Cisco Webex for CCA Interconnection Guidelines

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Purpose

This document provides a set of guidelines for those customers wishing to directly interact with the WebEx MediaTone Backbone (as13445). The target audience for these guidelines are those involved with Inter-Domain Routing.

The MediaTone Network

The MediaTone Network (as13445) spans the globe and is in major cities around the world. The network is designed as a Carrier Class and allows multiple external connections from any of the listed facilities. Exact facility locations will be discussed during the design phase of the interconnection.

Current Major Facility list North America

- San Jose, California
- Dallas, Texas
- Ashburn, Virginia
- Chicago, Illinois
- Los Angeles, California
- New York, New York

Current Major Facility list Europe

- London, England
- Amsterdam, Netherlands

Current Major Facility list Asia

- Tokyo, Japan
- Hong Kong, China (SAR)
- Singapore (pending)

Note: Addresses for above locations are listed in the appendix A below.

Interconnect Scenarios

Regional

Regional interconnection can be at single or multiple locations in a given area such as North America, Europe or East Asia. The target networks for this type of interconnection are those whose network footprint spans a region or a portion of a region.

Global

Global interconnection requires multiple interconnects between the MediaTone Network (as13445) and the customer's network. A minimum of one interconnection per region is advised when applicable.

Interconnection Details

Interconnection details apply to both the regional and global options.

Circuit Types

Circuit capacity should be adequately sized to carry traffic under normal utilization and excess capacity to provide 1:N circuit redundancy. Circuits should not exceed 85% of maximum capacity average as measured over a 30 second time frame. No channelization or sub rate schemes will be supported. Circuit hand offs must be optical Ethernet based. Minimum Ethernet hand off is gigabit-Ethernet; Link Aggregation Control Protocol (LACP) may be used to bundle multiple circuits. Ten gigabit-Ethernet can be used a interconnection medium but may be rate limited if needed. Fiber interconnections must be 1310nm (single-mode) fiber handoffs.

All circuits terminating on the Webex network must be provisioned by the customer to a Webex specified demarcation point. All circuit monitoring will be the responsibility of the customer.

Network Interaction

The Mediatone network (as13445) will only interact with other networks with Border Gateway Protocol (BGP). Standard protocol timers should be used. As a liveliness mechanism Bidirectional Forwarding Detection (BFD) should be deployed between the networks.

The customer must NOT point any default route of last resort, add a static route, or otherwise send traffic for a route not advertised over our BGP session. We do not provide transit to customer networks. All traffic sent to us must have a specific destination IP address within any of the WebEx prefixes we may advertise over BGP to you.

Addressing

The Mediatone network (as13445) will only accept and originate publically registered address space over inter-domain connections. No RFC-1918 or RFC-4198 will be accepted. Webex will not provide publically registered IPv4 address space to its customers with the exception of point-to-point link addressing. For IPv4 we will supply one IPv4 /31 per interconnect.

Prefix Exchange

A fixed number of prefixes will be exchanged between the networks with hard limits enforced. All customer interconnections will employ exact match prefix filters on incoming route advertisements. Inbound filtering will be based on specific prefixes with a de-aggregation limit of 2 bits on a pre-defined network. For example, if a /24 is the normal prefix length we will accept de-aggregation to /26 inside that /24 announcement. WebEx will accept and send BGP Multi-Exit Discriminators (MEDs) as a form of external traffic engineering to influence traffic flow. This can be used to

keep traffic on a preferred or shortest path. In the case of more than two interconnects prefixes can be biased to favor a fixed fail over pattern. Before service installation the Engineering groups from both networks should discuss and document this behavior.

WebEx can also send BGP Community information that can be used by the customer to better route traffic if desired. These communities will expose the geographic point of origination for the route. Webex will not accept any community information from its customers.

In some instances it may not be desirable for the customer to have their traffic traverse the public Internet. In these cases there should be a dialog between both engineering organizations to discuss and document how this should be handled.

Appendix A

CCA Interconnection Locations		
Region	**City**	**Addresses**
North America	San Jose, CA	Cisco WebEx c/o Equinix, 11 Great Oaks Blvd., San Jose, CA 95119
	Los Angeles, CA	Cisco WebEx c/o CoreSite, One Wilshire, 624 S. Grand Ave., Los Angeles, CA 90017
	Chicago, IL	Cisco WebEx c/o Telx 350 E. Cermak Road, Chicago, IL 60616-5507
	New York, NY	Cisco WebEx c/o Telx 111 8th Ave New York, NY 10011.
	Dallas, TX	Cisco WebEx c/o Equinix 1950 N. Stemmons Freeway Dallas, TX 75207
	Ashburn, VA	Cisco WebEx c/o Equinix, 21715 Filigree Court, Ashburn, VA 20147.
Europe	London	Cisco WebEx Communications UK Ltd. TelecityGroup UK Limited Suite 5A Cisco / Webex 6 & 7 Harbour Exchange Square London, E14 9GE, United Kingdom
	Amsterdam	Cisco WebEx c/o Equinix, Laarderhoogtweg 57 1101 EB Amsterdam, Netherlands.
Asia	Hong Kong	Mega-I 399 Chai Wan Road, Chai Wan, Hong Kong

	Tokyo	Equinix 3-8-21 Higashi Shinagawa, Shinagawa-ku, Tokyo, Japan 104-0002.
	Singapore	Cisco International Limited Singapore Branch C/O Equinix – SG1- 2B:00100 20 Ayer Rajah Crescent, #05-05 Singapore 139964