Tech Update:
Collaboration 2010

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Visse dele af præsentationen er udeladt i denne version.

Kontakt Per Toft eller Morten Skanner hvis du ønsker den fulde præsentation.
Agenda

- Cisco Unified Communications Manager 8.0
- Mobility
- Nye IP telefoner - 8900/9900 serier
- Cisco Unified Presence 8.0
- Klienter
  - Client Services Framework
  - Cisco Unified Personal Communicator 8.0
  - Cisco UC Integration for MOC 8.0
- Cisco Conferencing
  - MeetingPlace - WebEx
  - TelePresence nyheder
- Cisco UC licensering
Cisco Unified Communications Manager Release 8.0
Cisco Intercompany Media Engine
Extending UC Experience Between Organizations

- Cisco Intercompany Media Engine
  Secure enterprise video telephony and high fidelity wideband audio across companies
  Provide boundaryless communications to business partners

- Effortless for users and administrators
  Easy to use: self-learning
  Consistent user experience between organizations

- Secure, efficient network utilization with reduced costs
  Efficient use of PSTN and SIP trunks
  Certificate based authentication with remote enterprises
  TLS based signaling between enterprises with SRTP media
  Spam blocking
Cisco Intercompany Media Engine

1. IME servers obtain DID patterns from their CUCM and join IME network
2. IME Servers publish DIDs to IME network
3. First Call is placed over PSTN
4. Both CUCMs send Voice Call Records (VCRs) to their IME Servers
5. The Originating IME Server verifies call with the Terminating IME Server
6. The Originating IME Server pushes learned SIP route to that DID to the originating CUCM
7. The Originating CUCM saves the route
8. When another call is placed to the same DID, the call now goes over the Internet as an IME call via the learned IME SIP route w/ UC capability
Service Advertisement Framework
Limitations of Current UC Routing Approaches

- Configuration complexity, Speed of deployment
- High operational cost, TCO
- Availability, Business Continuity
SAF and Unified Communications
The Call Control Discovery (CCD) Service

Service Type: Unified Communications
Sub-service: Call Control Discovery

- Unified CM awareness across network
  - Advertisement of DN & route plan
  - Auto discovery of advertisements
  - Interop with Gateways, Unified Border Element, Unified CME, Unified SRST.

- Benefits
  - Enables fast and easy UCM deployment
  - Dynamically adds/removes sites
  - Lower provisioning costs
SAF and Unified Communications
The Call Control Discovery (CCD) Service

San Jose Cluster
Advertises Pattern: 8408XXXX
Advertises Address: 10.1.1.1
Learns Pattern: 8212XXXX
Learns Address: 10.5.1.1

New York Cluster
Advertises Pattern: 8212XXXX
Advertises Address: 10.5.1.1
Learns Pattern: 8408XXXX
Learns Address: 10.1.1.1

SAF: The underlying infrastructure for capability information distribution
CCD: A service that uses SAF for distributing call routing information
Call Admission Control (CAC)
Intercluster RSVP

- Provides RSVP based Call Admission control.
- Inter-cluster RSVP support for SIP trunk
- Uses SIP preconditions as defined by RFC3312 and RFC4032
- Communicate QoS status between UCMs over the SIP trunk.
- This mechanism can be used by other Call Control (eg UCM Express; CVP, CUBE, SME)
Extension Mobility Cross Cluster Cross Registration Model

- Phone in visiting cluster will register with home cluster of the user
- This approach provides high feature content
  Most features act as they would for native extension Mobility
- The following features would natively be supported:

- shared line
- hunt lists
- transfer/conference / hold/call forward
- cellular mobility
- barge/cBarge
- iDivert
- Applications

- speed dials
- Services
- address book
- device labels
- line appearance management
- MWI

- voice mail
- do-not-disturb
- Monitoring
- Recording
- callback busy/NR
- MLPP
EMCC Home and Visiting Clusters

Home Cluster

User EM profile is configured on Home cluster

Visiting Cluster

Phone re-registers with users Home cluster.

CTI Applications on Home Cluster can control this phone

User logins into phone on Visiting cluster using Extension Mobility Username and PIN
iSAC audio codec

- iSAC (Internet Speech Audio Codec) is a proprietary wideband speech and audio codec with an adaptive bit rate from 10 to 32 kbps.
- Wideband audio (i.e. 16 kHz sampling rate, 8 kHz audio bandwidth)
- Robust to packet jitter (delay variation) and loss
- Low delay
- iSAC is also one of the codecs supported by popular IM and VoIP clients such as:
LDAP Filtering
(Examples with AD schema)

- CUCM 7.x and prior Dirsync supports a single default hardcoded filter for every directory type supported – Active Directory, Sun Directory, OpenLDAP and ADAM

- In Cisco Unified Communications Manager v8.0, custom LDAP filters can be created through the CUCM Admin UI to associate it with any LDAP agreement

- Support unique search filters with no restriction on the number of filters that can be configured

Default LDAP Filter

```
(&(objectclass=user)(!(objectclass=Computer))
  (!(UserAccountControl:1.2.840.113556.1.4.803:=2)))
```

To select users from a specific department

```
(&(objectclass=user)(!(objectclass=Computer))
  (!(UserAccountControl:1.2.840.113556.1.4.803:=2))
  (department=Engineering) (department=Finance))
```

To select users with a phone number

```
(&(objectclass=user)(!(objectclass=Computer))
  (!(UserAccountControl:1.2.840.113556.1.4.803:=2))
  (telephonenumber=*)
```

