What You Make Possible
Designing Cisco Collaboration and Conferencing Solutions

BRKCOL-2304
Agenda

- Cisco Conferencing Next Generation WebEx Meetings
- WebEx SaaS Deployment Models
- WebEx Audio Deployments
- Cloud Connected Audio (CCA)
- MeetingPlace & WebEx Integration
- WebEx Node for ASR
- Cisco Telepresence WebEx OneTouch 2.0
Cisco Collaboration Portfolio

Unified Communications

Customer Collaboration

Collaboration Applications

Telepresence
Cisco WebEx Leads Global On-Demand Web Conferencing Market

- Participants from over 231 countries
- 6.3+ million registered hosts worldwide
- Average 9.4 million meetings hosted per month
- Over 33 million meeting attendees per month
- 1.9+ billion meeting minutes per month
- 1.73 million+ iPhone downloads
- 756,000+ iPad downloads
- 184,000+ BlackBerry downloads
- 298,000+ Android downloads

Stats as of 3/31/2012

Source: Frost & Sullivan, World Web Conferencing Hosted Services Market, August 2010, N7F6-64.
"Next Generation" WebEx Meetings

Cisco WebEx

Meeting Spaces
WebEx Meetings
WebEx Mobile
LoB Centers
IM & Presence

Cisco Integrations
Single Identity, Administration and Open APIs
Cisco Collaboration Cloud
Follow-Up

- Track progress
- Watch recordings
- Access shared meeting files
- Continue discussion
- Invite others to review files

IT
- Optimizes team performance/efficient
- Multi-platform
- Single identity
- Policy controlled
- Collaboration inside/outside firewall
WebEx Meetings
New Common Components

Identity, Directory & Authentication
- Single identity
- Common user profile, log-in
- Common registration

Common Administration
- Single point of entry for all Administrators
- Common User Management

Document Management
- Unified Storage Management
- Policies
- Content Lifecycle
New Features in WebEx Meetings

- Persistent meeting space
- Meetings dashboard
- Document library and sharing
- Indexed search for all content
- Meeting content notifications and alerts
- Simple user interface
- Single identity, administration and open APIs
- Tighter integration with Cisco Collaboration products:
  - Cisco TelePresence WebEx OneTouch meetings: Integration with new endpoints, two-way video
  - Cisco Jabber: One click meetings, desktop share
  - Cisco Quad
  - Cisco MediaNet
- Enhanced mobile experience
Benefits

- Improves productivity
- Saves time, improves efficiencies

FEATURE HIGHLIGHTS:
- Persistent meeting space
- Presence and IM integration
- Document library and sharing
- Indexed search for all content
- Meeting content notifications and alerts
- Simple user interface: how-to, help
Webex High Definition Video - Meetings & Meeting Center

- Active speaker main video area – up to 720p
- Active speaker switching
- See up to 5 other participants at a time. Scroll to see more.
## Network Bandwidth Sizing - HQ/HD Video

- Cisco Unified Communications System 8.x SRND, Collaborative Conferencing Chapter
  

<table>
<thead>
<tr>
<th>Traffic (Test Scenario) Average (kbps) Maximum (kbps)</th>
<th>Traffic (Test Scenario) Average (kbps) Minimum (kbps)</th>
<th>Traffic (Test Scenario) Average (kbps) Maximum (kbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video (Webcam with 352x288 resolution at 15 fps)</td>
<td>172</td>
<td>298</td>
</tr>
<tr>
<td>Video Standard Quality (6 thumbnail videos, each 160x90 resolution up to 10 fps)</td>
<td>350</td>
<td>500</td>
</tr>
<tr>
<td>Video High Quality Medium View (Webcam with 320x180 resolution up to 12 fps)</td>
<td>300</td>
<td>500</td>
</tr>
<tr>
<td>Video High Quality Large View (Webcam with 640x360 resolution up to 30 fps)</td>
<td>900</td>
<td>1,500</td>
</tr>
<tr>
<td>Active Video 720p (HD) with or without thumbnails</td>
<td>1,500</td>
<td>2,000</td>
</tr>
</tbody>
</table>
SaaS Deployment Models

