



# Cisco SD-Routing



**Q: What is Cisco® SD-Routing?**

A: Cisco SD-Routing (Software-defined routing) is an enhanced solution that enables following capabilities for routing devices:

- Secure and automated device onboarding workflow
- Automated device software image management workflow
- Device-level and network-wide monitoring
- Software-defined security policy workflows
- Software-defined cloud integration workflows
- Troubleshooting

**Q: What are the benefits of Cisco SD-Routing?**

A: Cisco SD-Routing offers significant advantages for your business:

- **Unified Management:** It simplifies network operations by managing both SD-Routing and SD-WAN through a single platform, the Catalyst SD-WAN Manager. This reduces Operational Expenses (OpEx) by eliminating the need for separate management tools.

- **Streamlined Operations:** SD-Routing automates routine tasks such as device software upgrades, freeing up IT resources for more strategic initiatives.
- **Future-Proof Technology:** SD-Routing is built with innovative features such as cloud and security integrations, ensuring your network can adapt to evolving technological needs.
- **Smooth SD-WAN Transition:** If you decide to upgrade to a full SD-WAN solution in the future, your familiarity with the Catalyst SD-WAN Manager will simplify the migration process.

**Q: Can Cisco SD-Routing coexist with SD-WAN?**

A: Yes, the same management platform can be used to manage both SD-WAN and SD-Routing environments.

**Q: How is SD-Routing different from traditional routing?**

A: SD-Routing offers an operating environment where a router operating in autonomous routing mode can be fully managed by the Cisco Catalyst SD-WAN manager.

**Q: What are the software versions requirements for SD-Routing?**

A: To enable SD-Routing, your devices will need to be running:

- IOS-XE version 17.12 or later
- Cisco Catalyst SD-WAN Manager version 20.12 or later

## Q: Which routing platforms will be supported with Cisco SD-Routing?

A: SD-Routing Platform Support Matrix

| Platform  | Zero Touch Provisioning | Monitoring | Configuration | SWIM<br>(Software Image Management) | Troubleshooting |
|---|-------------------------|------------|---------------|-------------------------------------|-----------------|
| Catalyst 8000 (C8500, C8300, C8200, C8KV)                     | ✓                       | ✓          | ✓             | ✓                                   | ✓               |
| ISR 4000 (ISR4400, ISR4300, ISR4200)                          | ✓                       | ✓          | x             | ✓                                   | ✓               |
| ISR 1000 (ISR1100, ISR1100x)                                  | ✓                       | ✓          | ✓             | ✓                                   | ✓               |
| ASR 1000 Series (ASR 1001-HX, ASR 1002-HX)                    | ✓                       | ✓          | x             | ✓                                   | ✓               |
| Industrial Routers (IR1101, IR1800, IR8100, IR8300, ESR6300)* | ✓                       | ✓          | ✓             | ✓                                   | ✓               |

\* Available with 17.13.1 IOS-XE release and higher

### Q: Does SD-Routing support device software image upgrade?

A: Yes, SD-routing supports device software image upgrade workflows starting 17.12.1 release., Also, scheduled upgrade support is introduced as part of 17.13.1 release.

### Q: Does SD-Routing support configuration parcels?

A: Yes, SD-Routing (version 17.13.1) supports System Parcels and CLI Feature profile.

Please refer to the software configuration guide for details.

### Q: Does SD-Routing support software-defined security policy workflows?

A: Yes, SD-Routing (version 17.13.1 and higher) introduces workflows for security policies. The user can create the security policies for Layer 3-7 NGFW functionality as well as Advanced Threat Protection features like Zone-Based Firewall (ZBFW) as well as Unified Threat Defense (UTD). Once the policies are created it is tied to policy group and applied to specific

devices, multiple devices, or even entire branch sites. This allows you to efficiently manage security configurations across your network. This eliminates the need for manual configuration on individual devices, saving you time and effort.

**Q: Does SD-Routing support software-defined cloud workflows?**

A: Yes, SD-Routing (version 17.13.1 and higher) now allows branch offices to connect directly to AWS and Azure using configuration parcels.

**Q: What troubleshooting features are available within the SD-Routing platform?**

A: SD-Routing offers a robust set of built-in troubleshooting tools, including ping, traceroute, ssh, speed test and packet capture.