To select users from an area

```
(&(objectclass=user)(!(objectclass=Computer))
  (!(UserAccountControl:1.2.840.113556.1.4.803:=2))
  (telephonenumber=*)(co=United States)
```
Reroute Remote Destination Calls to Enterprise Number Feature

1. Phone 5137000 dials mobile number 95782583. Call is routed out GW.

2. With ‘Reroute Remote Destination’ set to true, when same number is dialed, both Phone B and mobile device ring
HTTPS for Phone Services

- Previously, communication between Phones and Phone Services used HTTP
- This communication was over “clear text”
- Critical information vulnerable to exposure via packet capture
- Now support HTTPS
  
  Hypertext Transfer Protocol Secure
  Combination of HTTP with SSL/TLS
  Encryption and secure identification of server using port 8443 instead of 8080
HTTPS: Phone Services and Phones

- Phone Services that support HTTPS
  1. Extension Mobility (EM)
  2. Extension Mobility Cross Cluster (EMCC)
  3. Manager Assistant (IPMA)
  4. IP Phone Services (CCMCIP)
  5. Personal Directory (CCMPD)
  6. Change Credentials

- Supported phones: 7906, 7911, 7931, 7941, 7961, 7970, 7942, 7945, 7962, 7965, 7975
HTTPS for Phones Services: Changes to IP Phone Services

- **Cisco Unified CM Administration** ► Device ► Device Settings ► Phone Services ► Add New

- **New Secure-Service URL field for HTTPS support**
Change Credential as a separate service
Change Credential at forced PIN change

- At EM login when user’s PIN has expired (EMCC too)
Change Credential at EM Login

1. Please Sign On
   - UserID: john
   - PIN: **

2. Redirecting Please Wait

3. Please Sign On
   - UserID: john
   - PIN: __

4. Redirecting Please Wait

5. Services
   - Pin Change Successful

6. User ID: john
   - Current PIN:
   - New PIN:
   - Confirm PIN:
8.0 Platform and Virtualization Support

- **MCS 7800 Support**
  - Continued support of most recent server models (7816/25/28-x3/x4, 7835/45-x2/x3) and select older models
  - MCS 7816/25/28-I5 (2HCY10, planned not committed)
  - SW-only options for both HP and IBM

- **Server Virtualization and Unified Computing System support**
  - Based on market-leading VMware vSphere 4 (ESXi 4.0)
  - 8.0(1)SU1 on VMware on UCS B200 M1 (April 2010)
  - 8.0(2) on VMware on UCS C210 M1 (2HCY10, planned not committed)
  - 8.5(1) on VMware on UCS C200 M1 (2HCY10, planned not committed)

- **Provides physical and virtual deployment options for Unified Communications Manager**

- **Ensures performance, reliability, management and high availability**

**Benefits**

- Deployment flexibility and customer platform choices
- Simplified support when Cisco provides HW and SW
- Improved TCO and operations with Virtualized UCS
  - Server Consolidation - reduce space, power, cooling, cabling and management requirements
  - UC scalability as needed
  - More effective business continuity and disaster recovery
  - Familiar data center management tools
  - Simpler installs, upgrades, backups with zero downtime

**MCS 7816/25/28-I5** (IBM x3250-M3)

**MCS 7835/45-I3** (IBM x3650-M2)
Cisco VPN Client for IP Phones

Adds another option for customers attempting to solve the remote teleworker problem, complementing Cisco’s remote telecommuting offerings, the Enterprise Class Teleworker (ECT) and ASA Phone Proxy solutions, by providing customers with an alternative solution

- **Easy to Deploy** – All settings configured via CUCM administration
- **Easy to Use** – After configuring the phone within the Enterprise, user takes it home and plugs in into their broadband router for instant connectivity. No difficult menus to traverse.
- **Easy to Manage** – Phone can receive firmware updates and configuration changes remotely
- **Secure** – VPN tunnel only applies to voice and IP phone services. PC connected to PC port responsible for authenticating and establishing own tunnel with VPN client software

### Cisco VPN Client

<table>
<thead>
<tr>
<th>Endpoint support</th>
<th>▪ 7942G, 7945G, 7962G, 7965G, and 7975G SCCP Devices Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployment mode</td>
<td>▪ IP Phone Remote Access</td>
</tr>
<tr>
<td>Services secured</td>
<td>▪ Voice</td>
</tr>
<tr>
<td></td>
<td>▪ Data (XML Phone Services)</td>
</tr>
<tr>
<td>Licenses</td>
<td>▪ VPN Concentrator License</td>
</tr>
<tr>
<td></td>
<td>▪ IP Phone DLUs</td>
</tr>
<tr>
<td>VPN Concentrators</td>
<td>▪ Cisco ASA 5500 Series</td>
</tr>
<tr>
<td></td>
<td>▪ Cisco ISR with IOS SSL VPN</td>
</tr>
<tr>
<td>Encryption Technology</td>
<td>Secure Socket Layer (SSL)</td>
</tr>
<tr>
<td>Deployment Considerations</td>
<td>▪ No additional hardware needed at remote location other than IP Phone</td>
</tr>
<tr>
<td></td>
<td>▪ Concurrently running IP Phone Services Reduced When Enabled</td>
</tr>
</tbody>
</table>
## Teleworker Solution Positioning

<table>
<thead>
<tr>
<th>Encryption Technology</th>
<th>Cisco Virtual Office</th>
<th>Cisco ASA Phone Proxy</th>
<th>Cisco VPN Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always-on VPN Tunnel</td>
<td>Native SRTP-TLS encryption</td>
<td>Embedded Cisco SSL VPN client</td>
<td></td>
</tr>
</tbody>
</table>

