



Available Licenses

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Information About Available Licenses

This section provides information about the licenses that are available on Cisco Catalyst 9200 Series Switches running Cisco IOS-XE software. The information applies to all models in the series, unless indicated otherwise.

Base and Add-On Licenses

The software features available on the switch fall under base or add-on license levels.

A base license is a perpetually valid, or permanent license. There is no expiration date for such a license.

An add-on license provides Cisco innovations on the switch, and on the Cisco Digital Network Architecture Center (Cisco DNA Center). An add-on license is valid only until a certain date. You can purchase an add-on license for a three, five, or seven year subscription period.

The following base and add-on licenses are available:

Base Licenses

- Network Essentials
- Network Advantage: Includes features available with the Network Essentials license and more.

Add-On Licenses

- DNA Essentials
- DNA Advantage: Includes features available with the DNA Essentials license and more.

Guidelines for Using Base and Add-On Licenses

- A base license (Network Essentials and Network-Advantage) is ordered and fulfilled only with a perpetual or permanent license type.

- An add-on license (DNA Essentials and DNA Advantage) is ordered and fulfilled only with a subscription or term license type.
- An add-on license level is included when you choose a network license level. If you use DNA features, renew the license before term expiry, to continue using it. If you don't want to continue using DNA features, deactivate the add-on license and then reload the switch to continue operating with the base license capabilities.

When ordering an add-on license with a base license, note the combinations that are permitted and those that are not permitted:

Table 1: Table 4. Permitted Combinations

	DNA Essentials	DNA Advantage
Network Essentials	Yes	No
Network Advantage	Yes ¹	Yes

¹ You will be able to purchase this combination only at the time of DNA license renewal and not when you purchase DNA-Essentials the first time

- To know which license level a feature is available with, use Cisco Feature Navigator. To access Cisco Feature Navigator, go to <https://cfng.cisco.com>. An account on cisco.com is not required.

How to Configure Available Licenses

This section provides information about how to configure available licenses.

Configuring Base and Add-On Licenses

After you order and purchase a base or add-on license, you must configure the license on the device before you can use it.

This task sets a license level and requires a reload before the configured changes are effective. You can use this task to

- Change the current license.
- Add another license. For example, if you are currently using Network Advantage and you also want to use features available with the corresponding Digital Networking Architecture (DNA) Advantage license.
- Remove a license.

Procedure

	Command or Action	Purpose
Step 1	enable Example:	Enables privileged EXEC mode. Enter your password, if prompted.

	Command or Action	Purpose
	Device> enable	
Step 2	configure terminal Example: Device# configure terminal	Enters global configuration mode.
Step 3	license boot level { network-advantage [addon dna-advantage] network-essentials [addon dna-essentials] } Example: Device(config)# license boot level network-advantage add-on dna-advantage	Activates the configured license on the product instance. <ul style="list-style-type: none"> • network-advantage [addon dna-advantage]: Configures the Network Advantage license. Optionally, you can also configure the Digital Networking Architecture (DNA) Advantage license. • network-advantage [addon dna-advantage]: Configures the Network Essentials license. Optionally, you can also configure the Digital Networking Architecture (DNA) Essentials license. In the accompanying example, the DNA Advantage license will be activated on the product instance after reload.
Step 4	exit Example: Device(config)# exit	Returns to the privileged EXEC mode.
Step 5	copy running-config startup-config Example: Device# copy running-config startup-config	Saves changes in the configuration file.
Step 6	show version Example: Device# show version <output truncated> Technology Package License Information: <hr/> Technology-package Technology-package Current Type Next reboot <hr/> network-advantage Smart License network-advantage Subscription Smart License dna-advantage	Shows currently configured license information and the license that is applicable after reload. <p>The “Technology-package Next reboot” column displays the change in the configured license that is effective after reload, only if you save the configuration change.</p> In the accompanying example, the current license level is Network Advantage. Because the configuration change was saved, the “Technology-package Next reboot” column shows that the DNA Advantage license will be activated after reload.

	Command or Action	Purpose
	<output truncated>	
Step 7	reload Example: Device# reload	Reloads the device.
Step 8	show version Example: Device# show version <output truncated> Technology Package License Information: ----- Technology-package Technology-package Current Type Next reboot ----- network-advantage Smart License network-advantage dna-advantage Subscription Smart License dna-advantage <output truncated>	Shows currently configured license information and the license that is applicable after reload.

What to do next

After you configure a license level, the change is effective after a reload. To know if reporting is required, you can wait for a system message or refer to the policy-using show commands.

- The system message, which indicates that reporting is required: `%SMART_LIC-6-REPORTING_REQUIRED:`
 A Usage report acknowledgment will be required in [dec] days.
 [dec] is the amount of time (in days) left to meet reporting requirements.
- If using **show** commands, refer to the output of the **show license status** privileged EXEC command and check the `Next ACK deadline` field. This means a RUM report must be sent and the ACK must be installed by this date.

The method that you can use to send the RUM report, depends on the topology you have implemented. Refer to the workflow for the applicable topology in the [How to Configure Smart Licensing Using Policy: Workflows by Topology](#) section of the *Smart Licensing Using Policy* chapter in this guide.

Feature History for Available Licenses

This table provides release and related information for the features explained in this module.

These features are available in all the releases subsequent to the one they were introduced in, unless noted otherwise.

Release	Feature	Feature Information
Cisco IOS XE Fuji 16.9.2	Base and Add-On Licenses	This feature was introduced. The software features available on Cisco Catalyst 9200 Series Switches fall under base and add-on license levels. See Base and Add-On Licenses, on page 1 and Configuring Base and Add-On Licenses, on page 2 .

Use the Cisco Feature Navigator to find information about platform and software image support. To access Cisco Feature Navigator, go to <https://cfng.cisco.com>.

