



Cisco Unified Communications Update



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Agenda

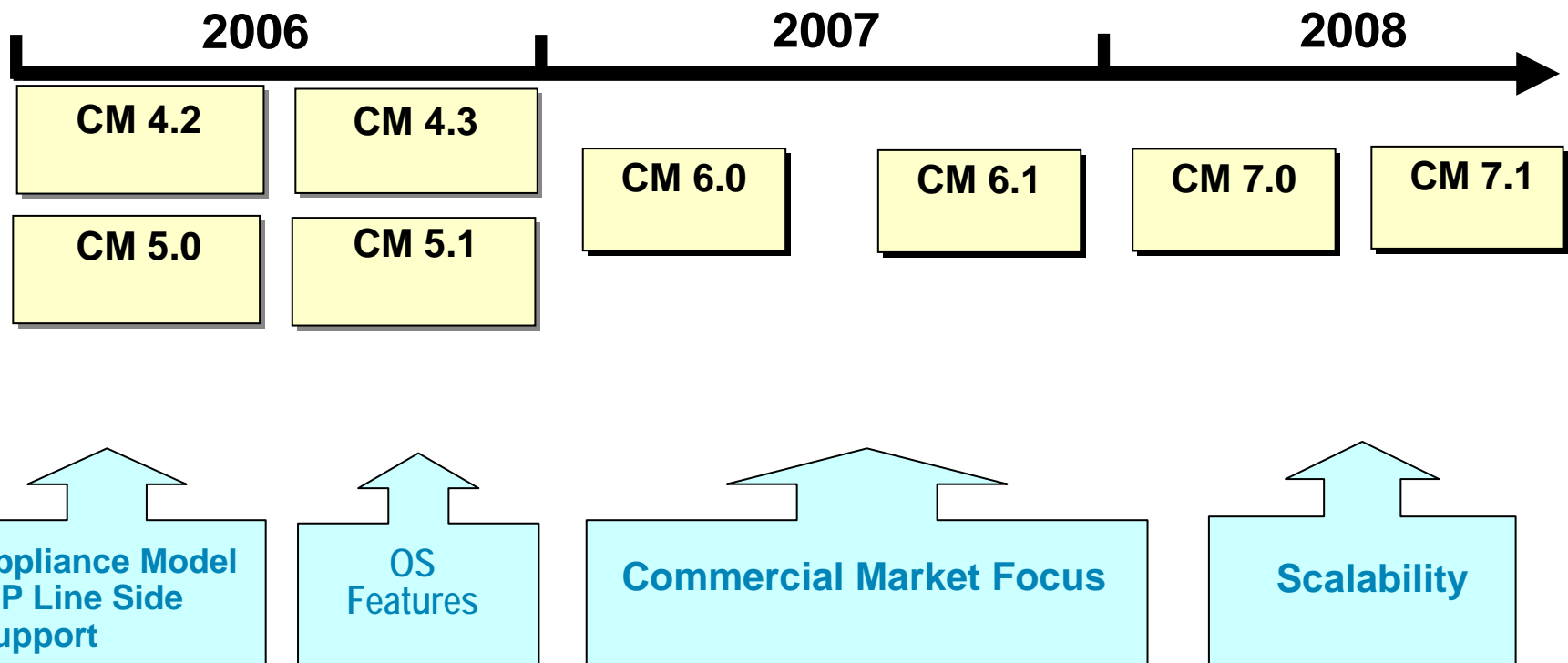
- Cisco Unified CallManager and Cisco Unified Communications Roadmap
- Cisco Unified CallManager 5.0
- Presence
- Conferencing
- Enhanced Endpoint Support
- Opkommende annoncering af næste generations virtuelle møder

Cisco Unified CallManager Roadmap

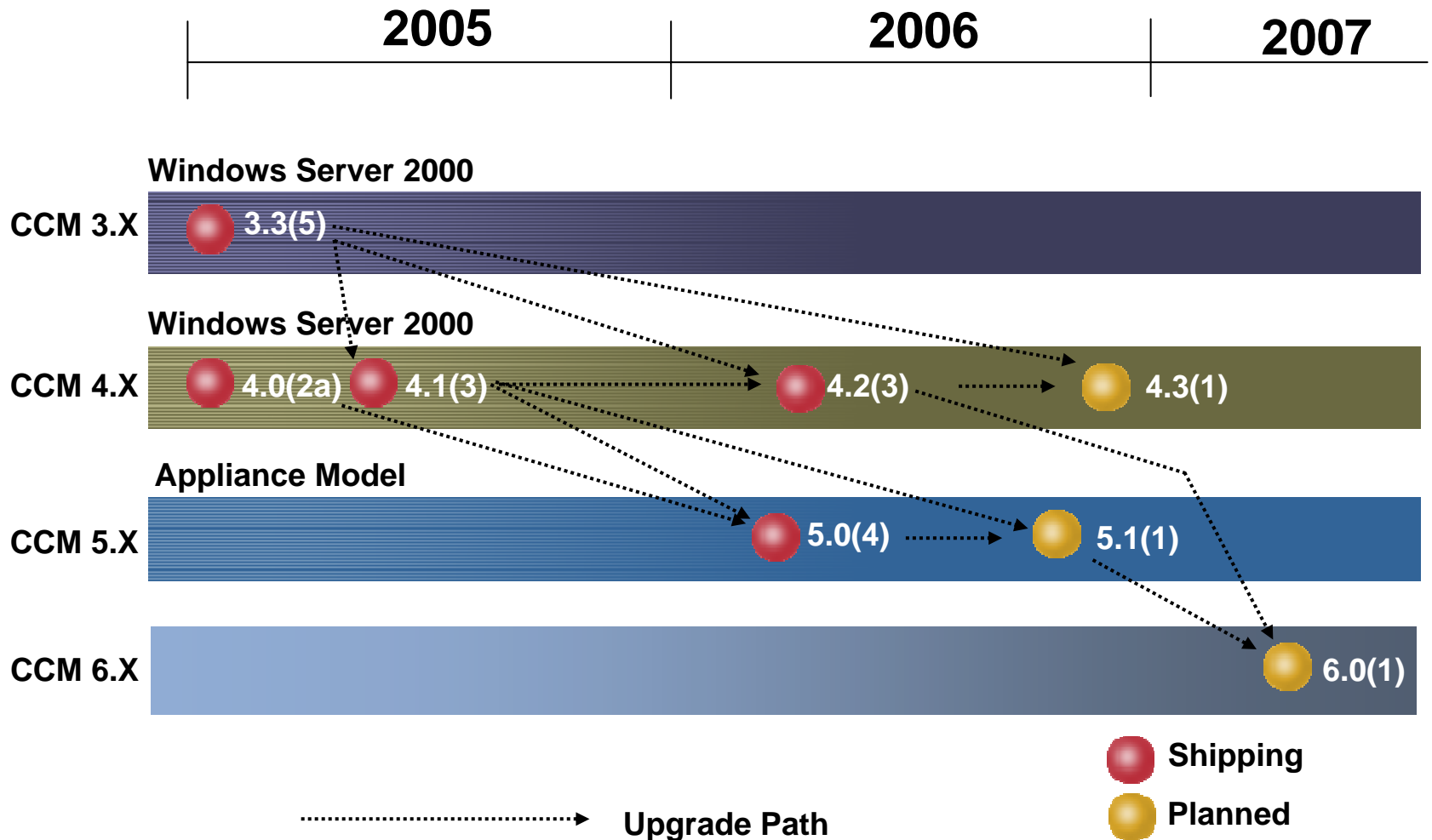


Cisco Unified CallManager Roadmap

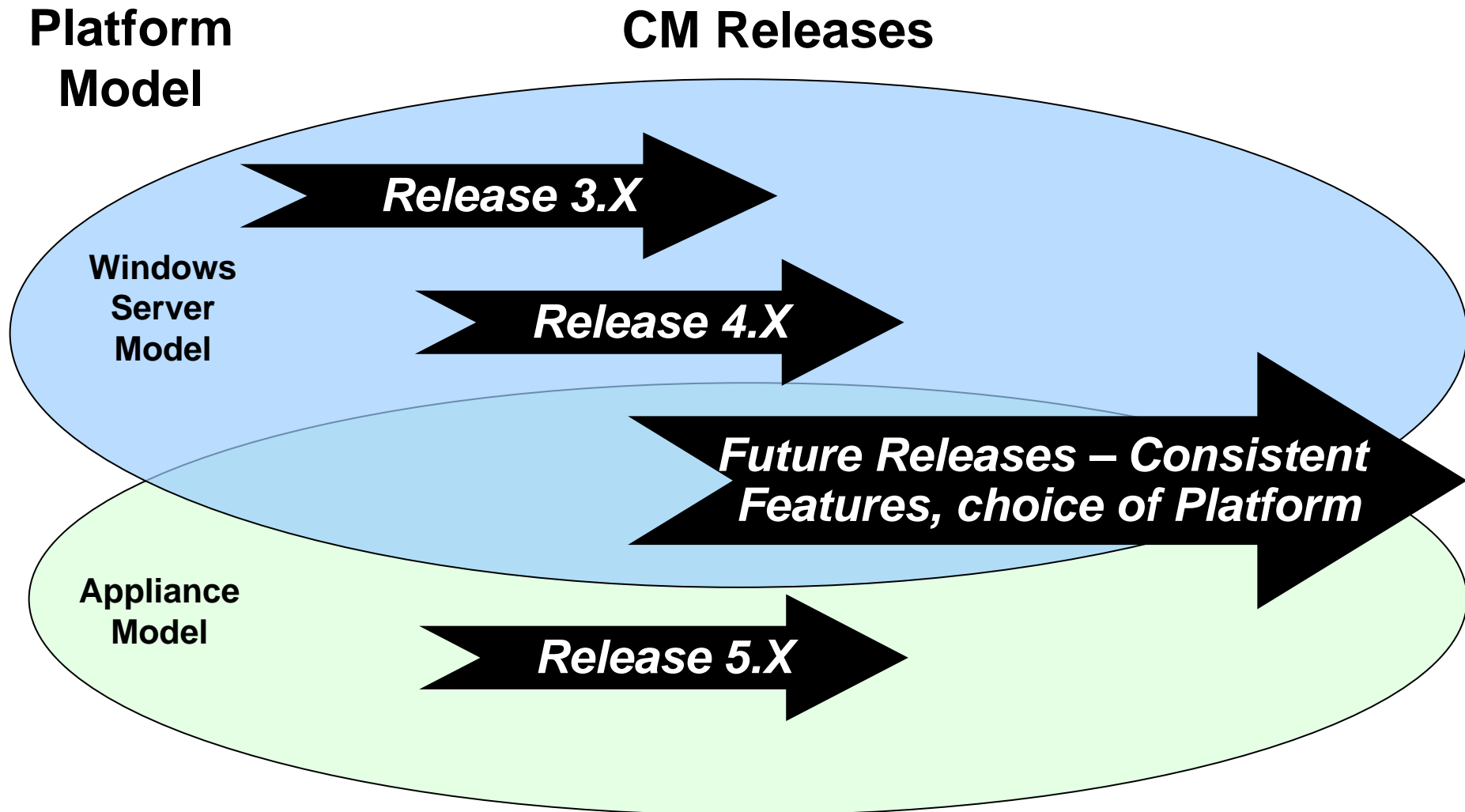
- Major Release – March each year
- Minor Release – Fall each year



Cisco CallManager Releases & Upgrade Paths



Choice of Platform for CallManager




Cisco Unified CallManager 5.x

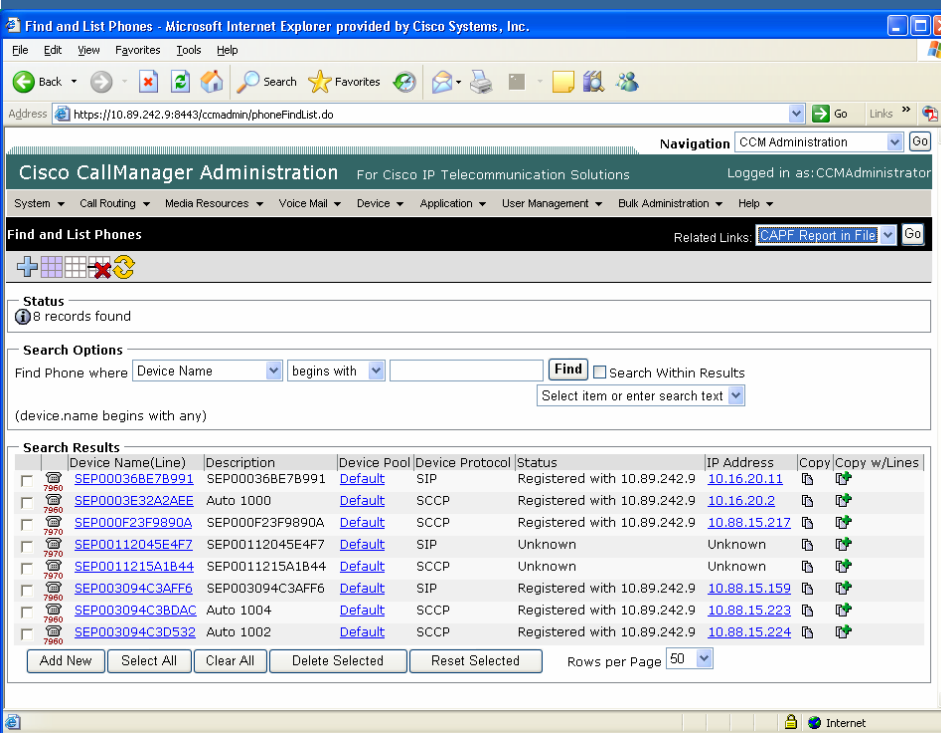


Cisco CallManager 5.0 Themes

- Appliance model
 - Improved installation and upgrades
- Administration
 - Enhancements
 - Licensing compliance
- Expanding SIP portfolio
 - SIP line side
 - Enhanced networking
 - Presence
- Japanese, Chinese, and Korean Character Set Support
- Enhancements



The graphic shows a network topology of five blue server icons connected in a mesh, representing the appliance model. To the right is a Cisco IP phone with a color display showing a video call.



The screenshot shows the Cisco CallManager Administration web interface in Microsoft Internet Explorer. The browser address bar shows <https://10.89.242.9:8443/ccadmin/phoneFindList.do>. The page title is "Find and List Phones - Microsoft Internet Explorer provided by Cisco Systems, Inc.". The navigation bar includes "Cisco CallManager Administration" and "Logged in as: CCMAdministrator". The main content area is titled "Find and List Phones" and shows a search results table with 8 records found.

Device Name(Line)	Description	Device Pool	Device Protocol	Status	IP Address	Copy	Copy w/Lines
SEP00036BE78991	SEP00036BE78991	Default	SIP	Registered with 10.89.242.9	10.16.20.11	📄	📄
SEP0003E32A2AE	Auto 1000	Default	SCCP	Registered with 10.89.242.9	10.16.20.2	📄	📄
SEP000F23F9890A	SEP000F23F9890A	Default	SCCP	Registered with 10.89.242.9	10.88.15.217	📄	📄
SEP00112045E4F7	SEP00112045E4F7	Default	SIP	Unknown	Unknown	📄	📄
SEP0011215A1B44	SEP0011215A1B44	Default	SCCP	Unknown	Unknown	📄	📄
SEP003094C3AFF6	SEP003094C3AFF6	Default	SIP	Registered with 10.89.242.9	10.88.15.159	📄	📄
SEP003094C3BDAC	Auto 1004	Default	SCCP	Registered with 10.89.242.9	10.88.15.223	📄	📄
SEP003094C3D532	Auto 1002	Default	SCCP	Registered with 10.89.242.9	10.88.15.224	📄	📄

Cisco CallManager Appliance

- Complete hardware software solution
- Alternative operating system
 - Improve installation and upgrade
 - Increased security and reliability
- Software solution
 - Cisco Security Agent included as with Windows version
- Interfaces provide access to system
 - Administration via CLI and GUI
 - Third-party access is through documented APIs
- Supported on Cisco MCS servers
 - 7815, 7825, 7835 and 7845



Cisco CallManager Appliance Benefits

- **Reduced installation time**
 - Software pre-loaded on MCS servers
 - Faster Install time—Less than half the time of CM 4.x to install
- **Upgrade simplicity**
 - Install upgrade while in service
 - Reduced downtime—Less than a quarter of the time
- **Increased resiliency**
 - System locked down to external applications
 - Removes Windows security issues
 - More secure
- **Software can be loaded on approved HP and IBM server**
 - Pre-loaded Cisco MCS server will save installation time



Licensing Compliance

- Cisco CallManager licensing compliance for:
 - Devices
 - Application
- Device licenses
 - The maximum number of provisioned devices (IP phones, video devices) in CM database will be tracked and enforced
 - Customer will only be able to support the number of devices they have purchased licenses for
- Application licenses
 - The CM software will be tied to a server via mac address
 - The number of nodes is enforced
- Licenses will be created and distributed in accordance with Cisco FlexLM process used for Cisco Unity today

