

Cisco Catalyst Software-Defined Routing (SD-Routing)

March 2024

Introduction

Cisco Catalyst™ SD-Routing, a software-defined solution, streamlines traditional routing management for IT professionals and network administrators. It offers agile workflows for:

- Device lifecycle orchestration:
 Simplify setup, updates, and management of your Cisco routing devices.
- Monitoring: Gain real-time insights into network performance and proactively address issues.
- Troubleshooting: Quickly identify and resolve problems for optimal network uptime.

Leveraging the Cisco Catalyst SD-WAN Manager, Cisco Catalyst SD-Routing centralizes control and provides a cohesive experience for managing both your SD-WAN and traditional routing deployments.





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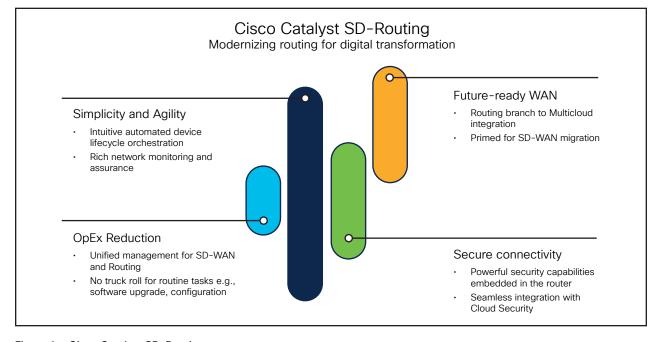


Figure 1. Cisco Catalyst SD-Routing

By reducing operational expenditures in traditional routing deployments, SD-Routing prevents truck rolls for routine operational tasks. It leverages the Cisco Catalyst SD-WAN Manager as a unified management platform for both Cisco Catalyst SD-WAN and routing deployments. Furthermore, Cisco Catalyst SD-Routing paves the way for future modernization of traditional routing through potential cloud and security integrations.

Cisco Catalyst SD-Routing is deployed using the following components:

- Cisco® routing devices with required software subscription.
- · Controllers to manage the Cisco routing devices.

The entitlement for controllers is provided through the device software subscription.

This document describes the license requirements and ordering information for Cisco Catalyst SD-Routing.



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Platforms that support Cisco Catalyst SD-Routing

The following table lists the platforms that support Cisco Catalyst SD-Routing.

Table 1. Supported platforms

Product family	Platforms supported
Cisco Catalyst 8000 Edge Platforms Family	Catalyst 8200 Series, Catalyst 8300 Series, Catalyst 8500 Series, Catalyst 8000V
Cisco 1000 Series Integrated Services Routers	116x, 113x, 112x, 111x, 110x
Cisco ASR 1000 Series Aggregation Services Routers*	ASR 1002-HX, ASR 1001-HX
Cisco 4000 Series Integrated Services Routers*	4461, 4451, 4431, 4351, 4331, 4321, 4221

^{*}The management capabilities for Cisco ASR 1000 Series Aggregation Services Routers and Cisco 4000 Series Integrated Services Routers are limited to device monitoring, troubleshooting, and device software upgrades. These platforms will not support Cisco Catalyst SD-Routing configuration capabilities.



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To order the hardware platforms, please refer to the platform-specific ordering guides:

- Cisco Catalyst 8500 Series Edge Platforms Ordering Guide.
- Cisco Catalyst 8300/8200 Series Edge Platforms Ordering Guide.
- Cisco Catalyst 8000V Edge Software Ordering Guide.
- Cisco 1000 Series Integrated Services Routers Ordering Guide.
- Cisco ASR 1000 Series Aggregation Services Routers Ordering Guide.

Licensing

Cisco Catalyst SD-Routing capabilities, similar to Cisco Catalyst SD-WAN capabilities, are a term-based entitlement available via Cisco DNA licenses. The license enables you to use the Cisco Catalyst SD-WAN Manager to start managing your traditional WAN deployment.

