Introduction

This ordering guide provides a detailed overview to configure Cisco Nexus® 9300 Platform Switches and associated hardware and software components in Cisco Commerce. Configurations of Cisco Nexus 9300 Platform Switches primarily have the following components:

1. Hardware components, including optics
2. Software images and licenses
3. Technical services

This document captures examples of configurations of some of the popular switches. Please refer to Cisco Nexus 9300 Switch Data Sheets for product information and the Cisco® List Price Catalog for available product information. The taxonomy of the Cisco Nexus 9000 Switches is captured here link.
Step-by-step ordering procedure for N9K-C93180YC-FX

**Step 1:** Open the Cisco Commerce tool to create an estimate.

Enter N9K-C93180YC-FX in the search box. After the field is populated, click on Add.

**Step 2:** Click on Select Options to choose the desired configuration. The switches are preconfigured with the most typical default options; however, these are user-changeable to any desired customizable options.

In the Default Option, all choices are preselected (including a 3-Year Cisco ACI™ Advantage Subscription License, which is defaulted in the configuration for all Cisco Nexus 9300 Switches [and bundles]; C1-SUBS-OPTOUT needs to be selected to opt out of this, if required), with the exception of the power cable, as shown in the figure below. To select the appropriate power cable, refer to the header Power and select Power Cable. Choose the power cable according to the region in which it will be used (North America, EU, India, etc.).
In the Customizable Option, the user typically needs to configure two broad categories of features to select from: Hardware and Software.

Under the Hardware selection, along with the switch, the subcomponents given below are available in the configuration:

1. **Accessories selection:** An accessory kit is automatically added to the product configuration. If no accessory kit is desired, the user is allowed to select NO-ACC-KIT instead.
**Power and fans selection:** The section includes options for fans, power cables, and power supplies. When selecting the fan and power supply, the selection of an appropriate airflow direction, either portside intake or portside exhaust, should be consistent. When selecting fans, four fans are defaulted for each switch, as shown below.

For the power supply selection, we have the following AC/DC/HV-AC-DC with portside intake or exhaust options.

For the power cable, as noted in the default section above, the selection will be based on the geographical location of the product.

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**2. Optics and transceiver modules selection:** There are three transceiver and cable connectivity options to choose from: 1/10/25 Gbps, 40 Gbps, and 100 Gbps. Please select based on the requirements of your system. For further information, please refer to the Cisco Optics Matrix for the most updated support.

For the Software selection, there are three types of software license options to select from, coupled with their respective software images. Cisco Nexus 9300 Platform switches are supported on both Cisco ACI and NX-OS software images. For the software image selected, you have the option to select the following licensing options. For more information on licenses, please refer to the Licensing Guide.

- **Cisco ACI Software Subscription for Switching:** One set of Cisco ACI Premier or Advantage or Essential and Add-On licenses. These licenses are supported for both Cisco ACI and NX-OS for a 3Y/5Y (three-year or five-year) term. The subscription licenses include feature support as well as technical services support.
- **Perpetual:** Two sets of Cisco ACI Advantage or Essentials and Add-On licenses. Separate sets of licenses are supported for Cisco ACI and for NX-OS. Perpetual license PIDs do NOT include Cisco SMARTnet™ software services; these services need to be purchased in addition to the license.
- **Assurance licenses**

**Note:** The Cisco ACI Premier for Data Center Networking subscription incorporates all of the features in the Advantage license (which includes Essentials) plus an Assurance license.
Software image selection

Perpetual-based Cisco ACI Advantage/Essentials license

Subscription-based Cisco ACI Premier/Advantage/Essential/Add-Ons

Perpetual-based add-on licenses

Note: Only one set of licenses can be selected at the same time amongst Essentials/Advantage/Premier license options.
Assurance: This is offered as an on-premises software product classified in the Market Category at a 20 percent standard discount. Assurance can be purchased using one of the two options listed below:

1. A-la-carte purchase: This option allows purchase of the Assurance Engine software only and is offered as a standalone multiline bundle called A1-CANDID, which includes a software category Assembled-To-Order (ATO) at the time of controlled availability. We will not be going over this type of purchase in this document.

2. Bundled with Cisco ACI: This option is available for purchase with Cisco ACI hardware, including flexibility in procurement where software licenses are listed as minor line items for optional purchase under the ACI ATOs for APICs and N9K leaf switches. We will go into this option as this relates to N9300 leaf purchase. There are two subscription offers for Assurance licenses on leaf switches: 3-year and 5-year subscriptions.