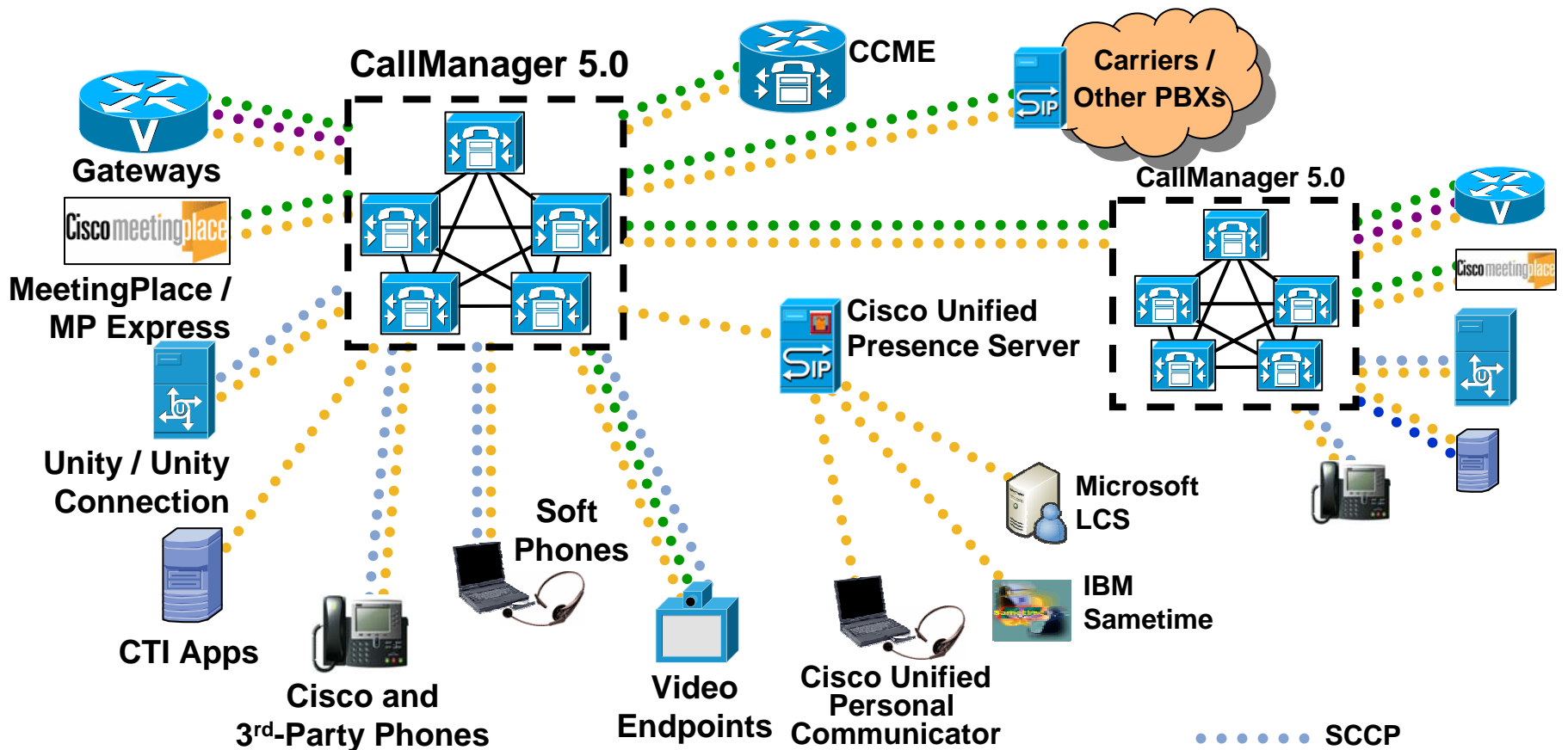


Device License Units

- CallManager tracks the number of units required by each device
- Each device type corresponds to a fixed number of units.
 - Units are perpetual
 - Device Independent
- Common license pool for:
 - CallManager 5.0+
 - Unified Presence Server
 - Unified Personal Comm.

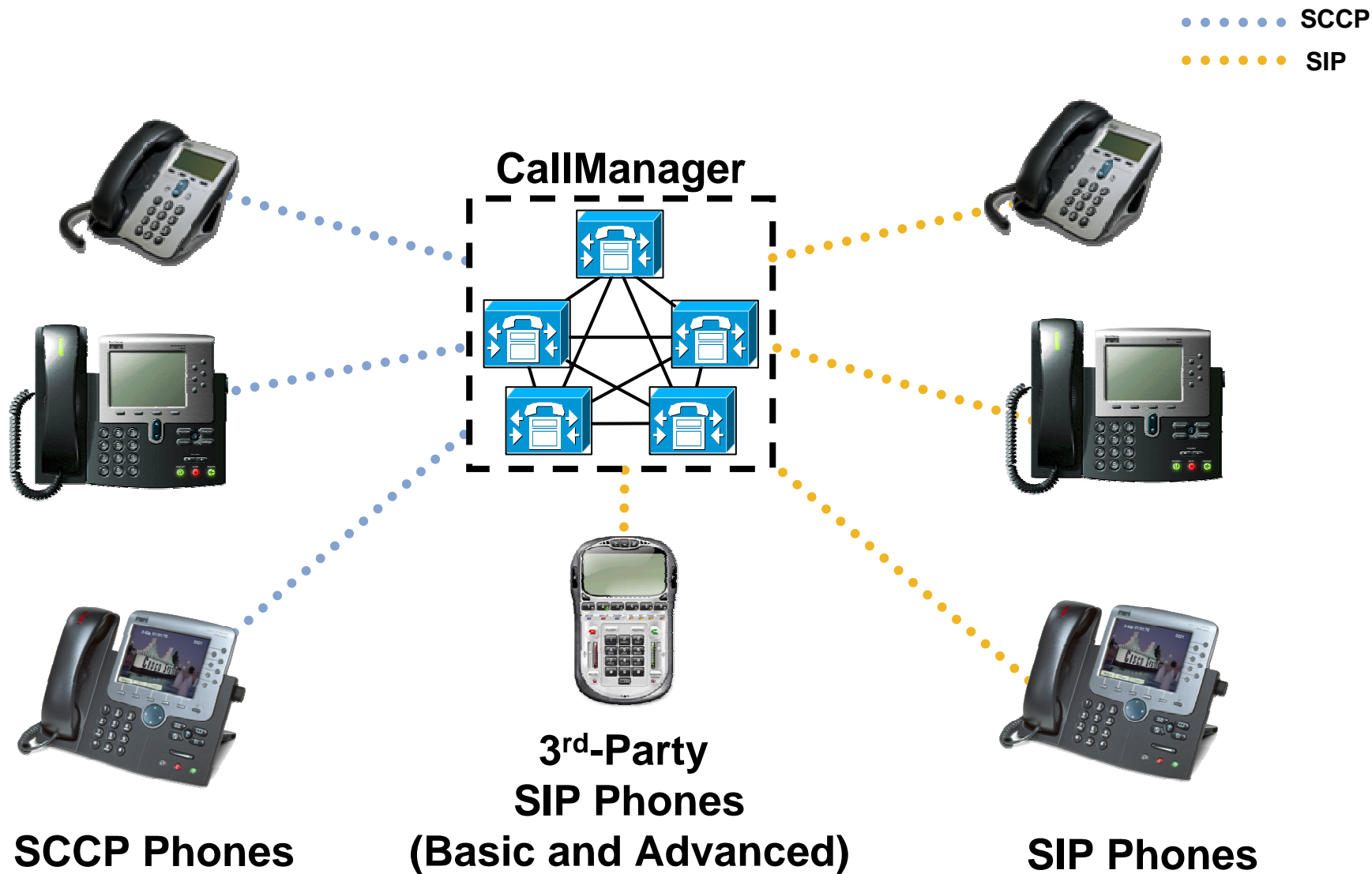
Endpoint Device	Number of Units
Cisco Unified IP Phone 7902G	1
Cisco Unified IP Phone 7905G	2
Cisco Unified IP Phone 7911G	3
Cisco Unified IP Phone 7912G	3
Cisco Unified Wireless IP Phone 7920	4
Cisco Unified IP Conference Station 7936	3
Cisco Unified IP Phone 7940G	4
Cisco Unified IP Phone 7941G	4
Cisco Unified IP Phone 7941G-GE	4
Cisco Unified IP Phone 7960G	4
Cisco Unified IP Phone 7961G	4
Cisco Unified IP Phone 7961G-GE	4
Cisco Unified IP Phone 7970G	5
Cisco Unified IP Phone 7971G	5
Cisco Unified IP Phone 7985G	6
Third-party SIP device (basic)	3 (third-party)
Third-party SIP device (advanced)	6 (third-party)

Cisco SIP Enterprise Solution CallManager 5.0



CallManager 5.0 integrates rich, native SIP and SIMPLE support on both line-side and trunk-side interfaces (for both audio and video calls) with integrated presence on phones and applications; KPML and RFC 2833 support for DTMF; TLS and Digest Authentication for security; seamless protocol inter-working between SIP, H.323, MGCP, SCCP, TAPI/JTAPI; RSVP support for topology-aware Call Admission Control, and much more...

Seamless Support for SCCP and SIP



CallManager 5.1 Highlights

- All features from CM 5.0
- Appliance
- Upgrade path from 4.1(3) and 5.0(4)
- iDivert
 - To voicemail for original caller
- AAC – Advanced Audio Codec
- New servers and scalability
- Arabic Localization



Presence



Meeting the Demand to Stay Connected

Innovation Has Created Complexity

5 Voicemails!



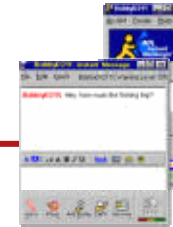
Meetings All Day



“Have a Minute?”



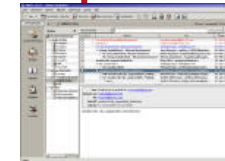
u there?



20 E-Mails!



15 Attachments!!



Information Overload

- Too many devices
- Anywhere/anytime

Technology Limits

- Disparate solutions
- Disparate access

What Businesses Really Want: A More Effective Way



Information Control

- Where I am
- When I want

Technology Solutions

- Devices that work together
- Simple access to services

Agenda

- What is Presence?
- SIP/SIMPLE
- Cisco Presence Server
- Microsoft Office Communicator
- IBM Sametime
- Cisco Unified Personal Communicator

What is Presence Awareness?

- What is “Presence”?

Information about a person’s willingness and availability to communicate

- Examples of presence in action today

IM “Buddy List” status indication

“Busy” tone on traditional phone

Contact Center Agent status

- Publish / Subscribe

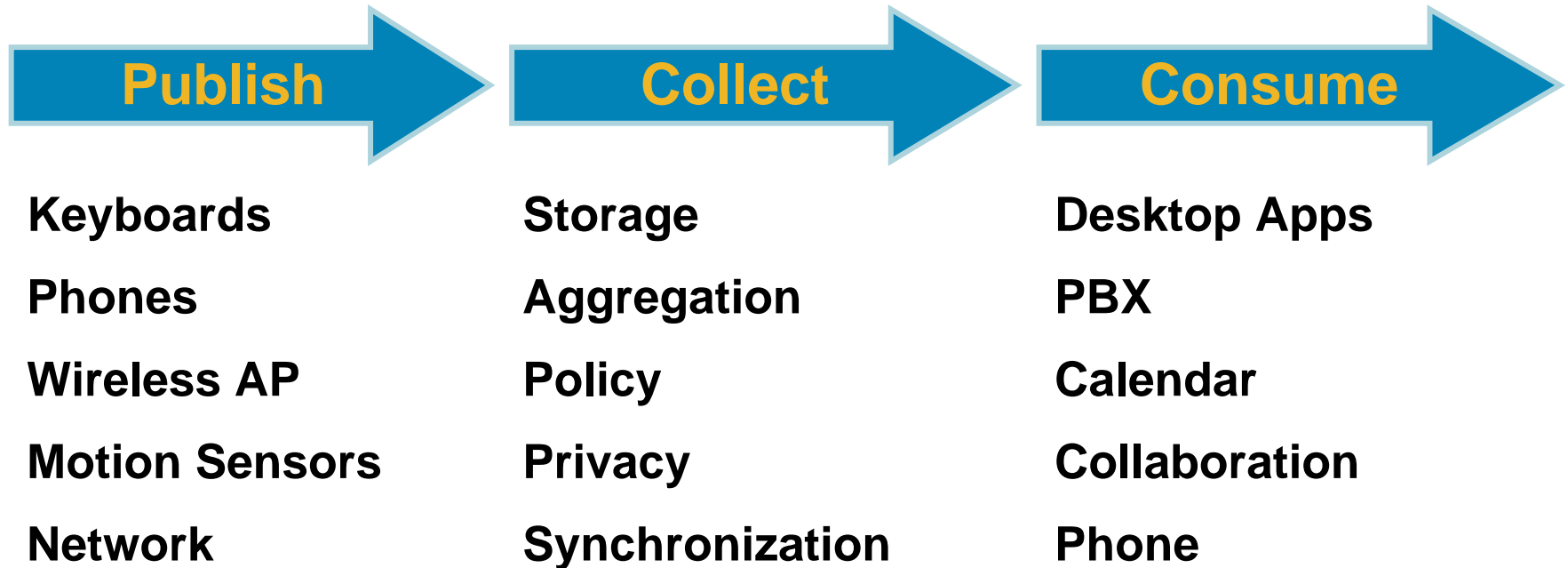
Clients publish presence information to other users who are called subscribers



What is Presence and Status?

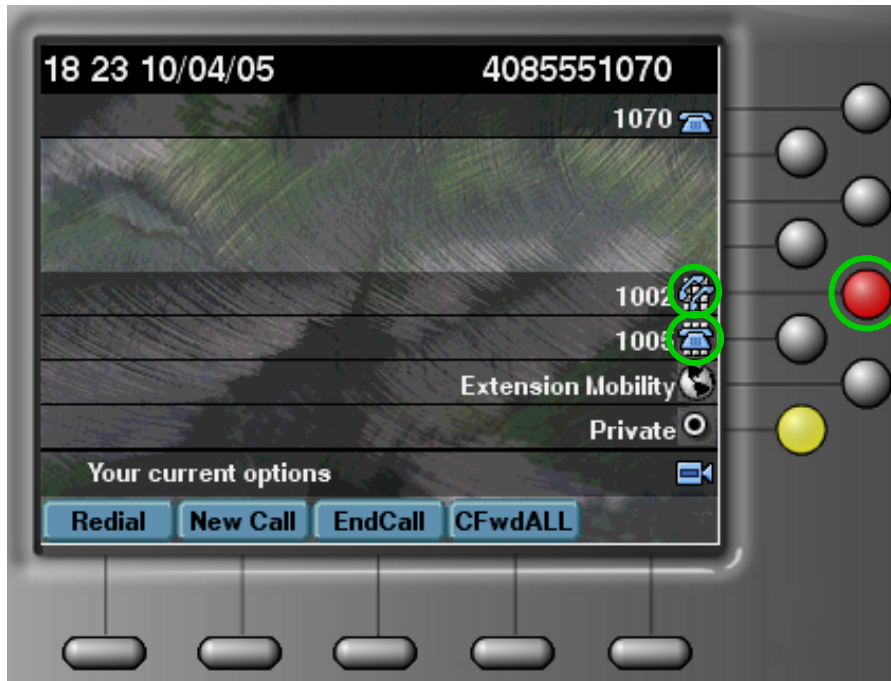
- Presence is information about an entity
 - Typically represented by status; available, not available, busy, at lunch, on vacation, playing Xbox, etc.
- This is exciting because ...
 - Through aggregation, filtering, and other policy decisions new enhanced services can be designed and customized
- Status is a combination of Capabilities and Attributes
 - Capabilities are what the device can do (supports video, voice, text)
 - Attributes are state of the device (busy, redirect, etc, idle time, activity time)

The Three Stages of All Presence Information



Value increases significantly with number of actors
Challenge is to connect them all

Example of Presence in Cisco CallManager 5.0



- Presence status enabled on Speed Dial buttons, Call History Lists and Directories
- LED lamp and icon indicate busy/Idle/ unknown state
- Allow users to check line state of others before placing calls
- CCM groups used for restricting access, option provisioned by CCM admin

 Unknown

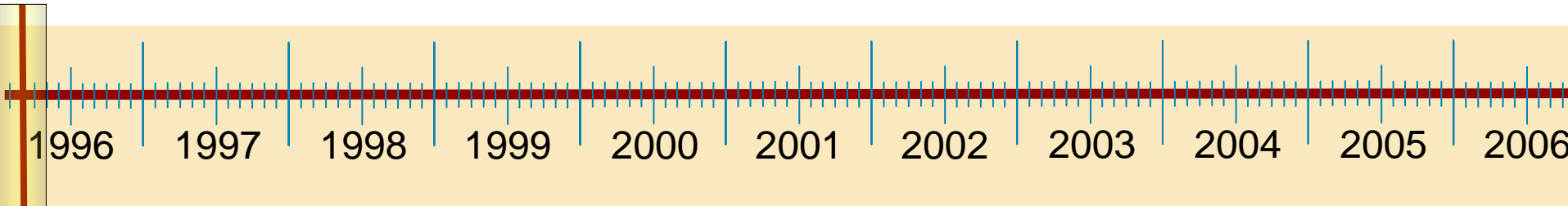
 Busy

 Idle

SIP & SIMPLE



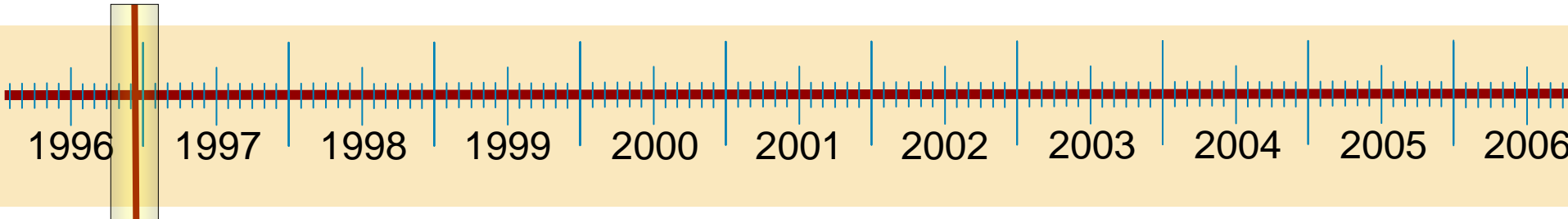
History of SIP Timeline



February 1996 - Initial Internet drafts created by M. Handley, E. Schooler and H. Schulzrinne.