### Endpoint support

- All Cisco IP Phone Models
- Softphones on PC
- SCCP and SIP Firmware

- All SRTP-TLS capable endpoints (SCCP and SIP)
- Softphones (authenticated mode, CIPC VLAN Traversal)

- SCCP Firmware Only on 79xx Devices
- 9971 Wireless (2HCY2010)

### Deployment modes

- Teleworker/Remote Access
- Cisco 870, 880, 1800, and 1900 Series Routers

- Remote Access
- Internal campus - VLAN traversal for softphones

- IP Phone Remote Access

### Services secured

- Voice
- Video
- Data

- Voice
- Phone Service Traffic (HTTPS)

- Voice
- Video (99xx/89xx Models)
- Data (Phone Services Traffic)

### Licenses

- Multiple hardware/software licenses required for solution

- UC Proxy License

- ASA SSL VPN (Premium) License
- Phone License on ASA

### Head-end termination

- Various IOS based VPN gateways Supported

- Cisco ASA 5500 Series

- Cisco ASA 5500 Series at FCS
- IOS SSL VPN Planned

### Deployment Considerations

- VPN Headend
- VPN device at remote site

- ASA Headend

- VPN Headend
- Cisco UC Manager 8.0 required

### Positioning

- Premier Teleworker
- Zero-touch Deployment
- Secures more than phones

- Casual/Mobile Teleworker
- Secures Phone Traffic Only
- Sell to UC IT Admin

- Casual/Mobile Teleworker
- Secures Phone Traffic Only
- Sell to Security IT Admin
VPN Client on the IP Phone

Settings ➤ Security Configuration ➤ VPN Configuration
Mobility Update
Cisco Nokia Call Connect 2.0

- Builds on 1.1.3 SCCP capabilities
- Automatic seamless handover between networks
- XML Application Support
- “+” prefix configuration
- Supported devices: E51, E52, E55, E61i, E63, E66, E71, E72, E75, E90
- Supported with CUMC v7

Not supported on the AT&T Nokia E71x
Auto-handoff only on E72, E75, E52, E55
How does handoff work?

NCC 2.0 builds on version 1.1.3, introducing auto-handoff and XML - no new components required for handoff.

NCC calls Handoff number on second line to retrieve IP/cellular call for handoff – same operation from wi-fi to cellular, and cellular to wi-fi.

-78dBm

Wi-Fi Signal Level

Handoff threshold (configurable)

Cellular Only – Call anchored to CUCM

voice path

Directory

Unified Presence

Unity

MeetingPlace

Unified Presence

Communications Manager

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Cisco Unified Mobile Communicator

- Cisco Unity and Unity Connection Visual Voicemail
- Mobile Presence
- Dial via Office
- Turn single number reach on / off
- Enterprise Call History from Cisco Unified Communications Manager
- Support with NCC 2.0
- Seamless auto-handoff (data)
New Integrations = NCCv2.0 + CUMCv7

Connect

Seamless Handoff
Single Number Reach -> WLAN
Dial-via-Office -> WLAN
WLAN -> Cellular
CUMC data -> WLAN (Continuous Presence)

Communicate

Cost Savings
Dial-via-office
Voice over WLAN
Data over WLAN

Collaborate

Higher Productivity
Corporate dialing
Presence enabled directory
Visual Voicemail
CUMC as mobile softphone (CUMC + NCC)

CUMC Dial-via-Office

CUMC can operate like VoIP client without QoS issues over 3G. Calls are routed back over the cellular network, but all calls are carried on the IP / CUCM based network. Remote corporate calling without need for VPN.

Nokia Call Connect VoWLAN

Dial VoIP over the WLAN using native Nokia interface.

Requires:

- CUCM 7.1(3)** and higher
- CUMC 7.0 client and higher
- CUMA 7.0 server and higher
- ASA (mobile licenses free)
- Nokia Call Connect 2.0

(Integrations to Unity, CUP, MeetingPlace not required)

Features:

- Call anchoring through CUCM
- Cost savings – calls routed to mobile are inbound
- Caller ID is corporate only
- Centralized call logs (CDR)
- Missed call log integration
- Auto-handoff to wi-fi (with NCC)
Nokia Call Connect for Cisco

Nokia Call Connect 2.1 for Cisco

- VoWLAN and VoIP over 3G
- Automatic handover between networks
- DTMF Mid-Call Features
- XML Application Support
- Interoperable with Cisco Unified Mobile Communicator

Customer Benefits

- Reduce cellular costs with Dial via Office and VoWLAN
- Productivity-enhancing features
Cisco Unified Mobile Communicator – iPhone / Blackberry

iPhone “Cisco Mobile”
- Dial via Office
- Visual business voicemail
- Mobile Connect on/off setting
- Cisco Unified MeetingPlace Meeting list with Call Me
- Directory Access
- VoWLAN (1H 2010)

BlackBerry
- Dial via Office
- Visual business voicemail
- Mobile Connect on/off setting
- Cisco Unified MeetingPlace Meeting list with Call Me
- Directory Access
- Presence

Customer Benefits
- Reduce cellular costs with Dial via Office and VoWLAN
- Place business calls from your iPhone, but appear as if you’re calling from the office
- Avoid roaming charges and minimize disruptions by turning on and off Mobile Connect (SNR)
Cisco WebEx Meeting Center for iPhone v 1.3

