



## Overview

### Cluster and storage switches

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# Overview

## Overview of installation and configuration for Cisco Nexus 92300YC switches

Before configuring Cisco Nexus 92300YC switches, review the procedure overview.

To initially configure a Cisco Nexus 92300YC switch on systems running ONTAP, follow these steps:

1. [Complete Cisco Nexus 92300YC cabling worksheet](#). The sample cabling worksheet provides examples of recommended port assignments from the switches to the controllers. The blank worksheet provides a template that you can use in setting up your cluster.
2. [Configure the Cisco Nexus 92300YC switch](#). Set up and configure the Cisco Nexus 92300YC switch.
3. [Prepare to install NX-OS software and Reference Configuration File \(RCF\)](#). Prepare for installing the NX-OS software and the Reference Configuration File (RCF).
4. [Install the NX-OS software](#). Install the NX-OS software on the Nexus 92300YC switch. NX-OS is a network operating system for the Nexus series of Ethernet switches and MDS series of Fibre Channel (FC) storage area network switches provided by Cisco Systems.
5. [Install the Reference Configuration File \(RCF\)](#). Install the RCF after setting up the Nexus 92300YC switch for the first time. You can also use this procedure to upgrade your RCF version.
6. [Install the Cluster Switch Health Monitor \(CSHM\) configuration file](#). Install the applicable configuration file for cluster switch health monitoring of Nexus 92300YC cluster switches.

### Additional information

Before you begin installation or maintenance, be sure to review the following:

- [Configuration requirements](#)
- [Components and part numbers](#)
- [Required documentation](#)
- [Smart Call Home requirements](#)

## Configuration requirements for Cisco Nexus 92300YC switches

For Cisco Nexus 92300YC switch installation and maintenance, be sure to review all configuration and network requirements.

If you want to build ONTAP clusters with more than two nodes, you need two supported cluster network switches. You can use additional management switches, which are optional.

### Configuration requirements

To configure your cluster, you need the appropriate number and type of cables and cable connectors for your switches. Depending on the type of switch you are initially configuring, you need to connect to the switch console port with the included console cable; you also need to provide specific network information.

## Network requirements

You need the following network information for all switch configurations:

- IP subnet for management network traffic
- Host names and IP addresses for each of the storage system controllers and all applicable switches
- Most storage system controllers are managed through the e0M interface by connecting to the Ethernet service port (wrench icon). On AFF A800 and AFF A700 systems, the e0M interface uses a dedicated Ethernet port.

Refer to the [Hardware Universe](#) for latest information.

## Components for Cisco Nexus 92300YC switches

For Cisco Nexus 92300YC switch installation and maintenance, be sure to review all switch components and part numbers. See the [Hardware Universe](#) for details.

The following table lists the part number and description for the 92300YC switch, fans, and power supplies:

Part number	Description
190003	Cisco 92300YC, CLSW, 48Pt10/25GB, 18Pt100G, PTSX (PTSX = Port Side Exhaust)
190003R	Cisco 92300YC, CLSW, 48Pt10/25GB, 18Pt100G, PSIN (PSIN = Port Side Intake)
X-NXA-FAN-35CFM-B	Fan, Cisco N9K port side intake airflow
X-NXA-FAN-35CFM-F	Fan, Cisco N9K port side exhaust airflow
X-NXA-PAC-650W-B	Power supply, Cisco 650W - port side intake
X-NXA-PAC-650W-F	Power supply, Cisco 650W - port side exhaust

Cisco Nexus 92300YC switch airflow details:

- Port-side exhaust airflow (standard air) — Cool air enters the chassis through the fan and power supply modules in the cold aisle and exhausts through the port end of the chassis in the hot aisle. Port-side exhaust airflow with blue coloring.
- Port-side intake airflow (reverse air) — Cool air enters the chassis through the port end in the cold aisle and exhausts through the fan and power supply modules in the hot aisle. Port-side intake airflow with burgundy coloring.

## Documentation requirements for Cisco Nexus 92300YC switches

For Cisco Nexus 92300YC switch installation and maintenance, be sure to review all the

recommended documentation.

## Switch documentation

To set up the Cisco Nexus 92300YC switches, you need the following documentation from the [Cisco Nexus 9000 Series Switches Support](#) page:

Document title	Description
<i>Nexus 9000 Series Hardware Installation Guide</i>	Provides detailed information about site requirements, switch hardware details, and installation options.
<i>Cisco Nexus 9000 Series Switch Software Configuration Guides</i> (choose the guide for the NX-OS release installed on your switches)	Provides initial switch configuration information that you need before you can configure the switch for ONTAP operation.
<i>Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide</i> (choose the guide for the NX-OS release installed on your switches)	Provides information on how to downgrade the switch to ONTAP supported switch software, if necessary.
<i>Cisco Nexus 9000 Series NX-OS Command Reference Master Index</i>	Provides links to the various command references provided by Cisco.
<i>Cisco Nexus 9000 MIBs Reference</i>	Describes the Management Information Base (MIB) files for the Nexus 9000 switches.
<i>Nexus 9000 Series NX-OS System Message Reference</i>	Describes the system messages for Cisco Nexus 9000 series switches, those that are informational, and others that might help diagnose problems with links, internal hardware, or the system software.
<i>Cisco Nexus 9000 Series NX-OS Release Notes</i> (choose the notes for the NX-OS release installed on your switches)	Describes the features, bugs, and limitations for the Cisco Nexus 9000 Series.
Regulatory Compliance and Safety Information for Cisco Nexus 9000 Series	Provides international agency compliance, safety, and statutory information for the Nexus 9000 series switches.

## ONTAP systems documentation

To set up an ONTAP system, you need the following documents for your version of the operating system from the [ONTAP 9 Documentation Center](#).

Name	Description
Controller-specific <i>Installation and Setup Instructions</i>	Describes how to install NetApp hardware.
ONTAP documentation	Provides detailed information about all aspects of the ONTAP releases.
<a href="#">Hardware Universe</a>	Provides NetApp hardware configuration and compatibility information.

## Rail kit and cabinet documentation

To install a Cisco Nexus 92300YC switch in a NetApp cabinet, see the following hardware documentation.

Name	Description
<a href="#">42U System Cabinet, Deep Guide</a>	Describes the FRUs associated with the 42U system cabinet, and provides maintenance and FRU replacement instructions.
<a href="#">[Install a Cisco Nexus 92300YC switch in a NetApp Cabinet</a>	Describes how to install a Cisco Nexus 92300YC switch in a four-post NetApp cabinet.

## Smart Call Home requirements

To use Smart Call Home feature, review the following guidelines.

Smart Call Home monitors the hardware and software components on your network. When a critical system configuration occurs, it generates an email-based notification and raises an alert to all the recipients that are configured in your destination profile. To use Smart Call Home, you must configure a cluster network switch to communicate using email with the Smart Call Home system. In addition, you can optionally set up your cluster network switch to take advantage of Cisco's embedded Smart Call Home support feature.

Before you can use Smart Call Home, be aware of the following considerations:

- An email server must be in place.
- The switch must have IP connectivity to the email server.
- The contact name (SNMP server contact), phone number, and street address information must be configured. This is required to determine the origin of messages received.
- A CCO ID must be associated with an appropriate Cisco SMARTnet Service contract for your company.
- Cisco SMARTnet Service must be in place for the device to be registered.

The [Cisco support site](#) contains information about the commands to configure Smart Call Home.

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