3. Cisco ACI Premier Subscription: The Assurance license is bundled with the Cisco ACI Premier subscription.

**Assurance license for N9K-C93180YC-FX**

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**Step 3:** Verify the configuration and click on **Done**. After all options are selected, for either the Default or Customizable Option, the product configuration should be verified. To do this, click on **View Full Summary** at the top, to the right of the Configuration Summary header. After verification, return to the original configuration page and click on **Done**. If there are any errors in the configuration, an alert will pop up with instructions on how to correct the error. If the configuration is successful, the **Done Messages** box will appear, highlighting the product configurations that are successful. Click on **Done** once more to confirm the order. To make any changes, click on **Return to Configuration** or click on **Add/Edit Services**.

Note: Only one set of licenses can be selected at the same time among Essentials/Advantage/Premier license options.

**Step 4:** Select the required Technical Services. To simplify, all Cisco Nexus 9300 Platform Switches will have two different Cisco SMARTnet SKUs:

1. A hardware SNT SKU and
2. A software SWSS SKU, for Software Support. This is only applicable for a perpetual software licensing PID. The Cisco ACI Subscription pricing includes software maintenance and technical support services.
If you are selecting perpetual Software, please be sure to add the SWSS for Software SMARTnet support. Once you have finished selecting software, hardware, and license configurations, click on Edit Service/Subscription.

**Hardware service:** Click on “Add a service SKU” and select SNTC 8X5XNBD; click on Apply, and the appropriate SWSS SKU (CON-ECMU-ACIADXF) is added, then click on **Done**.

**Software service:** Click on “Add a service SKU” and select SWSS; click on Apply, and the appropriate SWSS SKU (CON-ECMU-ACIADXF) is added, then click on **Done**.
Legacy Cisco ACI Software Support Services (SWSS): If you choose a legacy Cisco ACI license “N93-LIC-BUN-P1,” it includes N93-LAN1K9 and ACI-N9K-48X. You have to purchase software support only for the NX-OS LAN license “SWSS,” because, in the legacy license model, the Cisco ACI license is part of the solution support for the APIC appliance. Click on Apply when finished.

Step-by-step ordering procedure for N9K-C9364C

Step 1: Open the Cisco Commerce tool to create an estimate.

Step 2: Click on Select Options to choose the desired configuration. The switches are preconfigured with the most typical default options; however, these are user-changeable to any desired customizable option.

In the Default Option, all choices are preselected (including a 3-Year Cisco ACI Advantage Subscription License, which is defaulted in the configuration for all Nexus 9300 Switches [and bundles]; C1-SUBS-OPTOUT needs to be selected to opt out of this, if required) with the exception of the power cable, as shown in the figure below. To select the appropriate power cable, refer to the header Power and select Power Cable. Choose the power cable according to the region where it will be used (North America, EU, India, etc.).

Your order is now complete.
In the Customizable Option, the user typically needs to configure two broad categories of features to select from: Hardware and Software.

When selecting Hardware, along with the switch, the subcomponents given below are available for the configuration:

1. **Accessories selection:** An Accessory Kit and a Rack Mount Kit are automatically added to the product configuration. If no Rack Mount Kit is desired, the user is allowed to select NO-ACC-KIT instead.

2. **Power and fans selection:** The section includes options for fans, power cables, and power supplies. For the power cable, as noted in the default section above, the selection will be based on the geographical location of the product.

When selecting the fans and power supply, selection of an appropriate airflow direction, either portside intake or portside exhaust, should be consistent. When selecting fans, four fans are defaulted for each switch, as shown below.
3. **Optics and transceiver modules selection:** There are three transceiver and cable connectivity options to choose from: 1/10/25 Gbps, 40 Gbps, and 100 Gbps. Please select based on your system's requirements. For further information, please refer to the [Cisco Optics Matrix](#) for the most updated support.

For the power supply selection, we have the following AC/DC/HV-AC-DC with portside intake or exhaust options.

For the power cable, as noted in the default section above, the selection will be based on the geographical location of the product.

For the Software selection, there are typically three types of software license options to select from, coupled with their respective software images. Cisco Nexus 9300 Platform Switches are supported on both Cisco ACI and NX-OS software images.

For the software image selected, you have the option to select the following licensing options. For more information on licenses, please refer to the [Licensing Guide](#).

- **Cisco ACI Software Subscription for Switching:** One set of Cisco ACI Advantage or Essential (XF2) and Add-On licenses. These licenses are supported for both Cisco ACI and NX-OS for a 3Y/5Y (three-year or five-year) term. The subscription licenses include feature support as well as technical services support.

