Cisco UC desktop klienter

Cisco Virtual Update 25/8-2010

Hvis du har spørgsmål under præsentationen, så brug venligst Q&A-funktionen, ikke chat-funktionen.

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Agenda

- Intro
- Cisco Unified Client Services Framework (CSF)
- Cisco Unified Personal Communicator (CUPC) 8.0
- Cisco UC Integration™ for Microsoft Office Communicator (CUCIMOC) 8.0

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Cisco Unified Client Services Framework
Soft Client Collaboration Architecture

Cisco Webex Connect

3rd Party EIM Microsoft/IBM

Cisco Unified Personal Communicator

Cisco Quad Phone

Developer & Integrator SDK

Cisco Unified Client Services Framework

Call Ctl | Audio | Video | IM | Vmail | Presence | Conf | Directory | History | Future

Cisco Unified Infrastructure Services

Call Control | Data Store | Presence Services | Calling History | Conferencing Services | Messaging

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Cisco Unified Personal Communicator 8.0
All-in-One Communication Tool

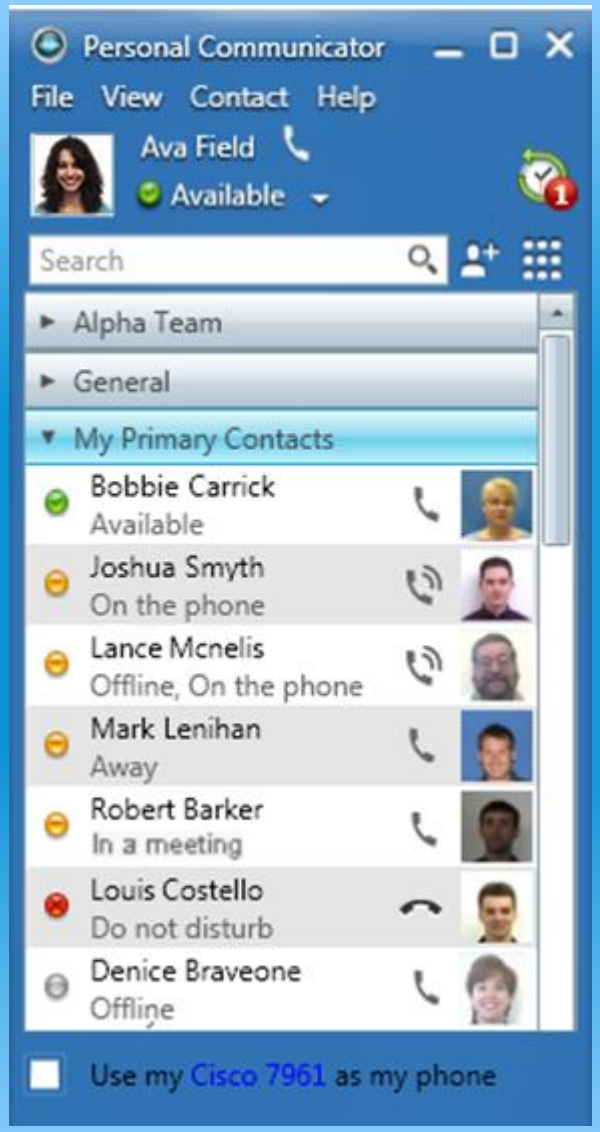
Call Control (audio & video)

Enterprise Instant Messaging

Visual Voicemail

Conversation History

Web & Video Conferencing



Directory access

Availability Status

Contact List

Application Integration

Mobility

Introducing the Cisco UC Integration™ for Microsoft Office Communicator

- 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
- Provides investment protection & business-class communications with Microsoft

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Agenda

- Intro
- **Cisco Unified Client Services Framework (CSF)**
- Cisco Unified Personal Communicator (CUPC) 8.0
- Cisco UC Integration™ for Microsoft Office Communicator (CUCIMOC) 8.0

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Cisco Client Services Framework

- The Cisco Unified Client Services Framework (CSF) is the Unified communications engine used to power:
  - Cisco Unified Personal Communicator
  - Cisco UC integration for MOC
  - Cisco UC integration for WebEx Connect
  - Cisco Quad
- The integration uses Voice, Video, IM & Presence, voice messaging and Collaboration services from the framework
  - Note: With CUCIMOC IM and Presence are provided by OCS.

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Services Provided by Framework

Desk Phone Control

- The Client Services Frame work can register with Communications manager to control a desktop phone
- Initiate phone calls
- In call functions, Transfer, Conference, Hold, Park, Hang-up
- Monitor Line/Device status
- Device Selection
- Line Selection

- Extension Mobility is supported for desk phone devices

NOTE: Client Services Framework soft phone device doesn't currently support CTI control, Expected 2H CY10

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Services Provided by Framework

Media Termination

- The CSF has the capability to register to Communications manager as SIP soft phone
- The CSF includes audio and video engine providing wide band audio and high definition video.
- As a Communications manager endpoint it interacts with CM for
  - Configuration
  - Call Admission control
  - Bandwidth controls / Codec selection
  - Secure Communications
- CSF will failover to a survivable remote site telephony (SRST) device if UC manager become unavailable

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Services Provided by Framework

Audio Support

- The CSF supports a number of Standards based Audio codec's.

G.729a	8 kbps	- Narrow Band
iLBC	16 kbps	- Narrow Band
G.711u	64 kbps	
G.722	64 kbps	- Wide Band
iSAC	32 kbps	- Wide Band

- Codec selection is managed using Communications Manager Regions and Locations.
- Authenticated signalling and encrypted voice is supported

Note: iSAC Supported on UC Manager 8.0, Client Must Have iSAC Enabled

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Services Provided by Framework

Mobility

- The Client Service Framework integrates with the Communication Manager Mobility / Single number reach service.
- This provides simultaneous ring on CSF devices and remote destinations
- The CSF also provides a remote hand off service. When on a call using the “Transfer to Remote Device” option the call will be handed off to remote devices selected by the user.
- Cell phone, Home Office etc.

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Services Provided by Framework

Video Support

- Video can be supported with both Soft phone and Desk phone devices.
- The CSF supports the Standard based H.264 Advanced Video Coding (AVC) codec.
- It supports the H.264 baseline profile with levels 1 through 3.1.
- This is a flexible codec that can support video for low bandwidth environments but also support high a definition video experience.
- Bandwidth / Call Admission control is managed by Communications manager

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Modes of Video Operation

- The CSF provides two modes of video operation both enabled for up to high definition video communication.

Soft phone Mode

Video and audio uses devices on workstation. Video is displayed on workstation, audio is via headset (recommended) or PC Speakers.

Desk Phone Mode*

Communication run across desk phone and workstation. Video is displayed on workstation while audio is terminated on the Cisco IP phone

* Requires Cisco Phone with Switch port and Support for CAST and CDP Protocols (Current in SCCP Phone Loads)

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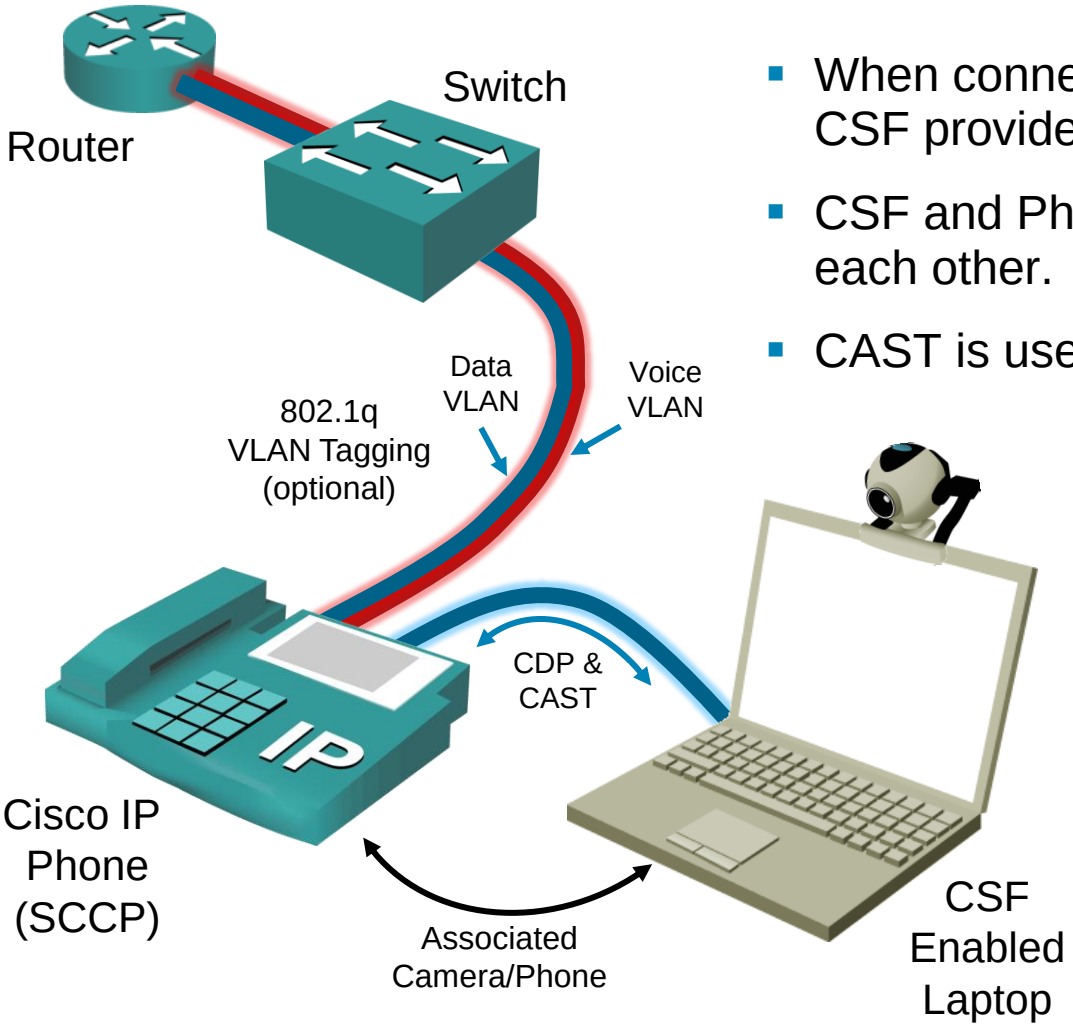
Cisco Unified Client Services Framework

Desk Phone Mode Video



- When connected to a Cisco IP phone the CSF provides video for desk phone Calls.
- CSF and Phone use CDP to discover each other.
- CAST is used to setup/manage video

- CSF CDP driver requires 32 bit OS (64 bit road mapped – 2H CY10)
- SCCP phone images supported at this time. (SIP road mapped 2H CY10)

Additional Info: http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/srnd/7x/endpnts.html#wp1044390

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Cisco Unified Client Services Framework

Desktop Cameras

- The **Client Services Framework** has been developed to work with USB video cameras supporting the USB Video Device Class (UVC)
- UVC devices use standard OS drivers and do not require additional camera drivers making installation simple.

- **Cisco Tandberg PrecisionHD™ USB Camera** provides business-quality HD video communication. Offering video at 720p, 30 frames per second, the webcam camera provides exceptional HD and superior audio capabilities.

- **Cisco VT Camera III** is a USB connected 720p camera with a 2 mega-pixel sensor and a Carl Zeiss supplied fixed focus glass lens for improved performance and better image quality.

- Additional Cameras tested by Cisco for use with CSF endpoints

Logitech QuickCam Pro 9000

Microsoft Lifecam

Cisco Unified VT Camera II

Selected integrated Cameras (Lenovo, HP and Dell)

* HD Video requires specific workstation hardware specification

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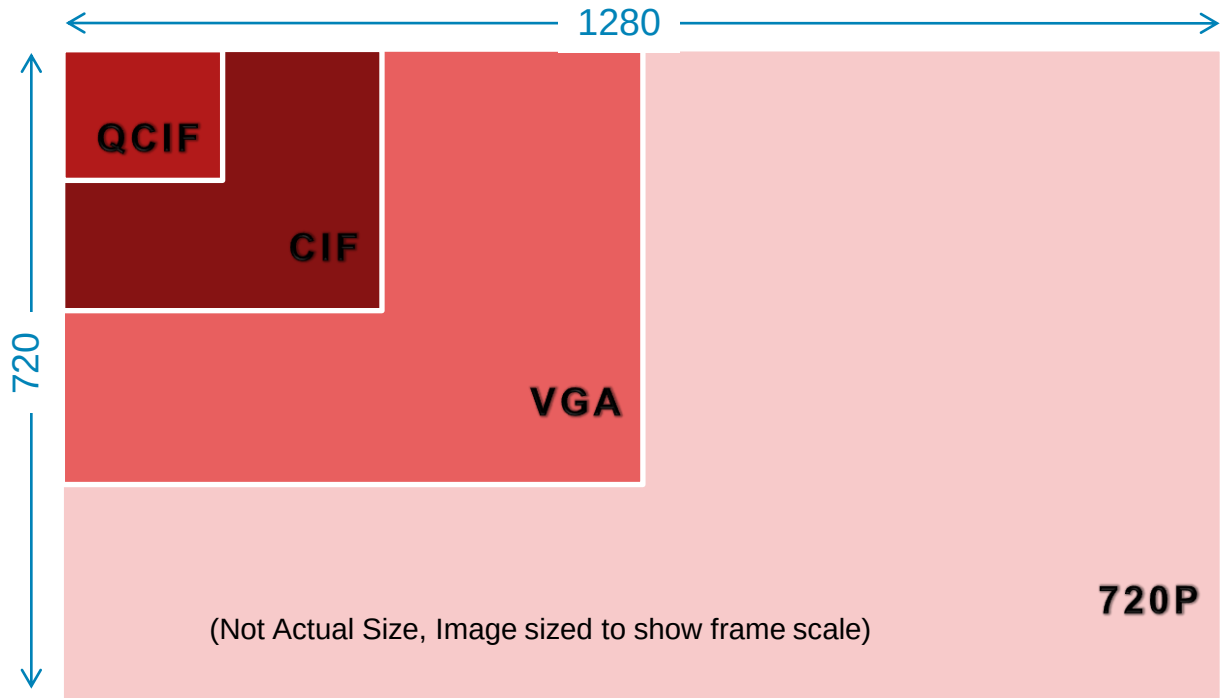
Video Engine/Frame Size & Rate

- The CSF can transmit QCIF, CIF, VGA and 720p HD frame sizes at up to 30 frames per second.
- It can receive these and additional frame sizes



QCIF = 176 x 144

CIF = 352 x 288

VGA = 640 x 480

720P = 1280 x 720

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Cisco Unified Client Services Framework

Video Throttling Consideration

- The CSF will always aim to Transmit and Receive HD video.
- Factors that throttle HD video are:

Far end device Video Capability

Local Processing Capability

Admin / User Manual Settings

Local Camera Capabilities/Quality

Communications Manager Region Control (CAC)