Table 2. License recommendations

Requirement	Recommended license
Cloud-delivered SD-Routing - Monitoring and configuration	Cloud-delivered Cisco Catalyst SD-WAN [Details]
SD-Routing - Monitoring and configuration	Cisco DNA license for SD-WAN and Routing [Ordering Guide]
Monitoring only	L-SDR-MONITOR



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The figure below shows the different ways to order licenses for Cisco Catalyst SD-Routing.

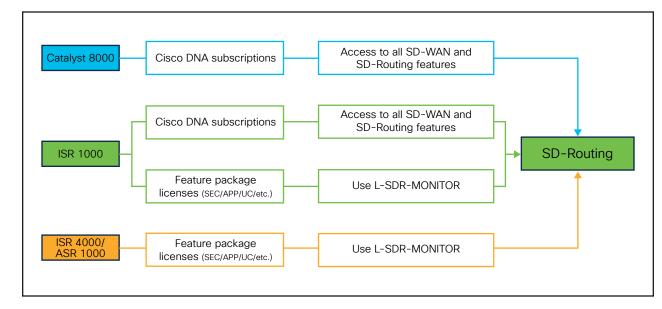


Figure 2. Ways to obtain Cisco Catalyst SD-Routing features

Ordering Cisco Catalyst SD-Routing licenses for the Catalyst 8000 platforms

The Cisco DNA for SD-WAN and Routing subscription license, available for purchase with the Catalyst 8000 platforms, includes Cisco Catalyst SD-Routing features such as configuration and monitoring capabilities. Current Catalyst 8000 customers with Cisco DNA subscriptions will benefit from ongoing enhancements to the Cisco Catalyst SD-Routing feature set at no additional cost. There are three types of Cisco DNA licenses available for the Catalyst 8000:

 Cloud-delivered Cisco Catalyst SD-WAN: This offers ready-to-use cloud-delivered controllers, managed by Cisco for controller lifecycle orchestrations, scaling, and certificate management. To acquire this, use the SKU CD-SDWAN and choose SD-ROUTING-MODE. Read more here.



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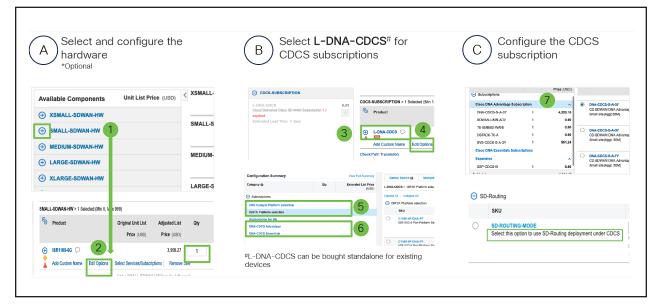


Figure 3. Ordering cloud-delivered Cisco Catalyst SD-Routing

- Cisco DNA On-Prem: For on-premises setups (hosting the controller on-premises), simply download the Cisco Catalyst SD-WAN validator and the Cisco SD-WAN Manager to start using the Cisco Catalyst SD-Routing features. However, if a controller overlay hasn't been ordered, request a complimentary on-premises controller SKU through L-CONTROLLER-ADD. Please refer to the following ordering guide for more details on how to order the Cisco Catalyst SD-WAN controller subscriptions: Cisco Catalyst SD-WAN controller ordering guide.
- Cisco DNA Cloud (Cisco hosted): Only customers with an existing cloud overlay hosted by Cisco
 who are looking to incorporate additional WAN devices into Cisco Catalyst SD-Routing should
 purchase DNA-C licenses. Customers with new deployments should opt for cloud-delivered
 Cisco Catalyst SD-WAN for Cisco Catalyst SD-Routing. Read more in the Cloud-Delivered Cisco
 Catalyst SD-WAN ordering guide.