Cisco WebEx Meeting Center for iPhone v1.3

- Meeting Handoff: transfer a live WebEx web meeting on the iPhone to a PC with a flick of a wrist
- Audio transfer from an iPhone to an IP phone supported with Single Number Reach
- Automatic Audio Rejoin - When audio is dropped during a meeting, the WebEx system will call back the user

Customer Benefits

- Collaborate anywhere, anytime, even on your iPhone
- Let the technology adapt to your environment, whether in motion or on desktop
Meeting Center on Nokia Smartphones

- Browser based access to meetings
  View Presentations and Annotations
  View Participant List
  View Meeting Info

- Integrated audio and web conferencing on 3G or WiFi
  Also supports integrated data on WiFi and audio on 2G

- Tested Nokia Smartphones
  Nokia E71, Nokia E75, Nokia N97 and other E and N series phones
8900 & 9900 serie
IP telefoner
Cisco Unified IP Phone Portfolio
At-A-Glance… 7900 is Alive and Well

9900 Series
Advanced Collaborative Media Endpoints
• Interactive video, HD voice, large color displays
• Wide array of endpoint applications
• USB connectivity, Wi-Fi and Gigabit Ethernet
• Energy-friendly

8900 Series
Advanced Professional Media Endpoints
• HD voice, large color displays
• Wide array of endpoint applications
• USB connectivity
• Energy-friendly

7900 Series
Advanced Business Endpoints
• Desktop, Conference Room and Wireless endpoints
• HD voice, Gigabit Ethernet
• Wide array of endpoint applications
• Energy-friendly

6900 Series
Business Voice Endpoints
• Traditional telephony-like User Experience
• Flexible communications: Full-duplex speakerphone
• Selected basic endpoint applications (XML)
• Energy-friendly
The Portfolio – 7900 is alive and well

We are thinning the portfolio.

3900 & 7900 Series

Leaving a more concise portfolio for customers who have standardized on these models.

7900 Series
# Cisco Unified IP Phone 6900 Series Overview

<table>
<thead>
<tr>
<th>Feature</th>
<th>6901</th>
<th>6911</th>
<th>6921</th>
<th>6941</th>
<th>6961</th>
</tr>
</thead>
<tbody>
<tr>
<td>802.3af POE</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>MWI Lightpipe</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Speakerphone</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>PC Port (Hardened)</td>
<td>None</td>
<td>10/100</td>
<td>10/100</td>
<td>10/100</td>
<td>10/100</td>
</tr>
<tr>
<td>Headset Jack</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Softkeys</td>
<td></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Lines</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Display Size</td>
<td>None</td>
<td>None</td>
<td>396x81</td>
<td>396x162</td>
<td>396x81</td>
</tr>
<tr>
<td>Line Labeling</td>
<td></td>
<td></td>
<td>Hardcoded</td>
<td>LCD Labeled</td>
<td>Paper Labeled</td>
</tr>
</tbody>
</table>
### Cisco Unified IP Phone 8900 & 9900 Series Overview

<table>
<thead>
<tr>
<th>Feature</th>
<th>8961</th>
<th>9951</th>
<th>9971</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>802.3at POE</strong></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>GigE Switchport</strong></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>USB</strong></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Bluetooth</strong></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Wi-Fi</strong></td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td><strong>SDIO</strong></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td><strong>Video Streaming</strong></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>2-way Video</strong></td>
<td></td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Display Size</strong></td>
<td>5” QVGA</td>
<td>5” VGA</td>
<td>5.6” VGA Touchscreen</td>
</tr>
<tr>
<td><strong>Lines</strong></td>
<td>Multi</td>
<td>Multi</td>
<td>Multi</td>
</tr>
<tr>
<td><strong>Key Module</strong></td>
<td>1 Color VGA</td>
<td>2 Color VGA</td>
<td>3 Color VGA</td>
</tr>
</tbody>
</table>

- Requires CUCM 7.1(3) or higher
- SRST 7.1 with 12.4(24)T but as TNP SIP Phone
- SRST 8.1 has full support

**Reference:**
- 7975G Handset = 7.4oz/210g
- Slimline (5oz/140g)
- Standard (6oz/170g)

- XML, Java Midlet, Browser (Future) app environments

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Cisco Unified IP Phone 9971
Twelve-button

- Multiple Appearances Per Line for powerful communications
- Right-to-left language option for localization
- Two Color Choices – Charcoal/Arctic White

- Earth-friendly Plastics
- Programmable Soft-label Keys (Touch-Sensitive)
- 5.6” diagonal, VGA, Backlit, Anti-glare Color Display with Full Touchscreen
- Session Keys with LED Status Indication
- Programmable Line/Feature Keys
- Two Handset Styles
- High-definition voice
- Mute, Headset, Speakerphone Keys
- Volume Up/Down Key
- Settings, Directory and Messages Keys
- Bluetooth Radio for Headsets and Wi-Fi for RFID
- Transfer, Conference & Hold Keys
- USB Port and Audio-In/Out Jacks
- Navigation Keys & Select Button
- Release and Back Keys
- 10/100/1000 Ethernet Switch Port
- Incoming Call/Message Waiting Indicator
- Round Ergonomic Keys
- Cisco Unified Video Camera via USB
- 10/100/1000 Ethernet Switch Port

- 5.6” diagonal, VGA, Backlit, Anti-glare Color Display with Full Touchscreen

- Additional Features
  - Multiple Appearances Per Line for powerful communications
  - Right-to-left language option for localization
  - Two Color Choices – Charcoal/Arctic White
Cisco Unified IP Phone 8900/9900