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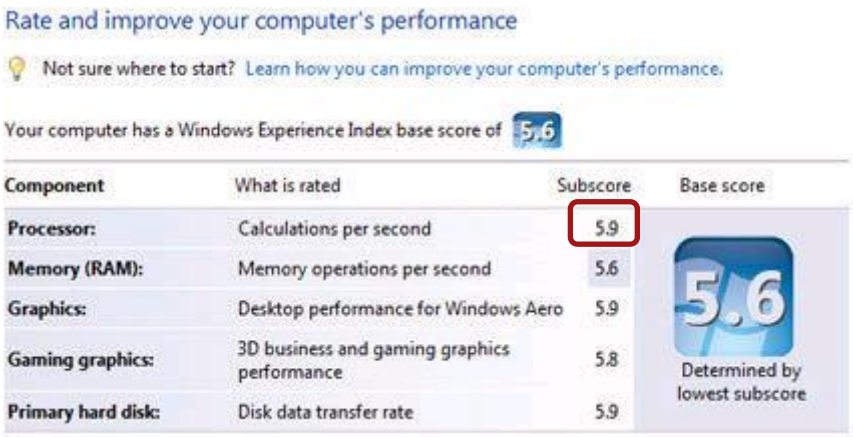
Cisco UC Integration for Microsoft Office Communicator

Video Throttling – CPU/Bitrate/Frame

- The CSF uses several tables to map video level.
- Windows WEI **processor** score is used to determine if workstation can encode and decode HD video



Description (H.264 Level)	Bitrate Max	Max Frame	WEI Encode	WEI Decode
Voice	--	--	2	2
H.264 Level 1	64	QCIF	4	4
H.264 Level 1B	128	QCIF	4	4
H.264 Level 1.1	192	CIF	4	4
H.264 Level 1.2	384	CIF	4	4
H.264 Level 1.3	768	CIF	4	4
H.264 Level 2	2000	CIF	4	4
H.264 Level 2.1	4000	CIF	4	4
H.264 Level 2.2	4000	VGA	4.8	4.8
H.264 Level 3	10000	VGA	4.8	4.8
H.264 Level 3.1	14000	720p	5.9*	5.9*

* Additional a quad core CPU is required to support 720p

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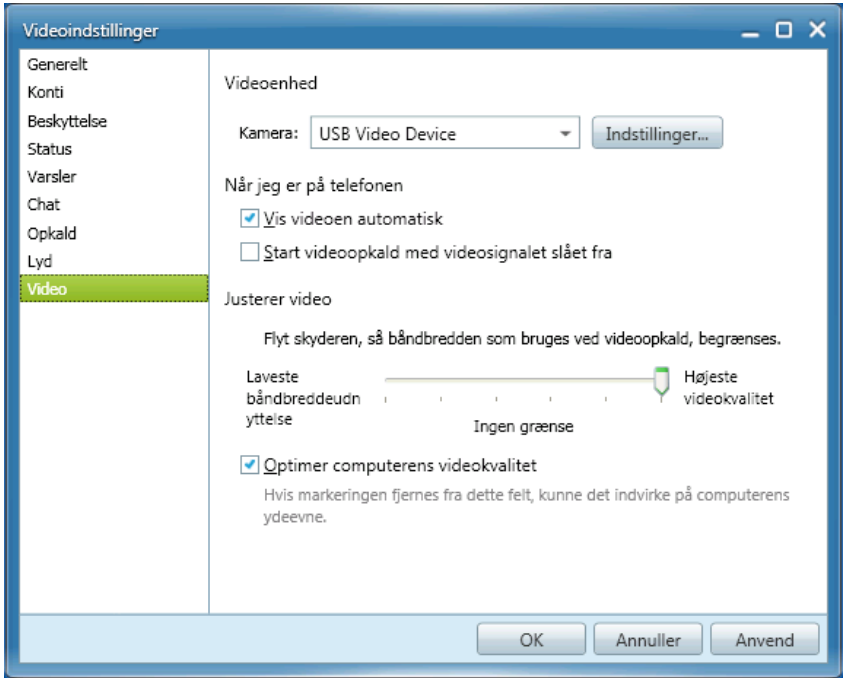
Cisco UC Integration for Microsoft Office Communicator

Receive Level: Admin/User Settings

- The CSF also provides the ability to manually adjust video settings.
- This throttles the WEI based video level selected.
- Reducing the settings will lower the requested H.264 Level



Example Head Video Settings

Mode	Up Stream	Down Stream	H.264 Level
1	64 Kb/s	192 kb/s	1.1
2	128 kb/s	384 kb/s	1.2
3	384 kb/s	768 kb/s	1.3
4	384 Kb/s	4 Mb/s	2.1
5	768 kb/s	4 Mb/s	2.1
6	No Limit		WEI level

Manual Video Throttle Table

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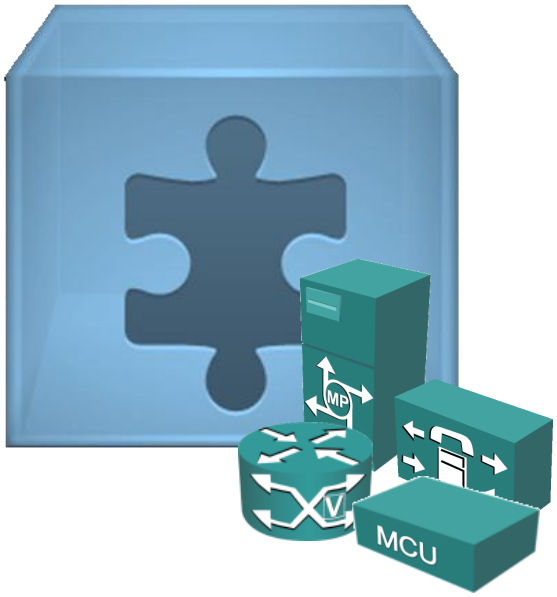
Services Provided by Framework

Ad-hoc Audio/Video Conference Support



- The CSF supports multi-party conference management.
- Audio conferences are supported using UC Manager software and hardware based DSP resources
- Audio/Video conferences are supported using the Cisco Unified Videoconferencing(CUVC) MCU and Cisco MeetingPlace .
- Cisco CUVC or MXE can be used for video interop with TelePresence endpoints

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Services Provided by Framework

Directory/Contact Services

- LDAP or LDAPS Directory Search
- Search up to 5 search bases
- Contact Search
  - Contacts, Contact numbers, Organisational information
- Reverse Number Lookup
  - Resolve incoming telephone number to contact
- Contact Photo retrieval
- Client based dialling rules and directory lookup rules
- Local Cache maintained

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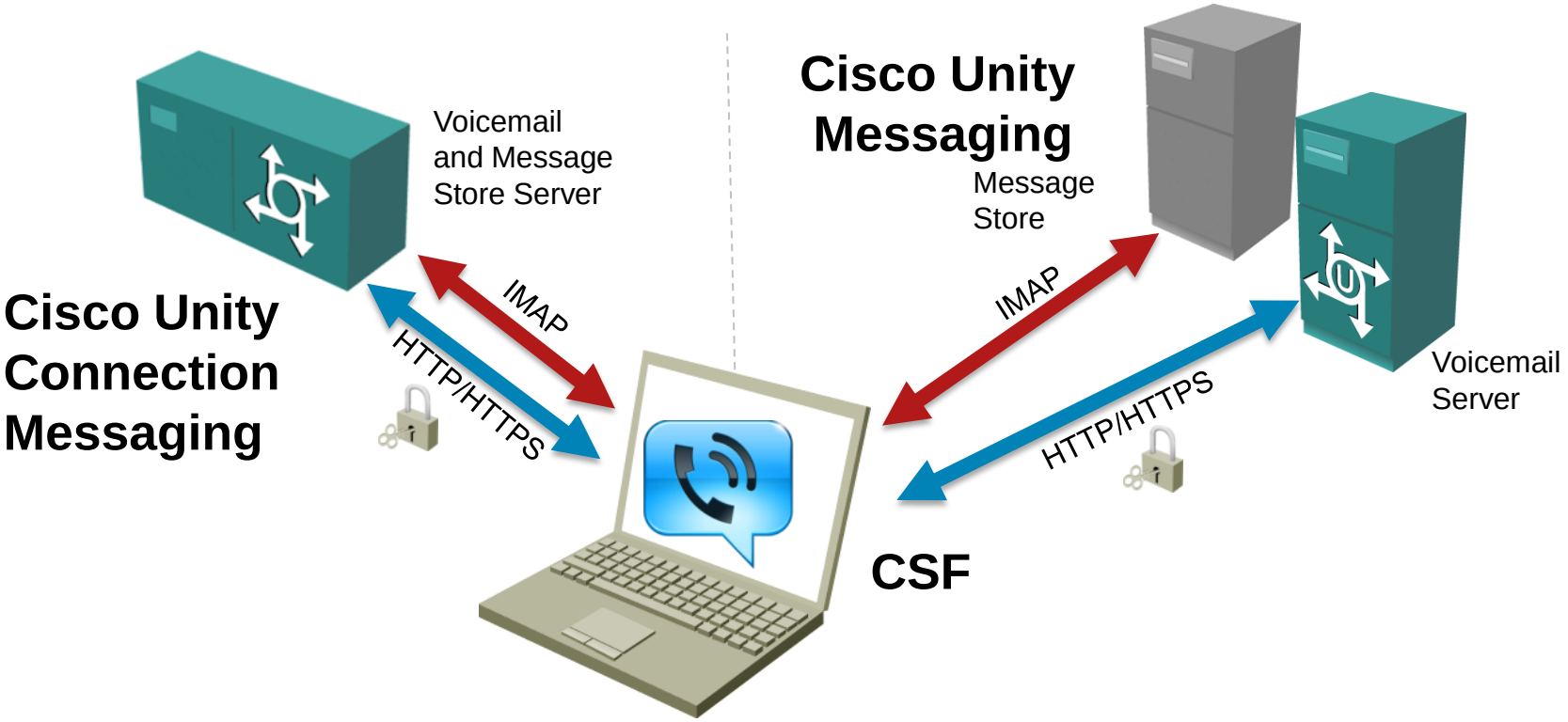
Cisco Unified Client Services Framework

Voicemail Access/Visual Voicemail

- CSF provides two voicemail access methods
  - TUI access to voicemail – VM Pilot Point
  - GUI access to voicemail – Unity / Connection



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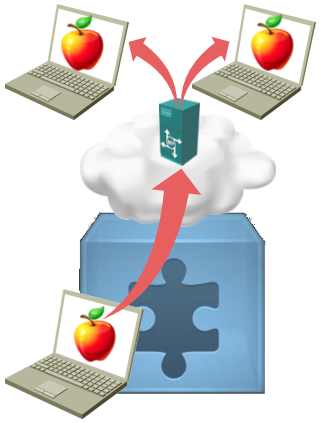
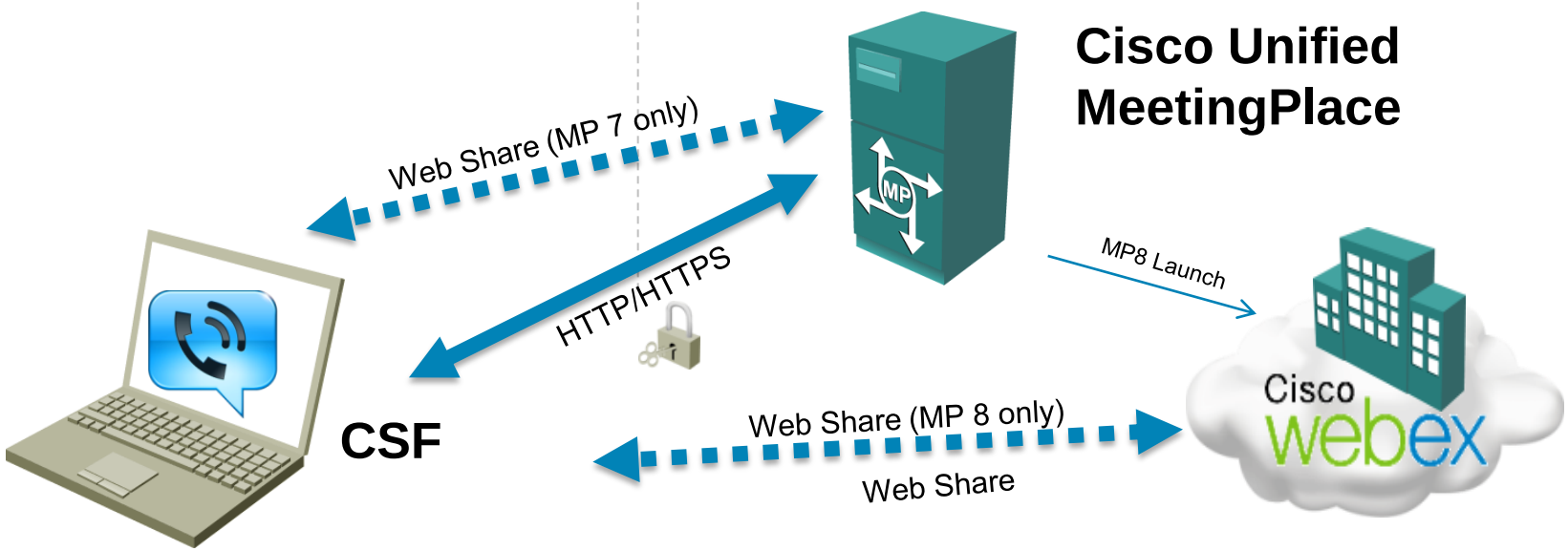
Ad-hoc Desktop Collaboration



- The UC Client uses Cisco MeetingPlace to provide desktop sharing.
- When used with Unified MeetingPlace 7, on-premises sharing is used.
- When used with Unified MeetingPlace 8, WebEx will be used to host the desktop share



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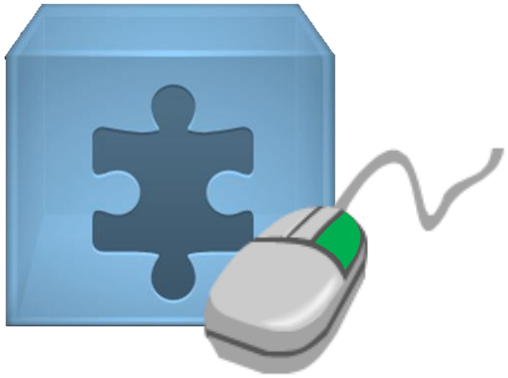
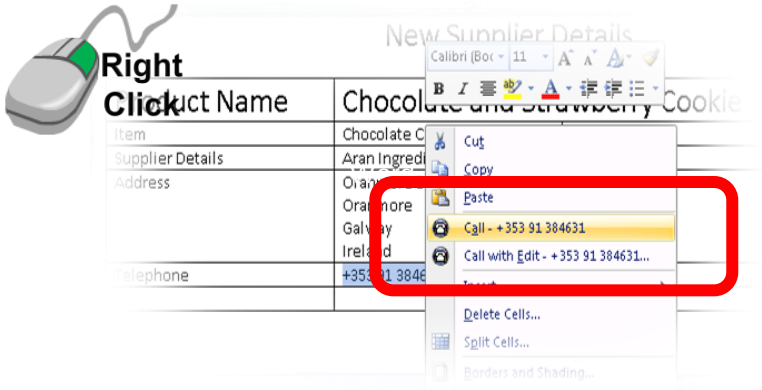
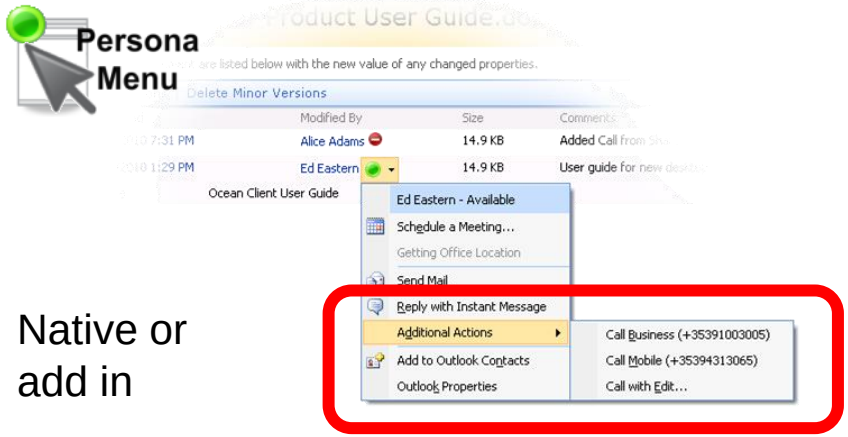
Services Provided by Framework

