The bridge to possible

Cisco SD-WAN Cloud Interconnect with Megaport



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Overview

Q: What is the Cisco® SD-WAN Cloud Interconnect with Megaport solution?

A: The public internet is not as reliable as dedicated private links for enterprises to connect branches to their cloud applications, and Multiprotocol Label Switching (MPLS) lines are too expensive and inflexible for the agility the cloud intends to deliver.

Enterprises require more reliable, secure, and flexible connectivity to the cloud. This is where Software-Defined Cloud Interconnect (SDCI) partners such as Megaport shine. Megaport is able to create a direct connections to link your branches to the cloud or to other branches in a matter of minutes.

With this collaboration, Cisco intends to deliver the ease of management of your entire network through one ubiquitous platform. Via Cisco's Catalyst SD-WAN Manager, users can create the underlay (Megaport connections) in minutes and then deploy the SD-WAN fabric from branches to the cloud over flexible, secure connections.

Benefits

Q: What are the benefits of this solution?

A: For enterprise customers who deploy critical applications in multicloud environments, Cisco Catalyst SD-WAN, in collaboration with Megaport, will provide business-grade secure and flexible links to connect to business-critical cloud applications. These links can be deployed in minutes. Enterprises can benefit from all the advantages that Cisco Catalyst SD-WAN fabric provides for network management and unlock the power of direct connections to cloud service providers for increased performance, security, and cost-efficiency over traditional internet or MPLS lines.

- **Simple on-demand provisioning and management:** Cisco Catalyst SD-WAN Manager provides a single pane of glass for end-to-end network automation from branch to clouds, which reduces human error and cuts connectivity time from weeks or months to minutes.
- **Secure SD-WAN:** Worldwide, end-to-end security segmentation, and policy enforced through SD-WAN.
- **Guaranteed SLAs:** Guaranteed uptime with 99.99% availability over the Cloud Interconnect backbone.
- **Optimized cost:** Reduces cloud data egress fee costs by up to 54% compared to internet egress charges and by up to 75% compared to MPLS connections.
- **Increased visibility:** End-to-end visibility to 1500+ business applications (including SaaS applications).
- **Encrypted multicloud interconnects:** SD-WAN tunnels created between interconnect gateway (Megaport Virtual Edge) and the cloud service provider allow for branch to cloud traffic to be completely encrypted through the Megaport backbone.

Q: What types of enterprises benefit from this solution?

A: Any organization that wants to connect to cloud applications quickly, securely, and reliably would benefit from this solution. For example, an organization deploying an office at a new location may not be able to wait for Direct Connect links (with letters of authority at colocations taking weeks at the least) or for the MPLS links to be set up (usually taking months). Instead, they can now deploy a Megaport connection in a matter of minutes. These organizations may also want to have the same policy, security, and access throughout the whole network, even in the cloud, so they may extend the Cisco Catalyst SD-WAN fabric over Megaport links.

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Q: How does Cisco ensure that the data traversing the Megaport backbone is secure?

A: Cisco ensures that the traffic traversing the private backbone of Megaport is encrypted end-to-end. Extending the SD-WAN fabric over the private underlay all the way into the cloud service provider, not only allows for end-to-end encryption for branch to cloud traffic, but also overcomes any failures of the underlay by automatically steering traffic from the branch to cloud over the internet.

Q: Does Cisco SD-WAN Cloud Interconnect ensure that the intent captured during configuration of the services is the same as the final state of various resources at Megaport and at the cloud service provider? What happens if any out of band operations are performed using Megaport or CSP portals?

A: Yes, Cloud Interconnect audits your infrastructure in the cloud and with Megaport to check for discrepancies. It's possible for Catalyst SD-WAN Manager and Megaport to show contrasting data because errors may arise when creating or deleting resources or if any out of band operation was performed on the Megaport or CSP portal. The audit Infrastructure feature reports and/or fixes any errors by automatically correcting discrepancies between your infrastructure in the cloud and in your Megaport infrastracture.