Get Use to the New User Experience

- Access this screen by pushing the Applications Button
- Access call history, preferences, accessories, and Administrator settings
- New future applications and services are accessible here

Simplified when Compared with the 7900 Experience
Cisco Unified IP Phone 8900/9900

Call History – User Experience

- Toggle between missed calls and all calls
- This screen is invoked when missed calls are viewed
- This screen can also be invoked by pressing Application button
Cisco Unified Video Camera
Personalizing Communications

Transforming Collaboration with Video

- Supported on IP Phone 9971 and 9951
- Enhances IT investment when ready to adopt video
- Integrates directly into ergonomic design
- USB connection for easy plug-n-play
- High-performance H.264 standard interactive video
- 2.0 megapixel camera
- Resolution:
  - Up to 24fps VGA resolution
  - Up to 30 fps CIF/SIF
- Digital controls for Pan/Zoom and Tilt
- Video Mute
- Choice of color options

Requires 9.0(2) firmware – Available CY 1H 2010
Cisco Unified IP Color Key Expansion Module
Easy Expansion and Investment Protection

Add Scalability and Responsiveness

- 36 programmable line/feature keys per module
- 18 physical keys
  - Page 2 key for additional 18 keys
- Graphical, backlit color LCD display with LCD labels
  - 480 x 272 pixel
- Tri-color LED’s for call state indication
- Deep-sleep option for power savings
- Wall-mountable
- Power
  - 802.3at inline power
  - 802.3af requires local power cube 4
Earth-friendly Enhancements
Continuing Cisco’s Ongoing Focus

- Reduced power consumption
  - “Deep sleep” administrative option
  - ASIC components
- Reground & recyclable plastics
- Reduction of Hazardous Substances (RoHS) compliant
Power consumption

- **6900/8900/9900**: No Legacy Pre-Standard PoE support
  - Requires 802.3af or 802.3at
- **CDP** will intelligently negotiate a lower power value for resource budgeting
- **EnergyWise** supported in 9.1(1) release in Cisco 6900/8900/9900 phones
  - EnergyWise will not work without PoE
- “**Power Save**” is turning off backlight LCD
- “**Power Save Plus**” mode allows user to power phones up with a push of a button

### Energy Efficiency

<table>
<thead>
<tr>
<th>Cisco Unified IP Phone Model</th>
<th>802.3AF Classification / Maximum Watts</th>
<th>Reported CDP (W) for Budgeting PoE</th>
<th>Actual Power when Idle (W)*</th>
<th>Power Save mode*</th>
<th>Power Save Plus mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>6921</td>
<td>Class 2 (7.0W)</td>
<td>6.3</td>
<td>2.3</td>
<td>1.9</td>
<td>Less than 1 Watt</td>
</tr>
<tr>
<td>6941</td>
<td>Class 2 (7.0W)</td>
<td>6.3</td>
<td>2.3</td>
<td>1.9</td>
<td>Less than 1 Watt</td>
</tr>
<tr>
<td>6961</td>
<td>Class 2 (7.0W)</td>
<td>6.3</td>
<td>2.3</td>
<td>1.9</td>
<td>Less than 1 Watt</td>
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<td>1 Watt</td>
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<td>12.3</td>
<td>6.5</td>
<td>5.6</td>
<td>1 Watt</td>
</tr>
</tbody>
</table>

*Power numbers are being rerun by engineering and subject to change*
Cisco Unified Presence 8.0
Cisco Unified Presence 8.0 Architecture

Unified Personal Communicator 7.x
Unified Mobility Advantage 7.x
Unified Application Environment SIP Interface
Expert Advisor
Unified Personal Communicator 8.x
Third Party XMPP Client (Spark, Adium, Pidgin, MomentIM, etc)
Expert Advisor future
Cisco Agent Desktop
Unified CM
Unified CM Sync Agents
Calendar
Third Party Open API
SIP Proxy
Presence Engine / Instant Message Bridge
XCP Route Fabric
Jabber Session Manager
Instant Messaging Compliance and Logging
Jabber XCP
Facetime
IMAuditor
XDB
ODBC
PostgreSQL
Microsoft Exchange
AXL/SOAP
SIP/SIMPLE
XMPP
SIP/SIMPLE
XMPP
Future
SIP and XMPP Client Interoperability

Cisco Unified Presence 8.0
- Unified CM
- Sync Agents
- Calendar
- Third Party Open API
- SIP Proxy
- Presence Engine / Instant Message Bridge
- XCP Route Fabric
- Jabber Session Manager
- Instant Messaging Compliance and Logging
- Jabber XCP

Unified CM
- AXL/SOAP

All messages, SIP and XMPP, are routed through the Jabber Session Manager.