Click to Call



- The CSF also provides an application interface to support Cisco provided Click to Call application plug-ins





Native or add in

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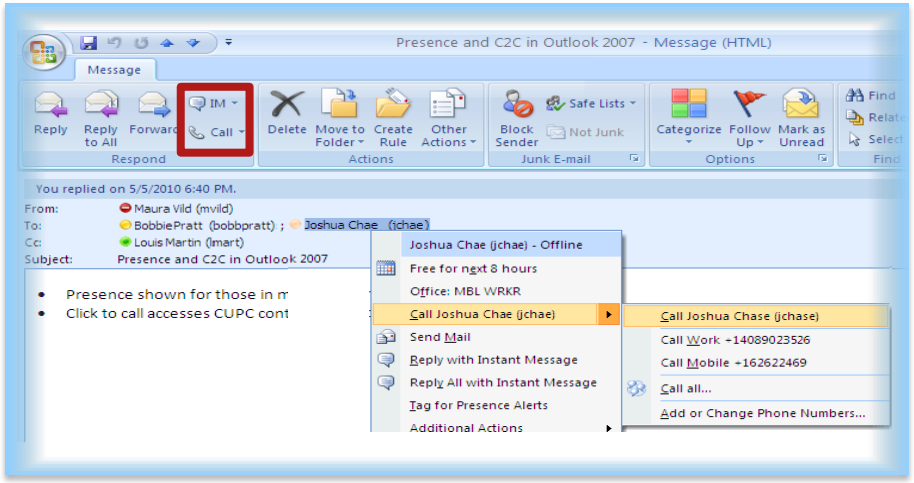
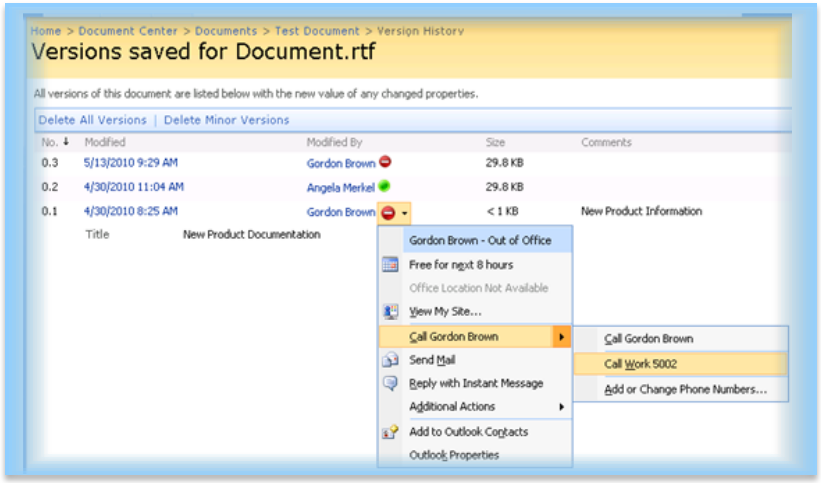
Cisco Unified Client Services Framework

Services Provided by Framework

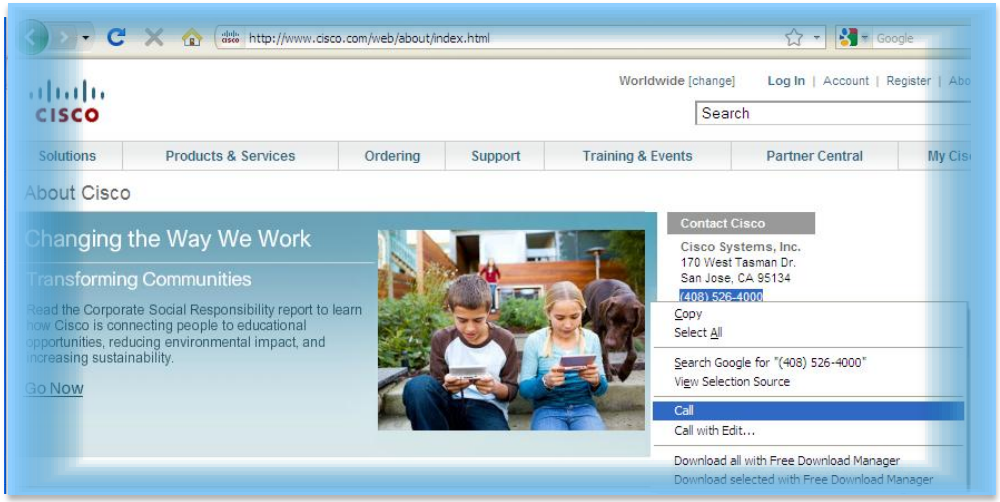
Outlook - Availability status, Ribbon, Click-to-X



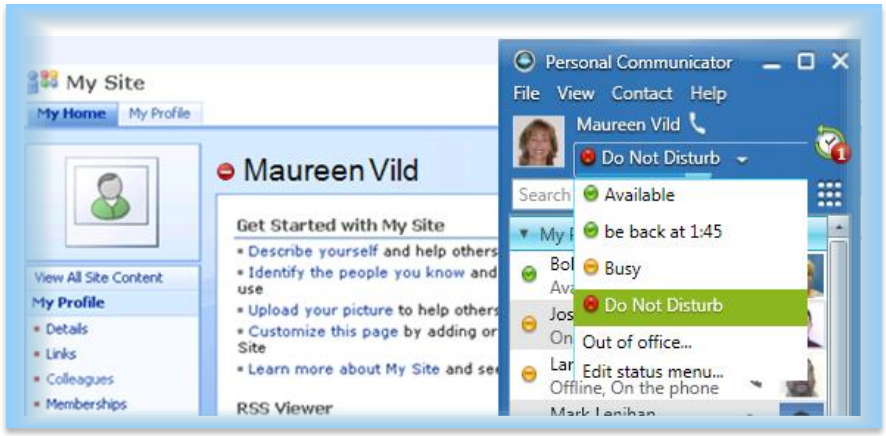
SharePoint - Availability status, Click-to-X



Browser – Click-to-call



Changing availability status updates in SharePoint



Note: Click to “X” refers to two option to communicate – Call or IM

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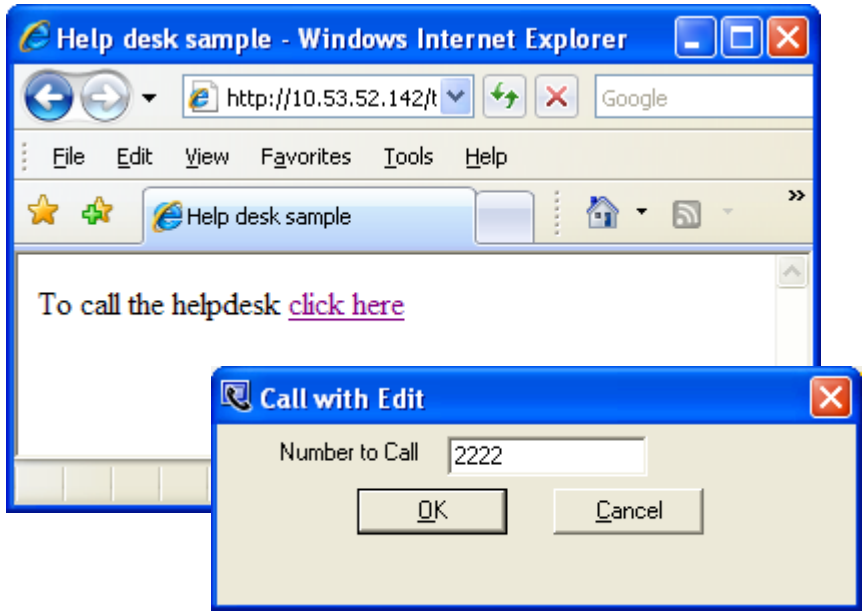
Cisco Unified Client Services Framework

Desktop Integration

- The UC Integration™ provides for “TEL” URI Hyperlinks.
- Example: Tel:+14082224444 (Click to call link)
- TEL URI’s can be used to UC enabled business applications to support the click to call function.




```
<html>
<head>

<title>Help desk sample</title>
</head>
<body>
To call the helpdesk <a href="tel:2222">click here </a>
</body>
</html>
```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Agenda

- Intro
- Cisco Unified Client Services Framework (CSF)
- **Cisco Unified Personal Communicator (CUPC) 8.0**
- Cisco UC Integration™ for Microsoft Office Communicator (CUCIMOC) 8.0

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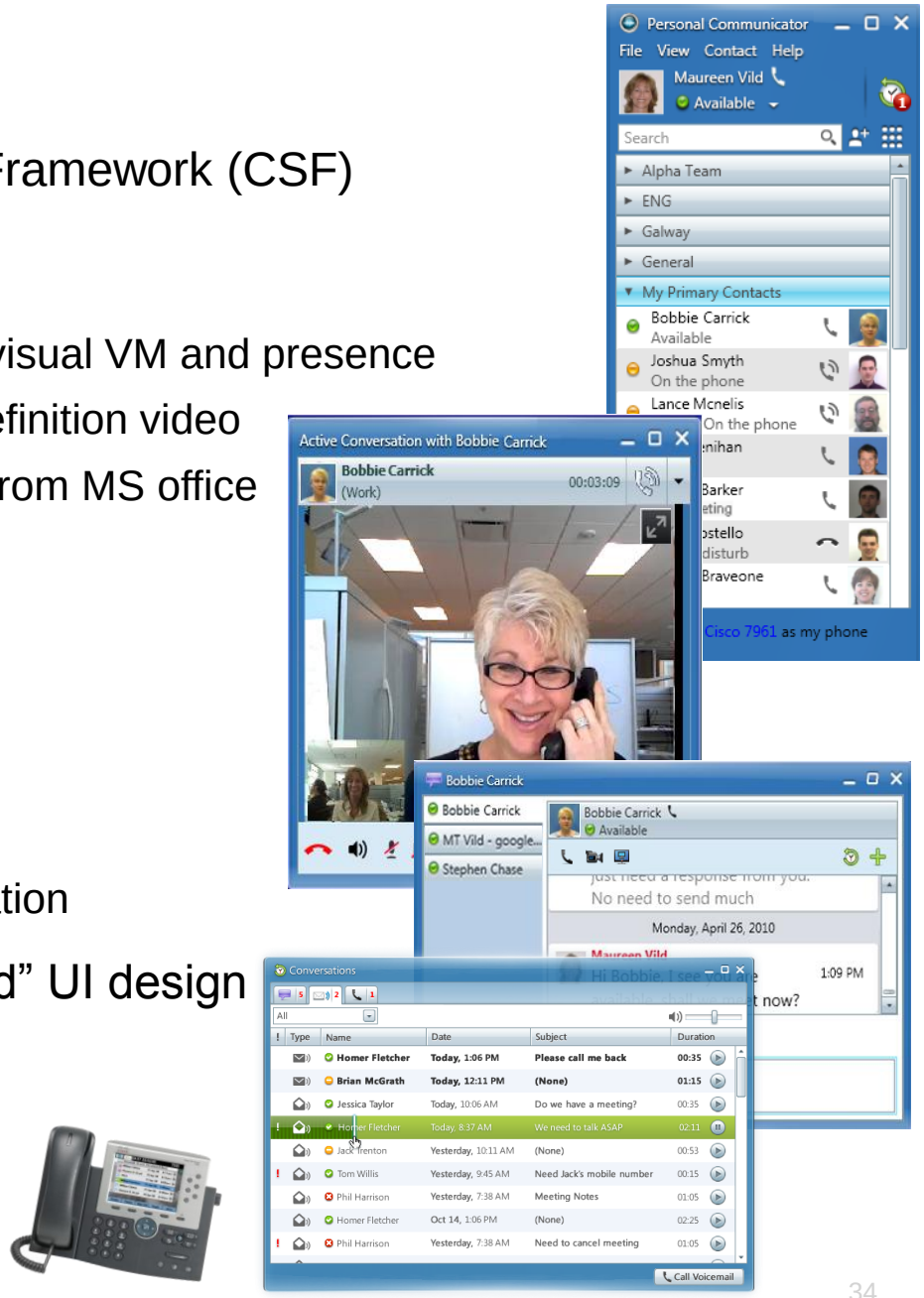
Cisco Unified Personal Communicator 8.0 Highlights

- Based on Cisco Unified Client Services Framework (CSF) 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-to-Call/IM and presence 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



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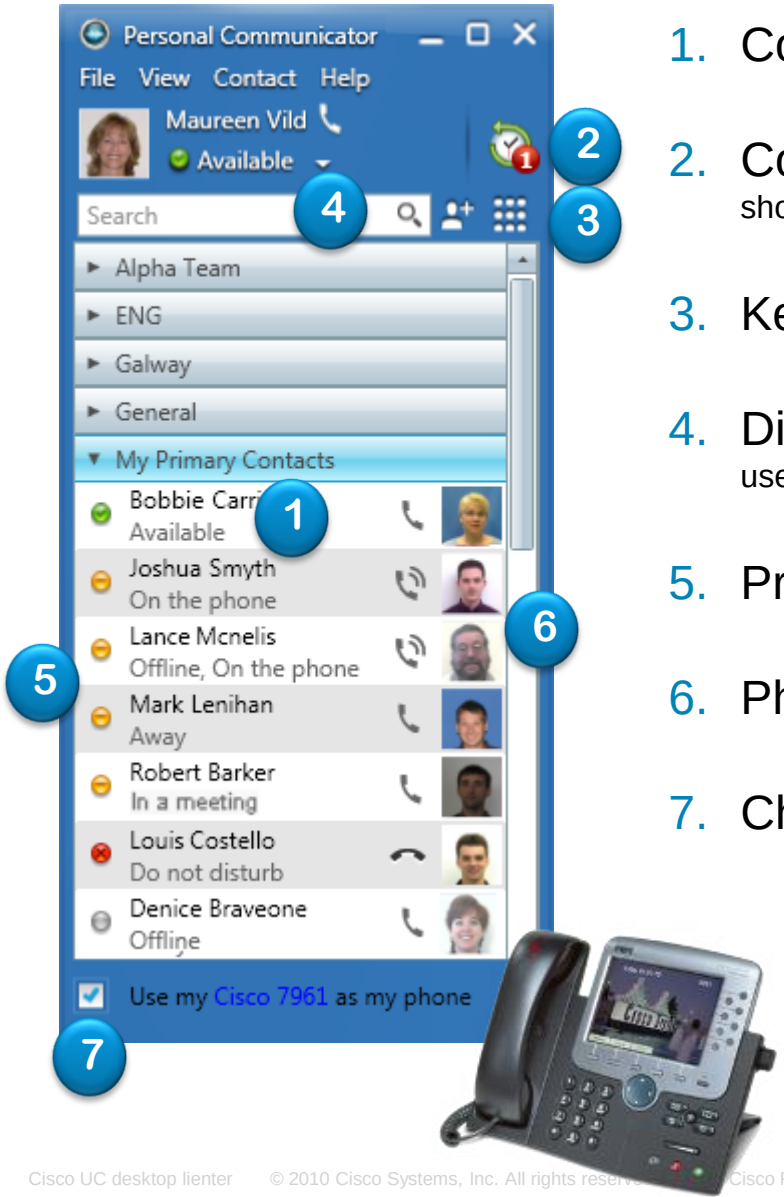
Cisco Unified Personal Communicator 8.0
Product Overview – The Hub



