Webex Edge

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Webex® Edge is a set of services that allows you to realize savings on PSTN and bandwidth costs while providing even better meeting experiences through improved audio, video and content quality.

Product overview

Webex Edge consists of three services (not hardware): Webex Edge Audio, Connect and Video Mesh. They can be deployed separately with each service bringing its own benefit. Or deploy them together for amazing and cost-effective meetings every time. The services reshape and re-architect the edge to maximize the power of our cloud and bring that experience into the enterprise while providing even better meeting experiences through improved audio, video and content quality.

Webex is the only service built and optimized for real-time media. The backbone is a real-time, worldwide IP network engineered for effective meetings, enabling superior quality, reliability, and security that is nearly impossible to achieve on the public Internet or other public could-based services. We are re-architecting the edge so that you can maximize the power of the backbone directly in your own datacenter and improve meeting experiences. With Webex Edge we are doing this without asking users to change their behavior or training them on some new technology or way of meeting.

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The Webex Edge services offer the following three capabilities:

Webex Edge Audio

Webex Edge Audio decouples the PSTN from Webex by intelligently changing the call routing to a simple to deploy on-net path. It's a service that allows any company, of any size, that uses Cisco Unified Communications Manager (Unified CM) to intelligently and automatically route audio calls over VoIP or utilize existing PSTN services.

Once deployed, any meeting participant automatically joins a Webex through a direct VoIP route to the cloud—not only from their PC but also from any Cisco registered phone—completely transparent and with no change in behavior. This provides great cost-savings for our customer as it eliminates PSTN charges created by employees. At the same time, it provides users with all the benefits of high quality wide-band codecs that Webex offers.

Edge Audio also can lower PSTN costs for participants using call back from any phone—including mobile phones and home phones. When callback is requested to join a meeting from on-premises, Unified CM automatically routes the call to the desk phone. The customer can also choose to route callback for specific countries via their Expressways on-net and out their own PSTN gateways providing additional costs savings over using Webex. Edge audio provides ultimate flexibility to our customers in choosing the on-net path in locations/country where they can save on PSTN and at the same time allows them to buy off-net minutes in locations/country where they do not have an on-prem/CUCM deployment.

In summary, for any Unified CM registered device Edge Audio creates an end-to-end VoIP path whether users are dialing in or requesting the call back option from Webex. For all other users with a non-Unified CM-registered phone or mobile device, the company's own PSTN services can be used. We have democratized audio savings while improving the audio quality for calls on Unified CM registered devices.

Edge Audio is enabled through a simple and automated provisioning process and setup with Unified CM and Cisco Expressway. Unlike with other solutions, our customers do not need to spend on edge traversal license on third party session border controllers. They connect to the cloud through Cisco Expressway with no additional licenses.

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Webex Edge Connect

Webex Edge Connect is a dedicated, managed, Quality-of-Service (QoS) enabled IP link from a customer's premises to the cloud through direct peering. This setup leads to better and faster Webex Meetings powered by the backbone. The direct connection provides enhanced meeting quality with consistent network performance and added security.

Edge Connect is a dedicated, managed, QoS enabled IP link from your premises directly to the backbone via the Equinix cloud exchange. This dedicated peering connection insulates your meetings from the variability of the Internet – so less congestion, packet loss, jitter and delay. Not being exposed to the public Internet also means you are better protected from potential threats and attacks.

Your day-day core business conducted over the internet does not interfere with meetings and vice-versa. By combining Edge Audio and Edge Connect, you can be assured of a consistent, reliable, cost effective, and secure meeting experience for all.

Webex Edge Video Mesh

Webex Edge Video Mesh enables industry-leading media experiences and is now included within the Edge services. It enables on-premises video quality with cloud simplicity and scale. The Video Mesh node is software installed on a local server that registers and is cloud-managed by the Control Hub. It provides local media processing for select Webex on-premises meetings attendees and facilitates the routing of meetings to the local, on-net Video Mesh node to join participants together in a meeting. The service chooses the most efficient way to use the available resources, creating a better experience for users. It lowers latency and saves on Internet bandwidth as media no longer needs to traverse to the cloud and back for call processing.

