

Cisco SD-Routing

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Cisco® SD-Routing (short for software-defined routing) simplifies traditional routing deployment with agile workflows for device lifecycle orchestration, monitoring, and troubleshooting.

Cisco SD-Routing enables Cisco routing devices to be managed through Cisco Catalyst™ SD-WAN Manager.

SD-Routing brings operational simplicity and agility to traditional routing deployments by avoiding truck rolls for routine operational tasks. It also reduces OpEx by leveraging Catalyst SD-WAN Manager as the unified management platform for Catalyst SD-WAN as well as routing deployments. Future cloud and security integrations will provide a pathway for modernizing traditional routing.

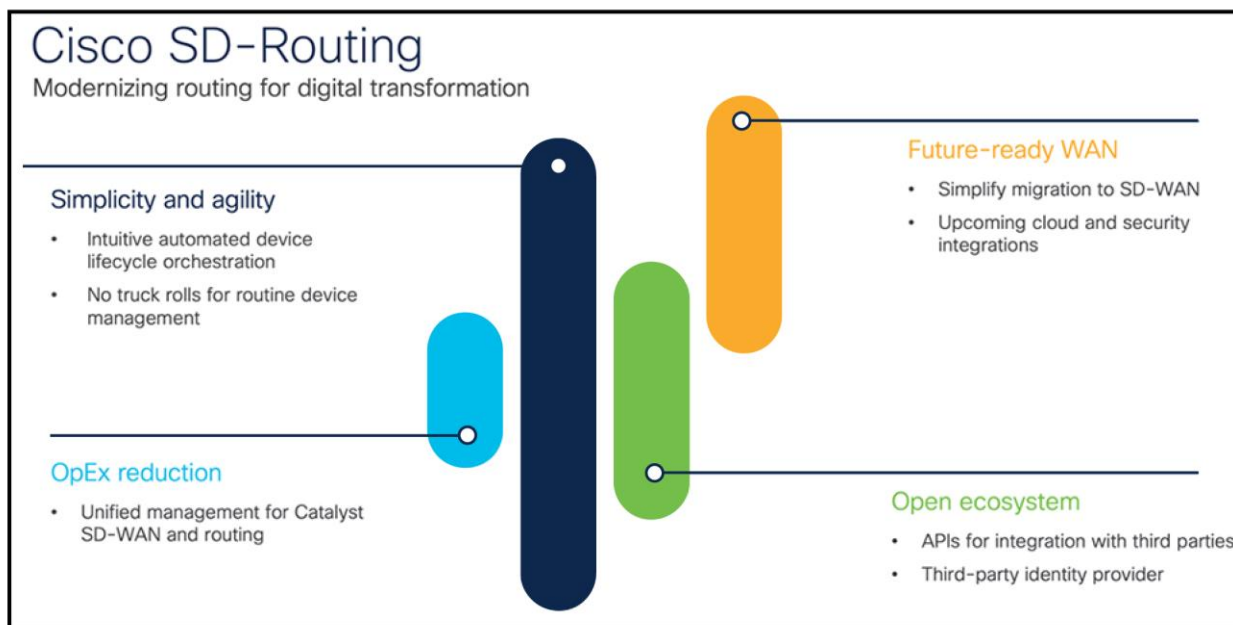


Figure 1.
Cisco SD-Routing

Cisco SD-Routing provides intuitive device lifecycle orchestration workflows for secure device onboarding as well as secure device software upgrades. Leveraging the rich monitoring and troubleshooting capabilities of Catalyst SD-WAN Manager, administrators can quickly isolate and resolve network problems. With Cisco IOS® XE 17.12.1, customers can manage their routing devices in a flexible manner through on-premises controllers. SD-Routing will also be offered through cloud-delivered controllers in the near future.

Features and benefits

Table 1. Features and benefits

Feature	Benefit
Secure zero-touch provisioning	Allows routing devices to be provisioned easily as soon as they connect to the WAN
Software image management	Upgrades the software image on devices in bulk through intuitive workflows, saving time and truck rolls
Monitoring dashboard and reporting	Provides a comprehensive summary of the health of all devices in the network, with network-wide alarms and alerts and a geographical representation of the network, as well as report generation for all of the monitoring information
Device monitoring	Provides extensive monitoring for device-specific attributes such as CPU usage, memory usage, interface status, and interface statistics
Troubleshooting tools	Simplifies troubleshooting through built-in tools such as Ping, Traceroute, SSH-to-device, and device admin-tech generation
Flexible controller hosting	Enables either cloud-delivered or on-premises management of routing devices, based on customer requirements
Unified management	Unifies management for Catalyst SD-WAN and routing deployments, providing a single-pane-of-glass user experience and, if required, paving the way for seamless migration from routing to Catalyst SD-WAN in future
Comprehensive and open APIs	Integrates easily with third-party operations support systems and business support systems, leveraging comprehensive and open APIs from Catalyst SD-WAN Manager
Third-party IDP integration	Integrates with third-party identity providers through Catalyst SD-WAN Manager, in order to seamlessly leverage the customer's existing identity infrastructure

Platform support

Table 2. SD-Routing platform support

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

Licensing

SD-Routing with on-premises controllers requires a Cisco DNA Software subscription on the device. The Cisco DNA Software subscription can be ordered within the specific Catalyst 8000 edge platform SKUs or through L-DNA-C8300, L-DNA-C8200, L-DNA-C8500, or L-DNA-C8000V. For Cisco 1000, 4000, and ASR 1000 Series routers, Cisco DNA Software subscription can be ordered through L-DNA-TIER-ADD. If the device already has an active Cisco DNA subscription, it can be onboarded straightaway in on-premises controllers for SD-Routing. For more information on Cisco DNA Software subscriptions, refer to https://www.cisco.com/c/m/en_us/products/software/sd-wan-routing-matrix.html. The management capabilities for Cisco 4000 and ASR 1000 Series routers are limited to device monitoring and troubleshooting and device software upgrades.

SD-Routing will also be offered through ready-to-consume cloud-delivered controllers, where Cisco will not only host the controllers in the cloud but also manage controller lifecycle orchestration, controller scaling, and certificate management. Ordering for SD-Routing with new cloud-delivered controllers will be enabled in the near future.

Cisco environmental sustainability

Information about Cisco's environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the "Environment Sustainability" section of Cisco's [Corporate Social Responsibility](#) (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the "Environment Sustainability" section of the CSR Report) are provided in Table 6.

Table 3. Environmental sustainability

Sustainability topic	Reference
Information on product material content laws and regulations	Materials
Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

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For more information

See how Cisco SD-Routing can be implemented at:

https://www.cisco.com/c/en/us/td/docs/routers/cloud_edge/c8300/software_config/cat8300swcfg-xe-17-book/managing-the-device-using-vmanage.html.

Document History

New or Revised Topic	Described In	Date
Initial data sheet creation for SD-Routing with 17.12 release	New	26 September, 2023

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