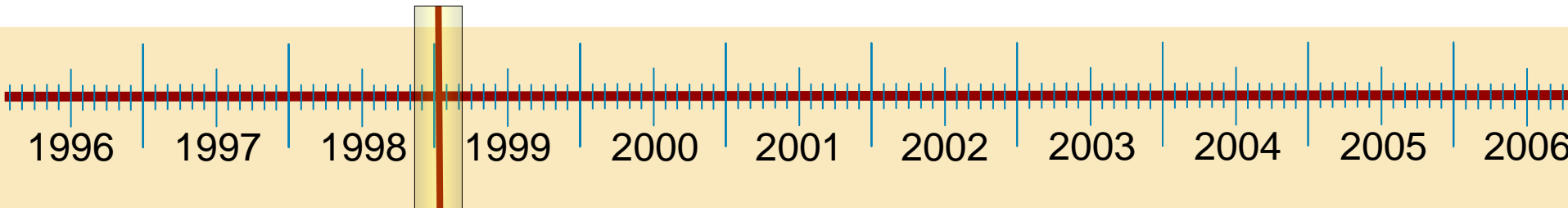
Created for inviting people to large-scale multipoint conferences

History of SIP Timeline



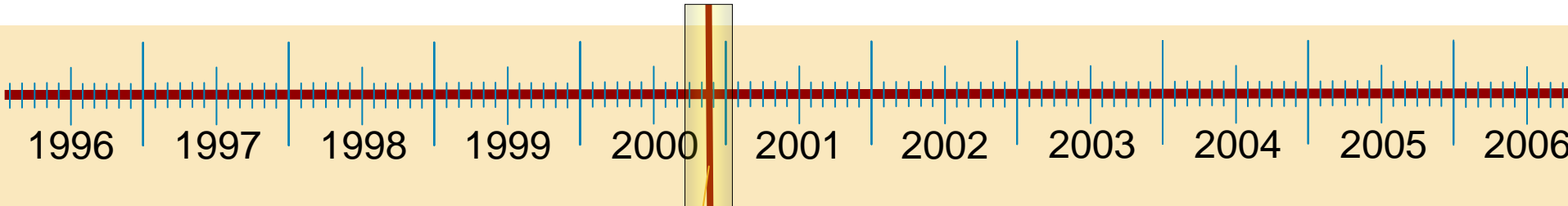
December 1996 IETF publishes
draft letter of draft sip m2u stc-
contains the six, but we still do
SIP as the type of SIP we know
today

History of SIP Timeline



March 1999 RFC 2548 publishes
published as a standard. It
Precursor to today's RFC 3261
SIP has today

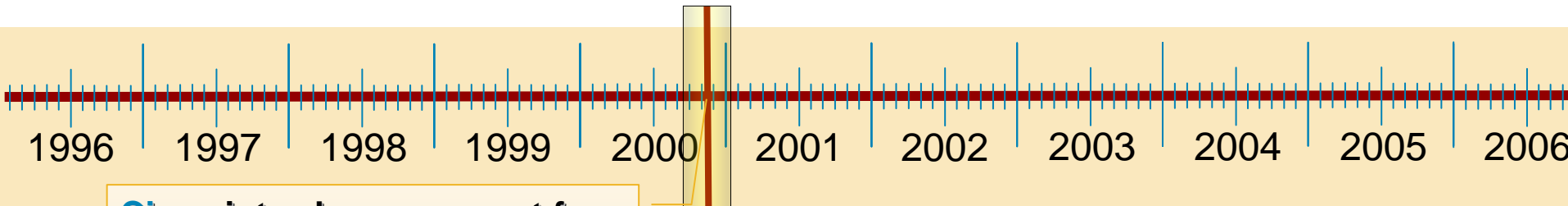
History of SIP Timeline



Cisco introduces support for

- **SIP SP Gateways**
- **Call Agents**
- **Basic SIP Phones**

History of SIP Timeline



Cisco introduces support for

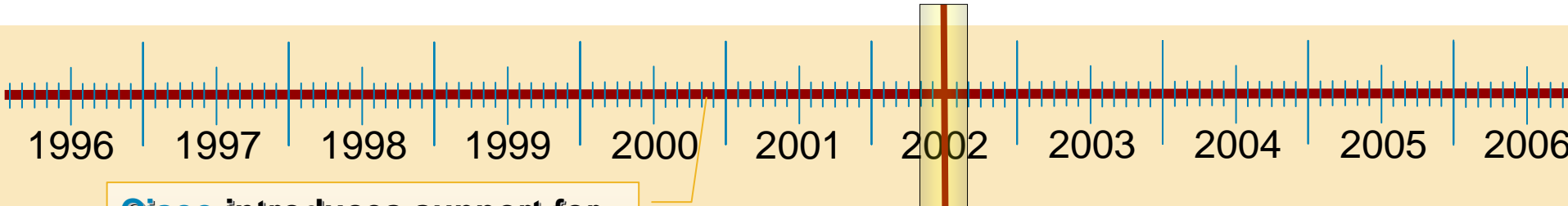
- SIP SP Gateways
- Call Agents
- Basic SIP Phones

June 2002 - RCF3261- 3265 approved by the IETF. These form the core protocol set for SIP today

SIP Methods (which are Requests) from RFC 3261

- **INVITE**—A user or service is being invited to participate in a multimedia session
- **ACK**—Confirms that a client has received a final response to an **INVITE** request
- **BYE**—Terminates an existing session; can be sent by any user agent (in a multiparty session)
- **CANCEL**—Cancels pending requests; does not terminate sessions that have been accepted
- **OPTIONS**—Queries the capabilities of servers
- **REGISTER**—Registers the user agent with the registrar server of a domain

History of SIP Timeline



Cisco introduces support for

- SIP SP Gateways
- Call Agents
- Basic SIP Phones

June 2002 - RFC3261 approved by the IETF. SIP today

September 2004 - Cisco becomes Cisco Fellow. Jonathan co-author of RFC3261 and inventor of SIMPLE - SIP for Presence and IM

SIP / SIMPLE

SIP / SIMPLE

- SIP for Instant Messaging and Presence Leveraging Extensions
- SIMPLE is defined in additional RFC documents
 - RFC 3428, Session Initiation Protocol (SIP) Extension for Instant Messaging
- RFC 3856, A Presence Event Package for the Session Initiation Protocol (SIP)
- RFC 3857, A Watcher Information Event Template Package for the Session Initiation Protocol (SIP)
- RFC 3858, An Extensible Markup Language (XML) Based Format for Watcher Information

Presence Components

ENTITIES

- **PRESENCE SERVER**
accepts, stores, and distributes PRESENCE INFORMATION
- **PRESENTITY (presence entity)**
an entity that provides PRESENCE INFORMATION to a PRESENCE SERVER
- **PRESENCE USER AGENT**
means for a PRINCIPAL to manipulate one or more PRESENTITIES
- **WATCHER**
requests PRESENCE INFORMATION about a PRESENTITY from the PRESENCE SERVICE, includes SUBSCRIBERS, POLLERS and FETCHERS.

ACTIONS

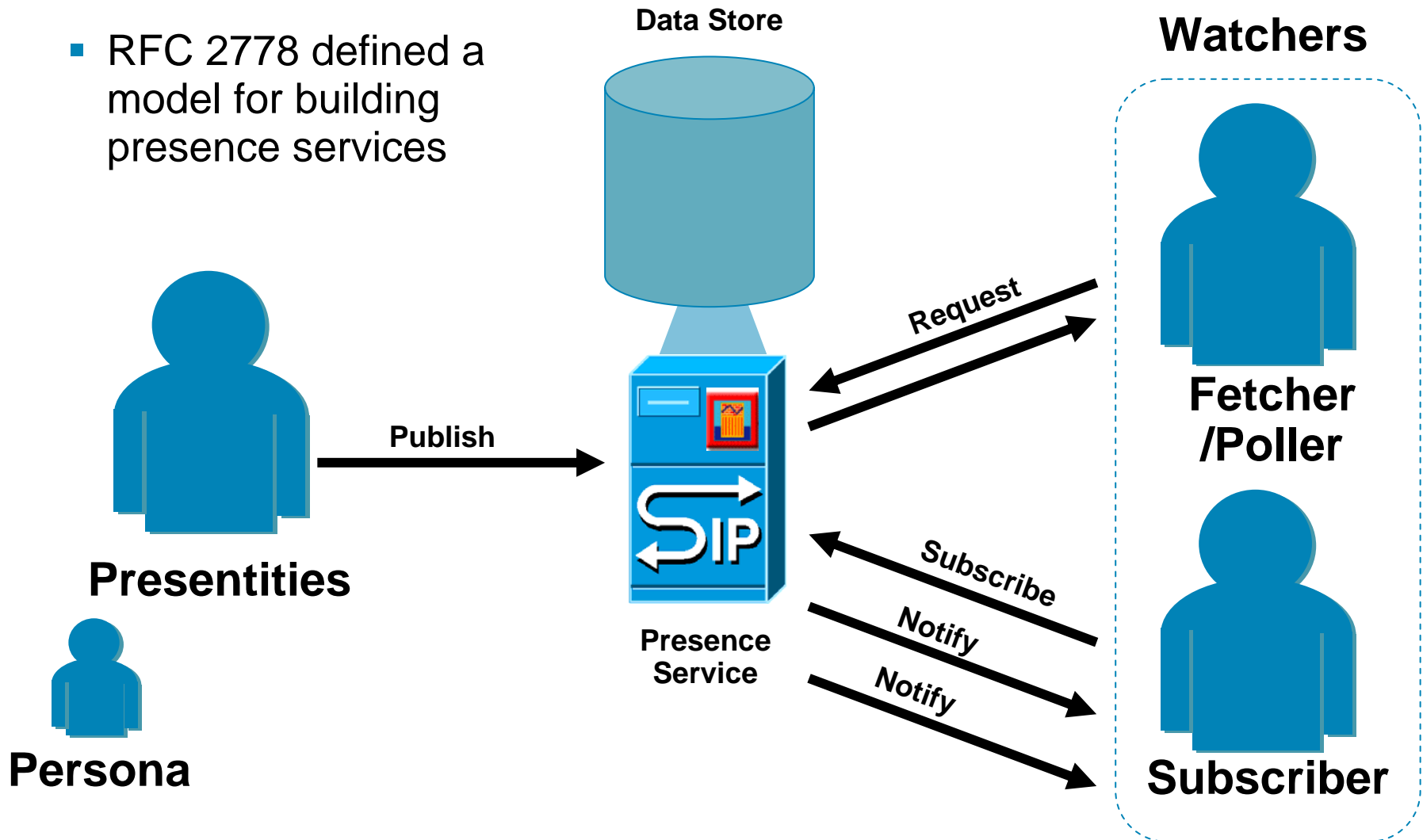
- **SUBSCRIPTION**
the information kept by the PRESENCE SERVER about a SUBSCRIBER's request to be notified of changes in the PRESENCE INFORMATION of one or more PRESENTITIES
- **NOTIFICATION**
a message sent from the PRESENCE SERVICE to a SUBSCRIBER when there is a change in the PRESENCE INFORMATION of some PRESENTITY
- **PUBLICATION**
An unsolicited message sent from the USER AGENT whenever a status change occurs

Additional SIP Request Methods

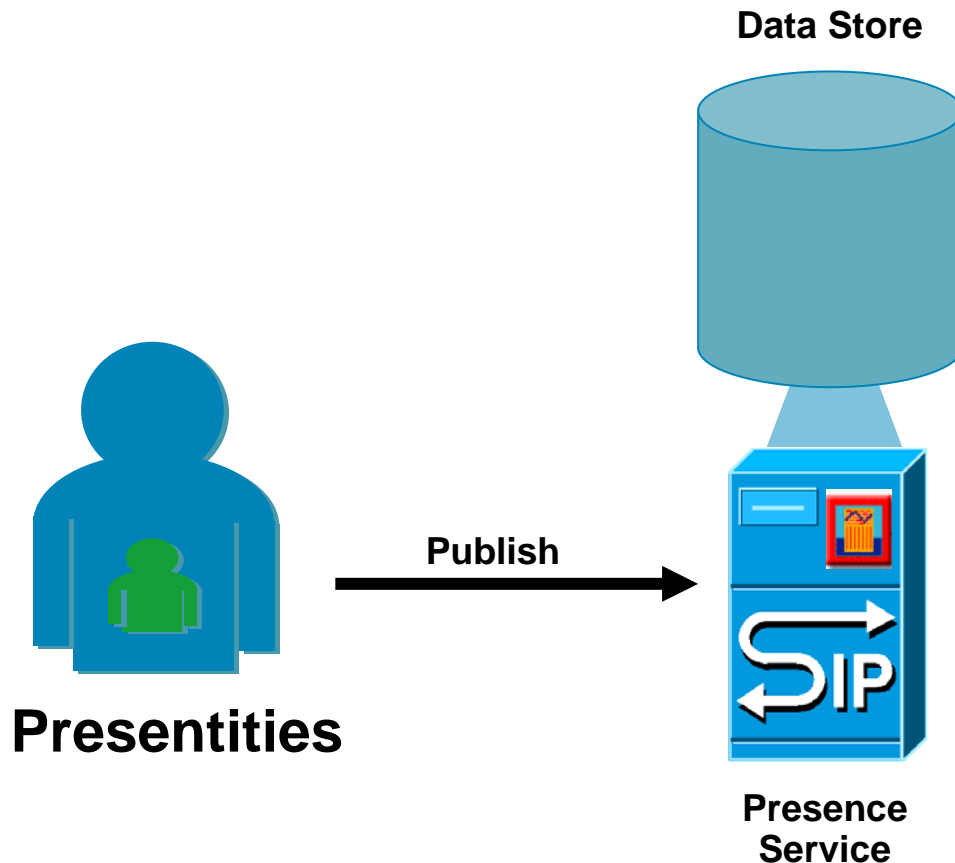
- INFO (RFC 2976)
- PRACK (RFC 3262)
- **SUBSCRIBE and NOTIFY (RFC 3265/3856)**
- UPDATE (RFC 3311)
- MESSAGE (RFC 3428)
- REFER (RFC 3515)
- **PUBLISH (RFC 3903)**