• Webex Collaboration Cloud Architecture
• Global Distributed Meetings (GDM)
• Content Delivery Network (CDN)
• Cloud Security
• Medianet with WebEx
• Federated SSO
Cisco Collaboration Cloud

8 Global Data Centers and 4 PoPs

5.7 million meetings/month

19 million attendees/month

1.1 billion meeting minutes/month

New Hub
Existing Hub
Cisco WebEx
Collaboration Cloud
Cisco Collaboration Cloud differentiators

High Availability
- 99.99% uptime
- Global Site Backup for redundancy and disaster recovery
- Seamless failover

Scalability and Performance
- Service oriented architecture
- Static and Dynamic Caching
- Intelligent Routing
- Global Distributed Meeting (GDM)

Collaboration Integration
- High Def & Quality Video/TeleP resence UE
- Meeting Place/WebEx Node
- IP phone services
- Mobile devices

Multi-Layer Security
- Secure in-meeting experience
- Encrypted data transfer and storage
- Data center security
- Rigorous 3rd party audits
WebEx Collaboration Cloud Architecture

- **Physical Layer**: Optical Fiber Links
- **Data Centers**
- **session managers**
- **Collaboration Switches**
- **Application Program Interface**
  - Webzone: MediaTone
  - Meetingzone: MediaTone
- **Operational Support System**
  - BLis
  - SLim
  - GSB
  - Global Watch
  - GSLB
  - Over-provisioned I.P. Network
  - Physical Layer: Optical Fiber Links
Global Distribution Meeting (GDM) and Content Delivery Network (CDN) optimize user experience

Closest hub is selected with Global Distributed Meeting

GDM local switching eliminates traffic congestion to a single hub. Provides optimal in-meeting experience with low round trip time/latency and high bandwidth

Pre and post meeting experience enhanced by leveraging CDN
### Cisco WebEx Multi-layer Security Model

<table>
<thead>
<tr>
<th>In-meeting Controls</th>
<th>Access Controls Privilege Controls</th>
<th>Third party Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Security</td>
<td>Customer-Defined Policy Management</td>
<td>SAS-70 Type II Audit</td>
</tr>
<tr>
<td>Secure Access</td>
<td>SSL/AES Encryption User Authentication</td>
<td>ISO 27001 in progress</td>
</tr>
<tr>
<td>Application Security</td>
<td>Secure App Development Logical Controls for Multi-tenancy</td>
<td>Vulnerability Assessment</td>
</tr>
<tr>
<td>Platform Security</td>
<td>Hardened Hosts Protected Networks</td>
<td></td>
</tr>
<tr>
<td>Physical Security</td>
<td>Data Center Secure Facility</td>
<td></td>
</tr>
</tbody>
</table>
The Medianet WebEx integration provides administrators with unprecedented visibility and control over their WebEx traffic.

Only Cisco can offer this connection between the network and application for lower TCO and optimized user experience.

- **Video Traffic Simulation**: Model WebEx traffic prior to deployment to understand bandwidth impact.
- **Metadata**: Identify and mark WebEx traffic streams.
- **Media Monitoring**: Monitor WebEx network statistics (latency, packet loss, jitter, etc.).
- **Mediatrace**: Get end-to-end diagnostic capabilities for troubleshooting.

*Future management with Cisco & 3rd Party NMS Products*
## Network Bandwidth Sizing - Web Conferencing

**Cisco Unified Communications System 8.x Solution Reference Network Design, Collaborative Conferencing Chapter**


<table>
<thead>
<tr>
<th>Traffic (Test Scenario) Average (kbps)</th>
<th>Traffic (Test Scenario) Maximum (kbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Desktop share</strong>&lt;br&gt;(Slide presentation with 30 second transitions)</td>
<td>43 for PC&lt;br&gt;95 for iPad&lt;br&gt;67 for iPhone&lt;br&gt;24.8 for Blackberry</td>
</tr>
<tr>
<td><strong>Presentation share</strong>&lt;br&gt;(Slide presentation with 5 second transitions)</td>
<td>6.5 for PC&lt;br&gt;30 for iPad&lt;br&gt;23 for iPhone&lt;br&gt;54.56 for Blackberry</td>
</tr>
<tr>
<td><strong>Idle meeting</strong>&lt;br&gt;iPad (16G), iPhone (3G), and Blackberry (Bold9700) use a WiFi network for data Connectivity</td>
<td>0.8 for PC&lt;br&gt;8.9 for iPad&lt;br&gt;0.17 for iPhone&lt;br&gt;0.42 for Blackberry</td>
</tr>
</tbody>
</table>
# Webex Federated SSO Customer Requirements