1. Contact and Groups List – Sort contacts by status or name
2. Conversation History/Missed Calls Indicator – Click to show the Conversation History window
3. Keypad – Ad hoc dialing
4. Directory Search / Predictive Search – search to add users, use this window to enter a number to call
5. Presence – colored bubble and specific text
6. Photos (Shown with expanded view of console)
7. Check to control deskphone, un-check for softphone

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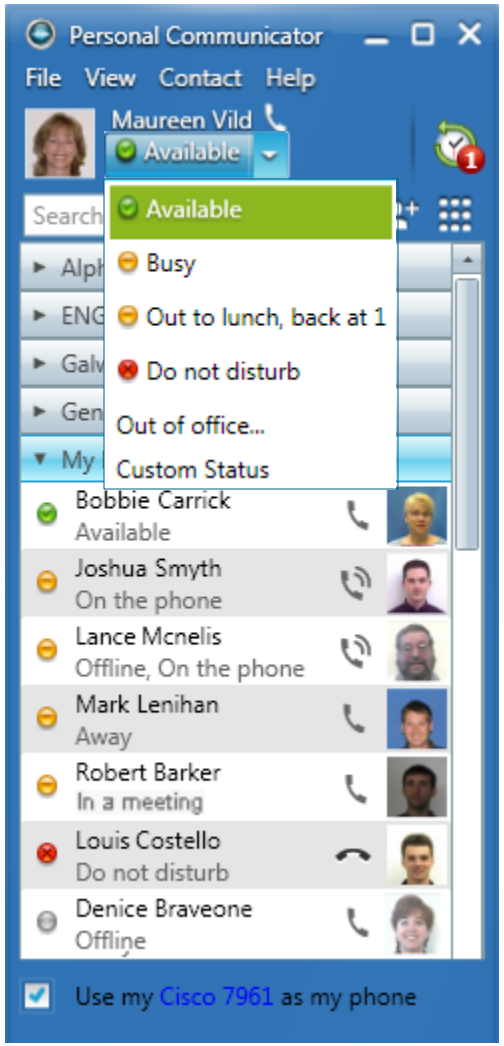
Cisco Unified Personal Communicator 8.0
Product Overview – Availability Status



- Availability State – Aggregated state, user based

	Available	
	On the phone	(Off hook)
	Away	(No keyboard action)
	In a meeting	(Outlook calendar appt)
	Busy	(Manually set)
	Do Not Disturb	(Manually set)
	Offline	(Logged out)

- Status text (e.g. “In a meeting” correlates to the Outlook calendar)
- Manually set status

  Busy or a custom message

  Do Not Disturb – shared with the deskphone

  Out of Office – set to offline with a custom message
- Exchange availability status with 3rd party XMPP clients

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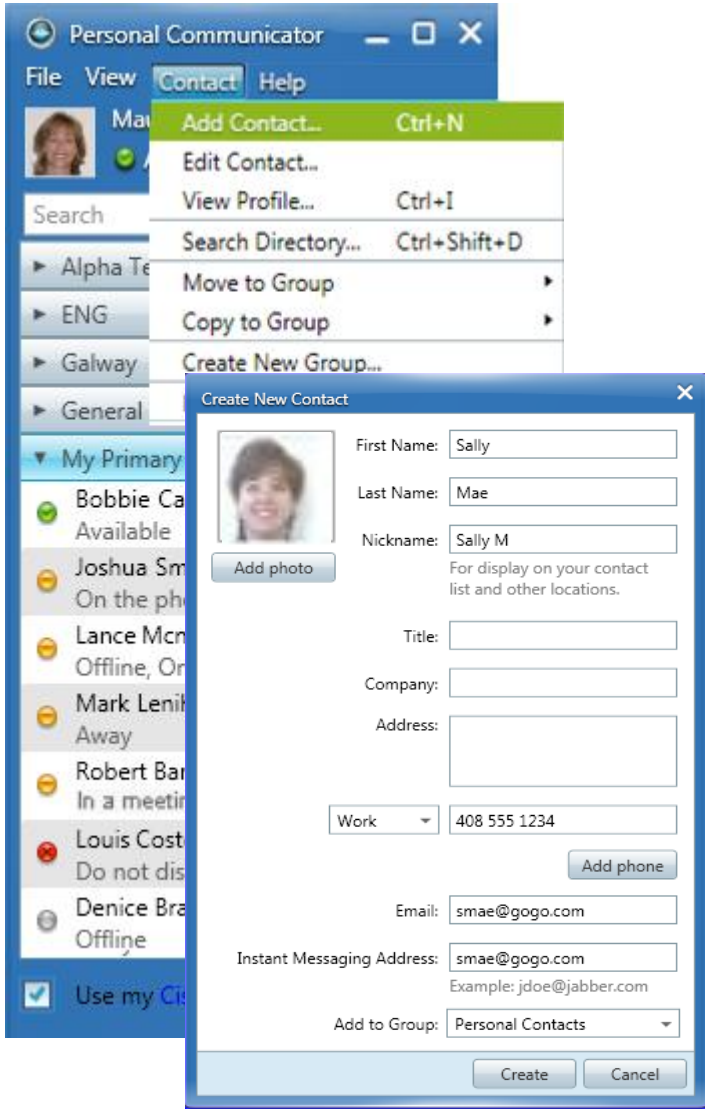
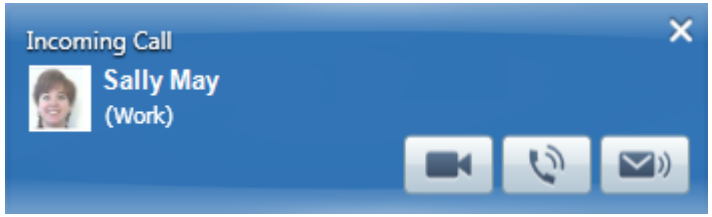
Cisco Unified Personal Communicator 8.0
Feature Overview - Adding Contacts



Adding non corporate contacts

- Add contacts to easily communicate with
- Exchange availability status and chat (XMPP based or federated clients)
- Include Instant Message address
- Contact will be sent a notification to ‘accept’ the ability to exchange status and chat
- Add photos to your contact entries
- Incoming calls of Personal contacts will be identified from the information entered, including the photo



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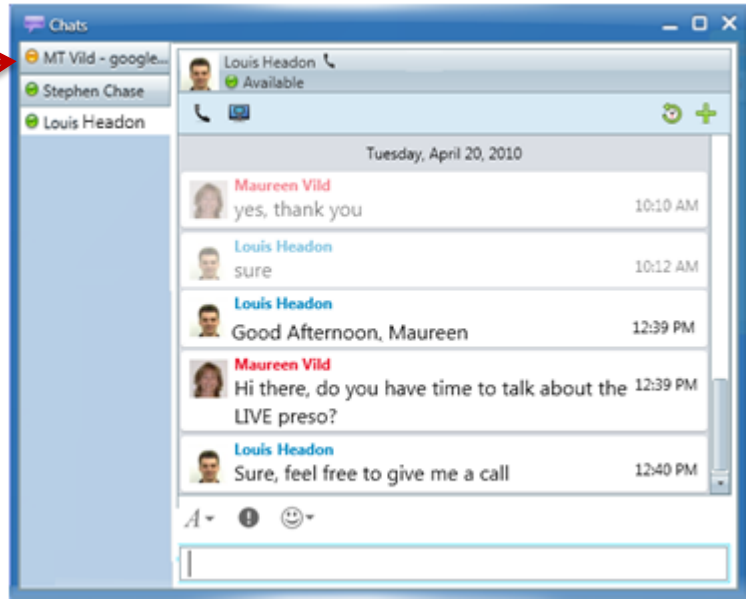
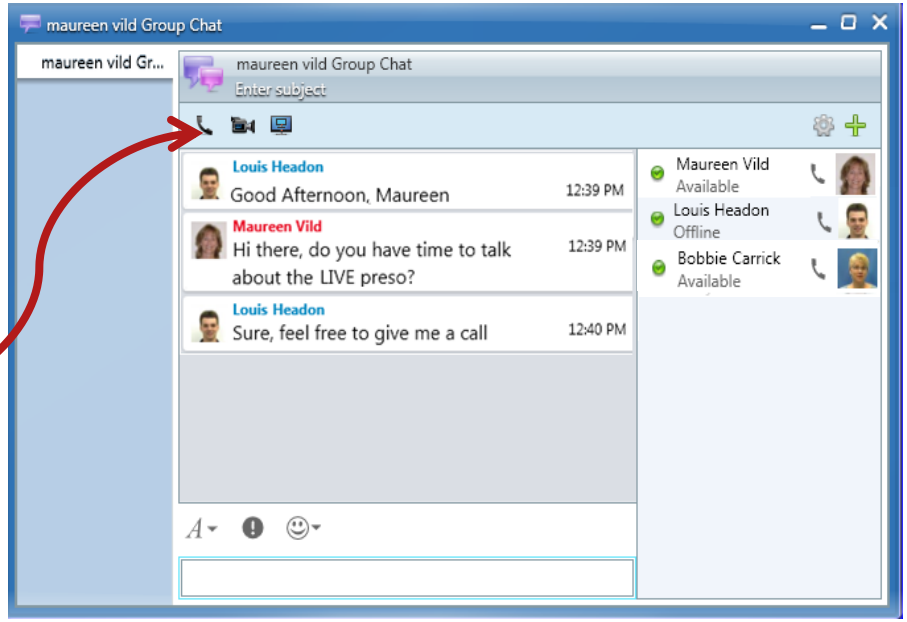
Cisco Unified Personal Communicator 8.0
Feature Overview - Chat

- Point-to-point Chat sessions
  - Multi-tab parent window
  - Peel out tabs to individual chat windows if desired
  - Chat history
  - Conversation from previous chat is shown as historical
  - Chat with internal or external XMPP clients
- Group Chat
  - Drag contacts into a existing point-to-point chat window to start a group chat or add to an existing group chat
- From point-to-point, group chat and persistent chat room windows:
  - Place a call or a video call or
  - Start a web conference





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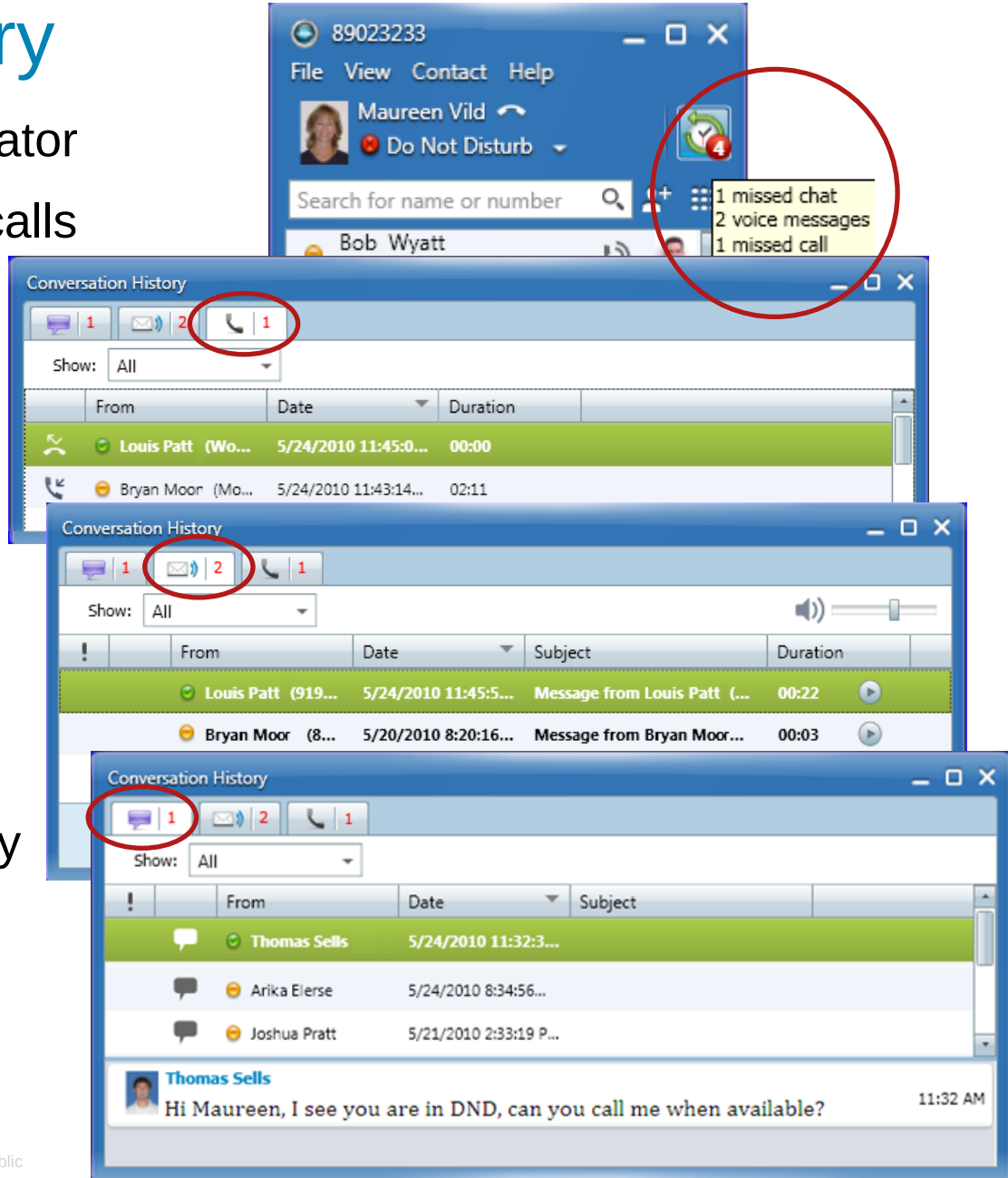
Cisco Unified Personal Communicator 8.0
Conversation History

- Missed Communication indicator
- Incoming, outgoing, missed calls
- Visual Voicemail
  - Integration with Unity and Unity Connection
  - Supports IMAP Idle
  - Secure messaging
  - Playback to PC speakers
- Chat history
  - Easily recall past chats
- Chat & Call logs stored locally
- Presence everywhere
- Right click to return the communication