RFC 2778: A Model for Presence and IM

- RFC 2778 defined a model for building presence services

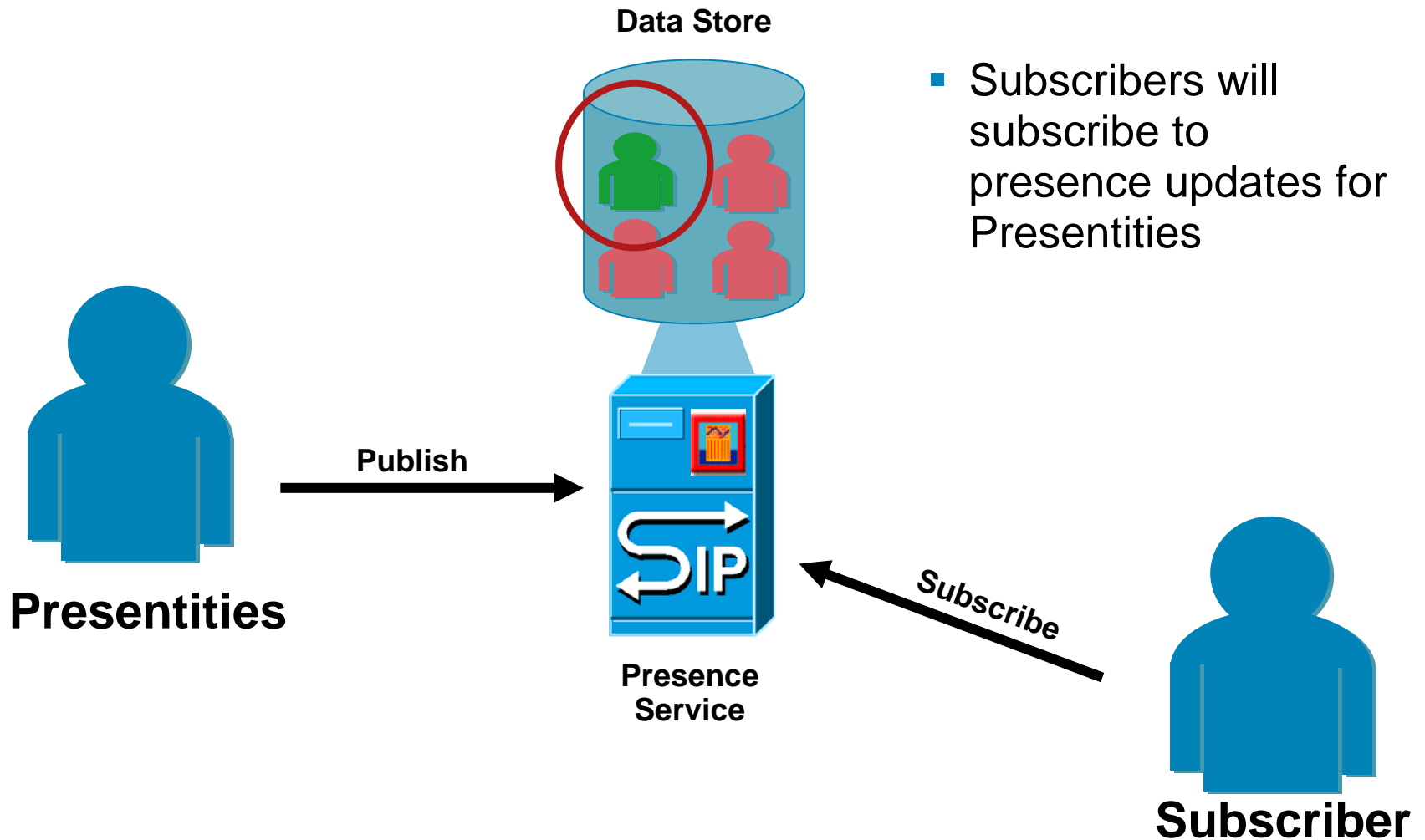


RFC 2778: A Model for Presence and IM

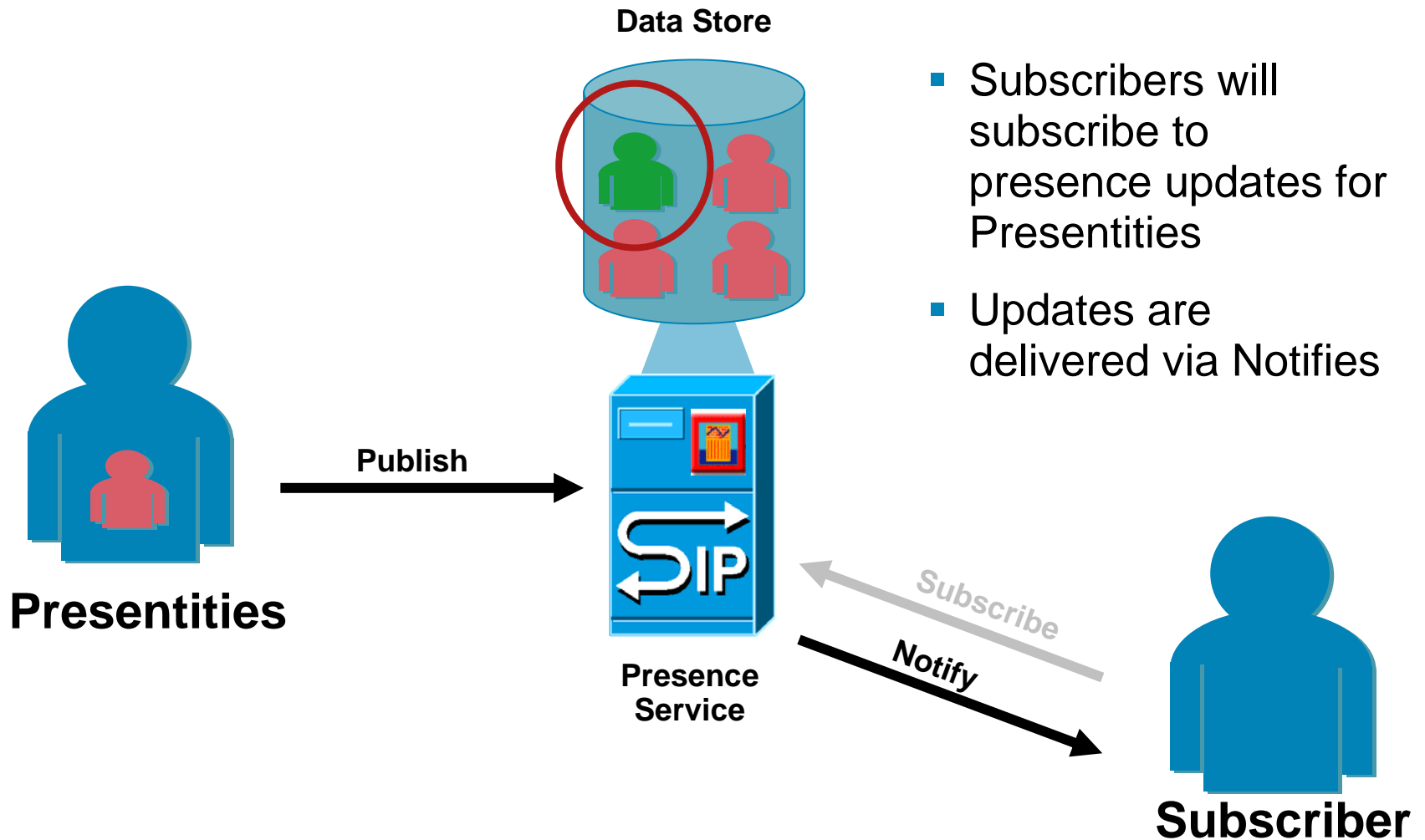


- Presentities publish status and changes to their status to the presence service.
- This Information will be held in the presence service data store.

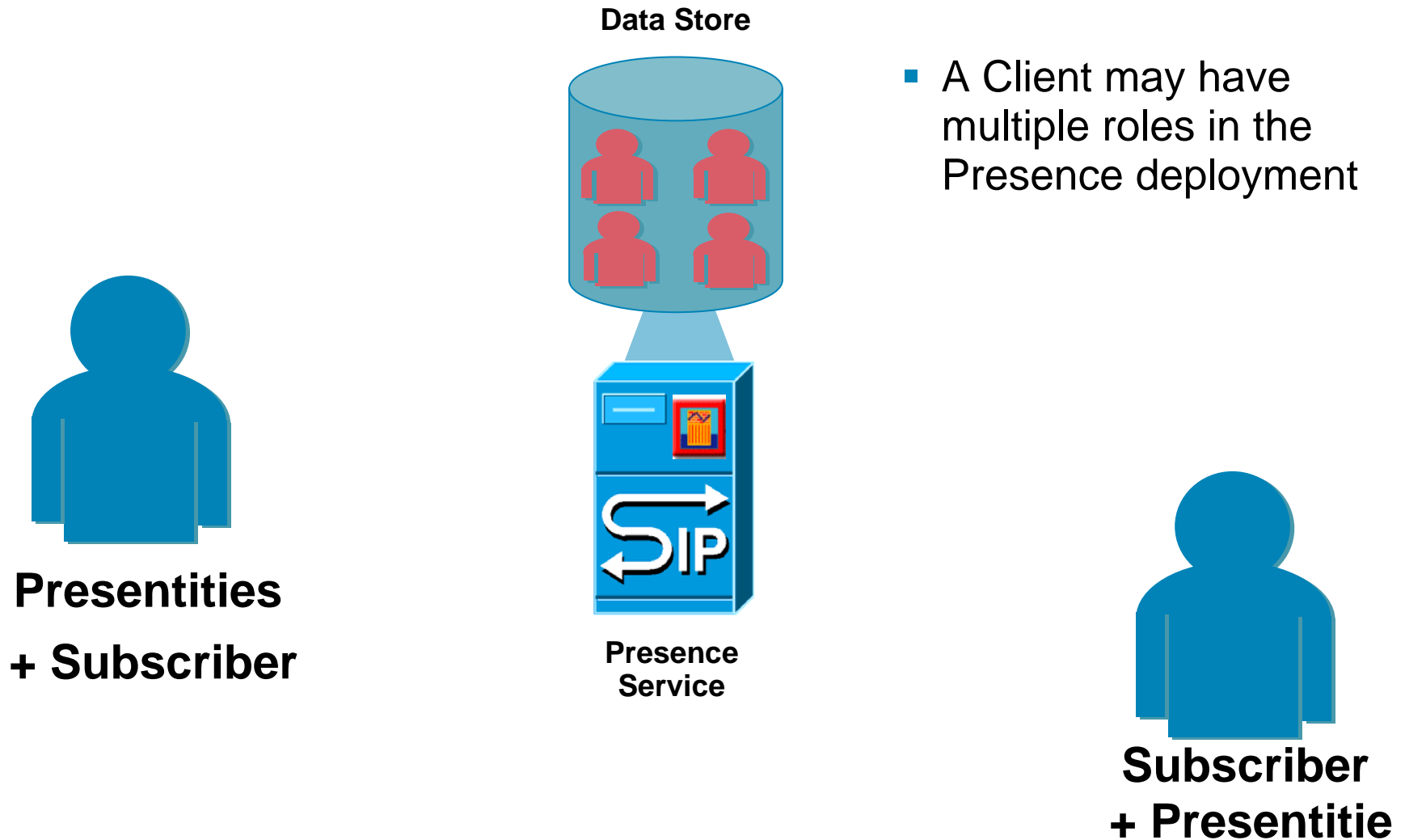
RFC 2778: A Model for Presence and IM



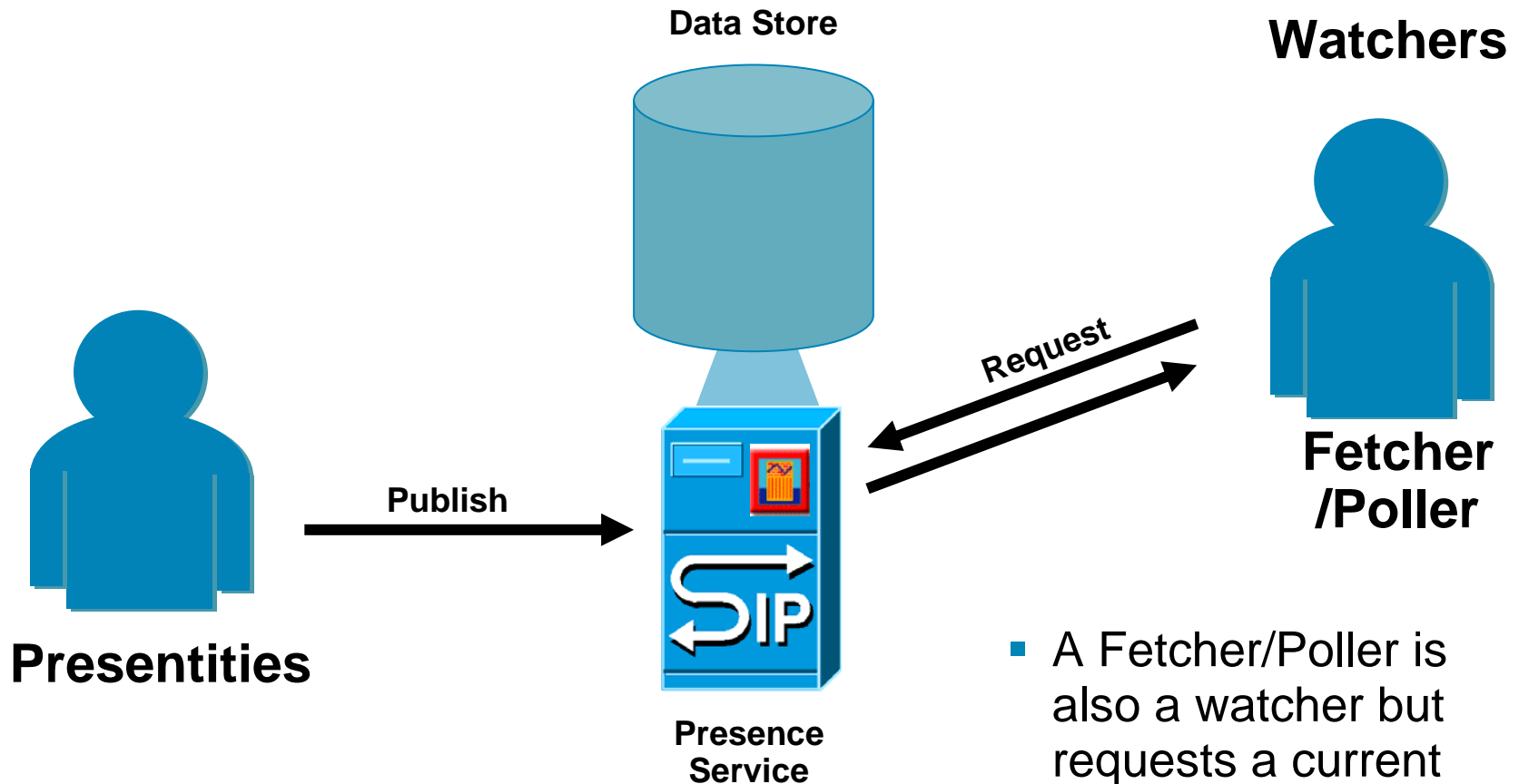
RFC 2778: A Model for Presence and IM



RFC 2778: A Model for Presence and IM

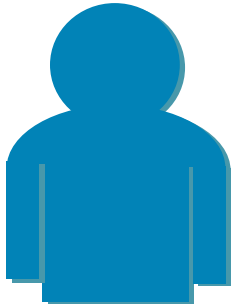


RFC 2778: A Model for Presence and IM

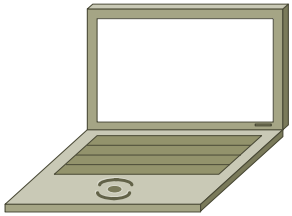


- A Fetcher/Poller is also a watcher but requests a current snapshot of presentities status

A Model for Presence and IM



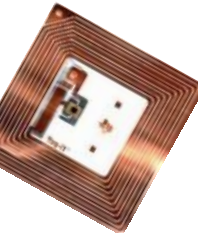
Presentities can relate to many device types



Application

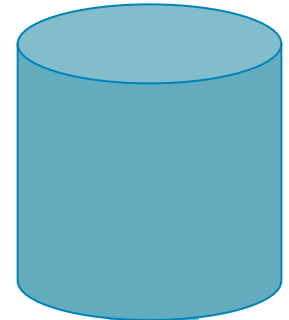


Phones



RFID!

Publish



Data Store

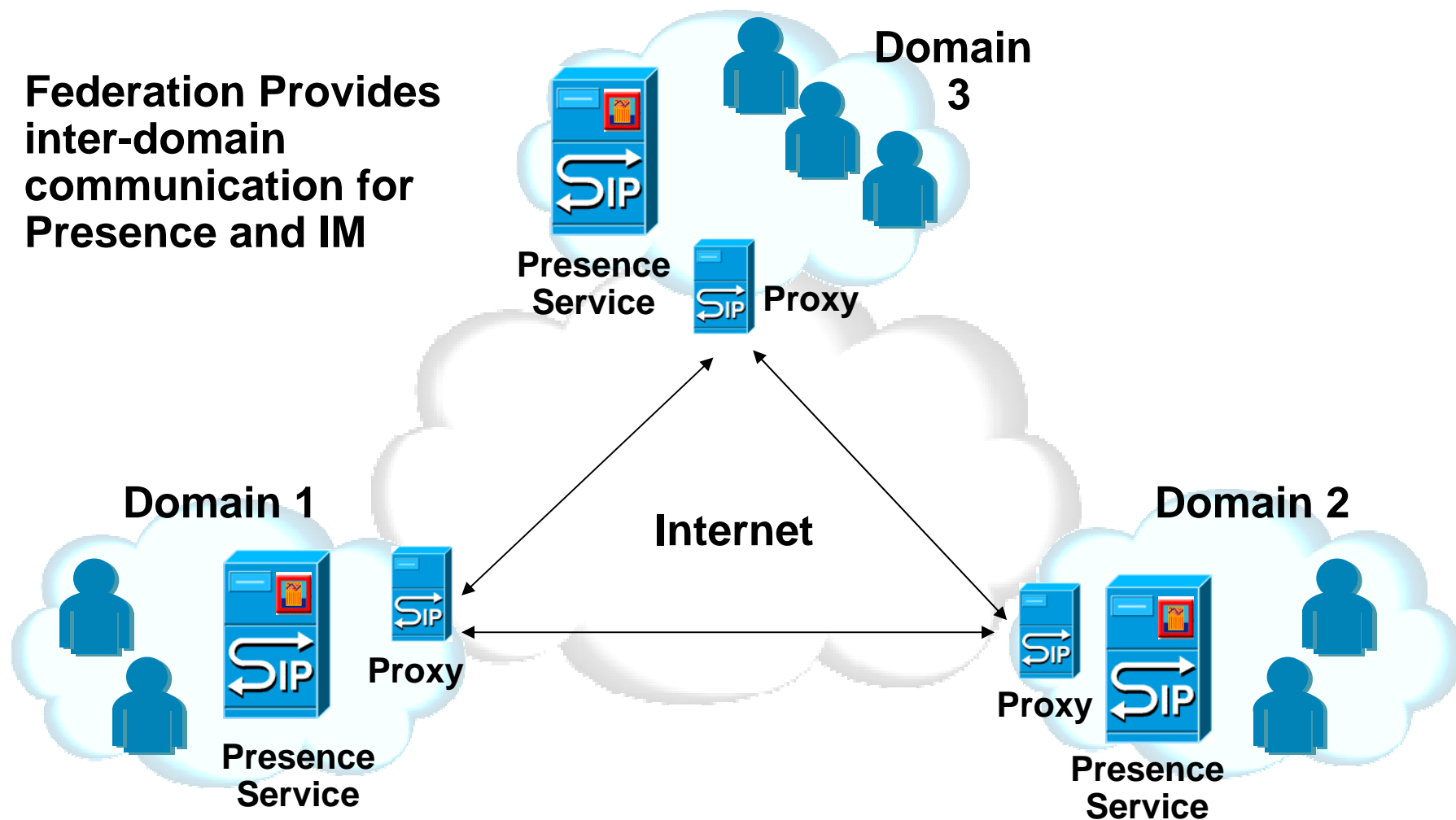


Presence Service

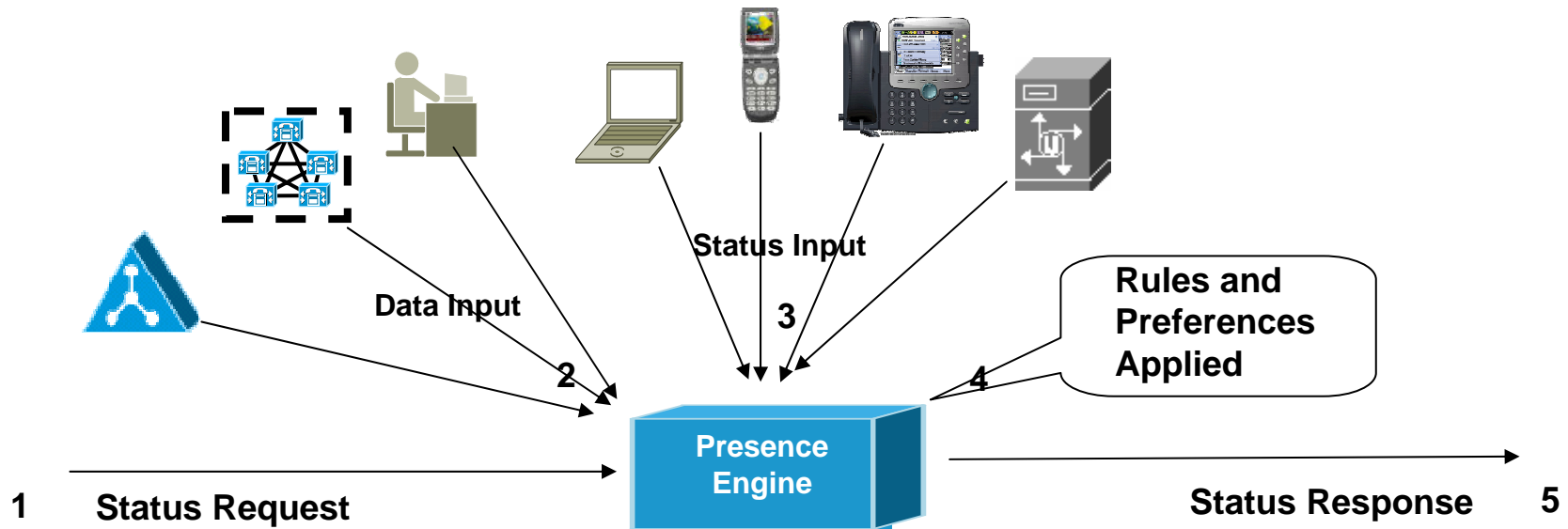
A Presence service can be combining presence information from multiple devices and making this information available for other applications

Federation

Federation Provides inter-domain communication for Presence and IM



Presence Service Functions



1. **Receives Status Request**

2. **Accesses Databases:** Unifies all data associated to a user, including sourced (directories), provisioned (application specific) and dynamic (preferences)

3. **Aggregates Status :** Collects all status of a user to provide a single point for the definitive status of that user, including all devices/apps of the user

4. **Applies Policy:** Negotiates Subscriber data with Watcher request to yield appropriate presence

5. **Sends Status Response**

Presence Definitions

- IM/Presence Federation

Model in which presence data and IM are shared openly between two different presence servers that manage different domains, similar to the email model we use today.