## SAML Compliant Identity & Access Management System

<table>
<thead>
<tr>
<th>CA SiteMinder</th>
<th>IBM Tivoli Federated Identity Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ping Identity PingFederate</td>
<td>Siemens IT Solutions DirX</td>
</tr>
<tr>
<td>Sun Microsystems</td>
<td>TriCipher Armored Credential System</td>
</tr>
<tr>
<td>OpenSSO Enterprise</td>
<td>Fugen Solutions</td>
</tr>
<tr>
<td>Microsoft Windows Server</td>
<td>Cloud-Identity</td>
</tr>
<tr>
<td>ADFS and Geneva</td>
<td>Google Enterprise SAML IDP</td>
</tr>
<tr>
<td>Novell Identity Manager</td>
<td></td>
</tr>
</tbody>
</table>

## X.509 Digital Certificate

Granted by Certificate Authority Or Customer generated

Recommend Cisco Advanced Services for Deployment
Webex Federated SSO to iDP

1) Send to Webex

2) User clicks Log In

3) Redirection with Auth Request

4) User Logs in

5) Send Credentials

6) Map person to Webex username

7) Generate Assertion

8) Sign Assertion

9) Validate User

10) Post Assertion

11) Return session cookie

Enterprise Network

MP Database

User & Cert Database

SAML Auth & Redirect Service

WebEx Meeting Pg

SAML Assertion

X.509 Cert

Identity Manager

IdP

Browser

Enterprise Network
WebEx Productivity Tool Authentication

WBX 27 or 28 or Webex Meetings SSO Authentication

- opens a browser window to a customer-hosted authentication web page.
- Customer’s IDMS generates a SAML assertion and posts to WebEx.
- WebEx authenticates and optionally provisions the user and returns a session ticket
- Productivity tools then collectively utilize the session ticket for subsequent XML API requests.
- SAML 1.1, 2.0, WS-Fed 1.0 (MSFT ADFS) Assertion formats supported
WebEx Audio Integrations
WebEx Integrated Audio

WebEx PSTN Based Audio

- Call in and Callback options
- Active Speaker Indicator and intelligent video switching
- In Session Controls
- Mute/Unmute participants
- VoIP mixed with PSTN audio session
- Recordings
- Event Center Audio Broadcast
  - Up to 3000 attendees

IP Based Cloud Connected Audio
Webex Audio Deployment Options

### WebEx Audio
- Hosted Integrated Service
- PSTN
- VoIP
- VoIP/Audio Mixed Audio

### MeetingPlace
- On Premise Audio Bridge
- Standards based videoconferencing (H.323/SIP)
- SIP Integration to UCM/
- API Integration to Webex

### Certified Service Provider
- Hosted Integrated
- BT, Verizon, Intercall
- Integration Through a Telephony Service Provider (TSP) API

### Third Party SP
- Not integrated
- On Premise or SP Hosted
Webex VoIP - PC Audio

- Used with Webex Audio or CCA only
- Rely on the internet for voice traffic
  - No phone required
  - Host and attendees use microphones and speakers connected to their computers
- Full duplex Audio via PC
  - “Best Effort” Internet quality
- Requirements
  - Full duplex sound card
  - Headsets recommended
- Network Bandwidth Uses 56 Kbps average per session
Audio Broadcast - Hold Large Events Yourself