- **Perpetual:** Since there are no Cisco ACI Premier or Advantage or Essentials licenses in Cisco ACI spine mode, there is one set of Premier or Advantage or Essentials and Add-On licenses (XF2) for NX OS. Perpetual License PIDs do NOT include Cisco SMARTnet Software services; these services need to be purchased in addition to the license.
Subscription-based Cisco ACI Premier/Advantage/Essential/Add-Ons

Perpetual-based add-on licenses

Perpetual-based Advantage/Essentials license

**Note:** Only one set of licenses can be selected at the same time among Essentials/Advantage/Premier license options.

**Step 3:** Verify the configuration and click on **Done**. After all options are selected, for either the Default or Customizable Option, the product configuration should be verified. To do this, click on **View Full Summary** at the top, to the right of the Configuration Summary header. After verification, return to the original configuration page and click on **Done**. If there are any errors in the configuration, an alert will pop up with instructions on how to correct the error. If the configuration is successful, the Done Messages box will appear, highlighting the product configurations that are successful. Click on **Done** once more to confirm the order. To make any changes, click on Return to Configuration or click on **Add/Edit Services**.
Step 4: Select the required Technical Services. To simplify, all Cisco Nexus 9300 Platform Switches will have two different Cisco SMARTnet SKUs:

1. A hardware SNT SKU and
2. A software SWSS SKU for Software Support. This is only applicable for perpetual software licensing PID. The Cisco ACI Subscription pricing includes software maintenance and technical support services.

If you are selecting perpetual Software, please be sure to add the SWSS for Software SMARTnet support. Once you have finished selecting software, hardware, and license configurations, click on Edit Service/Subscription.

Hardware service: Click on “Add a service SKU” and select SNTC 8X5XNBD; click on Apply, and the appropriate SWSS SKU (CON-ECMU-ACIADXF) is added, then click on Done.

Software service: Click on “Add a service SKU” and select SWSS; click on Apply, and the appropriate SWSS SKU (CON-ECMU-ACIADXF) is added, then click on Done.

Perpetual NX-OS license SWSS

Your order is now complete.

Step-by-step ordering procedure for the bundle N9K-C9336C-FX2-B2

Step 1: Open the Cisco Commerce tool to create an estimate. Enter N9K-C9336C-FX2-B2 in the search box. After the field is populated, click on Add.

Step 2: Click on Select Options to choose the desired configuration. As called out in the previous sections, the default option consists of a preconfigured option as shown below. The bundle consists of 2x N9K-C9336C-FX2 switches along with 4x QSFP-40/100G-SRBD each.
Default option
In the Customizable Option, select each of the hardware PIDs N9K-C9336-FX2-B(1) and N9K-C9336-FX2-B(2) to configure. Configure the accessory selection, the power and fans selection, and the optics and transceiver modules selection, similar to the process called out earlier for each switch. There is an additional option to select a Default 100G Optics under this bundle at no charge, as shown below.

**Default 100G optics options**

For the Software selection, there are three types of software license options to select from, coupled with their respective software images. Cisco Nexus 9300 Platform Switches are supported on both Cisco ACI and NX-OS software images. For the software image selected, you have the option to select the following licensing options. For more information on licenses, please refer to the Licensing Guide.

- **Cisco ACI Software Subscription for Switching:** One set of Cisco ACI Premier or Advantage or Essential and Add-On. These licenses are supported for both Cisco ACI and NX-OS, in a 3Y/5Y (three-year or five-year) term. The subscription licenses include feature support as well as technical services support.

- **Perpetual:** Two sets of Cisco ACI Premier or Advantage or Essentials and Add-On licenses. Separate sets of licenses are supported for Cisco ACI and NX-OS. Perpetual license PIDs do NOT include Cisco SMARTnet Software services and needs to be purchased in addition to the license.

- **Assurance licenses**

  **Note:** The Cisco ACI Premier for Data Center Networking subscription incorporates all of the features in the Advantage license (which includes Essentials) plus an Assurance license.

After the selections are made for each switch, you can copy the similar configuration for the second switch using the Copy option, as shown below.