- Persona

Modeled after a human user that may have any number of devices or applications with presence information concerning the user. A persona also has associated rules/policy that apply to modify/limit access or use of the presence information.

Presence Definitions

- **Reachability**

Overall status of the persona determined by matching the presence state to the defined reachability rules (vacation, out-of-office, busy, interruptible but busy, available, unavailable, Do Not Disturb (DND), unknown)

- **Visibility**

A specific view of presence information that is available to a watcher. This is governed by applying the rules.

- **Authorization**

Process of determining what presence information (if any) a specific watcher is allowed to access about a user.

- **Composition**

Process that produces a “raw” presence document based on the set of presence that was collected. Composition is governed by rules defined in the composition policy, which are linked to the authorization. These rules may be complex, and consider aspects such as correlation, conflict resolution, merging and splitting.

Presence Definitions

- Presence Rules/Filtering

Privacy-based: Process by which information in the “raw” presence document is removed or transformed for the purpose of withholding sensitive information about the presentity. These rules are defined by the presentity, and may be applied to a particular watcher or set of watchers, or based on other types of input.

Watcher-based: Process by which further information is removed from the document based on input from the watcher on what type of information it is interested in.

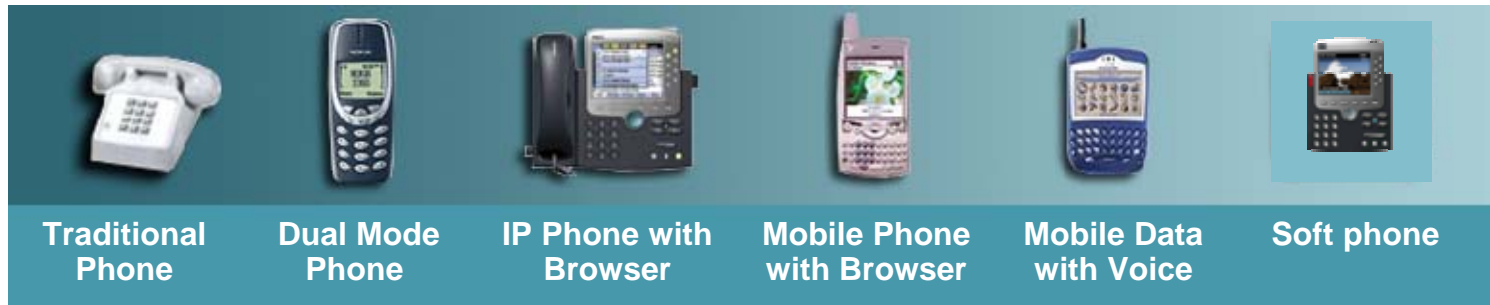
- Presence Routing Rules

Rules that affect the routing of multi-modal communication, that are presence enabled.

Cisco Presence Server



Cisco Unified Presence Server



Traditional Phone

Dual Mode Phone

IP Phone with Browser

Mobile Phone with Browser

Mobile Data with Voice

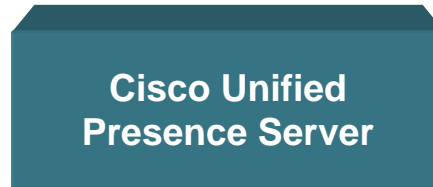
Soft phone

Effectively connecting devices...

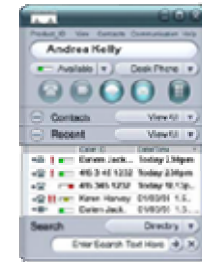
3rd Party Clients and Services



Presence/
SIP
Network

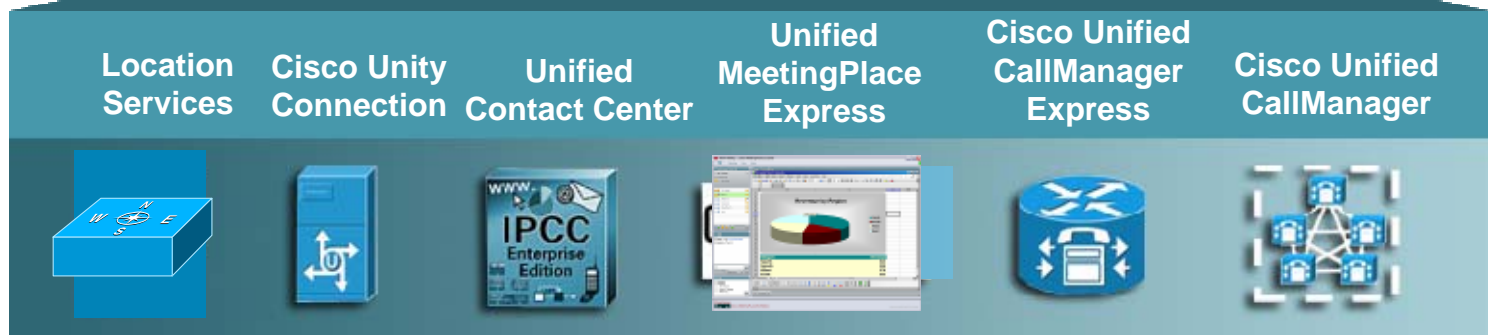


Cisco Unified
Presence Server



Cisco Clients

...to intelligent services in the network...



Location Services

Cisco Unity Connection

Unified Contact Center

Unified MeetingPlace Express

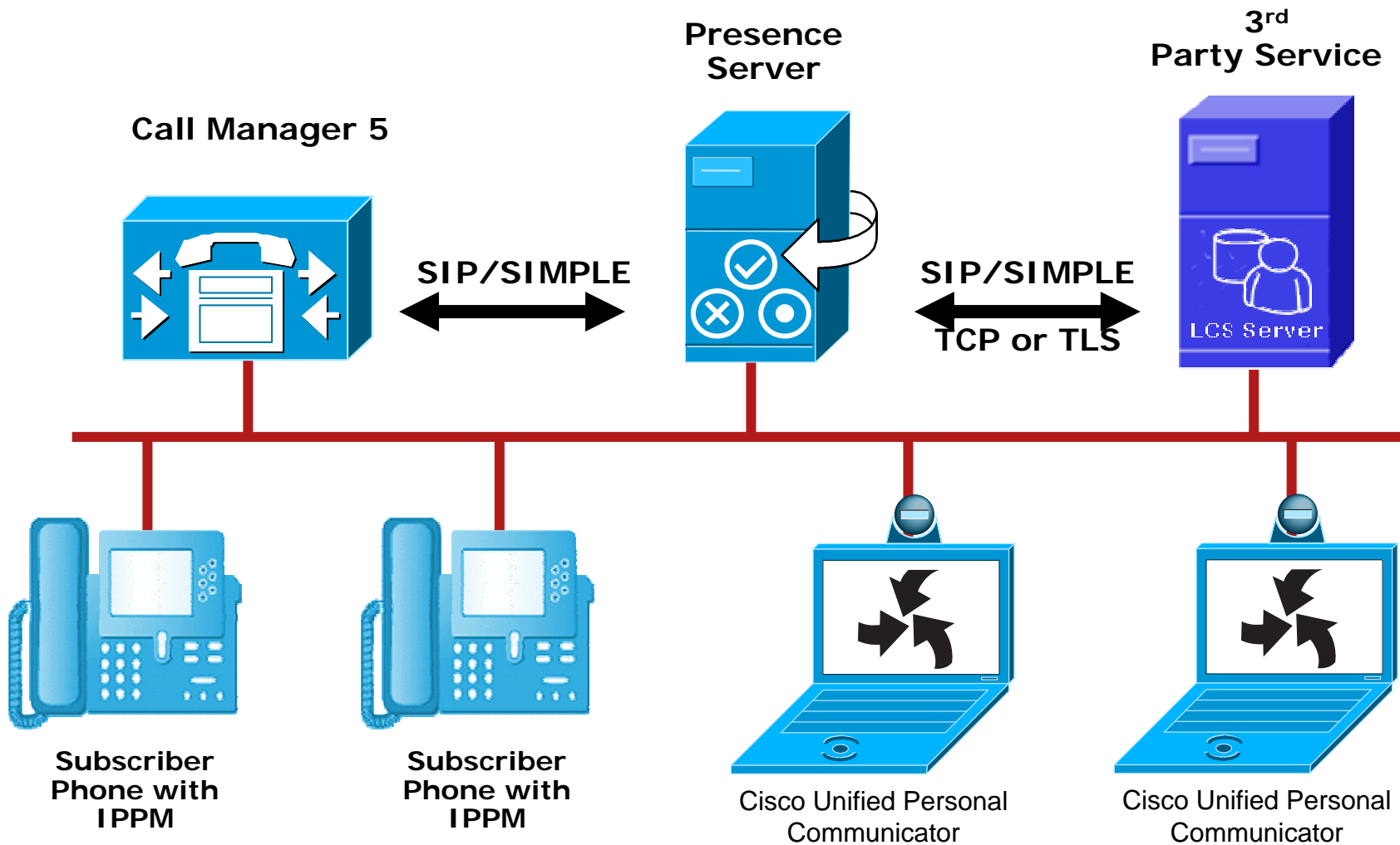
Cisco Unified CallManager Express

Cisco Unified CallManager

Cisco Unified Presence Server Functionality

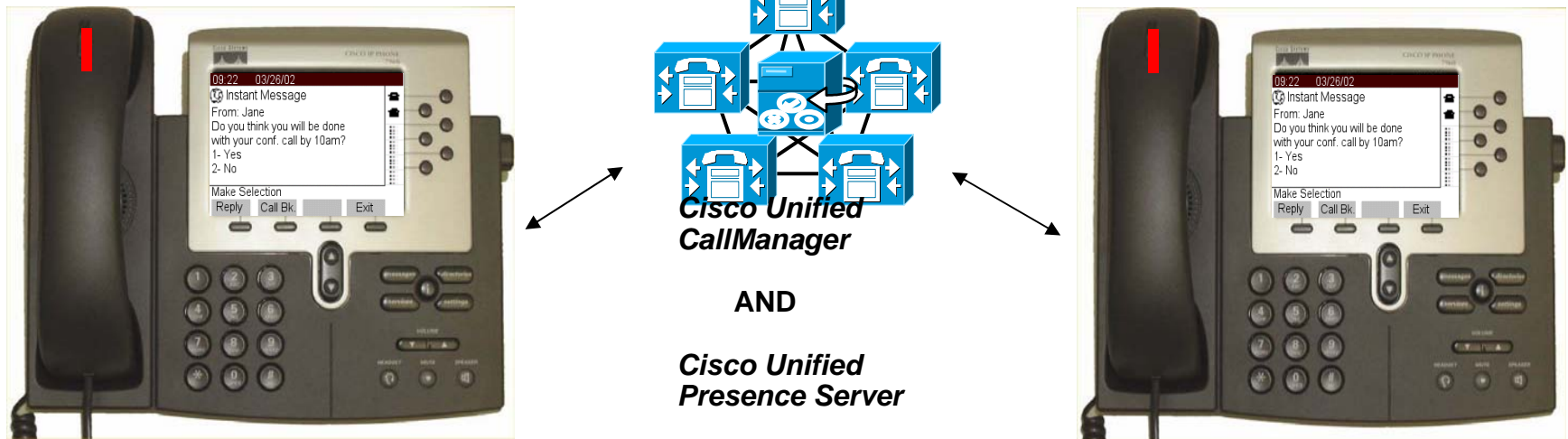
1. Provides enhanced User-based Presence capabilities leveraging dynamicsoft Presence technology
2. Supports Rich Presence services for both Cisco enterprise products and customer enterprise desktop applications
3. Provides IP Phone Messenger Application
4. Provides the infrastructure for the Cisco Unified Personal Communicator

Cisco Unified Presence Server



Cisco Unified Presence Server: IP Phone Messenger

- Instant Messaging on Cisco Unified IP Phones
- Integrated with Voice capabilities on IP Phones
- Allows for multi-modal communications with IP Phones



Cisco IP Phone Messenger

- Cisco IP Phone users (with Cisco Unified CallManager v5.0 or later) can see the on/off hook states of other users' IP phones
- Users can send or reply to messages from their Cisco IP Phones using predefined templates or composing text messages
- Users can call back IM senders by hitting one button
- Implements presence enabled contact list on the phone



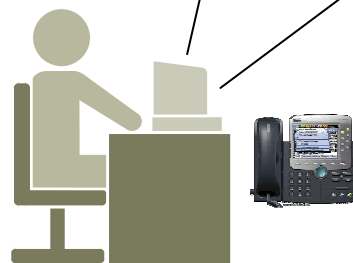
Cisco IP Phone Messenger

Broadcast messages to all or a subset of Cisco IP Phones

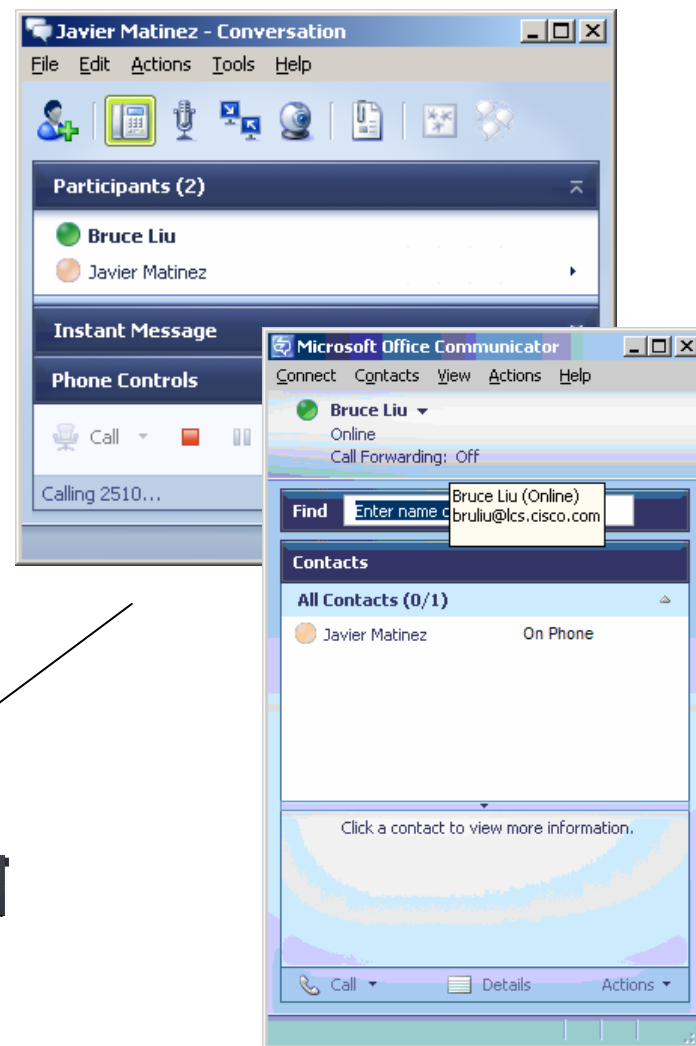


Cisco Unified Presence Server: LCS 2005 and MOC integration

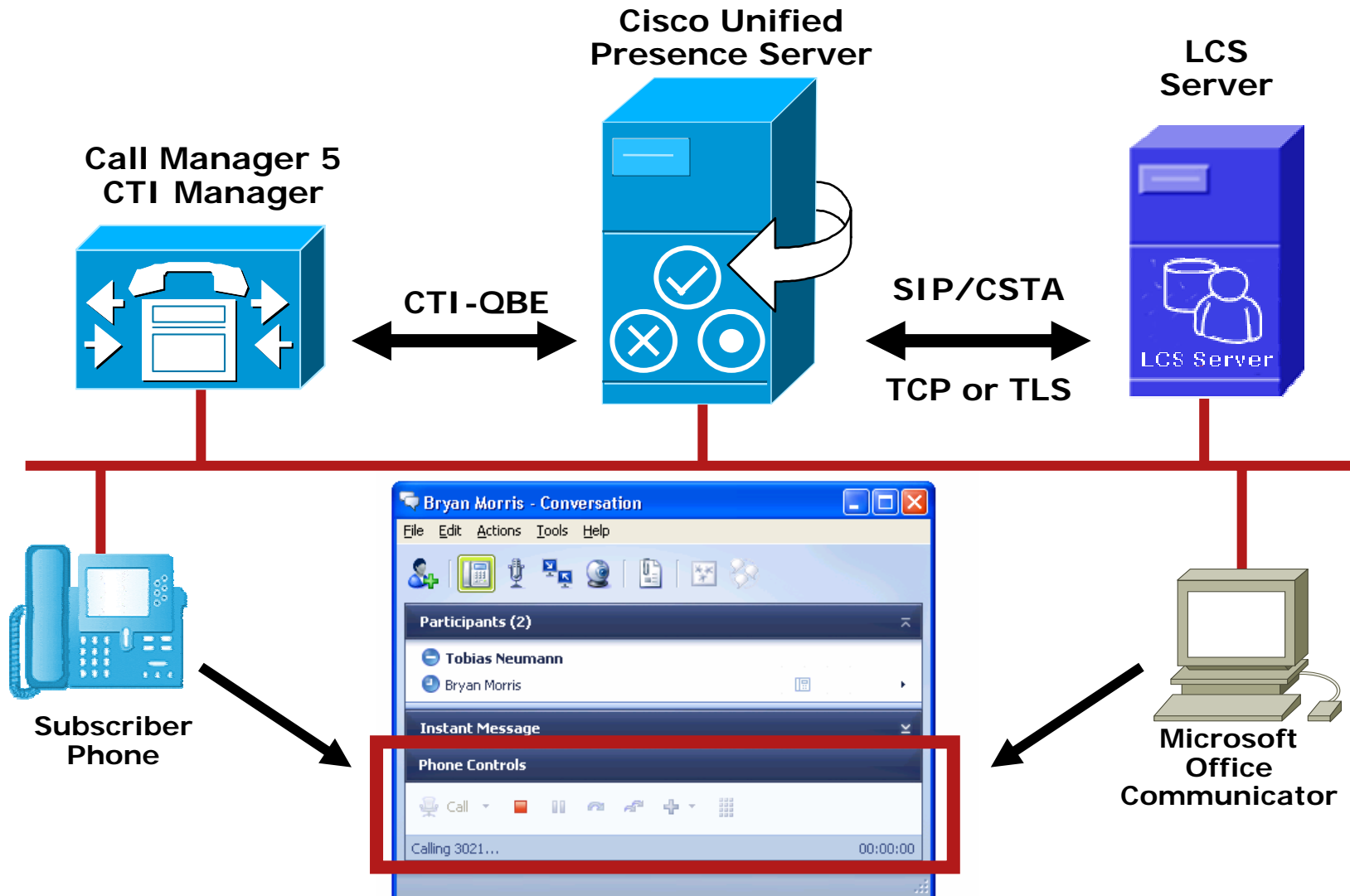
- Implements CSTA to CTI bridge to integrate with existing LCS 2005 interfaces
- Provides click-to-dial, phone hook status reporting and general phone control from MOC client
- Will migrate over time to a pure SIP solution for better scalability



