

TOMORROW starts here.



Cisco *live!*

Deploying Cisco Jabber Desktop Clients

BRKUCC-2480

Shane Long
Technical Marketing Engineer

Session Description

- Cisco Jabber clients provides the ability to communicate using instant messaging, voice, video and desktop collaboration.
- Jabber is built on open standards for interoperability and integrates with commonly used desktop business applications. Jabber allows an organisation to choose either cloud or on premise deployment to align with business requirements.
- This session is one of two related session. When booking this session please make sure you select the session which aligns to your deployment model.
- In this session we will explore the deployment process for ON-PREMISE deployment.
- Subjects covered in this session include On Premise solution components, directory requirements, IM & Presence, UC manager integration, voice, video, desktop sharing and collaboration, service discovery and remote access, Microsoft Office integration and client extensibility

Agenda

- Jabber On Premise Solution Architecture
- Users and Directory
- Unified Communications
- Certificate Validation
- Service Discovery and Remote Access
- SIP URI Dialling Dialling
- Persistent Chat
- Custom Contacts
- Accessory Support
- Integration with Microsoft Office
- Summary



Planned
Deployments

=



Successful
Deployments

Cisco Jabber Product Portfolio



- **All-in-one UC Application**
- Presence & IM
- Voice, Video, voice messaging
- Desktop sharing, conferencing