- Supports up to 3,000 participants
- Used in conjunction with Event Center
  - Speakers call in or can use VoIP
- Attendees need a headset or working PC speakers, as the audio will be delivered via the attendee’s PC speakers.
  - No outside help necessary
- Need more?
  - Event production partners can help tailor large events to your exact specifications
# WebEx Audio Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Meeting Center</th>
<th>Training Center</th>
<th>Event Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated scheduling</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Unified participant list</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Productivity Tools Scheduling</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mute/Unmute attendees</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mute attendees upon entry</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Invite by phone (w/ callback only)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Expel/Lock sessions</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Breakout sessions</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Hands on lab</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Integrated VoIP/Broadcast</td>
<td>X</td>
<td>X</td>
<td>X*</td>
</tr>
<tr>
<td>Personal Conference Number</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Audio-Only Meeting Scheduler</td>
<td></td>
<td></td>
<td>X*</td>
</tr>
<tr>
<td>Support for up to 500 callers</td>
<td>X</td>
<td>X</td>
<td>X*</td>
</tr>
<tr>
<td>Global coverage</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Single bill</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

* Up to 3,000 participants
Hybrid Deployments with WebEx SaaS

- WebEx Cloud Connected Audio
- Cisco Unified MeetingPlace 8.5
- Cisco Webex Node for ASR
- Cisco Telepresence Webex One Touch 2.0
Cloud Connected Audio
Unified Communications IP-based audio solution from WebEx

- Allows you to leverage your investment in IP telephony infrastructure
- Helps lower the cost for meeting audio with predictable monthly ports-based pricing
- Delivers a truly integrated audio/web conferencing experience
Cloud Connected Audio (CCA)

How it Works

- Uses call signaling between enterprise's IP PBX and WebEx's audio bridge through a Session Border Controller (SBC)
- Enabled through redundant IP connections between customer’s and Cisco’s data centers
- Customer leverages its existing carrier terminations for off-net calling
  - “Off-net “calls are the calls generated from phone numbers that do not reside on the enterprise network
Enterprise UC connecting to the WebEx Cloud

Current WebEx Audio

Cloud Connected Audio

Customer Network

Cisco WebEx Collaboration Cloud

PSTN

Cisco WebEx iPOP
CCA Call Flow

Call routing by customer UCM

Gig-E IP connection

Customer Network

CUBE and Firewall provide secure border
Hybrid Deployment – Cisco Unified MeetingPlace 8.5
Unified MeetingPlace 8.5 Webex Hybrid Deployment Options

1. Audio/video on prem with pure SaaS WebEx integration

2. Audio/video on Prem with SaaS WebEx and WebEx Node for ASR

MeetingPlace integration with WBS 27 or 28:

WebEx Meeting Center
or
Enterprise Edition (MC, EC, TC)
### MeetingPlace 8.5/Webex Hybrid Model

<table>
<thead>
<tr>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WebEx WBS27 FP23 Enterprise Edition or MC</strong></td>
</tr>
<tr>
<td>• Hosted Web Meetings and Calendaring</td>
</tr>
<tr>
<td>• User Account Management</td>
</tr>
<tr>
<td>• New High Quality Webcam video for “external Meetings”</td>
</tr>
<tr>
<td><strong>Cisco Unified MeetingPlace 8.5</strong></td>
</tr>
<tr>
<td>• Scalable and Highly Available Audio</td>
</tr>
<tr>
<td>• Integrated Audio experience for WebEx Web Meetings (Scheduled meetings use Webex Meeting ID)</td>
</tr>
<tr>
<td>• Optional Standards based Video on premises</td>
</tr>
<tr>
<td><strong>Cisco Unified Communications Manager 6+</strong></td>
</tr>
<tr>
<td>• Global PSTN and Internal Access Numbers for MP Meetings</td>
</tr>
<tr>
<td>• Lowest-cost internal call routing for MP Audio/video meetings</td>
</tr>
<tr>
<td><strong>Virtualization</strong></td>
</tr>
<tr>
<td>• UCS C and B Series Support</td>
</tr>
<tr>
<td>• VMWare ESXi 4</td>
</tr>
<tr>
<td>• MP EMS Audio/video Mixer</td>
</tr>
<tr>
<td><strong>Cisco Advanced Services (Optional)</strong></td>
</tr>
<tr>
<td>• Help customers qualify and deploy MP 8.5</td>
</tr>
<tr>
<td>• Managed MP Hosting</td>
</tr>
<tr>
<td>• Fully Hosted MP</td>
</tr>
</tbody>
</table>
MeetingPlace 8.5 Design Concepts