Cisco DNA On-Prem and Cisco DNA Cloud licenses are available for the Catalyst 8000 hardware while ordering as well as through a separate Authorization to Operate (ATO) for existing deployments, such as **L-DNA-C8200/C8300/C8500**.



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Ordering Cisco Catalyst SD-Routing licenses for the Cisco 1000 Series ISRs

Similar to the licensing for the Catalyst 8000 family, the Cisco DNA for SD-WAN and Routing licenses provide customers with both configuration and monitoring capabilities for SD-Monitoring features. Following are the ways to acquire Cisco DNA for SD-WAN and Routing licenses for the 1000 Series ISRs:

- Cloud-delivered Cisco Catalyst SD-WAN: Use the SKU CD-SDWAN, select the appropriate
 platform in the ISR1K Platform Selection segment, and then choose the required CDCS license
 and opt for SD-Routing, as shown in Figure 3. Read more here.
- Cisco DNA On-Prem: For on-premises setups (hosting the controller on-premises), simply download the Cisco Catalyst SD-WAN validator and Cisco SD-WAN Manager from Cisco.com to start using the Cisco Catalyst SD-Routing features. However, if a controller overlay hasn't been ordered, request a \$0 on-premises controller SKU through L-CONTROLLER-ADD. Please refer to the following ordering guide for more details on how to order the Cisco Catalyst SD-WAN Controller subscriptions: Cisco Catalyst SD-WAN controller ordering guide.
- Cisco DNA Cloud (Cisco hosted): Only customers with an existing cloud overlay hosted by Cisco
 who are looking to incorporate additional WAN devices into Cisco Catalyst SD-Routing should
 purchase Cisco DNA Cloud licenses. Customers with new deployments should opt for
 cloud-delivered Cisco Catalyst SD-WAN for Cisco Catalyst SD-Routing. Read more in the
 Cloud-Delivered Cisco Catalyst SD-WAN ordering guide.

Cisco DNA On-Prem and Cisco DNA Cloud licenses are available within the ISR 1000 Series Cisco DNA bundles as well as through a separate ATO for existing deployments: **L-DNA-TIER-ADD**.



Ordering Cisco Catalyst SD-Routing monitoring-only licenses for Cisco ISR 1000, ISR 4000, and ASR 1000 Series routers

Customers with traditional WAN deployments of legacy routers like the Cisco 1000 and 4000 Series and the ASR 1000 Series with feature licenses such as SEC, APPX, UC, perf, Boost, etc. can opt for a more cost-effective monitoring-only license instead of a regular Cisco DNA license. As the name implies, this license allows for lifecycle management and monitoring but does not include configuration capabilities.

Table 3. Monitoring-only licenses

L-SDR-MONITOR	Platform	SKU name	Term allowed	Description
Cloud-delivered	ISR 1000	SDR-CD-ISR1K-MON	12 to 84 months	ISR 1000 Cisco Catalyst SD-Routing monitoring cloud-delivered license
	ISR 4000	SDR-CD-ISR4K-MON	12 to 84 months	ISR 4000 Cisco Catalyst SD-Routing monitoring cloud-delivered license
	ASR 1000	SDR-CD-ASR1K-MON	12 to 84 months	ASR 1000 Cisco Catalyst SD-Routing monitoring cloud-delivered license
On-Prem	ISR 1000	SDR-P-ISR1K-MON	12 to 84 months	ISR 1000 Cisco Catalyst SD-Routing monitoring on-premises license
	ISR 4000	SDR-P-ISR4K-MON	12 to 84 months	ISR 4000 Cisco Catalyst SD-Routing monitoring on-premises license
	ASR 1000	SDR-P-ASR1K-MON	12 to 84 months	ASR 1000 Cisco Catalyst SD-Routing monitoring on-premises license
Cloud-hosted	ISR 1000	SDR-C-ISR1K-MON	12 to 84 months	ISR 1000 Cisco Catalyst SD-Routing monitoring cloud license
	ISR 4000	SDR-C-ISR4K-MON	12 to 84 months	ISR 4000 Cisco Catalyst SD-Routing monitoring cloud license
	ASR 1000	SDR-C-ASR1K-MON	12 to 84 months	ASR 1000 Cisco Catalyst SD-Routing monitoring cloud license