Unified Personal Communicator 7.x
Unified Mobility Advantage 7.x
Unified Application Environment SIP Interface
Expert Advisor
Cisco Agent Desktop
Unified Personal Communicator 8.x
Third Party XMPP Client
(Spark, Adium, Pidgin, MomentIM, etc)
Expert Advisor
Cisco Agent Desktop
Unified CM
Collaboration Architecture for Clients

Webex Connect

Cisco Unified Personal Communicator

3rd Party EIM (Sametime & MOC)

Cisco Unified Client Services Framework

Cisco Unified Infrastructure Services
Collaboration Architecture for Clients

Cisco Unified Personal Communicator

Single end to end, on-premise UC solution with seamless User Experience
Builds on Unified Presence, Unified CM, and Client Services Framework

Cisco Unified Client Services Framework
- Audio
- Call Ctrl
- Video
- IM
- Vmail
- Presence
- Conf
- Directory
- History
- Future

Cisco Unified Infrastructure Services
- Call Control
- Data Store
- Presence Services
- Calling History
- Conf Services
- Messaging
Unified Personal Communicator 8.0 Highlights

- Based on Cisco Unified Client Services Framework technology
  - Rich and Full integration with Cisco UC
  - Integrated voice, video, web collaboration, visual VM and presence
  - Standards-based wideband audio & high-definition video
  - Click 2 Call functionality from MS office

- Jabber XMPP based technology
  - Enhanced Presence & Enterprise IM
  - Point to Point, Group Chat, Persistent Chat
  - Offline IM capabilities
  - Client / Server Side logging & compliance
  - Business to business Presence & IM federation

- Enhanced user experience - “New Unified” UI design

- Supports Windows XP, Vista, Windows 7

Early UI prototype – subject to change
Cisco Unified Personal Communicator 8.0
PC Requirements & Server Components

**PC Requirements**

- **Windows XP**
  - 32-bit native client

- **Windows Vista**
  - 32-bit native client
  - WoW 64-bit support*

- **Windows 7**
  - 32-bit client
  - WoW 64-bit support*

*WOW 64-bit does not support deskphone video (Roadmap)

**Required Server Components**

- **Cisco Unified Communications Manager**
  - 8.0
  - 7.1
  - 7.0
  - 6.1(4)

- **Cisco Unified Presence**
  - 8.0

- **LDAP v3**
  - Active Directory 2003
  - Active Directory 2008
  - Open LDAP 2.4

**Optional Server Components**

- **Cisco Unity**
  - 8.0
  - 7.0

- **Cisco Unity Connection**
  - 8.0
  - 7.1
  - 7.0

- **Cisco Unified MeetingPlace**
  - 8.0**
  - 7.0

- **Cisco Unified MeetingPlace Express**
  - 2.0
  - 2.0 VT**

- **Cisco Unified Video Conferencing**
  - 3500 Series**
  - 5.7 & 5.6
  - 5000 Series**
  - 7.1 & 7.0

**Supports multi-point video.**
Collaboration Architecture for Clients

3rd Party Integrations
Cisco UC Integration for Microsoft Office Communicator

Market-leading Microsoft Integration
Focus on native UE
Single call control solutions - TCO & UE
Cisco enterprise-grade Voice & Video

Cisco Unified Client Services Framework

Cisco Unified Infrastructure Services

Audio Call Ctrl Video IM Vmail Presence Conf Directory History Future

Call Control Data Store Presence Services Calling History Conferencing Services Messaging
Introducing the Cisco UC Integration™ for Microsoft Office Communicator

- Designed for customers with Microsoft OCS based IM solution.
- Seamless collaboration with Cisco UC & Microsoft instant messaging (IM)
- Extends proven Cisco UC services to Microsoft Office Communicator with a single easy-to-manage communications platform
Cisco UC Integration™ for Microsoft Office Communicator 7.1

- Fully integrated soft phone
- Control desk phone
- Cisco IP Phone like audio quality and call control
- Phone presence displayed in Microsoft Office Communicator
- Inbound call notification & divert
- Click to call from Office, browsers
- Client call history
- Voicemail MWI & access
Cisco UC Integration™ for Microsoft Office Communicator 8.0

Standards-based multi-media collaboration directly from MOC

New Capabilities

- Standards-based wide-band audio & high-definition video
- Integrated voice, video, & web collaboration
- Visual Voicemail

Benefits

- Native to Microsoft Office Communicator rich multi-media collaboration experience
- Easier-to-manage single call control architecture
- Investment Protection & Lower TCO
- Easier-to-implement alternative relative to dual call control solution

Note: User Interface subject to change before final release
Cisco Unified Communications Integration™ for MOC Feature Overview (New to 8.0)

- Integrated Video in Softphone & Deskphone modes including VGA & 720p (HD)
- Adhoc Video Conferencing
- Full Screen Video
- Seamless C2C Video integration, adherence to CUCIMOC video preferences
- Visual Voicemail: message count, filtering & local PC playback
- Secure voice message playback
- Collaboration: Click to adhoc conference from MOC Contact List & IM Roster (Flash / WebEx web share)
- Various User Interface Enhancements (Communication Pane, Conversation Window)
- Microsoft Office Ribbon click to call integration
- Single line selection for multi line devices
- SRST: Failover, login, advanced call control features, softphone mode
- New iSAC Audio codec, Advanced call statistics
- Support for Separate LDAP Credentials, Secure LDAP (available in 7.0(3))
- Windows 7 Support
Cisco UC Integration™ for Microsoft Office Communicator

In Summary, UC Integration 8.0 delivers:

- ... the ability to extend proven attributes of Cisco UC directly to the desktop
- ... combines Microsoft IM and Presence with Cisco high definition video and wide band audio based on a proven Cisco Call control platform.
- ... allows integration to BOTH Cisco on-prem or Cisco SAAS based collaboration
- ... protects your investment in existing desktop applications
- ... removes the complexity and higher total cost of ownership of dual call control solutions
Cisco UC Click to Call Widget
Enable Web applications for Click to Call

A simple HTML addition enabled a UC integrated Corporate directory

<a href="tel:88888888">Call</a>
MeetingPlace - WebEx update
Cisco Strategy
Next Generation Integrated Conferencing

