently remove dust from the ports and surrounding areas.
- Do not use liquid cleaners directly on the module.

5.2 Firmware Updates

Firmware updates for the network module are typically part of the Cisco IOS XE software updates for the host switch. Always consult Cisco's official documentation and release notes before performing any software upgrades.

5.3 Module Removal

To remove the module:

1. Power off the host switch and disconnect its power source.
2. Disconnect all cables from the network module ports.
3. Unscrew any captive screws or disengage ejector levers securing the module.
4. Gently pull the module straight out of the slot using the integrated handle.
5. Store the module in an anti-static bag if not immediately reinstalling.

6. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues.

Problem	Possible Cause	Solution
Module not recognized by switch.	Module not fully seated; incompatible switch firmware; faulty module.	Reseat the module firmly. Verify switch firmware compatibility with Cisco documentation. Test with another module if available.
No link light on port.	Incorrect cabling; faulty cable; connected device off or misconfigured; port disabled.	Check cable type and connection. Replace cable. Ensure connected device is powered on and configured correctly. Check switch port status (e.g., show interface status).
Poor network performance.	Network congestion; duplex mismatch; faulty cable; driver issues on connected device.	Monitor network traffic. Verify duplex settings on both ends. Replace cable. Update network adapter drivers on connected devices.

For more advanced troubleshooting, consult the Cisco Catalyst 9300 Series Switch Troubleshooting Guide or contact Cisco Technical Assistance Center (TAC).

7. SPECIFICATIONS

Detailed technical specifications for the Cisco Catalyst 9300 8 x 10GE Network Module (C9300-NM-8X=).

Attribute	Value
Brand	Cisco
Model Number	C9300-NM-8X=
Application/Usage	Data Networking
Interfaces/Ports	8 x 10GBase-X network
Media Type Supported	Twisted Pair
Ethernet Technology	10 Gigabit Ethernet
Network Technology	10GBase-X
Item Weight	1.25 pounds
Product Dimensions (LxWxH)	7.09 x 11.81 x 4.72 inches

Attribute	Value
Voltage	240 Volts (*Note: This might refer to the switch's power supply, not the module itself which is passive.*)
Manufacturer	CISCO
Date First Available	August 14, 2017

8. WARRANTY AND SUPPORT

For information regarding product warranty, please refer to the official Cisco warranty statement provided with your purchase or visit the Cisco website. Warranty terms may vary based on region and purchase agreement.
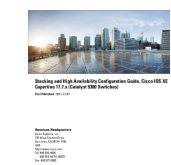
8.1 Technical Support

For technical assistance, product documentation, and software downloads, please visit the official Cisco Support website:
Cisco Support
You may also contact Cisco Technical Assistance Center (TAC) for direct support, details of which can be found on the Cisco Support website.

Related Documents - C9300-NM-8X=

	Cisco IOS XE Cupertino 17.7.x Stacking and High Availability Configuration Guide for Catalyst 9300 Switches Detailed configuration guide for Cisco IOS XE Cupertino 17.7.x on Catalyst 9300 Series Switches, covering stacking, high availability, NSF/SSO, GIR, 1:1 redundancy, and high-speed stacking for enhanced network resilience.
	Cisco FlexConnect Bonjour Deployment Guide for Cisco DNA Service A comprehensive guide detailing the deployment of Cisco DNA Service for Bonjour with Cisco FlexConnect wireless networks, enabling seamless service discovery and distribution across wired and wireless environments.
	Cisco DNA Center Cloud User Guide for EFT User guide for Cisco DNA Center Cloud for EFT, providing comprehensive instructions on network management, device onboarding, site configuration, monitoring, and troubleshooting for Cisco networking solutions.

[Recommended Software Releases for Cisco Catalyst Enterprise Switching Platforms](#)
Find stable Cisco IOS XE software release recommendations for Catalyst 9000 series (9200, 9300, 9400, 9500, 9600) and Catalyst 3650/3850 platforms. Includes details on Standard Maintenance Releases (SMR), Extended Maintenance Releases (EMR), engineering special releases, and open caveats.

[Cisco Wireless Mobility and Roaming Configuration Guide](#)
A comprehensive guide to understanding and configuring mobility features, including intracontroller, intercontroller, and SDA roaming, on Cisco wireless controllers.

K-12 EDU SKU Product Family

Revised November 2023

- Simple Cisco portfolio with K-12 focused form-factors and switching solutions
- Available in K-12 schools and municipal libraries
- Includes architectural context (whether filtered) K-12 and required Cisco Technical Assistance Center (TAC) which only support beyond the basic services timeline

K-12 Cisco Switching and Wireless Product Families

Overview

- Limited SKU-focus
- Cisco Meraki / Stack
- Cisco Catalyst 9000 Wireless LAN Controller
- Catalyst 9100 Access Points
- Cisco DNA Wireless Subscriptions

[Cisco K-12 EDU SKU Product Family: Switching and Wireless Solutions](#)
Explore the Cisco K-12 EDU SKU Product Family, featuring specialized switching and wireless solutions designed for educational institutions. This guide details product families, support matrices, SKU lists, and E-Rate eligibility.