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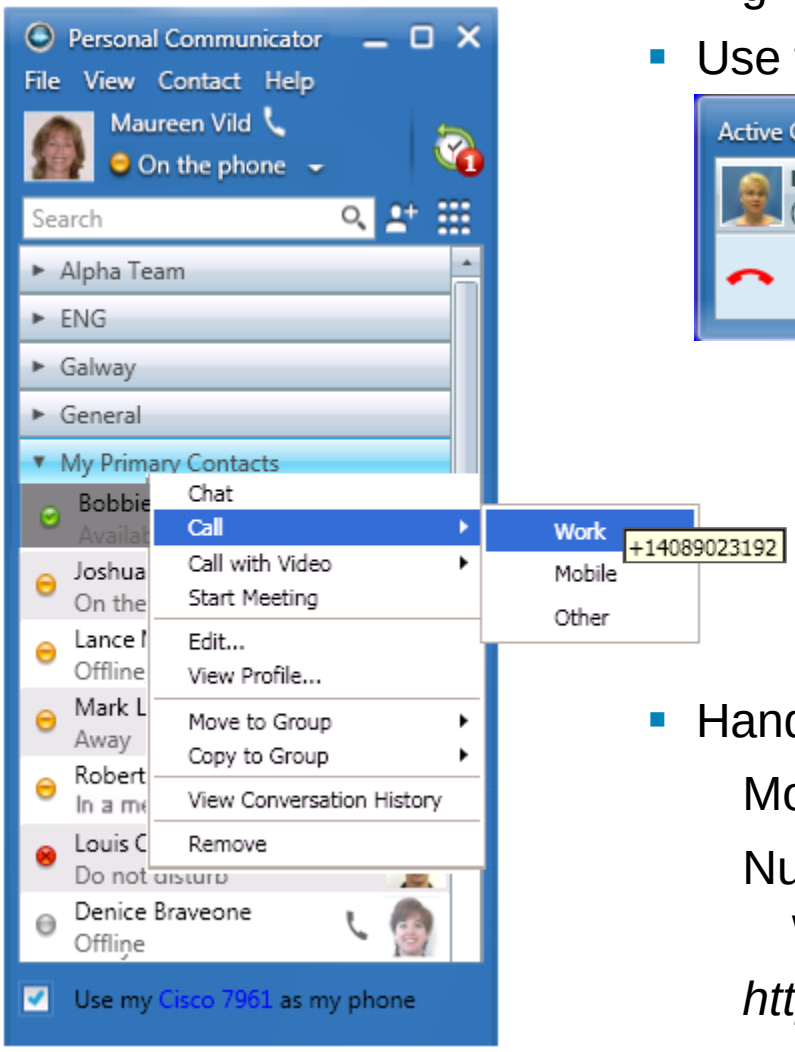
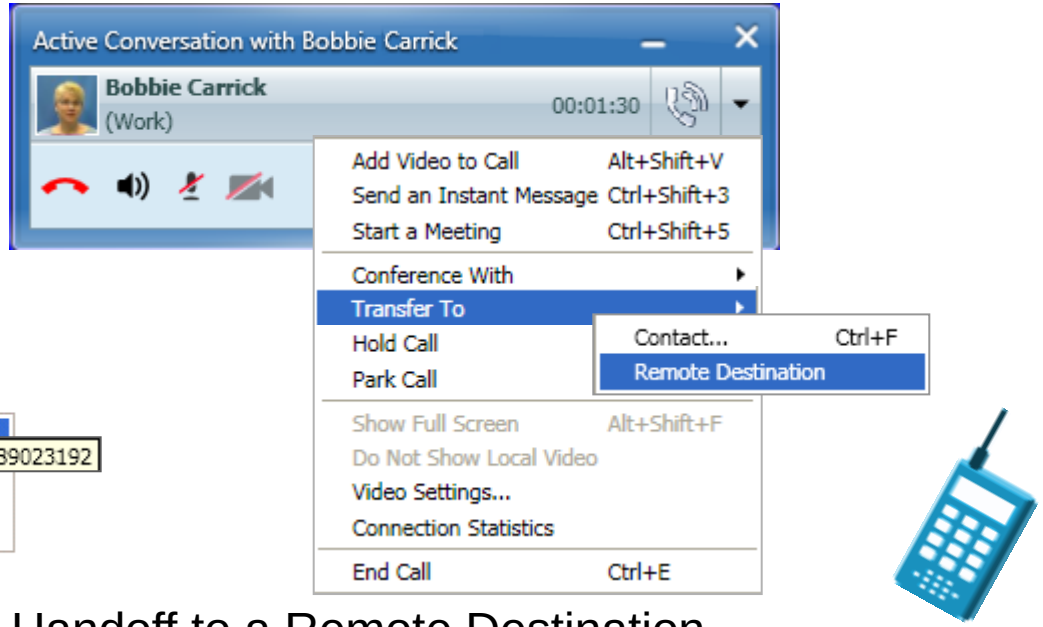
Cisco Unified Personal Communicator 8.0
Placing a call



- Right Click on contact
- Use the dropdown for in call options



- Handoff to a Remote Destination
  - Mobile device or alternate number
  - Number must be set in Unified CM Use Options GUI web page:
  - *https://[cucmservername]/ccmuser*

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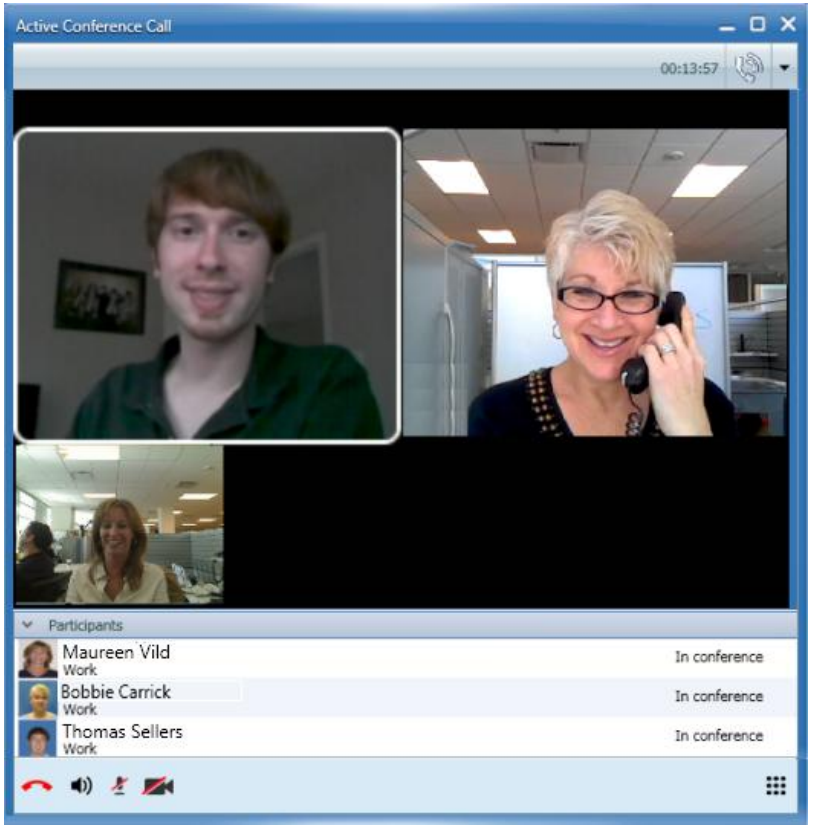
Cisco Unified Personal Communicator 8.0
Video



- Softphone and Deskphone video
  - Deskphone video requires the PC be tethered to the Cisco IP Phone
- H.264 AVC Video Codec
- Supported Resolutions
  - Quarter Common Intermediate Format (QCIF)
  - Common Intermediate Format (CIF)
  - Video Graphics Array (VGA)
  - High-Definition (HD)
  - (See CSF specs in the latest Cisco Unified Communications SRND for details on HD requirements)
- Resize up to full screen mode (next slide)

- Video conferencing integration – options for multi-point video
  - Cisco Unified MeetingPlace 8.0 (MCU configuration)
  - Cisco Unified MeetingPlace Express VT 2.0
  - Cisco Unified Videoconferencing
- TelePresence interoperability – Requires media bridge to establish calls and transcoding

Note: This example shows Continuous Presence and Rate Matching provided by Unified MeetingPlace 7.0/8.0

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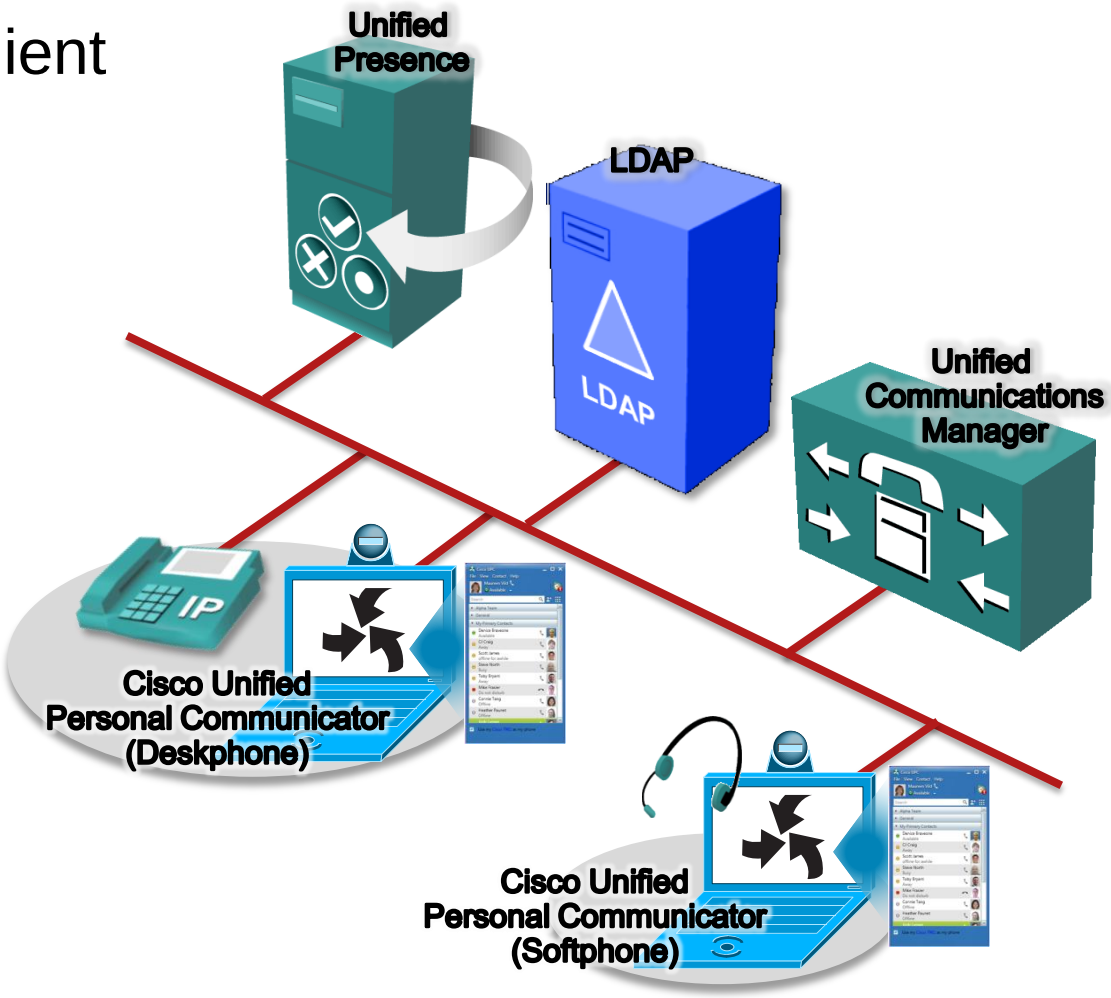
In-call Controls
Bobbie Carrick
(Work)
00:00:56

Cisco Unified Personal Communicator 8.0
Required Solution Components

Server Components & Client Modes of operation

- Cisco Unified Presence
- LDAP v3 Compliant Server
- Cisco Unified Communications Manager
- Cisco Unified Personal Communicator
- Cisco IP Phone (optional)



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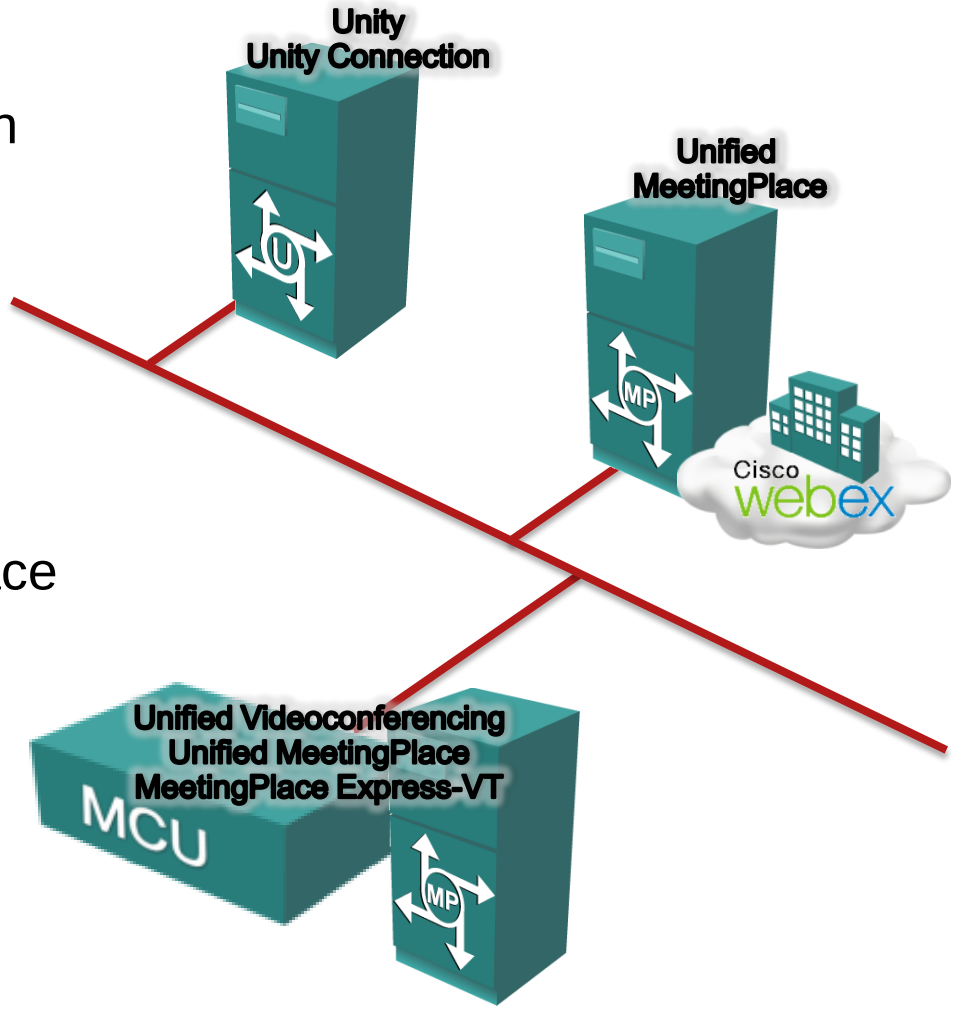
Cisco Unified Personal Communicator 8.0
Optional Solution Components