**MS Office Communicator
user with Cisco IP Phone**



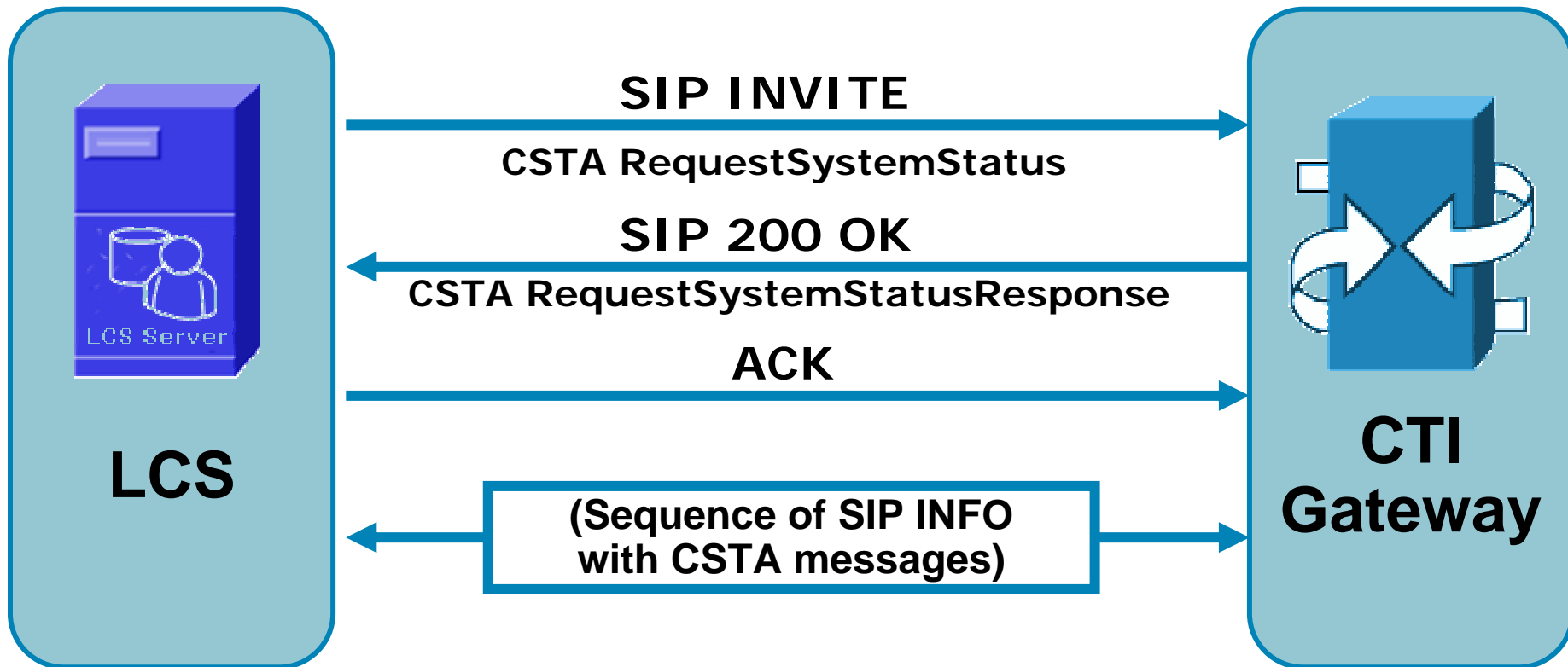
MOC/LOC Telephone Integration



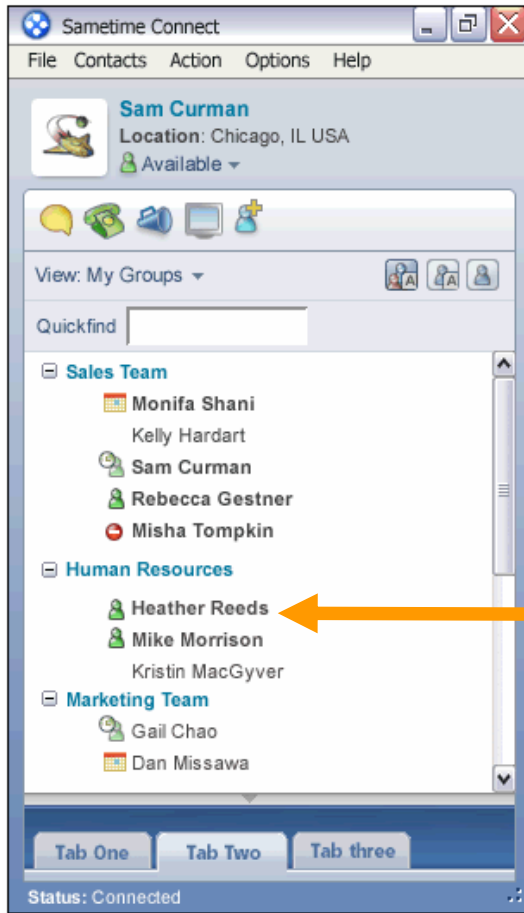
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- SUBSCRIBE and NOTIFY (RFC 3265/3856)
- UPDATE (RFC 3311)
- MESSAGE (RFC 3428)
- REFER (RFC 3515)
- PUBLISH (RFC 3903)

CSTA Communication



Cisco Unified Presence Server SIP / SIMPLE Network Interface: Cisco / IBM Federated Presence



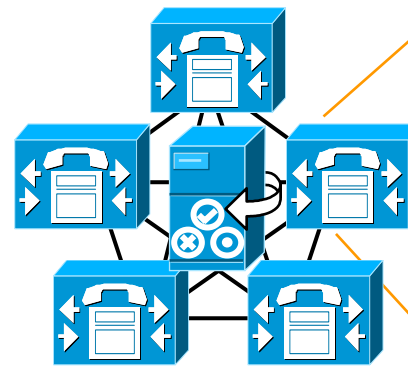
IBM Sametime 7.5

IBM WebSphere



*Shared Presence,
Instant Messages,
Voice Services*

- Cisco Unified CallManager
- Cisco Unified Presence Server

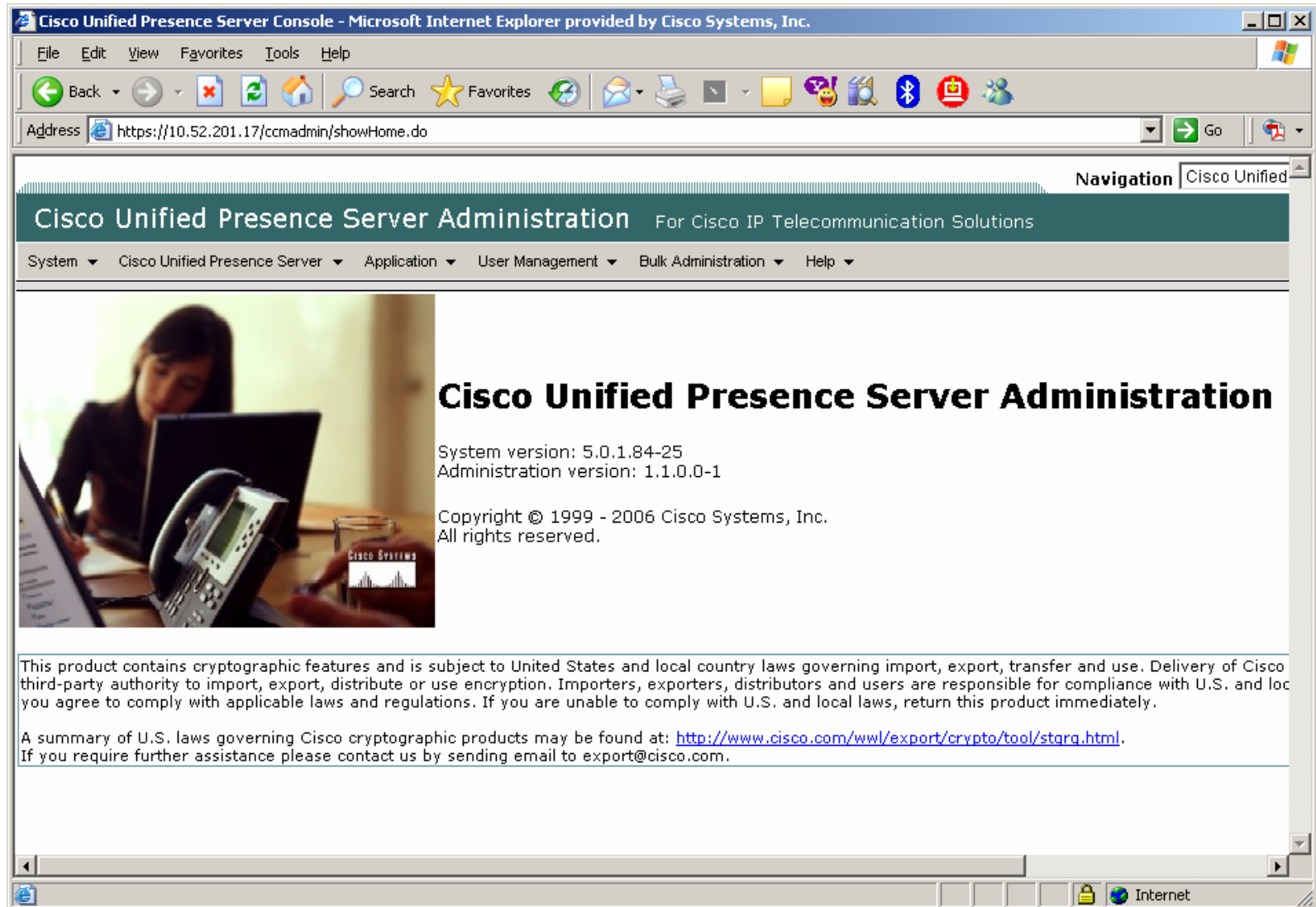


Cisco Unified IP Phone



Cisco Unified IP Phone

Cisco Unified Presence Server



The screenshot shows a web browser window titled "Cisco Unified Presence Server Console - Microsoft Internet Explorer provided by Cisco Systems, Inc.". The address bar shows the URL "https://10.52.201.17/ccmadmin/showHome.do". The page content includes a navigation menu with items like "System", "Cisco Unified Presence Server", "Application", "User Management", "Bulk Administration", and "Help". The main heading is "Cisco Unified Presence Server Administration For Cisco IP Telecommunication Solutions". Below this, there is a photograph of a woman working at a desk with a laptop and a Cisco IP phone. To the right of the photo, the text reads: "System version: 5.0.1.84-25", "Administration version: 1.1.0.0-1", and "Copyright © 1999 - 2006 Cisco Systems, Inc. All rights reserved." At the bottom of the page, there is a legal disclaimer regarding cryptographic features and U.S. laws, along with a link to a summary of U.S. laws governing Cisco cryptographic products.

CUPS Licensing

Cisco Unified Presence Server Administration For Cisco Unified Communications Solutions

System ▾ Cisco Unified Presence Server ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Server
Service Parameters
Licensing ▶
Sync Status

License File Upload
License Unit Report

Proxy Server

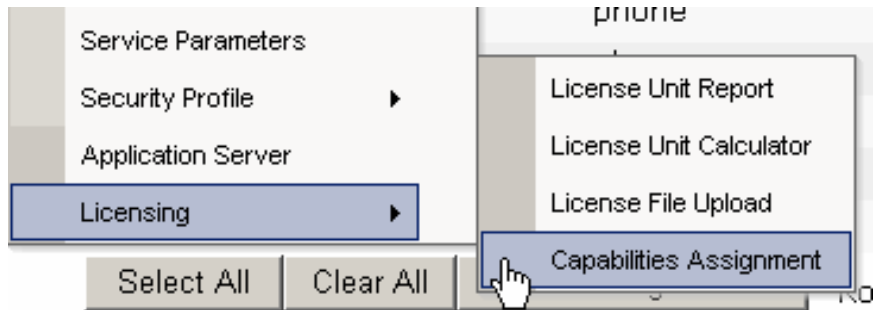
Cisco UPS License Server	Units Available	Units Used	Units Remaining	Permanent
rtplab-cups1	2	1	1	YES
Total Units for Feature	2	1	1	

Presence Engine

Cisco UPS License Server	Units Available	Units Used	Units Remaining	Permanent
rtplab-cups1	2	1	1	YES
Total Units for Feature	2	1	1	

CUPS licenses the Proxy Server and Presence Engine within the same FlexLM license.

Cisco Unified CallManager Licensing



UPS and UPC Capabilities are assigned from CCM

Search Results

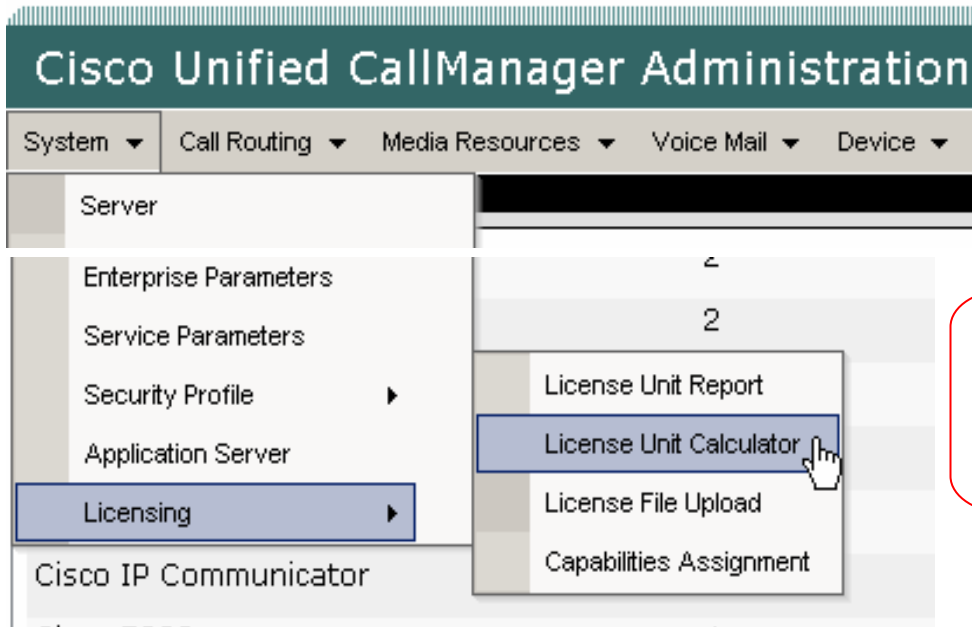
	User ID	Last Name	Manager	Department	UPS Enabled	UPC Enabled
<input type="checkbox"/>	sccp7911	phone			✓	
<input type="checkbox"/>	sccp7941	phone			✓	✓
<input type="checkbox"/>	sccp7960	phone			✓	
<input type="checkbox"/>	sccp7970	phone			✓	
<input type="checkbox"/>	sip7911	phone			✓	✓
<input type="checkbox"/>	sip7960	phone			✓	
<input type="checkbox"/>	sip7961	phone			✓	
<input type="checkbox"/>	sip7970	phone			✓	✓
<input type="checkbox"/>	sip7971	phone			✓	✓

User Information
User ID: sip7971

Capabilities Assignment Information
 Enable UPS (Unified Presence Server)
 Enable UPC (Unified Personal Communicator)

Save

CUPS/CUPC License Units



Current Number of Devices

Units Consumed per Device

Number of Units Consumed

Cisco Unified Personal Communicator	3	2	6
Cisco 7906	2	0	0
Cisco Unified Presence Server End User Feature License	1	9	9
Cisco Unified Personal Client End User Feature License	1	4	4

Summary of Presence Server

- IP Phone Messenger
Integrated IM capability within Cisco IP Phones
- Proxy Functionality
Based on Cisco SIP Proxy Server providing proxy of presence functions only
- Presence Engine Functionality
Data store and Presence Aggregator providing enhanced user based presence capabilities
- SIMPLE Network Interface
IETF Standard interface to pass/receive Presence information
- Cisco Unified Personal Communicator Support
Provides configuration profiles for LDAP, Proxy, MeetingPlace, Unity, and CTI Gateway using SOAP interface
- Click To Dial / Phone Monitoring interoperability with Microsoft LCS 2005 / Office Communicator
CSTA to CTI gateway to support functionality of MOC