**Step 3:** Verify the configuration and click on **Done**. After all options are selected, for either the Default or Customizable Option, the product configuration should be verified. To do this, click on **View Full Summary** at the top, to the right of the Configuration Summary header. After verification, return to the original configuration page and click on **Done**. If there are any errors in the configuration, an alert will pop up with instructions on how to correct the error. If the configuration is successful, the Done Messages box will appear, highlighting the product configurations that are successful. Click on **Done** once more to confirm the order. To make any changes, click on Return to Configuration or click on **Add/Edit Services**.
Step 4: Select the required Technical Services. To simplify, all Cisco Nexus 9300 Platform Switches will have two different Cisco SMARTnet SKUs:

1. A hardware SNT SKU and
2. A software SWSS SKU for Software Support. This is only applicable for perpetual software licensing PIDs. The Cisco ACI Software Subscription for Switching pricing includes software maintenance and technical support services.

If you are selecting perpetual Software, please be sure to add the SWSS for Software SMARTnet support. Once you have finished selecting the software, hardware, and license configurations, click on Edit Service/Subscription.

Your order is now complete.

Step-by-step ordering procedure for bundle ACI-C9364C-APIC-B1

Step 1: Open the Cisco Commerce tool to create an estimate. Enter ACI-C9364C-APIC-B1 in the search box. After the field is populated, click on Add.

Note: ACI-C9364C-APIC-B1 is a bundle PID that has two N9k-C9364C spine switches and an APIC appliance (customizable) together.

Step 2: Click on Select Options to choose the desired configuration. Each component option has to be configured in the bundle.

Configure the 2x N9K-C9364C within the bundle as described in the process earlier. Please note that only the Cisco ACI software image and license options are available to configure in this bundle.

N9K-C9364C customizable options

Once you select all the options for the 9364C spine, you can click on Done, and the system will take you to the main Cisco ACI bundle order screen, where you will have to choose from APIC cluster options. Click on the button to add the appropriate APIC cluster (choose either a Cluster-M2 or Cluster-L2, depending on the scale required).

Cisco ACI bundle configuration warning
APIC cluster options

Click on Edit Options to select the APIC cluster options. You can choose power supply, power cable, APIC software image, and PCIE options.

APIC server configuration options

Click on each APIC-SERVER-L2 to select the appropriate the power supply, power cable, APIC software image, and PCIE options.

APIC server warning

Click on Edit Options to select the APIC cluster options. You can choose power supply, power cable, APIC software image, and PCIE options.
APIC server power options

- **APIC-CLUSTER-L3 > APIC Server > APIC Server > APIC-SERVER-L3**
  - **Power Supply**
    - **SKU**: APIC-PSU1-770W
      - 770W power supply for UCS C-Series
    - **SKU**: APIC-PSUV2-1050DC
      - 1050W -48V DC Power Supply for UCS Rack Server

APIC software options

- **Software Image**
  - **SKU**: APIC-DK3-3.2
    - APIC Base Software Release 3.2
  - **SKU**: APIC-DK3-3.1.2
    - APIC Base Software Release 3.1.2
  - **SKU**: APIC-DK3-3.1
    - APIC Base Software Release 3.1
  - **SKU**: APIC-DK3-3.0
    - APIC Base Software Release 3.0

APIC PCIE options

- **SKU**: PCIE options
  - **SKU**: APIC-PCIE-C25Q-04
    - Cisco UCS VIC 1455 Quad Port 10/25G SFP28 CNA PCIE
      - Qty: 1

**Step 3:** Verify the configuration and click on **Done**. After all options are selected for the Customizable Option, the product configuration should be verified. To do this, click on **View Full Summary** at the top, to the right of the **Configuration Summary** header. After verification, return to the original configuration page and click on **Done**. If there are any errors in the configuration, an alert will pop up with instructions on how to correct the error. If the configuration is successful, the Done Messages box will appear, highlighting the product configurations that are successful. Click on **Done** once more to confirm the order. To make any changes, click on **Return to Configuration** or click on **Add/Edit Services**.
Step 4: Select the required Technical Services. For the N9K-C9364C, follow the same process as described earlier in the document. For the APIC, click on Edit Services/Subscriptions.

ACI solution support

Click on Add a Service SKU, select SOLN SUPP 8X5XNBD, and click on Apply, to add solution support. The appropriate Solution Support Plus2 with SMARTnet (COSSNT-APIC3L2) is added, and click on Done.

Your order is now completed.

Additional resources

For the latest information on the product, please visit the links below.
Cisco Nexus 9000 Series Switches: [here](#)
Cisco Nexus 9300 Platform Switches Data Sheet: [here](#)
Cisco Application Centric Infrastructure: [here](#)
Cisco Nexus 9000 Licensing Guide: [here](#)
Cisco Nexus 9000 software Release notes: [here](#)
Cisco Nexus 9000 Configuration guide: [here](#)

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