Strategy

- Leverage both cloud and premises-based conferencing assets for optimal user experience and operational efficiency
- Deliver a rich, optimized experience on a full spectrum of devices
- Universal yet secure and accessible inside and outside the firewall

Key Tactics

- Move to a single integrated user experience based on the Cisco WebEx application interface
- Deliver next-generation distributed, cascaded conferencing architecture for data, voice and video
- Offer customers flexible deployment options that optimize user experience, time-to-value, TCO and IT control
Status for WebEx & MeetingPlace

- WebEx is our lead web conferencing offering
  Leverages cloud and on-premise assets
- Cisco will continue to offer on-premises web conferencing software
  MeetingPlace 7.0
  MeetingPlace 8.1
- MeetingPlace 8.0 WebEx is released Q1 2010
  Audio and video conferencing
  Integrated with WebEx SaaS & WebEx Node for MCS

*Continue selling Unified MeetingPlace 7 or 8 with confidence*
Cisco WebEx Meeting Applications

- Event Center
  - Webinars
  - Online Events

- Sales Center
  - Online Sales

- Training Center
  - Online Training

- Support Center
  - Remote Support and Access

Meeting Center

General Collaboration
Cisco WebEx Collaboration Cloud

- Multi-layered Security Model
- 8 Global Data Centers
- Intelligent Routing based on Location, Bandwidth and availability
- SAS70 Type II Compliant Audited against ISO 17799
- Seamless Global Backup for Data, Audio and Video
- Enterprise Policy Control
- 99.99+% Uptime
- Global Load Balancing
Enterprise Network Challenges

Bandwidth

Web meetings strain WAN, proxies and firewalls

Performance

Narrow WAN pipe degrades user experience with large simultaneous video/audio
Existing WebEx Deployment Model

WebEx Clients
On enterprise network

WebEx Client
On public network

Intranet
Internet

Choke Points

Web Zone
DB
Recording

Session Initiation
Meeting traffic
VoIP/Video
WebEx Node

What is it?

- There are two different types of WebEx On premises offerings
  
  1. WebEx Node for ASR-1000
     - Used with standalone WebEx accounts
     - Used with MeetingPlace Type II setup (WebEx scheduling)
  
  2. WebEx Node for MCS
     - Used with MeetingPlace 8 only
     - Released March 2010 with UC 8
Key Benefits of MeetingPlace Integration with WebEx Node

Data Security
Option for scheduling database, in meeting web conference, recording all kept on premises

User Experience
Identical user experience for on premises and SaaS web conferences

Federation
Dynamic web conference overflow to SaaS service
Roadmap for audio and video federation
MeetingPlace 8 Highlights

- 3 Deployment Models to meet customers needs
  - Consistent End User Experience for WebEx conferencing
  - WebEx Node for MCS on premises for all Internal meeting attendees
- WebEx Enterprise Support: Meeting, Event & Training Centers all supported with WebEx Scheduling
- MeetingPlace Express & MPE-VT now “merged” with MeetingPlace 8
- New Software Media Server (SMS) for both Scheduled and Ad-hoc (like MPE & MPE-VT together)
- Higher Capacities Audio, Video, WebEx
- New Cisco 8.x Client – CUPC, CUCiMOC, new IP Phones
- MeetingPlace 8 with IBM Sametime Web provides all on premises solution
Cisco Unified MeetingPlace 8.0 Components

**MCS 7835/7845**
- Conference control of all Media
- Linux OS/Informix Database
- Software Media Server (option)
- SIP User Agent
- VUI Prompts
- Outlook/SMTP Email Integration
- IP PhoneView (XML)
- WebEx/Sametime Configuration
- Directory Services to CUCM/LDAP
- Web based Administration
- Conference Manager
- MeetingPlace SOAP API
- Optional Secondary Server

**MP-3515/3545**
- DSPs for voice/video mixing
- MP-Audio—voice & control (250)
- MP-Video—video mixing (20 or 40
  - Advanced Video Features
- Optional Redundant boards

**Co-resident with Appl. Svr**
- Voice/video mixing
- Scheduled/Reservationless
- High Def/Standard Def Video
- Basic video features
- UC Manager Video Telephony
- ad-hoc use

**MP WebEx Node for MCS Server(s)**
- Linux OS
- MCS 7835/7845
- On premises Internal Meeting attendees attend here
- Optional multiple, distributed servers

**MP Web/Integration Server(s)**
- Windows 2003 OS
- MCS 7835/7845
- Web Scheduling UI
- End User Authentication
- Lotus Notes Integration
- Jabber/Sametime IM
MeetingPlace 8 - 3 Deployment Models

1. MeetingPlace Scheduling & WebEx Node for MCS

2. WebEx Scheduling/Web SaaS & MeetingPlace Audio/Video

3. WebEx Scheduling/ WebEx Node for MCS & MeetingPlace Audio/Video

All Deployment types can use either New Software Media Server OR Hardware Media Server (MP-3515/3545) based on customer requirements for Audio and Video
WebEx Integrations
- Schedule from MeetingPlace

- Schedule and attend meetings from MeetingPlace Web Portal, Outlook plugin
- Audio meetings scheduled on MeetingPlace
- Notifications from MeetingPlace
- Single Sign On Authentication by MeetingPlace
- Web meetings on WebEx Meeting Center (on demand)
- In session features from web conference: E.g. “Who’s talking,” Mute, Un-mute
- Record audio and web meetings stored on premises
1. MeetingPlace Scheduling - WebEx Node