- 1 Webex Site per system (abc.webex.com)
- 14,400 Audio Sessions in High Capacity Mode (G.711)
- 1200 Audio Sessions per Audio UCS/MCS Platforms
- 4 Regions – database replication
- 4 Nodes per Site
- Combined Nodes supported on Max of 4 node system
- 2 Sites per Region/8 Sites total
- 16 Audio/Video Nodes Overall
- 4 Webex Node for MCS per system (web)
  OR
- Multiple Webex Node for ASR-1000 (web/video)
MP 8.5 Multinode Call Flow

To start the teleconference:
- Call-in toll-free number (US/Canada): +1-866-432-9903
- USA Internal Call in: 68000
- Call-in toll number (EMEA): +49-578-234567
- EMEA Internal Call-in: 75000
- Meeting ID: 856 220 789 (scheduled meeting)

1. EMEA “Host” dials internal EMEA number x 75000 to join meeting
2. Meeting Director establishes call on EMEA Node #1 (least busy node)
3. USA User dials internal number x68000
4. UC Manager SIP Circular Hunt distributes inbound calls evenly, USA MeetingPlace Node #2 Answers
5. User Enters Meeting ID: “856 220 789” (Host is in EMEA)
6. MP Meeting Director tells UC Manager to do SIP REFER to EMEA Node 1
7. EMEA UC Manager SIP distributes call to correct Node #1 where Meeting ID was started
3 Regions/6 Sites MeetingPlace 8.5

2 Sites per 3 Regions
1000 Ports Per MP Node
Total 6000 Active Audio Ports (G.711)
Redundancy and Scalability
500 Web Session per Webex Node

Cisco Firewall

Time Zone Based Routing to Sites based on Meeting Owner

Primary MP Meeting Director USA Site 1
Backup MP Meeting Director EMEA Site 1

Node to MD Control Link

Global Cisco IP Telephony Network (Global PSTN Call In Numbers for MP, Internal Call)

Americas conference Users
AsiaPac conference Users
EMEA conference Users
MP 8.5 and WebEx Node for ASR (dual SPA’s)

Audio on-prem. and Bandwidth optimization for collaboration & HQ webcam video on premises.
User Data Base Management

- Webex Sourced Host Accounts
  - Max of 400,000 profiles supported
  - Meeting Director – UserSynch function synchs all profiles from Webex to MeetingPlace local databases
  - LDAP End User Authentication will be via Webex LDAP API’s & Provisioning
Simplified Setup with WebEx Sites

- Automatic WebEx + MP Configuration from MP/Admin Console
- Add MP Audio + Video to an existing WebEx Deployment with zero disruption
  Host Profiles determine which Audio is used
  Default set by System Administrator per user
- Add new MP Audio / Video Nodes for increased capacity quickly from MP Admin
- Remove MP Audio / Video Nodes for maintenance without system downtime
MP/Event Center Features

- Maximum 500 attendees may join a single WebEx Event Center event on the MeetingPlace Audio
- Network Based Recording available
- “Mute Attendees upon entry” supported when scheduling
- One-way broadcast of MeetingPlace audio from Panelists to other attendees. While the Panelists typically join the MeetingPlace audio, all other attendees receive audio on their PC speakers using Audio Broadcast. Max of 3000 attendees can join the Audio Broadcast.
MP/WebEx Training Center Features

- Main room and up to 9 Breakout rooms (sub-conferences) are support via WebEx Training Center GUI
- Mute Attendees upon entry supported when scheduling
- Network Based Recording Supported
- Up to a maximum of 50 attendees can join any such breakout session
Meetings Audio/Video/Web NBR Recordings

- Permit recording of meetings in Host Profile (or deny recordings)
- External Meeting Recordings are stored Webex Network Based Recording (NBR) download location for the Host
- Audio/Web recordings URL can be sent or download .arf file and playback same as any Webex Recording
- Event and Training center are considered “External” always
WebEx/MeetingPlace Video Options

Choose 1 Type of Video – No Interopt

- Videoconferencing delivered on the WebEx Collaboration Cloud
  - HQ/HD Web cam video