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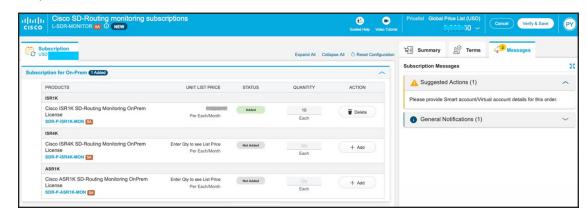
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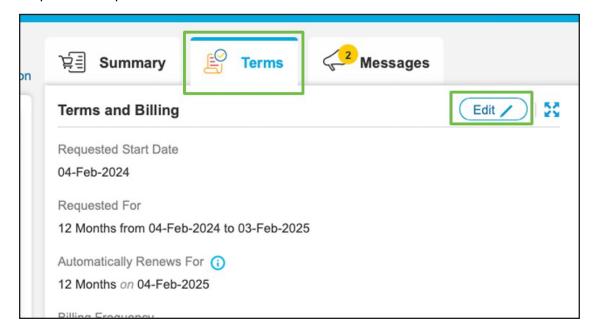
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Follow the steps below to acquire Cisco Catalyst SD-Routing monitoring licenses in Cisco Commerce (CCW):

Step 1: Search for L-SDR-MONITOR on CCW.



Step 2: Add required licenses and click "Terms" and then "Edit."





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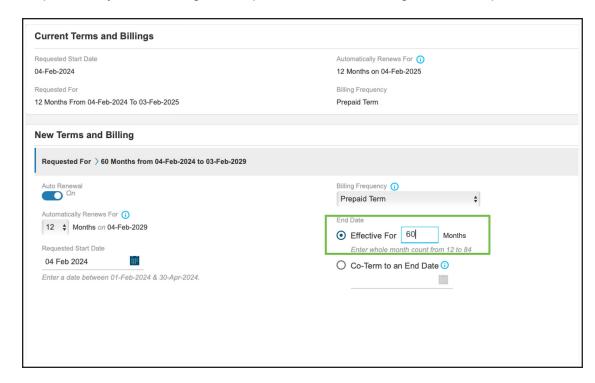
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Step 3: Modify the term length as required, click "Save Changes," and complete the order.



Step 4: Order the Cisco Catalyst controller overlay

It is mandatory to order the controller overlay through the SKU L-CONTROLLER-ADD for on-premises or cloud Cisco hosted (only for customers who have existing Cisco hosted cloud controllers for Cisco Catalyst SD-WAN) Catalyst SD-Routing deployments. Cisco Catalyst SD-Routing via CD-SDWAN offers ready-to-use cloud-delivered controllers managed by Cisco for controller lifecycle orchestrations, scaling, and certificate management.

Note: Please provide the Smart Account/Virtual Account details for seamless provisioning of the licenses.



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Services

This section reviews the Cisco Support Services available for the Catalyst 8000 platforms and associated Cisco DNA Software for SD-WAN and Routing.

- Support for Catalyst 8000 platforms: Cisco Success Tracks is the default and recommended
 Cisco Support Service. However, Cisco Success Tracks is not mandatory; it can be removed or
 replaced with another Cisco Support Service, such as Cisco Solution Support, or a partner service
 per the customer's preference.
- Support for Cisco DNA Software for SD-WAN and Routing: Success Tracks is the default and
 recommended Cisco Support Service. However, Cisco Success Tracks is not mandatory; the
 customer may choose to use the base software-level support automatically included with the
 purchase of this software or another available Cisco Support Service, such as Solution Support,
 or a partner service per the customer's preference.