Server Components

- Cisco Unity & Unity Connection
  - Visual Voicemail
- Cisco Unified MeetingPlace
  - Escalation to Multi-point video
  - Escalation to Web Conferencing
- Cisco Unified Videoconferencing/MeetingPlace Express-VT
  - Escalation to Multi-point video



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Cisco Unified Personal Communicator 8.0
PC Requirements & Server Components

PC Requirements

Windows XP SP3
32-bit native client

Windows Vista SP2
32-bit native client
WoW 64-bit support*

Windows 7
Professional or Ultimate
32-bit client
WoW 64-bit support*

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

Required Server Components

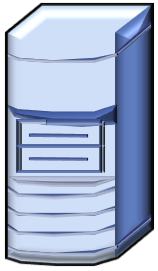
Cisco Unified Communications Manager

8.0
7.1
7.0
6.1(4)

Cisco Unified Presence

8.0

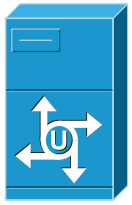
LDAP v3



Active Directory 2003
Active Directory 2008
Open LDAP 2.4

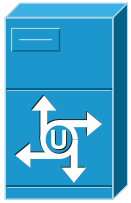
Optional Server Components

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 VT

2.0**

Cisco Unified Videoconferencing

3500 Series**
5.7 & 5.6
5000 Series**
7.1 & 7.0

** Supports multi-point video.

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Agenda

- Intro
- Cisco Unified Client Services Framework (CSF)
- Cisco Unified Personal Communicator (CUPC) 8.0
- **Cisco UC Integration™ for Microsoft Office Communicator (CUCIMOC) 8.0**

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Delivers Seamless Communications with Cisco UC & Microsoft (IM)

- Fully integrated soft phone
- Desk phone control
- Wide band audio experience
- Standard/High definition Video
- Ad-hoc Audio/Video/Web conferencing
- Phone presence in Applications
- Visual Voicemail
- Desktop Sharing
- Inbound call notification & divert
- Click to call from Office, browsers
- Client call history
- Remote Site Survivability

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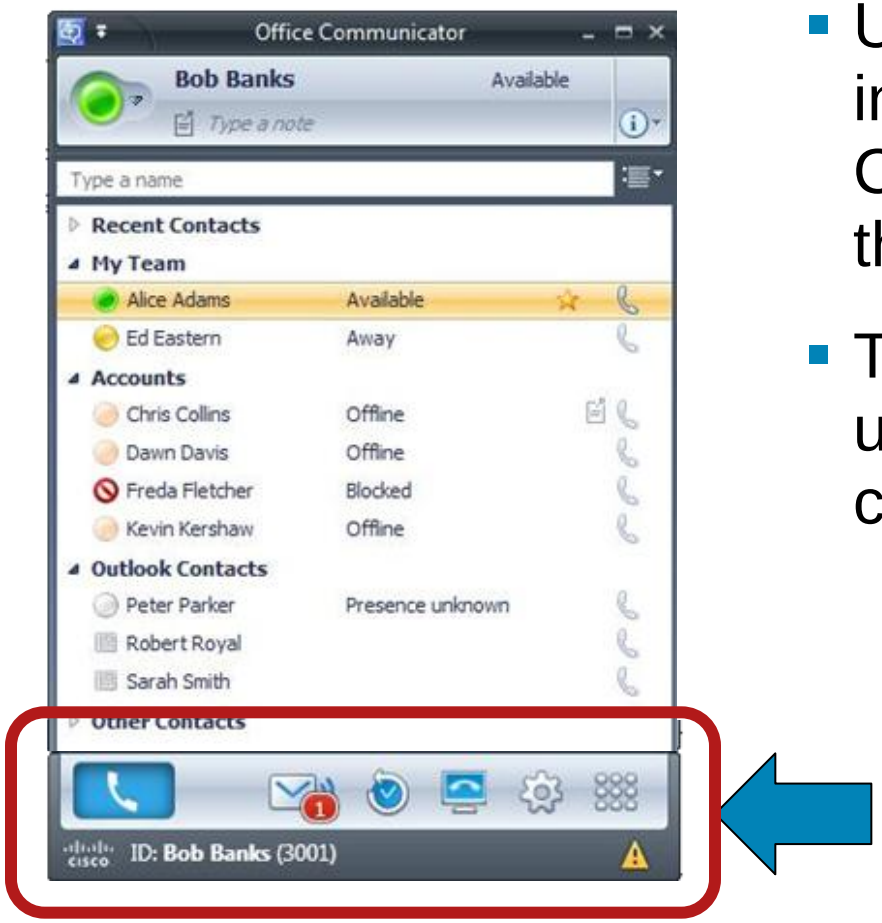
Cisco UC Integration™ for Microsoft Office Communicator

Communication Pane



- Users interact with desktop integration to Unified Communications Manager via the Communications Pane
- The pane is loaded when the user logs into the office communicator application.

Communications Pane

Important Note: Communications pane does not use Office Communicator TAB API in 8.0 release.

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Cisco UC Integration™ for Microsoft Office Communicator

Communication Pane Functions

1. **Call Icon:** Drag contacts to this button to place a call
2. **Voicemail Access Button:** Select to call your voice message service.

   Message Waiting Indicator (MWI) appears if there is a voicemail message
3. **Communications History:** Select to display incoming or outgoing received, placed and missed calls
4. **Phone Mode:** Select to switch from soft phone mode to desk phone mode
5. **Options:** Select to modify particular user options, such as call forwarding
6. **Integrated Key Pad**: For ad hoc dialing

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How to make a call with the integration

- If multiple numbers exist for the contact, the Cisco UC Integration™ for Microsoft Office Communicator contact card is displayed
- The user then clicks on the required destination

Note: Call destinations include Business, Mobile, Home

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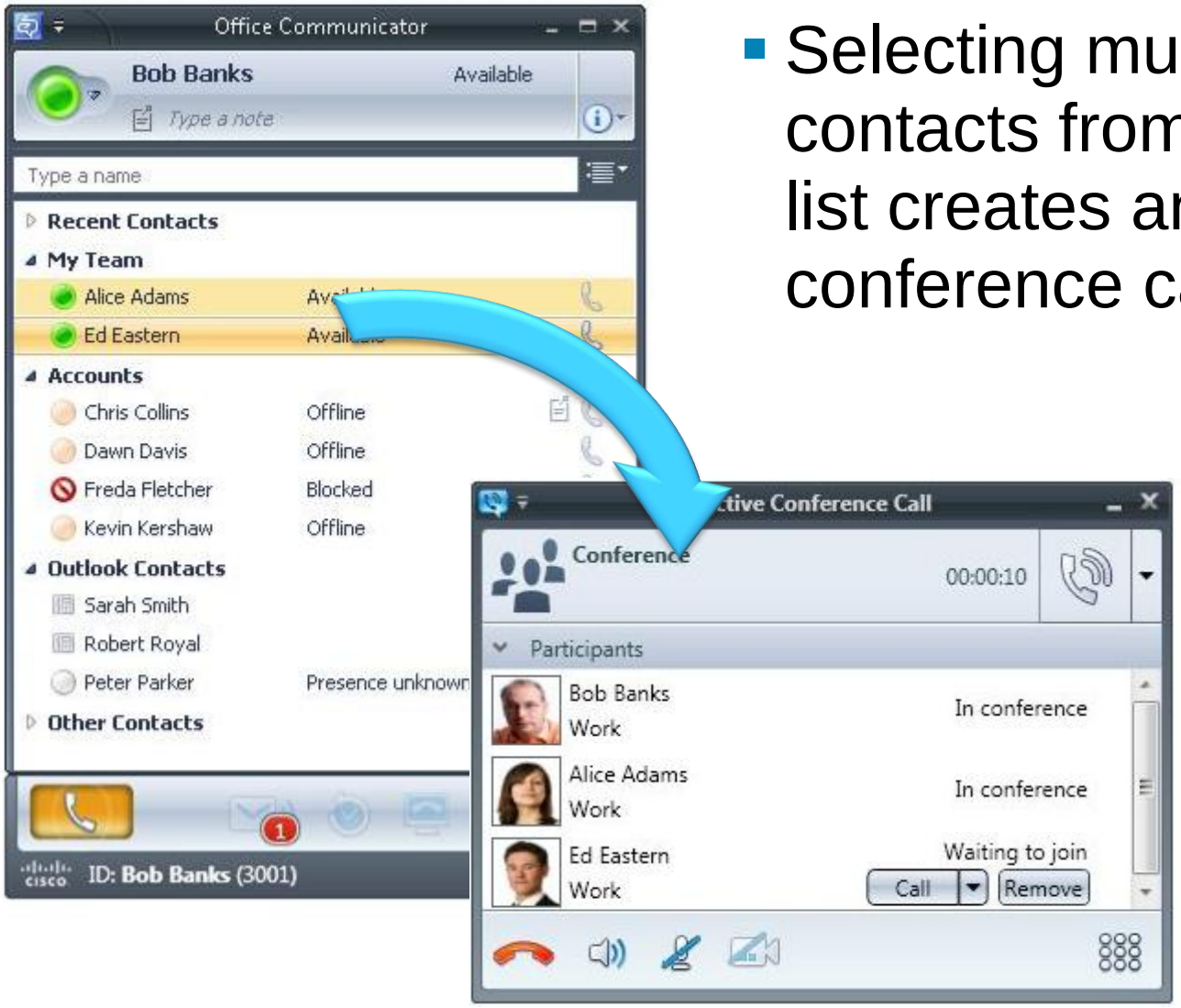
Conference Calling



- Selecting multiple contacts from the contact list creates an ad-hoc conference call

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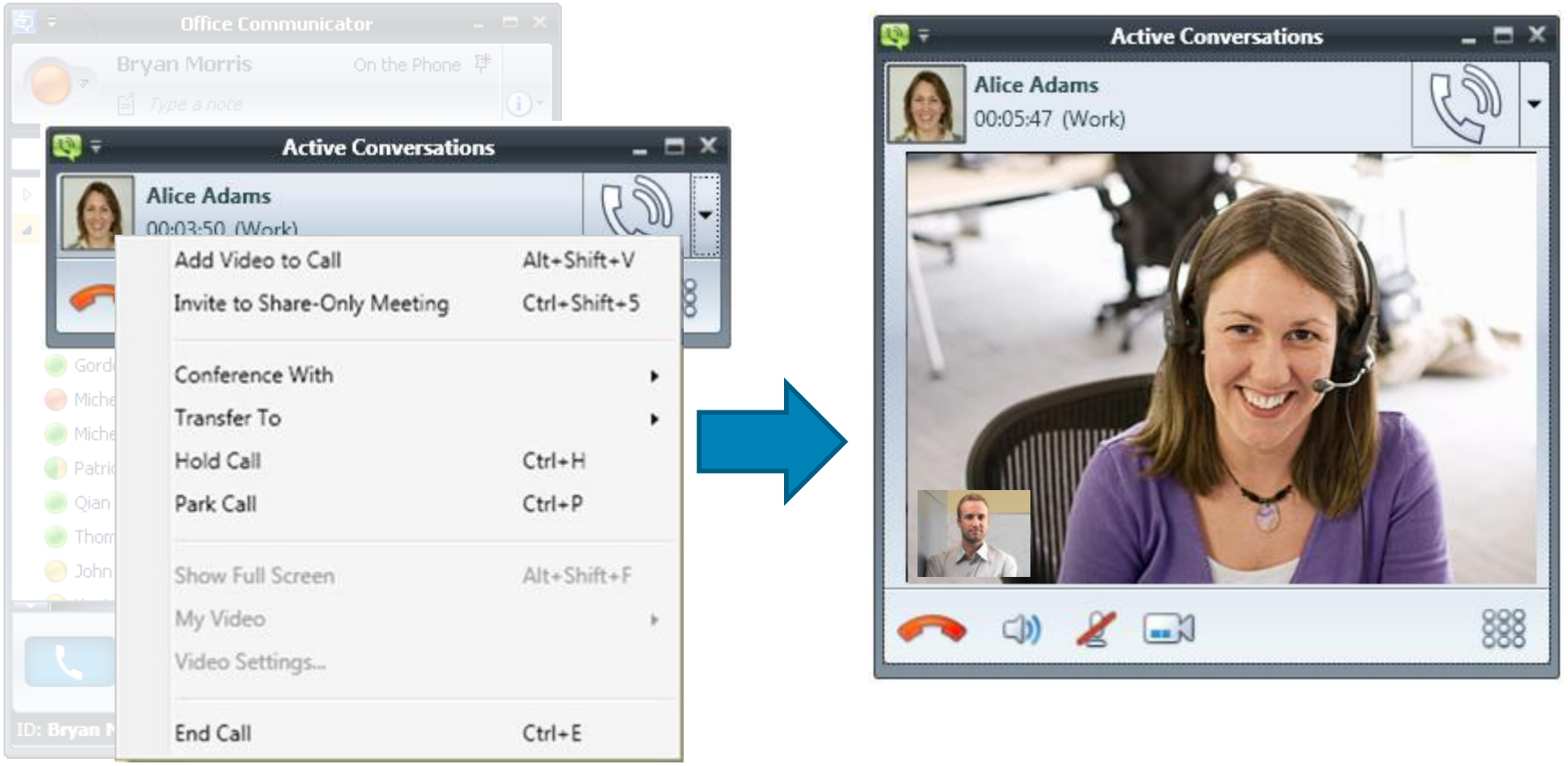
Cisco Unified Communications Integration™ for MOC
Standard/High Definition Video Communication

- The Cisco UC Integration provides users the ability to interact using standards based H.264 video including support for 720p high definition video.
- Video calling leverages UC managers call admission control to allow an administration to manage video traffic on the LAN and WAN.