Cisco Unified Personal Communicator

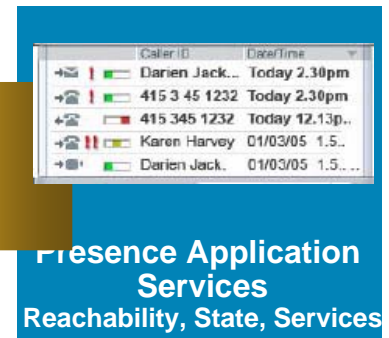


Cisco Unified Presence Server: Cisco Unified Personal Communicator

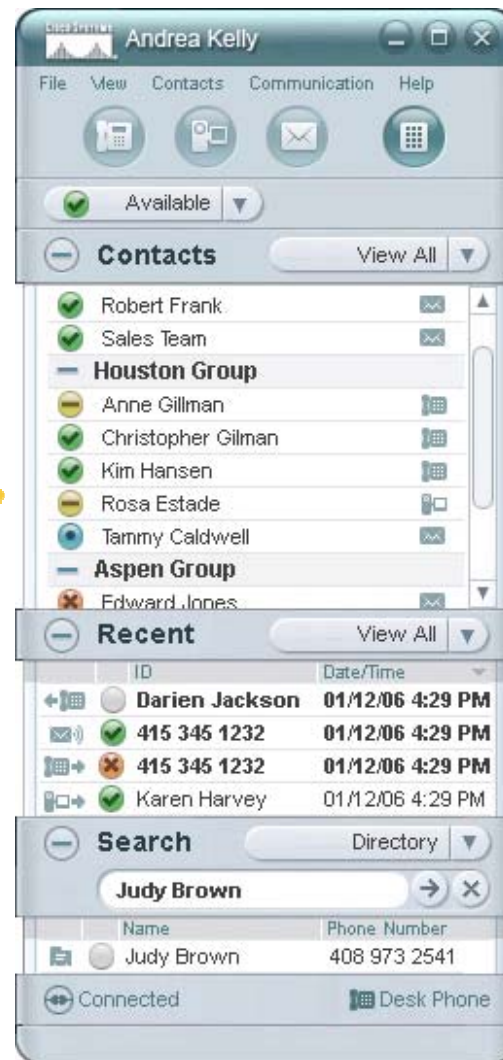
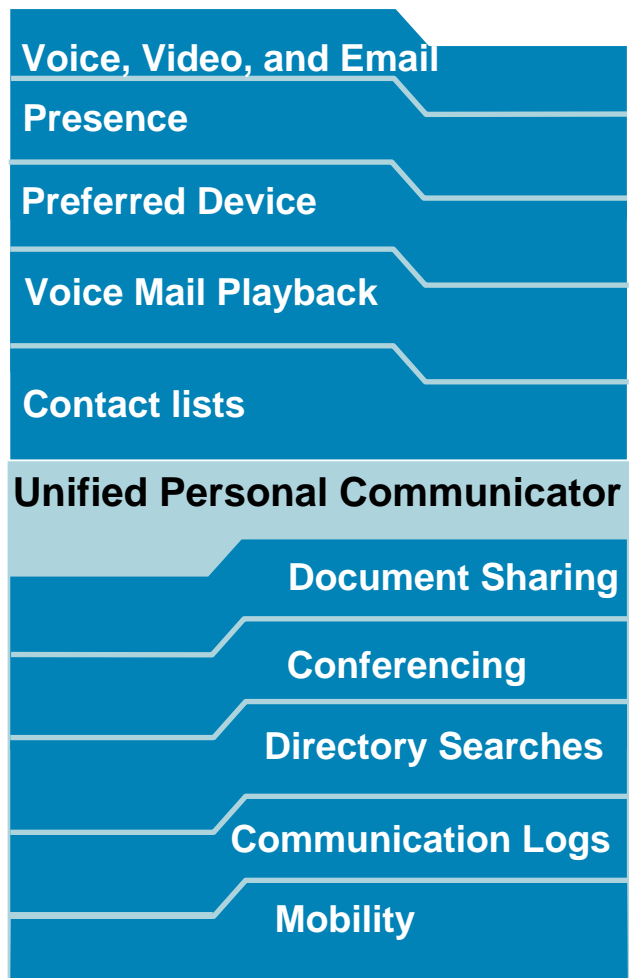
Powerful productivity tools in a single, easy-to-use desktop software application



- Adaptive User Interface
- Presence-enabled
- Call, Collaborate, Escalate
- Desktop Video Calling

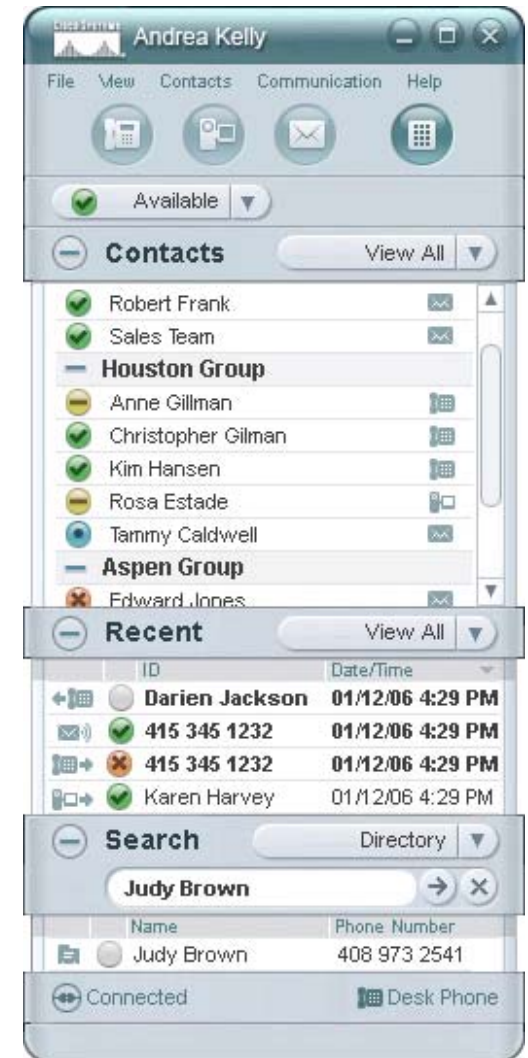


All-in-One Communication Tool



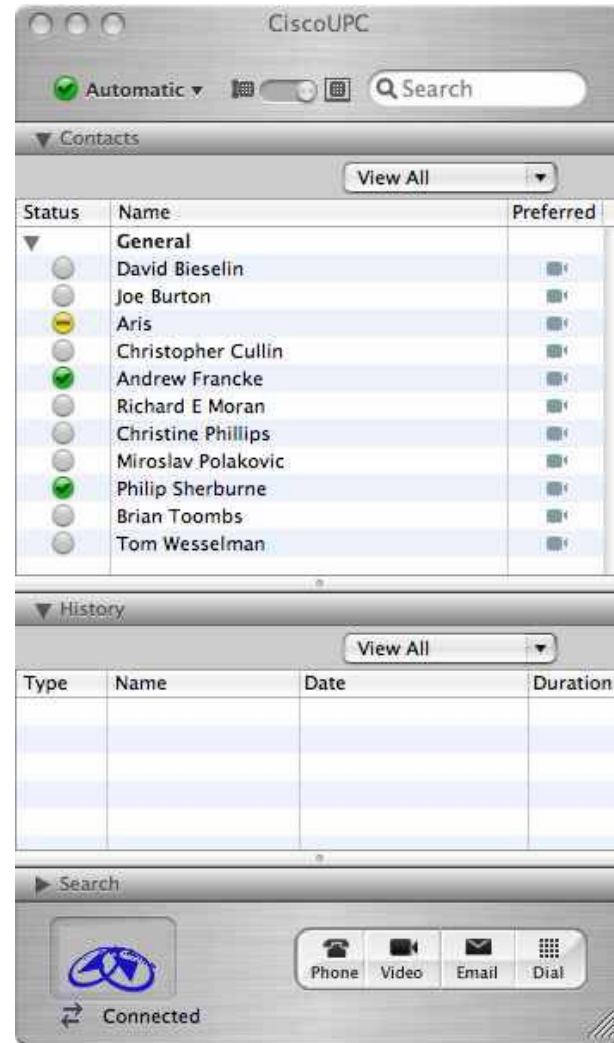
The Console

- Initiate audio, video conversations & e-mail
 - Click to Call
- Create Groups of Contacts
- Integrated Corporate Directories
 - LDAP v3
- Sort, View Play Voice Messages
 - Cisco Unity Connection 1.1
- Set & View Preferred Method of Contact
- Communication Logs of Incoming and Outgoing Calls
- Windows and Macintosh client
- Initial version: 1.1(1)



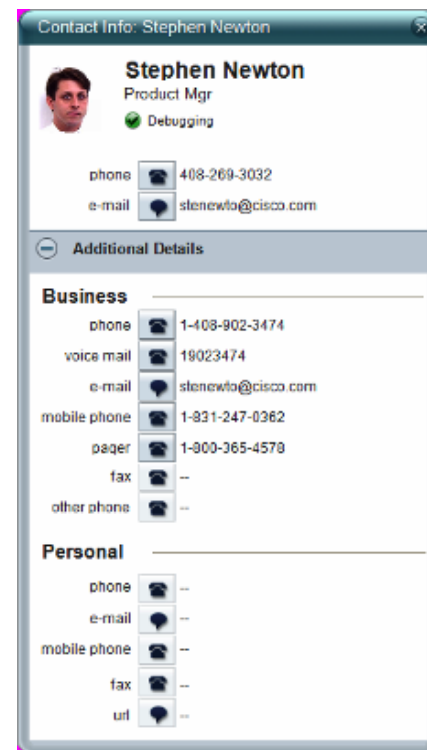
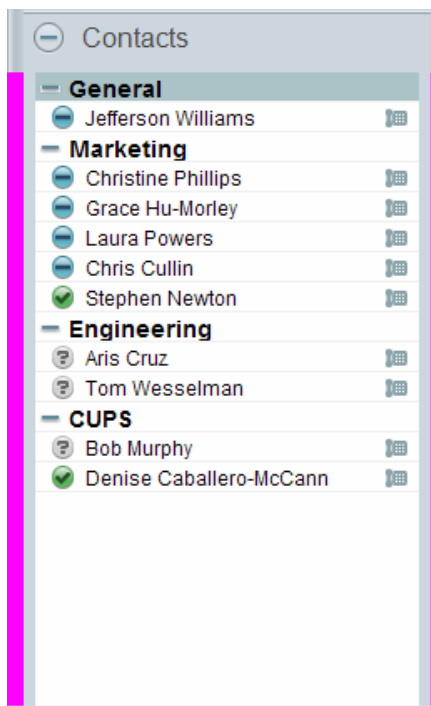
Cisco Unified Personal Communicator General User Interface (Mac OSX platform)

- The interface has the same components, but uses the standard OSX elements



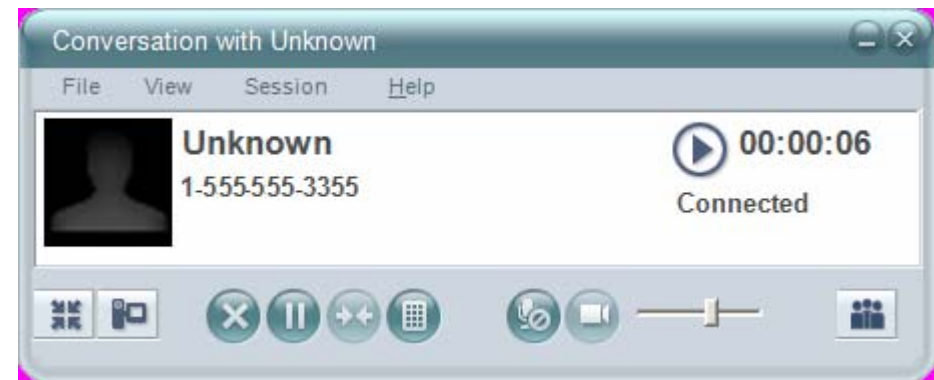
Manage Contact List

- Search LDAP v3 server to add contacts
- View Preferred Method of Contact
- Double-click to dial
- Contact Card has additional contact numbers
- Presence of contacts provided via Unified Presence Server
 - Centrally stored – same contacts if using more than 1 machine
 - Note: as contacts are provisioned via CUPS, same contacts will appear (without grouping) within IPPM
- Deferred: Show All vs. Show Available



Voice: Desk Phone and Softphone modes

- Desk Phone mode controls phone via CTI
- Softphone mode...
 - SIP softphone (RFC 3261)
 - Supports audio codecs: G.729a, G.711u/a
 - Provides video capabilities
 - Supports KPML dialing
- Common call control functionality for both audio and video calls: Hang up, Hold, Merge, Open Dialpad
- Volume Control
- Voice Conferencing via CallManager – not MeetingPlace Express resources
- Popup Notification on incoming calls with Call ID, and name lookup
- Controls to Escalate to Video, Escalate to Web Conference (with MeetingPlace Express)



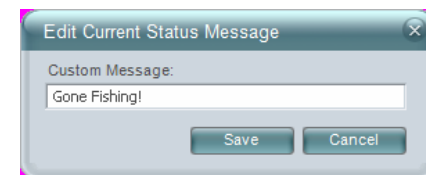
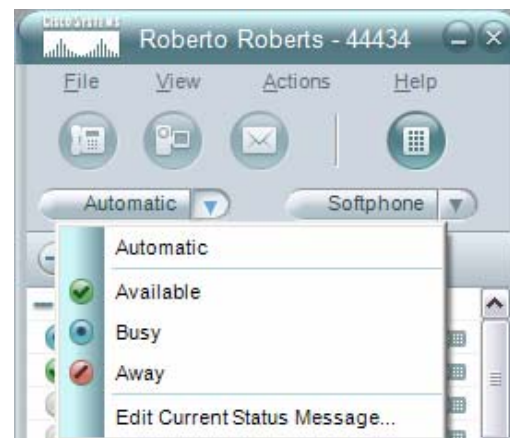
Video Telephony

- CUPC is a CallManager 5 video endpoint...
 - Ad-hoc video conferencing when integrated with IPVC 4.2 or CUVC 5.x MCU SCCP Mode
 - Being tested with a variety of video endpoints (Unified Video Advantage, 7985, etc.)
- Supports Cisco VT Camera I and II on PC
- Supports iSight camera on Mac
- Video Codecs - H.263 and H.264
- Video Formats – CIF and QCIF
- Frame Rate up to 30 FPS



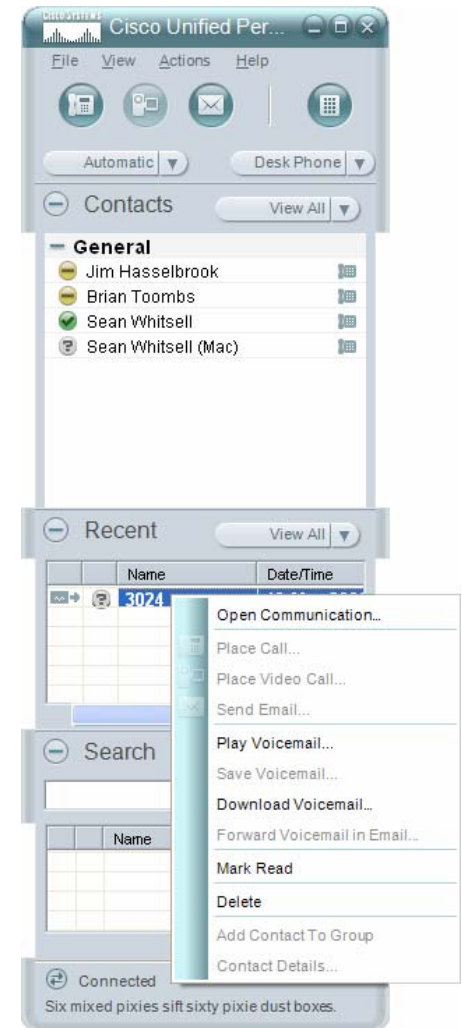
Presence

- View presence of other CUPC (actually CUPS) users
 - ~ Presence with “Tooltips” ~
 - “Idle”
 - “Busy” when off-hook
 - “Away” person has not used his or her phone or computer for the length of time he or she has specified in Preferences for this status to appear or the person has set the status to Away.
 - “Offline” – not logged into CUPC
- Changes user to “Busy” when monitored phone goes off-hook
- Ability to configure “Idle” and “Away” timeouts
- Can Set Preference on Preferred Method of Contact (Email, Phone)
- Ability to set custom status message (e.g. “In offsite meeting”)
- Presence communicated with CUPS via SIP/SIMPLE