Notes:

- When Success Tracks is selected, it must be ordered on both the Catalyst 8000 platform and
 Cisco DNA Software for SD-WAN and Routing for complete customer entitlement to this service.
- Cisco DNA Software for SD-WAN and Routing licenses: With all services tied to this software license, whether Success Tracks, Solution Support, or the base software-level support included with these subscriptions, customers are entitled to maintenance releases and software updates for Cisco DNA Software for SD-WAN and Routing only. The support for the Catalyst 8000 platform's OS and network stack, along with OS updates, is covered by the Cisco support contract on the Catalyst 8000 platform.



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Service overviews

Success Tracks is a comprehensive suite of success services delivered via CX Cloud digital experience to empower IT teams to transition from reactive to proactive and predictive IT operations. It includes six critical success factors designed to expedite adoption and maximize value realization: operations visibility, AI/ML insights, premium support, use case-driven guided journeys, on-demand access to expertise, and contextual learning. In addition, Success Tracks includes **Solution Support** break/fix support deliverables, providing a streamlined support experience across software, hardware, and Solution Support Alliance Partner products deployed in a customer's Cisco Networking solution.

- Proven product activation checklists and success tips.
- Access to live and on-demand expert resources.
- Direct access to engineering expertise.
- AI/ML-based analytics.
- · Curated library of product alerts and field notices.
- Centralized inventory tracking and asset management.
- · Configuration assessment for security and compliance.
- Recommendations for software updates.
- Simplified case management and rapid problem resolution.
- Practice labs for pre-production testing.
- Technical certification learning assistance.

Learn more about Success Tracks on Cisco.com.



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Solution Support streamlines your customer's support experience across software, hardware, and Solution Support Alliance Partner products used in their Cisco Networking solution through:

- A Cisco primary point of contact engineer accountable for single product, multiproduct, or multivendor issue resolution.
- Coordination of Solution Support Alliance Partner support teams until resolution for multivendor issues.
- Deep expertise in solutions, architectures, and interoperability across software and hardware.
- Ability to look beyond the original case scope and recommend actions to address known issues.
- No requirement for customers to isolate their issue to a product to open a case (use any Solution Support-entitled product).
- 30-minute TAC response objective for Severity 1 and 2 service requests.
- Prioritized case handling over product support cases of the same severity.

Learn more about Solution Support on Cisco.com.

Cisco Smart Licensing

All Cisco Catalyst 8300 and 8200 Series Edge Platforms support Smart License Using Policy (SLUP). A Smart Account and Virtual Account (SA/VA) are mandatory when ordering the Catalyst 8300 or 8200 Series platform hardware and subscriptions.

Introduction to Smart Licensing

Cisco Smart Licensing is a flexible licensing model that provides you with an easier, faster, and more consistent way to purchase and manage software across the Cisco portfolio and across your organization. And it's secure—you control what users can access. With Smart Licensing you get:

• **Easy activation:** Smart Licensing establishes a pool of software licenses that can be used across the entire organization—no more PAKs (Product Activation Keys).



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- Unified management: My Cisco Entitlements provides a complete view into all your Cisco products and services in an easy-to-use portal, so you always know what you have and what you are using.
- **License flexibility:** Your software is not node-locked to your hardware, so you can easily use and transfer licenses as needed.

To use Smart Licensing, you must first set up a Smart Account on Cisco Software Central (software.cisco.com).

For a more detailed overview of Cisco licensing, go to cisco.com/go/licensingquide.

Ordering information

To place an order, visit the <u>Cisco Ordering homepage</u>. To download software, visit the <u>Cisco Software Center</u>.

Warranty

The Cisco Catalyst 8300 and 8200 Series Edge Platforms come standard with a Cisco Limited 1-Year Return to Factory Hardware Warranty. For more information, refer to: https://www.cisco.com/c/en/us/products/warranties/warranty-c99-744450.html.

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