**Q: Which components are required for SD-Routing?**

A: Cisco Catalyst SD-WAN Manager (formerly known as vManage) and Cisco Catalyst SD-WAN Validator (formerly known as vBond) are required for SD-Routing. Cisco Catalyst SD-WAN Controller (formerly known as vSmart) is not required for SD-Routing.

**Q: I have a Catalyst SD-WAN already deployed. What are the license requirements for adding SD-Routing device to my existing Catalyst SD-WAN deployment?**

A: Cisco DNA on prem license is required for adding SD-Routing-capable devices into an existing SD-WAN environment with on-premises deployment while for Cloud deployments Cisco DNA-CDCS is required.

**Q: Is SD-Routing available with cloud-delivered deployment?**

A: Yes, SD-Routing is available with cloud-delivered deployment for simplicity and ease of use.

**Q: Is SD-Routing capability available perpetually?**

A: SD-Routing will be available through term-based subscription, for example, Cisco DNA and monitoring licenses.

**Q: For a customer using on-premises Cisco DNA licenses for SD-Routing, what is the process to migrate to cloud-delivered Cisco DNA licenses?**

A: You will need to switch your existing Cisco DNA licenses to cloud-delivered (Cisco DNA-CDCS) licenses. This switch also allows you to request complimentary cloud-delivered deployment for Cisco Catalyst SD-Routing. These complimentary Cloud deployments are available until the end of August 2024. If you're interested, contact your Cisco account team, sales representative, or channel partner to request cloud-delivered deployment for SD-Routing.

**Q: Can a customer with the existing Cisco-hosted SD-WAN deployment leverage it for SD-Routing as well? If so, what additional licenses do their SD-WAN devices need?**

A: Absolutely! The same Cisco-hosted SD-WAN deployment can manage both SD-WAN and SD-Routing environments. To enable SD-Routing functionality on their existing SD-WAN devices, customers will need to purchase additional SD-Routing subscriptions. Specific details on these subscriptions can be found in the SD-Routing ordering guide.

**Q: What licenses do I need for SD-Routing on Catalyst devices in a Brownfield deployment (existing network)?**

A: There are two options depending on your existing Cisco licensing:

- 1) Existing Cisco DNA Licenses: If you already have Cisco DNA licenses, you can leverage them for SD-Routing.
- 2) No Existing Cisco DNA Licenses: If you don't have Cisco DNA licenses, you'll need to purchase them to enable SD-Routing functionality on your Catalyst devices.

**Q: I don't have a Cisco DNA license for my ISR1K router. What's the migration path to enable SD-Routing functionality?**

A: If you don't currently have a Cisco DNA license for your ISR1K router, you can purchase new SD-Routing monitoring licenses. For details on available SD-Routing monitoring licenses, please refer to the SD-Routing Ordering Guide.

**Q: My customer has a Cisco hosted Catalyst SD-WAN purchased through an Enterprise Agreement (EA) and wants to use SD-Routing. What are their options?**

A: The same Cisco-hosted SD-WAN can manage both SD-WAN and SD-Routing devices.

**Q: What all features are supported as part of the monitoring on-prem license?**

A: Device life cycle management, software image management, and troubleshooting.

### Important Links

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|--|---|
| SD-Routing Ordering Guide                        | <a href="https://www.cisco.com/c/en/us/products/collateral/networking/sdwan-routers/catalyst-8000-edge-platforms/nb-06-sd-routing-og-cte-en.html">https://www.cisco.com/c/en/us/products/collateral/networking/sdwan-routers/catalyst-8000-edge-platforms/nb-06-sd-routing-og-cte-en.html</a> .   |
| SD-Routing Configuration Guide                   | <a href="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">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</a> .   |
| Catalyst SD-WAN Manager on-prem deployment guide | <a href="https://community.cisco.com/t5/networking-knowledge-base/sd-wan-controller-setup-guide-on-prem-non-cloud-managed/ta-p/3921360">https://community.cisco.com/t5/networking-knowledge-base/sd-wan-controller-setup-guide-on-prem-non-cloud-managed/ta-p/3921360</a> .   |
| Catalyst SD-WAN Manager Cloud deployment guide   | <a href="https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/cloud-delivered-cisco-catalyst-sd-wan-getting-started-guide/m-cloud-delivered-cisco-sd-wan-getting-started-guide.html">https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/cloud-delivered-cisco-catalyst-sd-wan-getting-started-guide/m-cloud-delivered-cisco-sd-wan-getting-started-guide.html</a> . |