Cisco Unified Personal Communicator Voicemail – Listen to message

- Listening to a Voice Mail Message



Web Conferencing via MeetingPlace Express

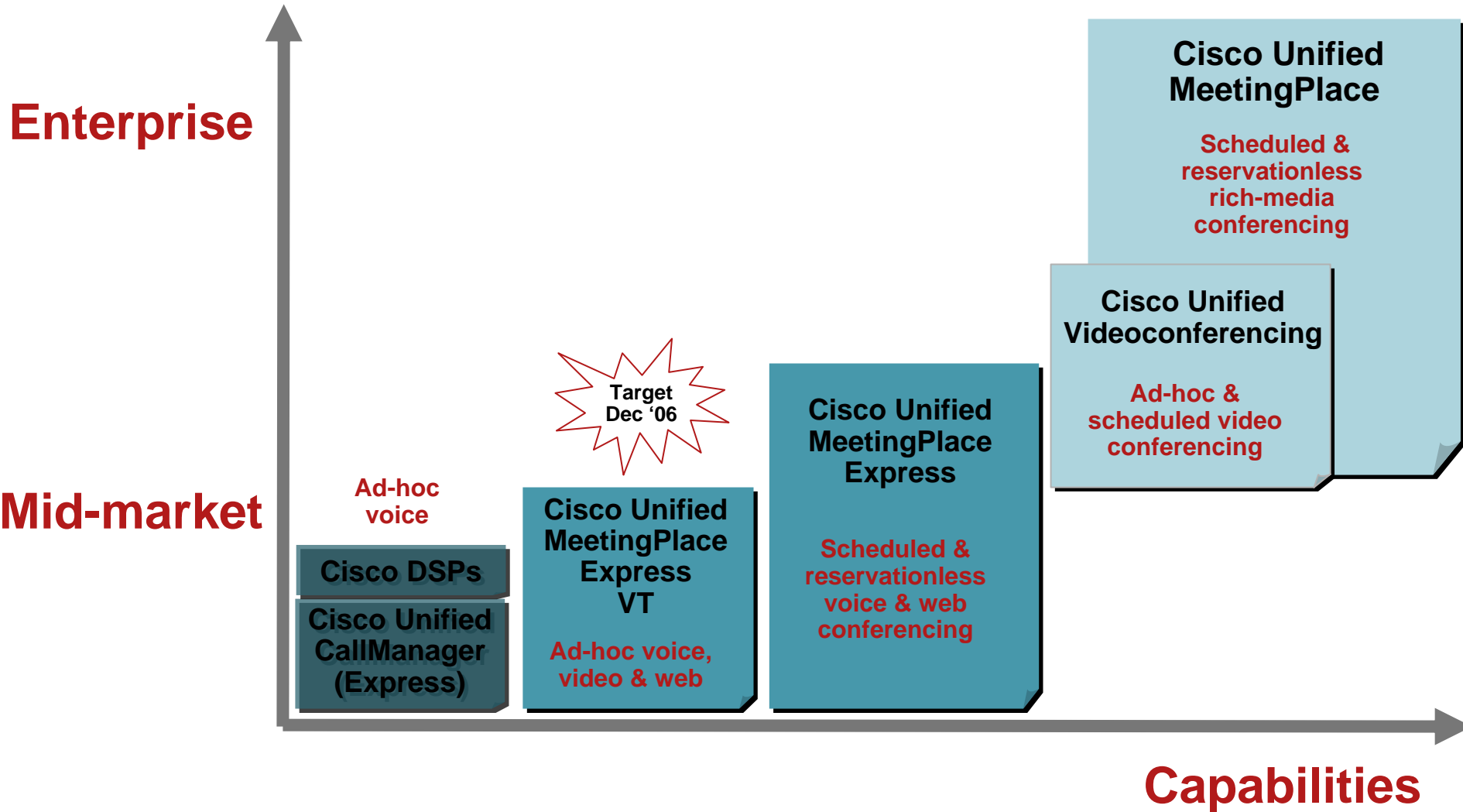
- Share-only Web Meeting provided via Cisco Unified MeetingPlace Express
- Click to escalate from within a conversation window (opens a browser window)
- When conversation is between 2 CUPC users, escalation happens in background
 - other non-CUPC users can be sent the share-only meeting URL to join



Cisco Conferencing



Cisco Conferencing Solutions



Capabilities Comparison

	MeetingPlace Express VT	MeetingPlace Express	MeetingPlace
Single-server deployment	✗	✗	
Telephony environments	CUCM (4.1 or later)	CUCM, CUCME, H.323, SIP	CUCM, CUCME, H.323, SIP, TDM
Maximum capacity (concurrent users)	20+ (voice, web & video)	200 voice, 120 web	1152 (T1-CAS), 960 (IP)
Scheduled meetings		✗ (Web, Outlook)	✗ (Web, phone, calendar)
E-mail notifications		✗ (text, HTML, Outlook)	✗ (text, RTF, calendar)
Reservationless meetings		✗	✗
Continuous meetings		✗	✗
Lecture-style meetings			✗
Impromptu (ad-hoc) meetings	✗		
Voice Conferencing	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
In-Meeting Information & Management	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
Web Conferencing	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
Video Conferencing	★ ★ ★		★ ★ ★ ★ ★
Integrations	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
Localizations	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
Enterprise Deployment	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
Security	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
Administration	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★

More ★'s = more capabilities.

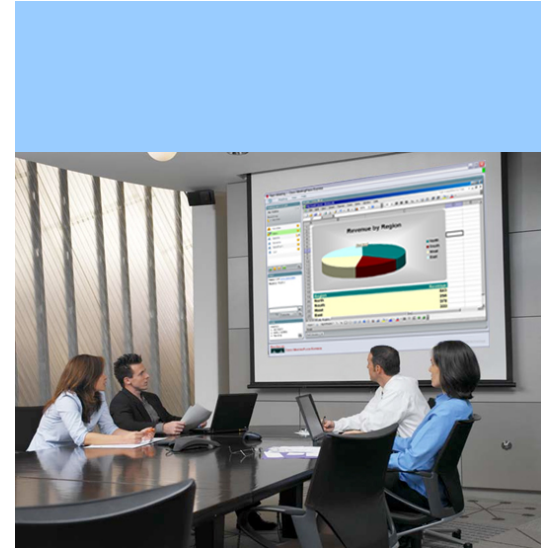
Cisco Unified MeetingPlace Express 1.1.3 & 1.2

Add conferencing to Unified Communications for cost savings and productivity

- Integrated Voice and Web conferencing
Scheduled and Reservationless

What's New

- Increase system capacity (Rel. 1.1.3)
120 to 200 concurrent voice users, 120 Web
- Microsoft Outlook Integration (Rel. 1.2)
- Updated Pricing
Lower priced volume purchase options
- FCS - 1.1.3 now & 1.2 in Dec 2006



MCS-7825-H2/I2-RC1
MCS-7835-H1/I1-RC1
MCS-7845-H1/I1-RC1

Cisco Unified MeetingPlace Express VT 1.2

Cost effective conferencing for Cisco video telephony environments



- Ad-hoc voice, video & Web conferencing
 - No scheduling, No reservationless
- Capacity - 20+ concurrent voice, video & web (TBD) users
- Separate deployment option
- For Cisco video telephony environments
 - Initiate conferences from Unified Personal Communicator & SCCP endpoints only
 - Alternative to Unified Videoconferencing MCU
- FCS December 2006



Cisco Unified Videoconferencing Manager



**Simple Setup,
Management,
Monitoring & Control
for Cisco Unified
Videoconferencing
Systems**

- **Simple Setup**
Schedule future and ad hoc conferences from the Web and Microsoft Outlook interfaces
- **Powerful Monitoring and Control**
Invite additional attendees, mute/un-mute participants and change video layout
- **Comprehensive Solution Management**
View of all video endpoints and network elements (MCUs and gateways)
Real-time monitoring, control and maintenance of each device from a single interface





Enhanced Endpoint Support



Cisco Unified PhoneProxy 802.1x Support

Cisco Unified PhoneProxy: Security and Mobility for Remote IP Communications

New

- **Secure Home-office/Remote Office IP Telephony**
 - Eliminates the need for – and cost of – VPN for IP phones deployed in employee home offices or remote offices
 - Extends enterprise phone features and access to remote workers
- **Protects Cisco Unified CallManager from Security Threats**
 - Secures Cisco IP Communicator traffic as it moves from data VLAN into voice VLAN
- **Scalable with high-availability**
 - Deployed in large enterprises with demonstrated reliability and resilience
- **Planned availability Q4 CY2006**



802.1X and IP Telephony

Requirement

- Phone only transmits on voice VLAN
- PC only transmits on data VLAN

Limitations in 802.1X spec

- Only one device per port in 1st version
- New version allows 2
- No authentication to a specific VLAN
- No binding to restrict an authenticated device to only transmit on authorized VLAN

Solution (long term)

- multi-domain-auth with binding and enforcement
- 802.1AE – Link-layer integrity
- 802.1af – Keying for 802.1AE



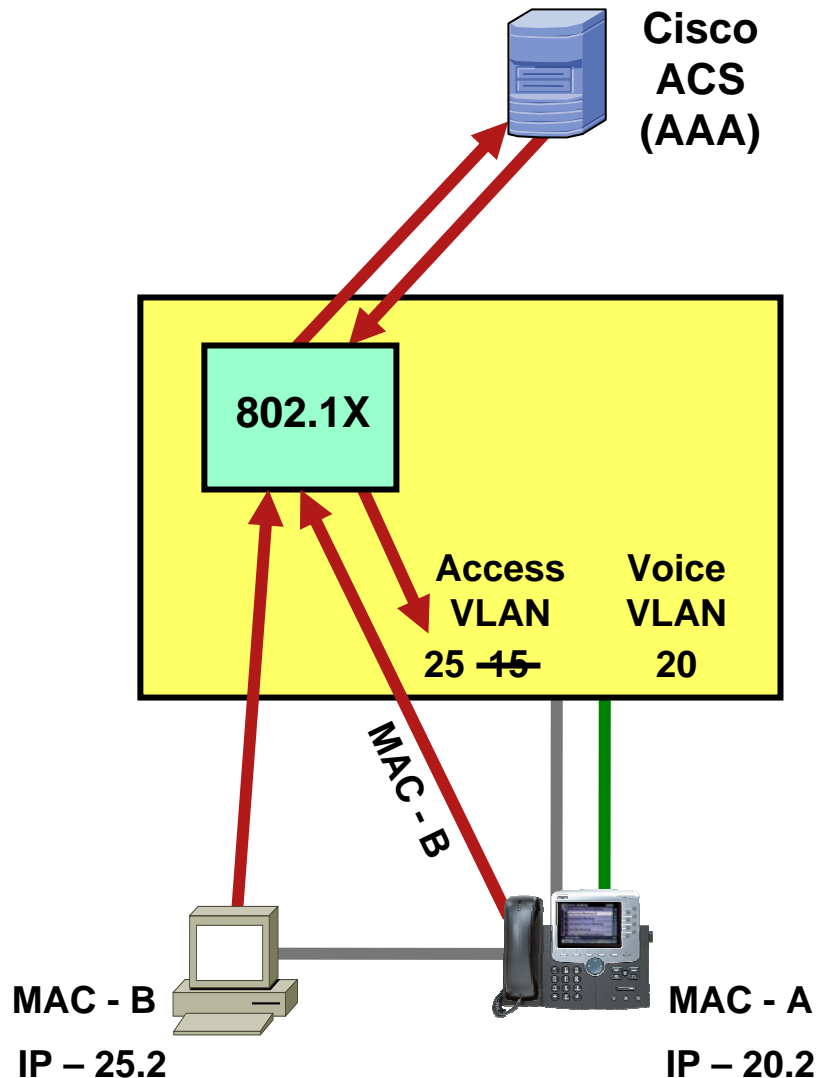
Landscape

- Many customers are asking for 802.1X in phones
- May not know what they're asking for
- Cisco phones support Proxy EAPOL-Logoff today

Phase 1 (Today): Proxy EAPOL-Logoff

- **Phone monitors EAPOL transactions between switch and attached PC**
- **Sends Proxy EAPOL-Logoff with link loss on PC port**
- **Supported since August 2005**
- **7940 / 7960 – 7.2(2)**
- **7911 / 7941 / 7961 / 7970 / 7971 – 7.0(1)**
- **Note: Continued support through future phases**

Phase 1 (Today): Proxy EAPOL-Logoff



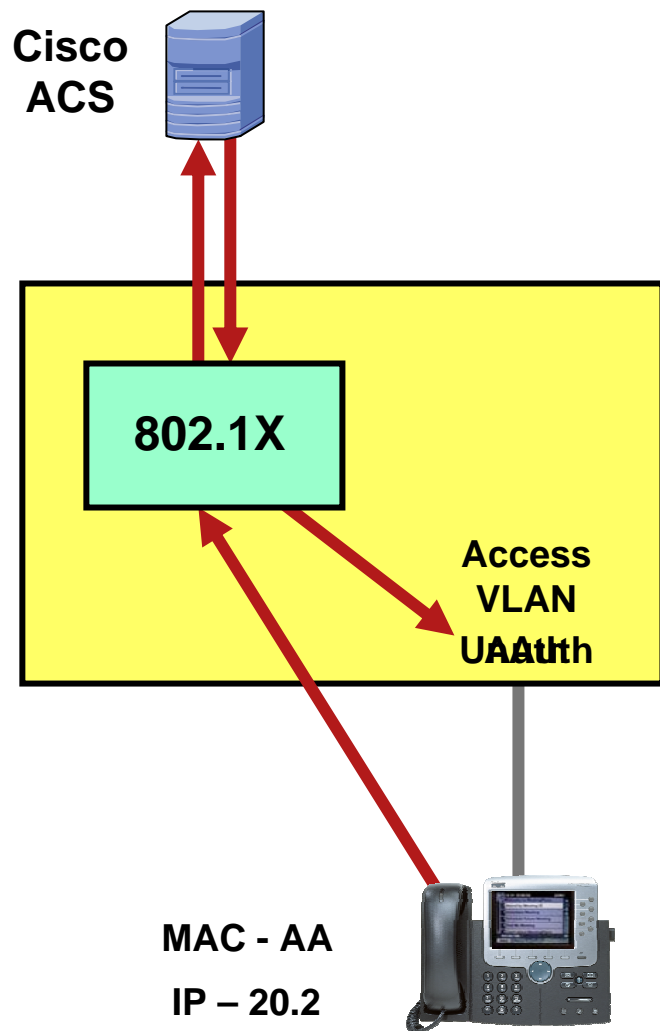
1. PC sends EAPOL-Logon – Phone watches
2. Authenticator queries AAA
3. AAA returns authorization with optional new VLAN ID
4. PC sends DHCP request
5. When PC disconnects, phone sends untagged EAPOL-Logoff

Phase 2 (Q406): MD5 Supplicant in Phones



- Phone Firmware version 8.2(1)
- Supported on 7911 / 7941 / 7961 / 7970 / 7971 phones only
- Credentials configured and stored in phones
- Supports PC's connected via phones
- Requires multi-domain-auth in switches
(allows one MAC per VLAN)

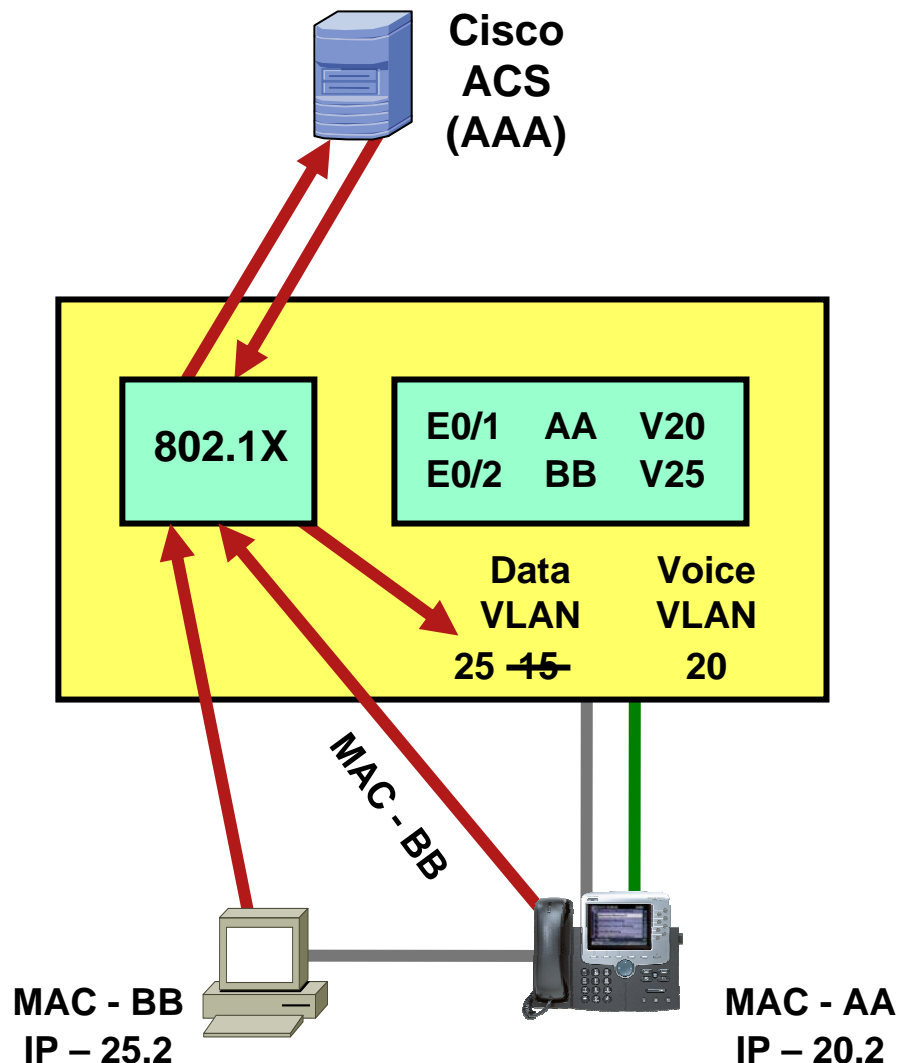
Phase 2 (Q406): MD5 Supplicant in Phones



1. Phone sends CDP / LLDP – ignored by switch
2. Phone sends EAP-MD5 – ACS validates credentials
3. ACS returns authorization with optional new VLAN ID^a
4. CDP no longer used for auth!
5. Phone restarts CDP and sends DHCP request

a. L3 policy (ACL) determines what an unauthorized phone can or cannot do

Phase 2 (Q406): Phone / PC / Switch Interaction



1. PC port is blocked until phone authenticates or timeout occurs
2. PC must initiate 802.1X authentication process
3. ACS returns authorization with optional new vlan ID^a
4. PC sends DHCP request
5. Proxy EAPOL-Logoff when PC disconnects – Binding is removed

Diverse

- IP Communicator 2.0(2)
Understøtter dansk localization
- 7920 Firmware version 3.0(1)
Understøtter dansk localization

Opkommende annoncering af næste generations virtuelle møder



Live Webcast, October 24, 2006, 17:00 CET

- Klik her (hyperlink):

[Cisco Innovation in Action: Transforming Your Business Experiences](#)

- Join Cisco President and CEO John Chambers and other executives for an announcement that will transform the meeting experience by allowing colleagues, customers, and partners around the world to communicate and collaborate like never before.

Learn how Cisco Systems continues to drive innovation that enables people to increase productivity and efficiency and how this latest innovation from Cisco gives your team extraordinarily high impact communications capabilities for greater competitive advantage.