OR

- Video delivered on-premises over IP infrastructure
  - Unified MeetingPlace Video (H.323/SIP/SCCP)
MeetingPlace/Webex with Webcam video

Webcam video is always Processed in Webex Cloud or Webex Node for ASR

Voice
WebEx Data
Webcam Video

Application/EMS
(no MP video enabled)

WebEx Node
For ASR

HQ/HDVideo & Web is mixed on Webex Node for ASR
MeetingPlace/Webex with Standard Video

H.323/SCCP/SIP video is processed by MeetingPlace video EMS on premises

H.323/SIP Third Party Video
Jabber/CUVA/CUP C/
CUCiLync/9900

Application/EMS
“Active Speaker” video

WebEx Node
For ASR

Voice RTP
WebEx
Standards Video SIP/RTP
Hybrid Deployment –
Webex Node for ASR-1000
ASR 1000 WebEx Node
Integrating WebEx Meeting Zone Components on ASR-1000

- Better performance for user inside a company firewall.
- Reduce the bandwidth going out of company firewall.
- Seamless to end user
- Better security by reducing traffic outside of company
The Solution: WebEx Node for ASR 1000

Plug-in module for Cisco ASR Router
Runs WebEx components
Premise-based meeting data ‘switch’
Meeting front-end continues to reside in Cloud
Also in cloud: NBR, Billing, Reporting, Site Admin
Not a full-replacement for SaaS

WebEx Node SPA Board

Two Software Variants in ONE single IOS XE WebEx Subpackage (software image-available for download on cisco.com and available as a part number to configure an ASR 1000 system in the configuration tool)

1. **WebEx Node - Web Presentation** (500 per SPA)
2. **WebEx Node - VoIP/Video solution** (Sized based on usage)

Both software variants get installed with the same WebEx node software image. Customer chooses one variant to run at a single time when setting up the WebEx Node.
### Webex Node Bandwidth Savings Example

Based on 4 attendees (1 external) per meeting

<table>
<thead>
<tr>
<th>Media Type</th>
<th>% Reduction with WebEx Node</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Meeting</td>
<td>91%</td>
</tr>
<tr>
<td>HQ Video</td>
<td>70%</td>
</tr>
<tr>
<td>HD Video</td>
<td>72%</td>
</tr>
<tr>
<td>VoIP Audio</td>
<td>67%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>73%</strong></td>
</tr>
</tbody>
</table>
## Webex Node for ASR Supported Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Web Acceleration</th>
<th>VoIP/Video Acceleration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting Center</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Training Center</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Event Center</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sales Center</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>HQ Video</td>
<td>Not/Applicable</td>
<td>Yes</td>
</tr>
<tr>
<td>Support Center</td>
<td>Yes but limited applicability</td>
<td>Yes but limited applicability</td>
</tr>
</tbody>
</table>

*WBS 27 SP32 or below supported with all Centers & Meetings*
Webex Node for ASR Capacities

- Video/VoIP based Node uses a points system
  - 11,600 points are available
  - Services may be used in any combination
  - Service consume different amounts of points per stream

<table>
<thead>
<tr>
<th>VoIP/Video Type</th>
<th>Points per stream</th>
<th>Max User capacity if using a single service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Video 360p + 5x90p</td>
<td>97</td>
<td>120</td>
</tr>
<tr>
<td>Active Video 180p</td>
<td>18</td>
<td>640</td>
</tr>
<tr>
<td>Active Video 180p + 6x90p</td>
<td>60</td>
<td>192</td>
</tr>
<tr>
<td>VoIP</td>
<td>8</td>
<td>1450</td>
</tr>
<tr>
<td>Mixed Mode Audio</td>
<td>18</td>
<td>644</td>
</tr>
<tr>
<td>EC Audio Broadcast</td>
<td>6</td>
<td>1933</td>
</tr>
</tbody>
</table>
WebEx Node for ASR 1000: Deployment Considerations