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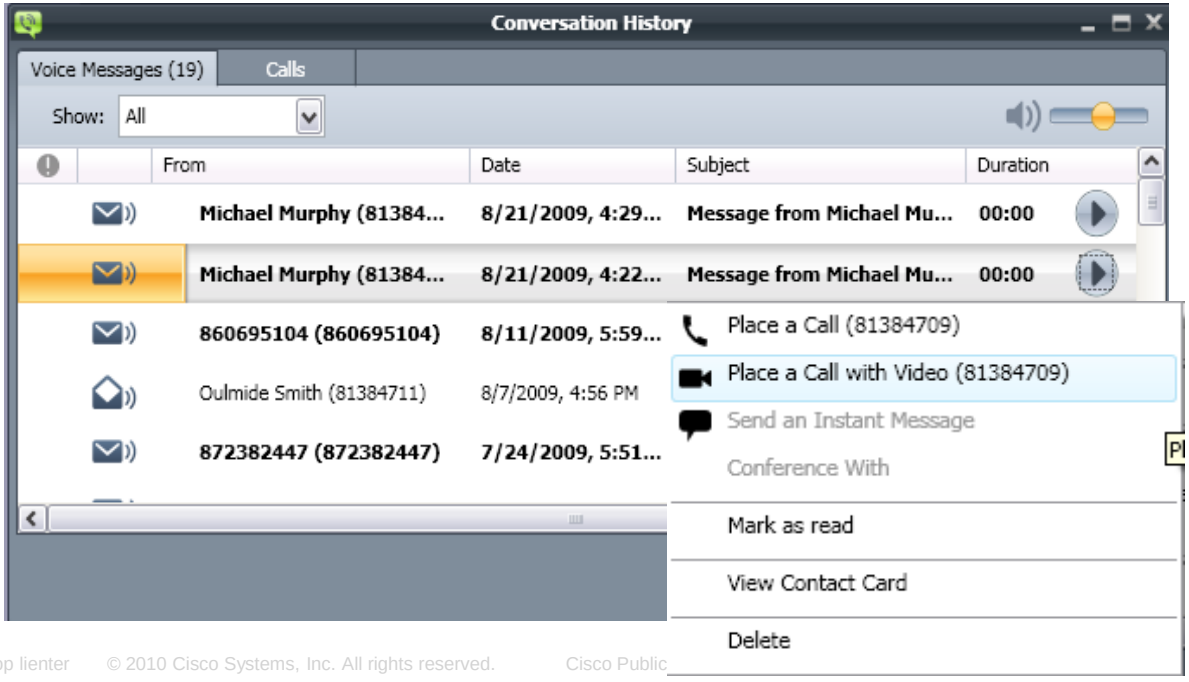
Cisco Unified Communications Integration™ for MOC

Visual Voicemail

- The 8.0 release introduces voicemail playback from within the Office Communicator client.
- Play, Volume and message position are controlled by the user.
- Call back options accessible via right click.



If the client is not configured for Visual voicemail then 7.1 client behaviour is provided.

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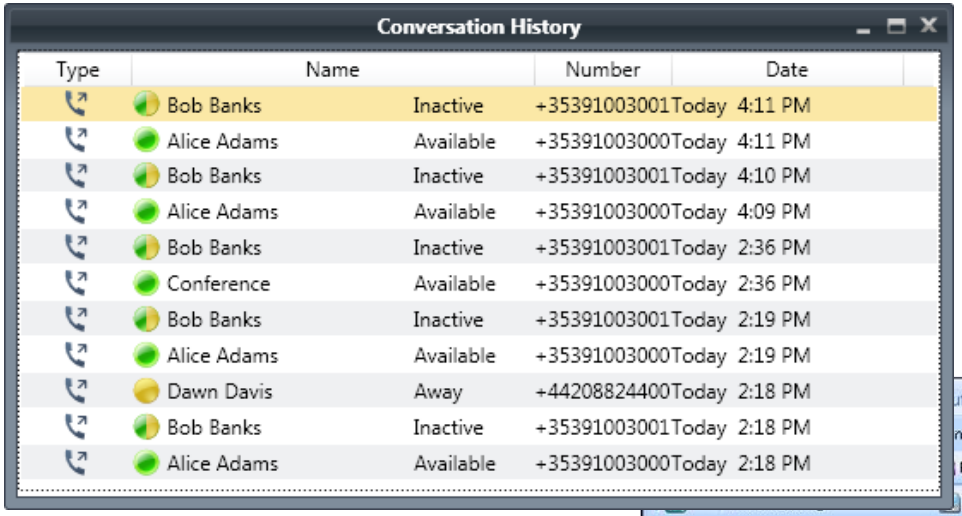
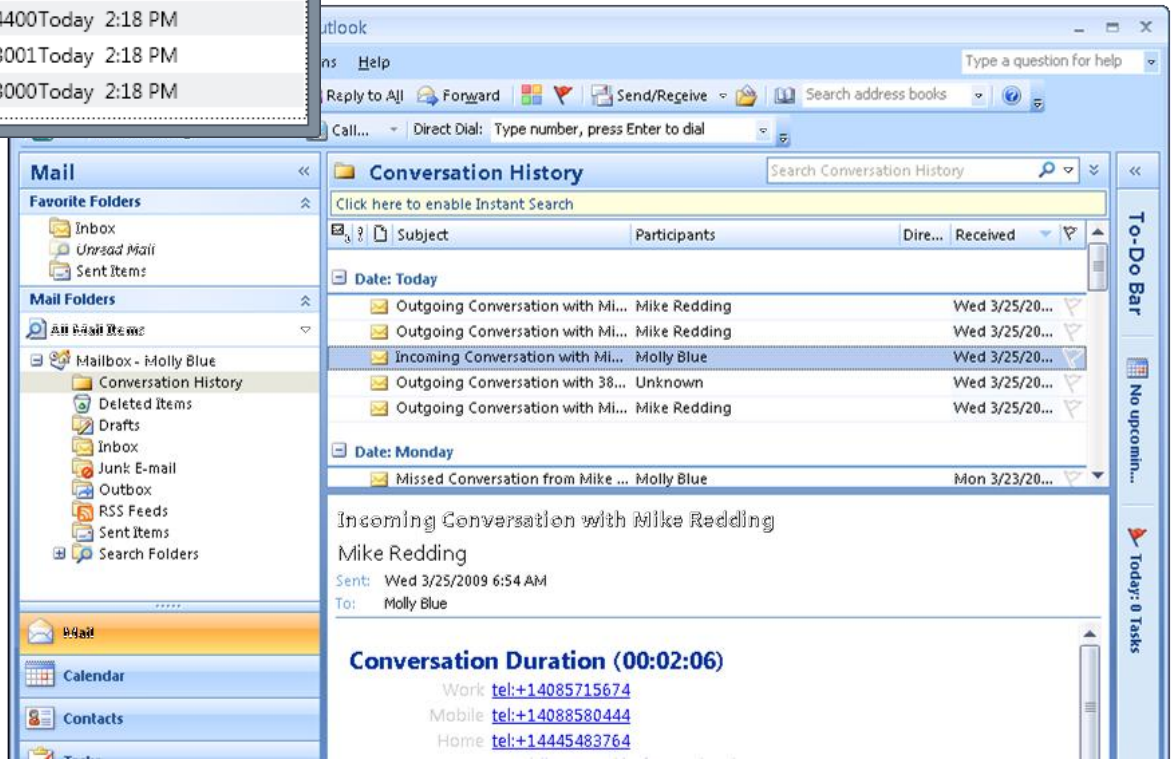
Cisco UC Integration™ for Microsoft Office Communicator

Call History



Call History is available from within Microsoft Office Communicator

A user may also choose to have Call History placed in the Conversation History in Outlook with IM History



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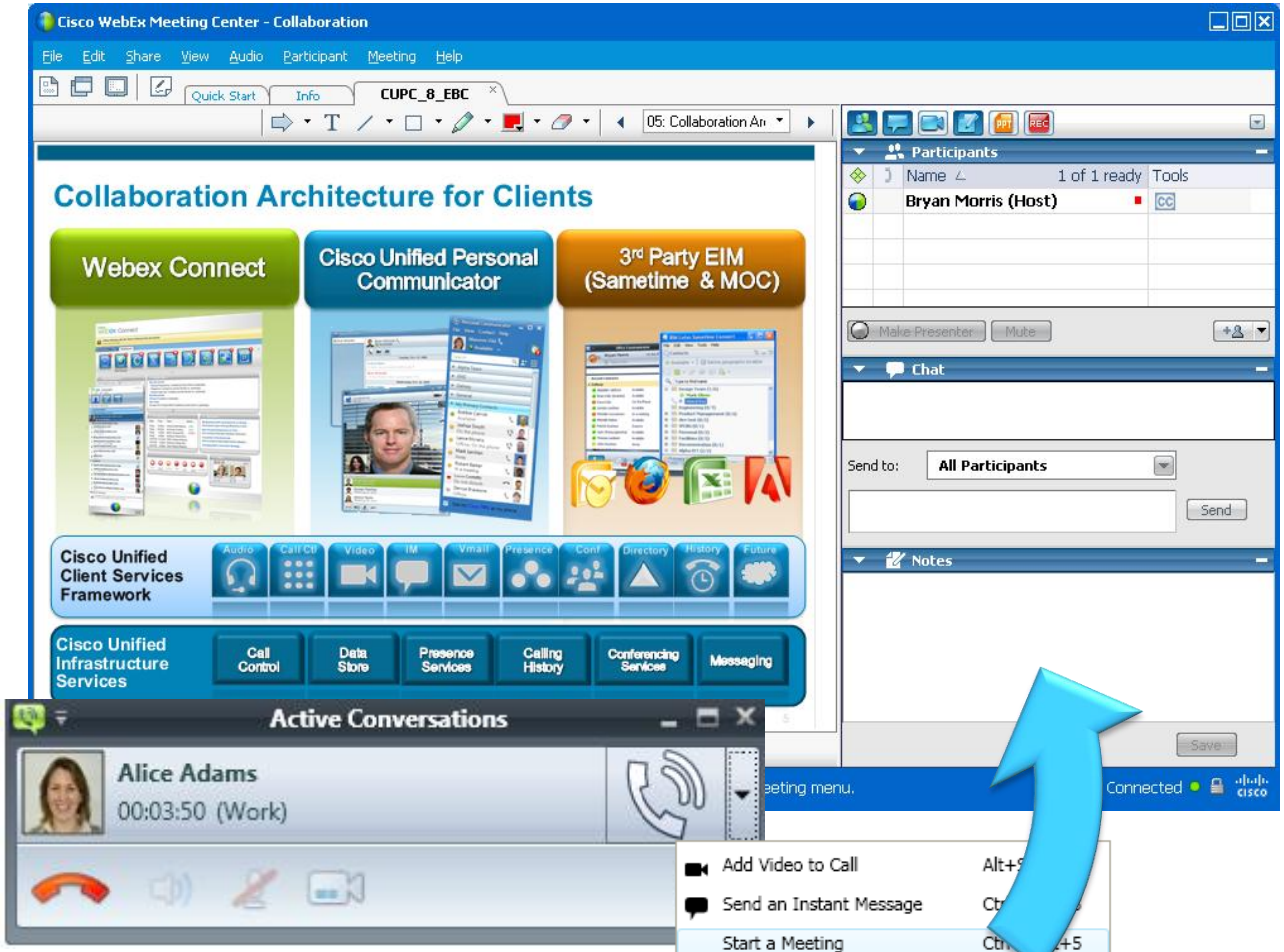
Cisco UC Integration™ for Microsoft Office Communicator
Desktop Sharing

- Desktop collaboration is provided as an escalation function from the in call controls.
- Collaboration provides screen sharing and white boarding



Note: Webex example shown requires on-premises Unified MeetingPlace 8.0 server to manage collaboration session

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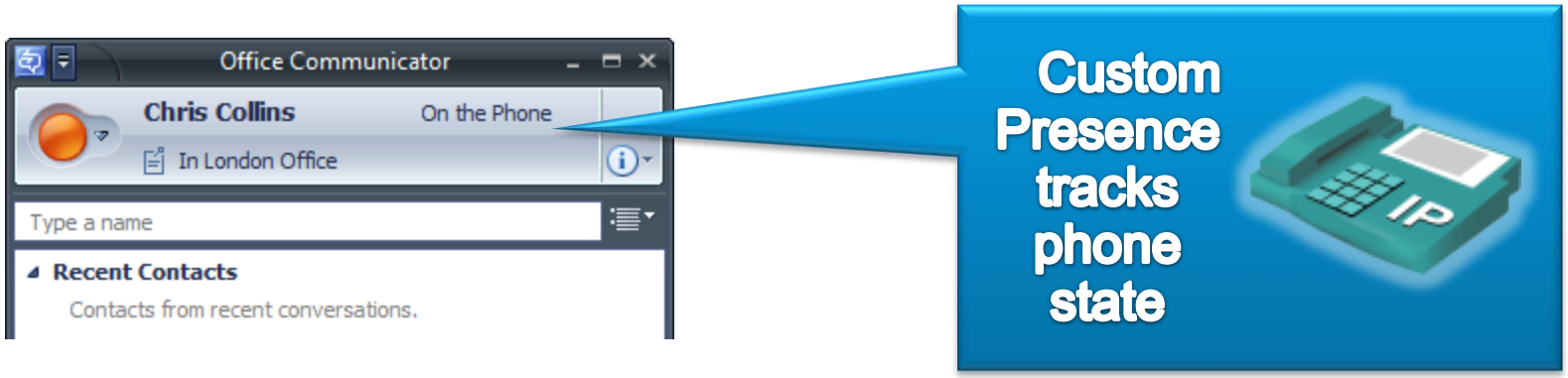
Cisco UC Integration™ for Microsoft Office Communicator

Presence integrated phone state



- When using the Cisco UC Integration as you make a receive calls your presence state is updated in Microsoft office communicator to reflex phone state.
- Shows your current phone state to your contacts
- Allow you to see the current phone state of others
- Presence state is shown across devices when using a share line.

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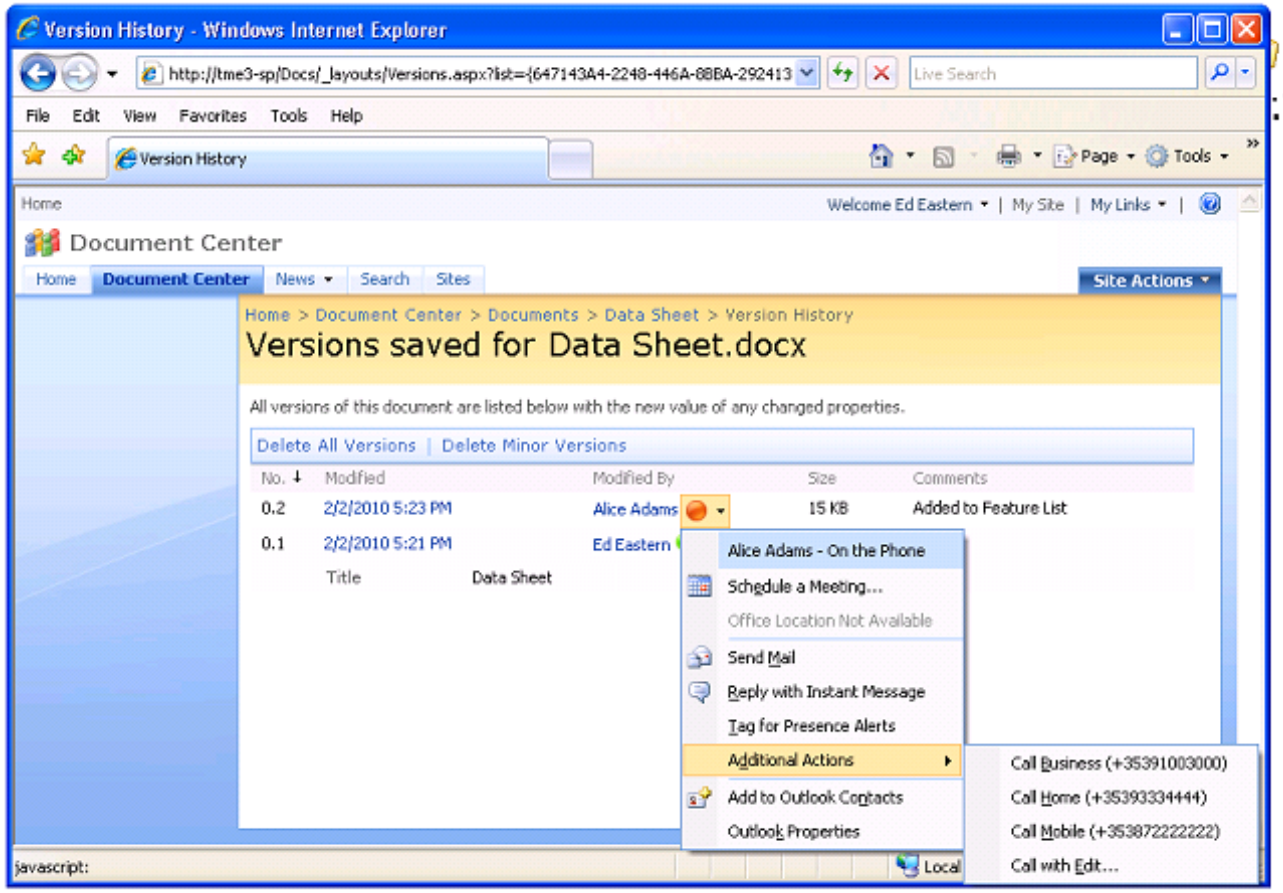
Cisco UC Integration™ for Microsoft Office Communicator