Because it is an extension of the Webex service on your premises, it is synchronized so that software updates automatically take place. And if on-premises resources are full or unavailable, the service automatically cascades to the cloud so everyone can join the meeting.

It too can be optimized when used with Edge Connect with your audio and video combined and managed by the backbone.

Learn more about the Video Mesh capability.

Note: For an optimal meeting experience, we highly recommend customers combine all of the following three capabilities.

Features and benefits

Benefits of Edge include:

- An optimal meeting experience with superior quality, reliability, and security
- Consistent network performance versus internet-based connections
- No change in user behavior or training required
- Enhanced audio quality with a wideband codec
- Increased availability and access to meetings, regardless of location or mobility
- Cost savings for routing audio calls using VoIP and bypassing PSTN
- Ease in scaling and management with minimal provisioning required
- Flexible on-net and off-net deployment
- Less network blockage as meeting traffic does not interfere with mission-critical applications
- Simple setup

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System requirements

Table 1. Edge Audio system requirements

CISCO PRODUCTS AND SOLUTIONS	VERSION
Webex site	T33.X
Cisco Unified Communications Manager (UCM)	UCM 10.5 or newer
Cisco Expressway™	Version X8. 10 or newer
Cisco UCM registered IP phone	Supporting G.711 or G.722

Edge Audio requires a signed certificate from a Cisco trusted Certificate Authority (CA).

Edge Connect system requirements

· An active connection on the Equinix Cloud Exchange
· Public Border Gateway Protocol (BGP) Autonomous System Number (ASN) that you own
· Public, provider-independent, IP space
· An IT team with knowledge of BGP and peering principles
· A network device capable of running BGP and 802.1Q tagging

Webex Edge Audio

Edge Audio is included in the Collaboration Flex Plan.

You can enable the Edge Audio package on Webex website.

Table 2. Webex Edge Audio products and SKU numbers

PRODUCT NAME	PRODUCT NUMBER
Edge Audio	A-FLEX-EDGAUD-USER
Edge Audio	A-SPK-EDGEAUD-USER
Edge Audio	A-WX-EDGEAUD-USER

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Webex Edge Connect

Webex Edge Connect requires a peering agreement with Equinix Cloud Exchange and a monthly subscription from Cisco based on bandwidth requirements of the peering link.

- Visit Equinix Cloud Exchange to purchase and set up a peering link
- Visit the Cisco Ordering Home Page to purchase a Edge Connect circuit option based on usage pattern (500 MB, 1 Gb, 5 Gb, 10 Gb)
- Contact your representative at Cisco to set up a virtual circuit to peer directly with Webex

Table 3.   Edge Connect SKU numbers

PRODUCT NAME	PRODUCT NUMBER
EDGE CONNECT – U.S., U.K., AND AMSTERDAM PEERING LOCATIONS	
500 MB	A-FLEX-EDGCON-500M
1 GB	A-FLEX-EDGECON-1GB
5 GB	A-FLEX-EDGECON-5GB
10 GB	A-FLEX-EDGCON-10GB
500 MB	A-SPK-EDGCON-500MB
1 GB	A-SPK-EDGCON-1GB
5 GB	A-SPK-EDGCON-5GB
10 GB	A-SPK-EDGCON-10GB
500 MB	A-WX-EDGCON-500MB
1 GB	A-WX-EDGCON-1GB
5 GB	A-WX-EDGCON-5GB
10 GB	A-WX-EDGCON-10GB

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Table 3 (Continued).   Edge Connect SKU numbers

PRODUCT NAME	PRODUCT NUMBER
EDGE CONNECT - APAC PEERING LOCATIONS	
500 MB	A-FLEX-EC-500-APAC
1 GB	A-FLEX-EC-1G-APAC
5 GB	A-FLEX-EC-5G-APAC
10 GB	A-FLEX-EC-10G-APAC
500 MB	A-SPK-EC-500M-APAC
1 GB	A-SPK-EC-1G-APAC
5 GB	A-SPK-EC-5G-APAC
10 GB	A-SPK-EC-10G-APAC
500 MB	A-WX-EC-500-APAC
1 GB	A-WX-EC-1G-APAC
5 GB	A-WX-EC-1G-APAC
10 GB	A-WX-EC-10G-APAC

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