Use cases

Q: What are the different use cases for Cisco SD-WAN Cloud Interconnect with Megaport?

A: You can use the Megaport underlays to connect to cloud workloads in AWS beginning with the 17.5 release (supporting hosted Virtual Interface connections [VIFs], both private and public, and hosted connections). Starting with the 17.6 release, capabilities to connect to Google Cloud and Microsoft Azure have been enabled. They can also connect data centers or branches across various regions around the globe.

Deployment and platform support

Q: How do I deploy and manage the Cisco SD-WAN Cloud Interconnect with Megaport solution?

A: Users have the convenience of managing their SD-WAN fabric and connectivity to clouds and other branches completely through Catalyst SD-WAN Manager. All policy administration, connections, and virtual router instances are API driven. The user only needs to select the bandwidths of the connections needed and the locations where they want to connect from and to, along with a few other settings to establish connectivity.

Q: Which Cisco platforms are supported with this solution?

A: Currently, this solution is available on the Cisco Catalyst SD-WAN (Version 17.5/20.5 or later) platform. We are exploring the possibility of extending it to Meraki® SD-WAN in the future.

Q: When is the solution available?

A: Cisco SD-WAN Cloud Interconnect with Megaport is available beginning with Cisco Catalyst SD-WAN release 17.5. All Megaport SKUs (Megaport Virtual Edge, Virtual Cross Connects and Megaport Ports) are available for purchase through Cisco GPL.

Q: What are the components of the solution?

A: Users need to purchase the following as part of the solution:

- Cisco Catalyst® 8000V Edge Software license (priced by bandwidth).
- Cisco SD-WAN Cloud Interconnect gateway (also known as Megaport Virtual Edge), deployed at the Megaport network edge location (priced by bandwidth and region).
- Megaport Virtual Cross Connect (priced by bandwidth and region).
- Megaport Port (Priced by Bandwidth Region) – available for purchase through Cisco GPL in July 2023.

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Ordering and licensing

Q: How is the Cisco SD-WAN Cloud Interconnect with Megaport solution ordered?

A: Users order the solution via Cisco partners, who can order all components of the solution through Cisco Commerce Workspace (CCW).

Q: What are the licensing options available?

A: You can purchase Catalyst 8000V Edge Software licenses along with the Cisco SD-WAN Cloud Interconnect gateway (Megaport Virtual Edge), Virtual Cross Connects, and Megaport Ports through CCW.

Licensing is available in 1-year, 3-year, and 5-year terms or with the Pay-As-You-Go (PAYG) billing model (launching in March 2024).

The PAYG licensing mechanism will require users to purchase PAYG ($0 licenses) SKUs from CCW through their partners.

These PAYG license SKUs entitle users to bring up any Megaport services without requiring any term commitments upfront. This also allows users to dynamically expand or contract their network based on their day-to-day bandwidth requirements and be billed at the end of the month. A true consumption- based billing model enables you to only pay if you use the Megaport services, so there is no wastage, no overages, and truly dynamic access to your network. With no upfront commitments, the guesswork is taken out of determining the amount of bandwidth you need for the next year. Users are billed based on publicly available rates, for compute and bandwidth reserved on a daily basis. Pricing varies based on the region where the services are located and the size of compute and bandwidth of the Megaport Virtual Edges and Virtual Cross Connects respectively. Users can also easily track their usage/consumption on their Subscription Billing Platform (SBP) portal.

Resources

Q: Where can I find more information on Cisco SD-WAN Cloud Interconnect with Megaport?

A:

- Cisco SD-WAN Cloud Interconnect with Megaport At-a-Glance.
- Cisco SD-WAN Cloud Interconnect with Megaport Podcast.
- Cisco SD-WAN Cloud Interconnect with Megaport Configuration Guide.
- What is Software-Defined Cloud Interconnect? Video.
- What is Software Defined Cloud Interconnect? Webpage.
- Cisco SD-WAN Cloud OnRamp.
- Cisco Catalyst SD-WAN.

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