- IP Phones with Video & 7985G Video
- CIPC with CUVA
- CUPC Video
- SIP Trunks
- WAN
- PSTN
- GK
- Profile Synch & End User Authentication
- H.323 Video Room or Desktops
- SIP Trunks
- Audio UL 2000
- MP Outlook
- WebEx Node
- TSP SSL tunnel
- External Web "Redirect"
- Application (SMS opt*)
- Internal Web Sched & "Redirect" Recordings
- WebEx Node For MCS
- Voice/Video
- WebEx
- Cascaded
- Signaling
- LDAP

* SMS or HMS
WebEx Integrations
Schedule from WebEx

- Schedule and attend meetings from WebEx.com
- Works with all WebEx Productivity Tools (WebEx Connect, iPhone, etc)
  - Citrix is now supported with PT
- Single Sign-on with MeetingPlace (optional)
- Reservationless audio meetings on MeetingPlace only
- Enterprise Edition: Web meetings on WebEx Meeting Center, Event or Training Center
- In session controls from web conference E.g. “Who’s talking,” Mute, Un-mute
- Record audio and web meetings stored on WebEx Cloud (NBR)
2. WebEx Scheduling/WebEx SaaS MP Voice/Video (same as MP 7 Type II)

- IP Phones with Video & 7985G Video
- SIP Trunks
- CIPC with CUVA
- CUPC Video
- WAN
- PSTN
- GK
- H.323 Video Room or Desktops
- SIP Trunks
- LDAP Optional
- TSP SSL tunnel
- Application/"Authenticate & Redirect URL" to WebEx
- End User Authentication (Optional)
- CUPC Video
- WebEx Scheduling Tools

Example:
Audio UL 1200
Video UL 200
Software Media Svr
WebEx SaaS
WebEx Scheduling

External WebEx Meetings

* SMS or HMS

Voice/Video
WebEx
Signaling
LDAP

* SMS or HMS
3. WebEx Scheduling - WebEx Node for MCS

- IP Phones with Video & 7985G Video
- CIPC with CUVA
- CUPC Video
- WebEx Scheduling
- WebEx Node for MCS

WAN

PSTN

SIP Trunks

GK

Profile Synch & End User Authentication

H.323 Video Room or Desktops

Audio UL 200

Video UL 40

TSP SSL tunnel

WebEx Node for MCS

Application/ (SMS opt*)

HMS

WebEx Scheduling

WebEx

Cascaded

Signaling

LDAP

Voice/Video

* SMS or HMS

NEW
Summery Conferencing

Deliver a compelling, productive and cost-effective web conferencing experience that leverages a wide variety of end-points and audio and video conferencing options

- **Cisco WebEx** – SaaS web conferencing
- **Cisco Unified MeetingPlace 8.0**
  - Offering on-premise audio and video conferencing
  - Scheduling from MeetingPlace or WebEx UI with WebEx Node for MCS
  - Or scheduling from WebEx UI with WebEx (SaaS)
- **Cisco Unified MeetingPlace 7.0**
  - for customers who require an entirely on-premises audio and web solution
- **Cisco Unified Videoconferencing**
  - For customers who requires video device interoperability
TelePresence update
Cisco TelePresence
Introducing the CTS 3010 and CTS 3210

- Updates to the award-winning CTS 3000 and CTS 3200 endpoints
- New 40” LCD for data sharing
- New light shroud and diffuser
- 40% Faster Install time
- 25% more energy efficient
- More serviceable
Any-to-any Cisco TelePresence HD Interoperability

HD Video Conferencing Interoperability and Media processing

- **Customer Benefits**
  - Gives customers choice for HD interoperability
  - Leverage existing HD VC investments
    - Enabling more endpoints to participate in immersive collaboration
  - Future-proof for other video any-to-any capabilities
    - Expanding the universe of endpoints to connect to other video-enabled devices like mobile devices, DMS etc.
  - Any-to-any live video sharing
  - Transcription allows for further reach of video content
Cisco TelePresence Recording Studio
Simple, High Quality Video Recording

- Simple: One-button-to-push
- High-quality: Recording at 1080p
- Medianet application integration
- User-driven creation and distribution
- Any to Any: Streaming to Web

Captures Audio, Video, and Data
Distribute Content by Email
Web or TelePresence Playback
Publish to DMS for Broad Distribution

Pause or Stop
Press Record
Schedule in Groupware

Press Record
Pause or Stop
Schedule in Groupware

Web
Digital Signs
Cisco TelePresence Room
Smart Phone

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Cisco Unified Communications licensing

Cisco User Connect Licencing intro
Cisco Unified Workspace Licensing update
What is User Connect Licensing (UCL)?

- A user-based licensing for Cisco UC & Collaboration products
  - To quote you will only need to know the number of users and public space devices
  - No need to specify server software, DLUs, ports, options, etc.; these will convert to a single User Connect License
  - Can be combined with CUWL – no mixed cluster restriction!
  - Licensing price impact on IP telephony, mobility, conferencing, presence, clients and messaging

- Cisco Unified Communications Essential Operate Service (ESW) - consistent, neutral pricing across portfolio of Cisco UC applications

- Customers can migrate from old licensing to UCL + CUWL

- Introduced in a 3 month phased rollout
  - UCL will be available when UC 8 release ships on March 2, 2010
  - Valid from CUCM 7.1(5)+
Key Take-aways

- A simplified Cisco Unified Communications licensing model provides customers with a comprehensive and consistent way of licensing their UC products
- UCL makes it easier for customers and partners to do business with Cisco
- Enhancements to CUWL makes it an even more attractive, valuable investment for new and existing customers