- Multiple WebEx Nodes can be supported in one ASR 1000 chassis depending on the type of chassis and available full height slots
  - ASR 1006: 5 WebEx Node SPAs max.
  - ASR 1004: 3 WebEx Node SPAs max.
  - ASR 1002: 1 WebEx Node SPA max.
- WebEx Nodes can be distributed across different ASR 1000 routers
- Can be deployed anywhere in the network and runs on the same ASR 1000 running other functionalities: e.g. SBC, FW, IPSec, etc.
- No direct cascading between WebEx Nodes
- WebEx SaaS replicates traffic between nodes sharing the same meeting
- Overflow and Failover works regardless where the nodes are installed
- Works behind NAT/FW: Does not require public IP address nor opening static pinhole in the DMZ
- For simplicity, WebEx Node is designed to run only as a Web Presentation application or as an integrated VoIP/Video application, not both at the same time
Hybrid Deployment Models
Cisco Telepresence Webex OneTouch 2.0
New Standards Based Video Interop
(Q4CY2012)
Cisco TelePresence WebEx OneTouch 2.0
Introducing A Single Solution for Immersive Meetings

- Combine the ease-of-use and broad reach of Cisco TelePresence VCS and Cisco WebEx Meeting Center into one collaborative solution
- Attend meetings using the most accessible collaboration technology
- Improve user experience and productivity
- Simplified scheduling
- One Button Meeting Launch
Scaling Collaboration: One Button WebEx Meeting Launch

- Pushing one button on the Cisco IP phone simultaneously starts both Cisco TelePresence and the WebEx meeting.
- Both the Cisco TelePresence room and WebEx attendees are connected to the WebEx audio bridge.
- The Cisco WebEx web client is launched in the Cisco TelePresence Auto Collaborate presentation screen.
Cisco Telepresence WebEx OneTouch 2.0

- Two way video & audio with TelePresence Server or TelePresence MCU for conferencing
- Two way data content share
- Easy Scheduling with WebEx Outlook Productivity Tool or TMS using Web Scheduling Tool
- Any endpoint registered to UCM or VCS
- One Button to Push/OneTouch to join TelePresence with Webex
- Audio via SIP or PSTN audio
- WebEx Meeting Center
- VCS Expressway to WebEx Cloud
TP WebEx OneTouch 2.0 Architecture

- 3rd party Jabber/UC Video
- Scheduling
- Outlook with WebEx Productivity Tool or OneTouch Scheduling from TMS
- TS/MCU
- VCS C
- VCS E
- Control (TLS)
- Video, Audio, & Data (sRTP)
- WebEx Client
- MX/EX/C Series
- OBTP on all CTS, EX, MX, C Series
- Audio via SIP using WebEx Audio or CCA
- Cisco Webex
- Cisco Live!
OneTouch 2.0 Solution Components

- Conference Bridge: TelePresence MCU 4.4 or TelePresence Server 2.3
- TMS 14.1 or higher plus TMS-SE with Microsoft Exchange EWS Integration or Booking API License.
  - Existing EWS or prior Exchange integration customers have to update to TMS-SE EWS Integration
- VCS Expressway 7.2
- WebEx version T28.4
- WebEx Outlook Productivity Tool (Optional but best practice)
- Any TelePresence endpoint supported by TelePresence MCU or TS, registered to UC Manager or VCS
- WebEx Meeting Center /Client for PC, Mac or mobile clients with Webex Audio

Available Q4CY2012
Recommended Reading

- Continue your Cisco Live learning experience with further reading from Cisco Press
- Check the Recommended Reading flyer for suggested books
  - “Voice and Video Conferencing Fundamentals”
  - “UC Manager 8.0 Solution Network Reference Guide”
  - “The Power of IP Video” Unleashing Productivity with Visual Networking

Available Onsite at the Cisco Company Store
Complete Your Online Session Evaluation

- Give us your feedback and you could win fabulous prizes. Winners announced daily.
- Receive 20 Passport points for each session evaluation you complete.
- Complete your session evaluation online now (open a browser through our wireless network to access our portal) or visit one of the Internet stations throughout the Convention Center.

Don’t forget to activate your Cisco Live Virtual account for access to all session material, communities, and on-demand and live activities throughout the year. Activate your account at the Cisco booth in the World of Solutions or visit www.ciscolive.com.