Microsoft SharePoint Integration



- The Cisco UC integration persona menu support enables calling from Microsoft SharePoint

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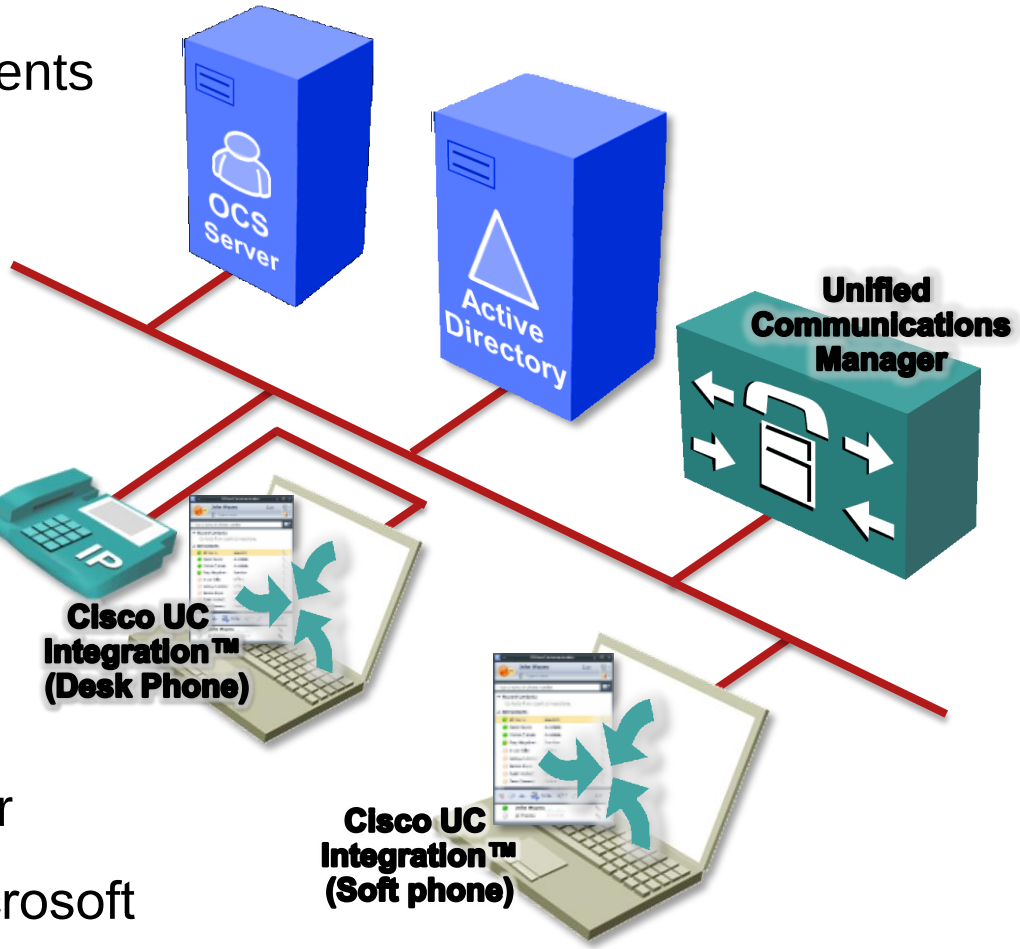
Cisco UC Integration™ for Microsoft Office Communicator

Core Component Overview

The desktop integration brings together the following components to deliver the Solution and User Experience

- Microsoft Active Directory
- Microsoft Office Communications Server 2007
- Cisco Unified Communications Manager 6.1(4) or later
- Microsoft Office Communicator
- Cisco UC Integration™ for Microsoft Office Communicator including Cisco Unified Client Services Framework



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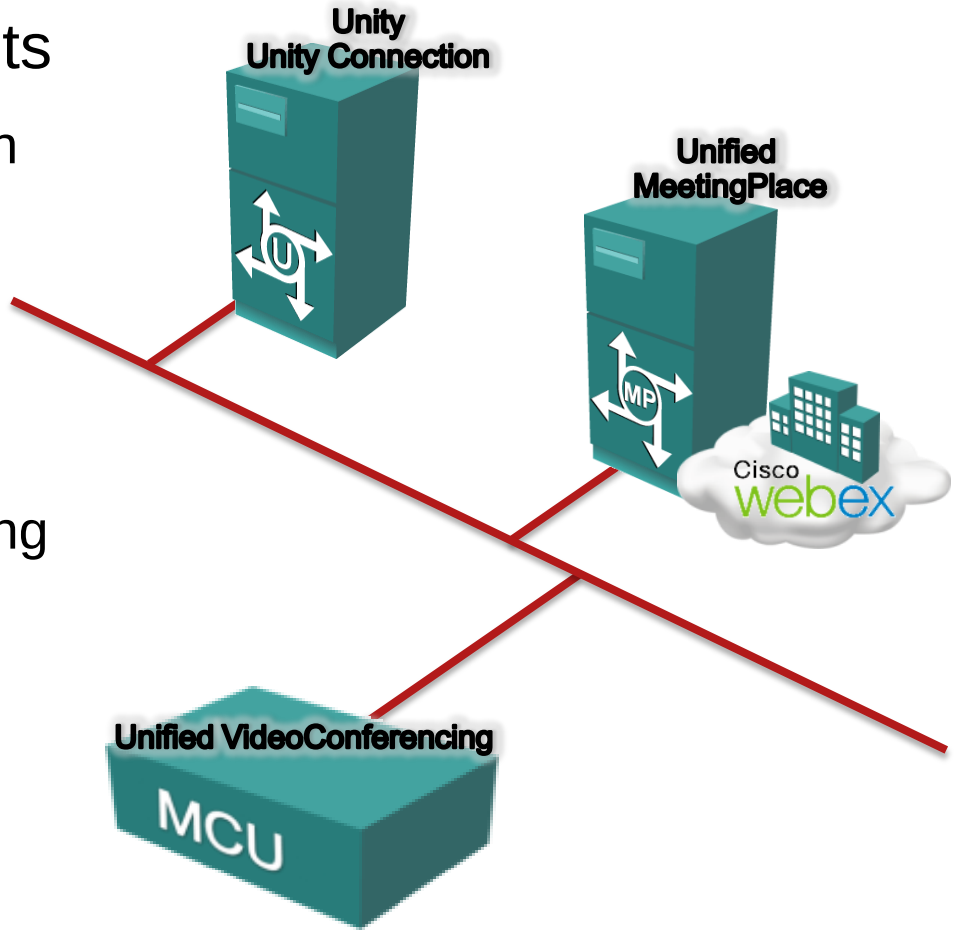
Cisco UC Integration™ for Microsoft Office Communicator

Optional Component Overview

Optional Server Components

- Cisco Unity & Unity Connection
  - Visual Voicemail
- Cisco Unified MeetingPlace
  - Escalation to Multi-point video
  - Escalation to Web Conferencing
- Cisco Unified Videoconferencing
  - Escalation to Multi-point video



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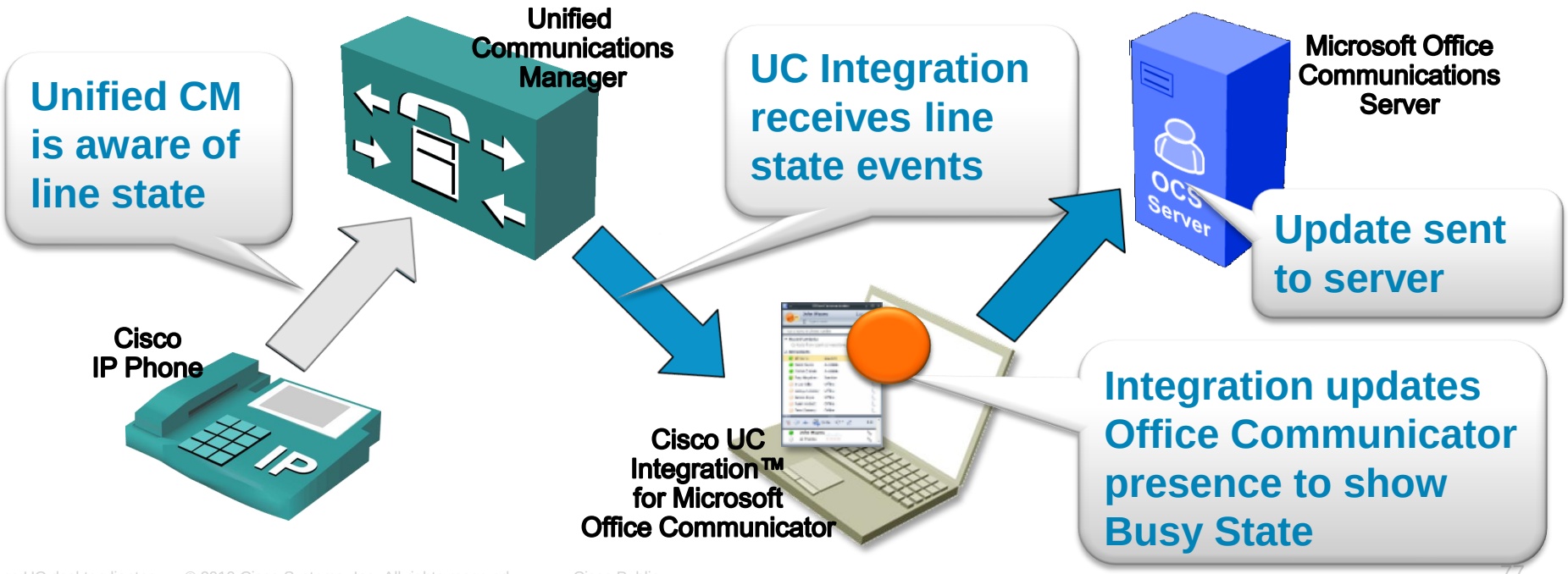
Cisco UC Integration™ for Microsoft Office Communicator

Presence with the Cisco UC Integration™

- The UC Integration™ provides phone status to Microsoft Office Communications Server environment.
- The Integration receives line events from Unified Communications Manager, This update is passed to Office Communicator as a status change.
- Presence is shown across multiple shared line devices.



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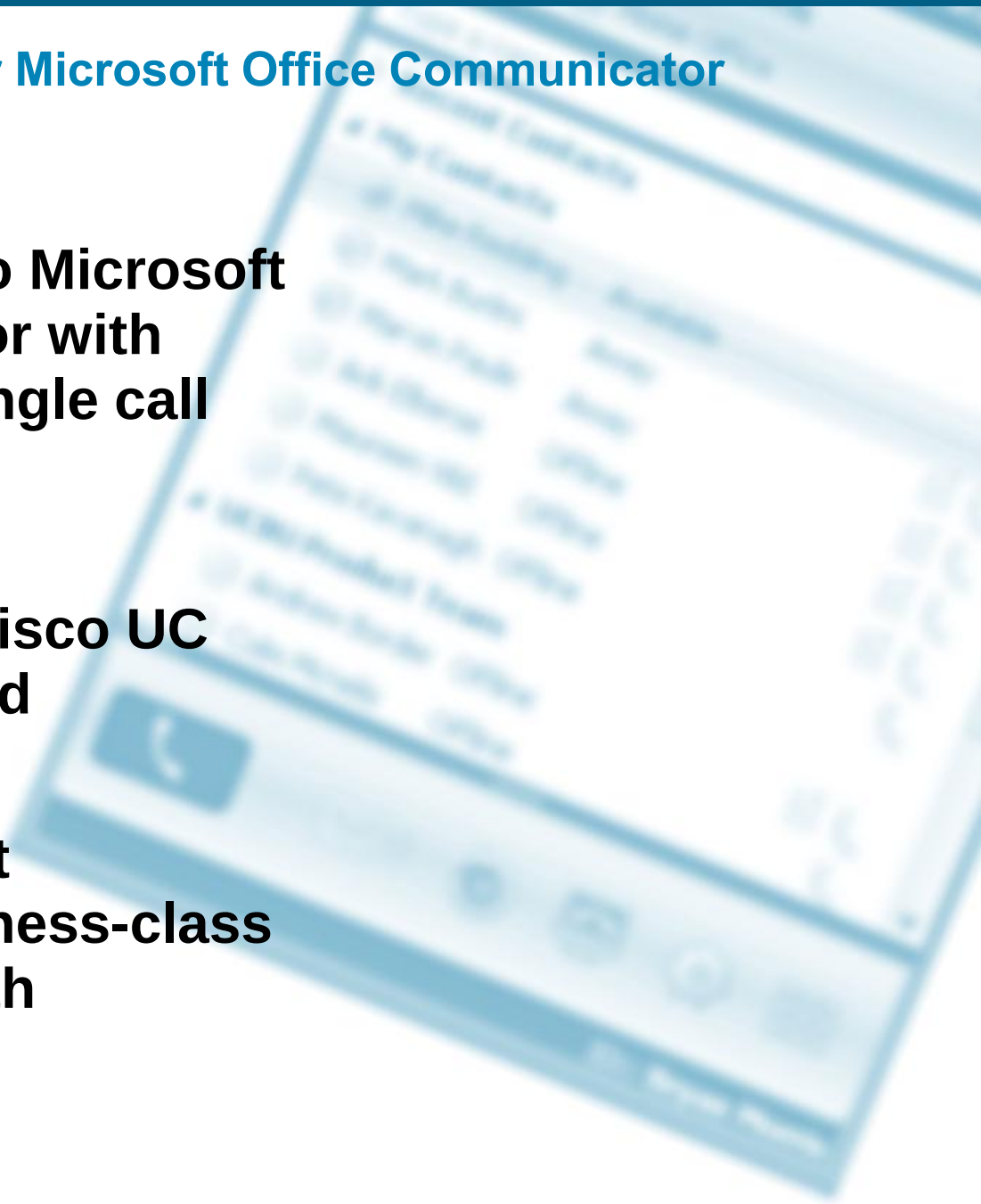
Summary



- **Extends Cisco UC to Microsoft Office Communicator with easier to manage single call control architecture**
- **Enables seamless collaboration with Cisco UC Communications and Microsoft IM**
- **Provides investment protection and business-class communications with Microsoft**

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