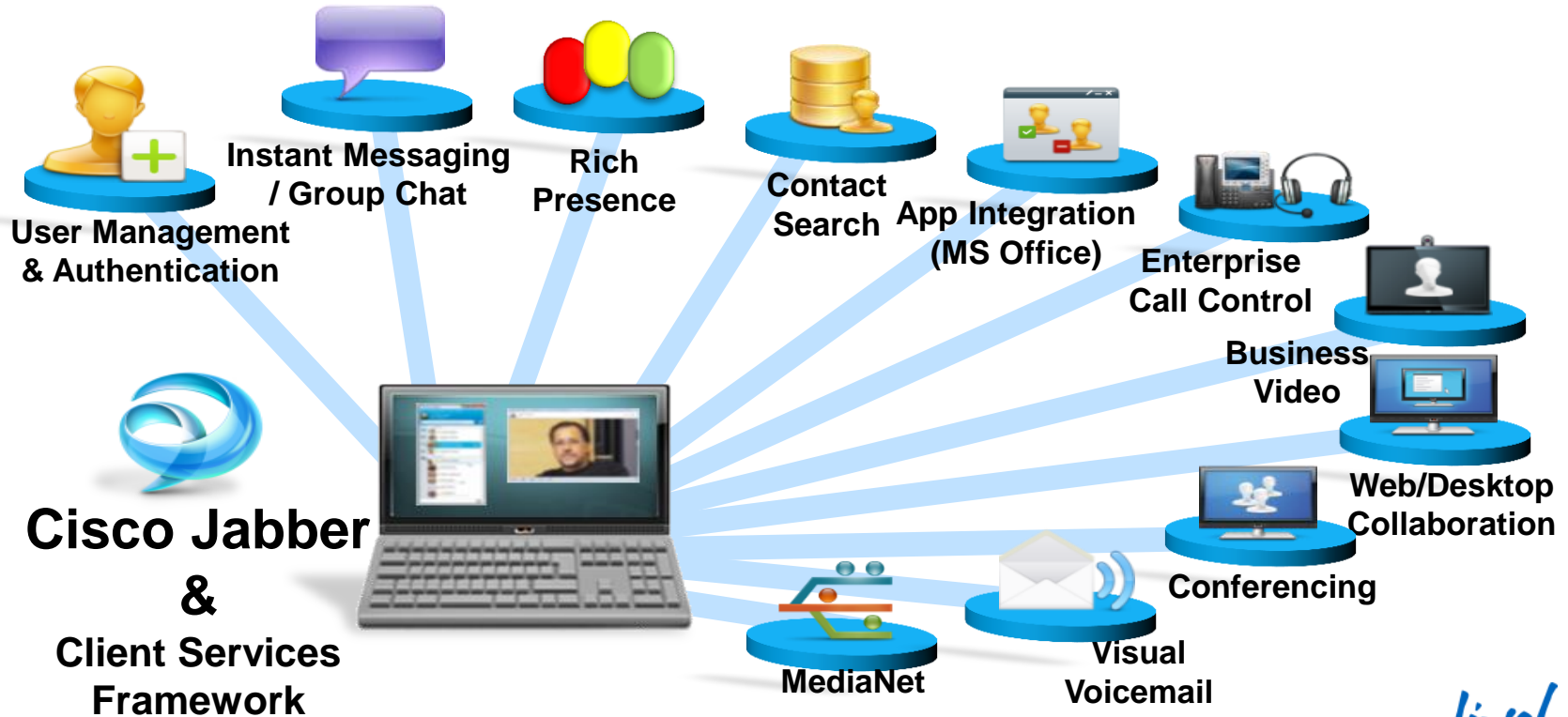
Collaborate from any Workspace

PC, Mac, tablet, smart phone

On-premises and Cloud

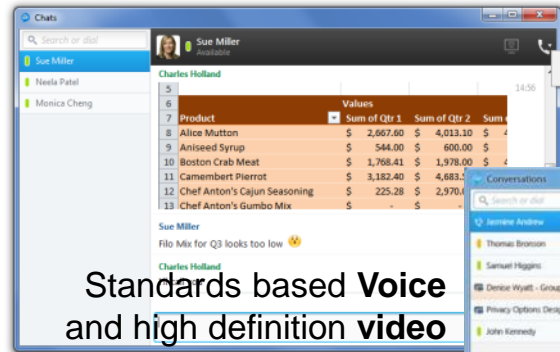
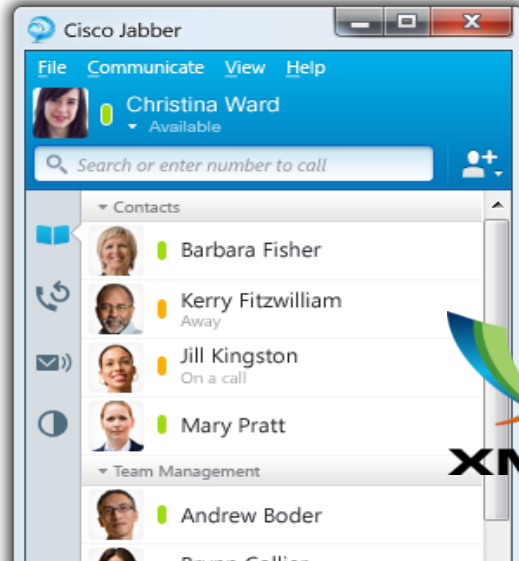
Integration with Microsoft Office

Cisco Jabber - Workflows



A Brief Tour of Jabber

Cisco Jabber provides you a hub view. The hub view displays **contacts** with **presence** and provides **search** capabilities

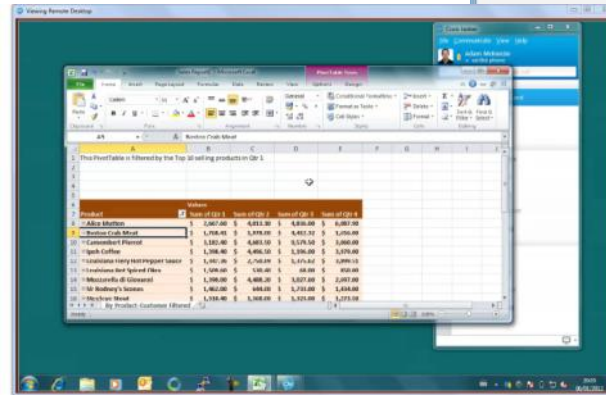


Standards based **Voice** and high definition **video** calling

Chat, Group Chat, Federated Chat, Chat history, File Transfer, Screen Capture and Emoticons



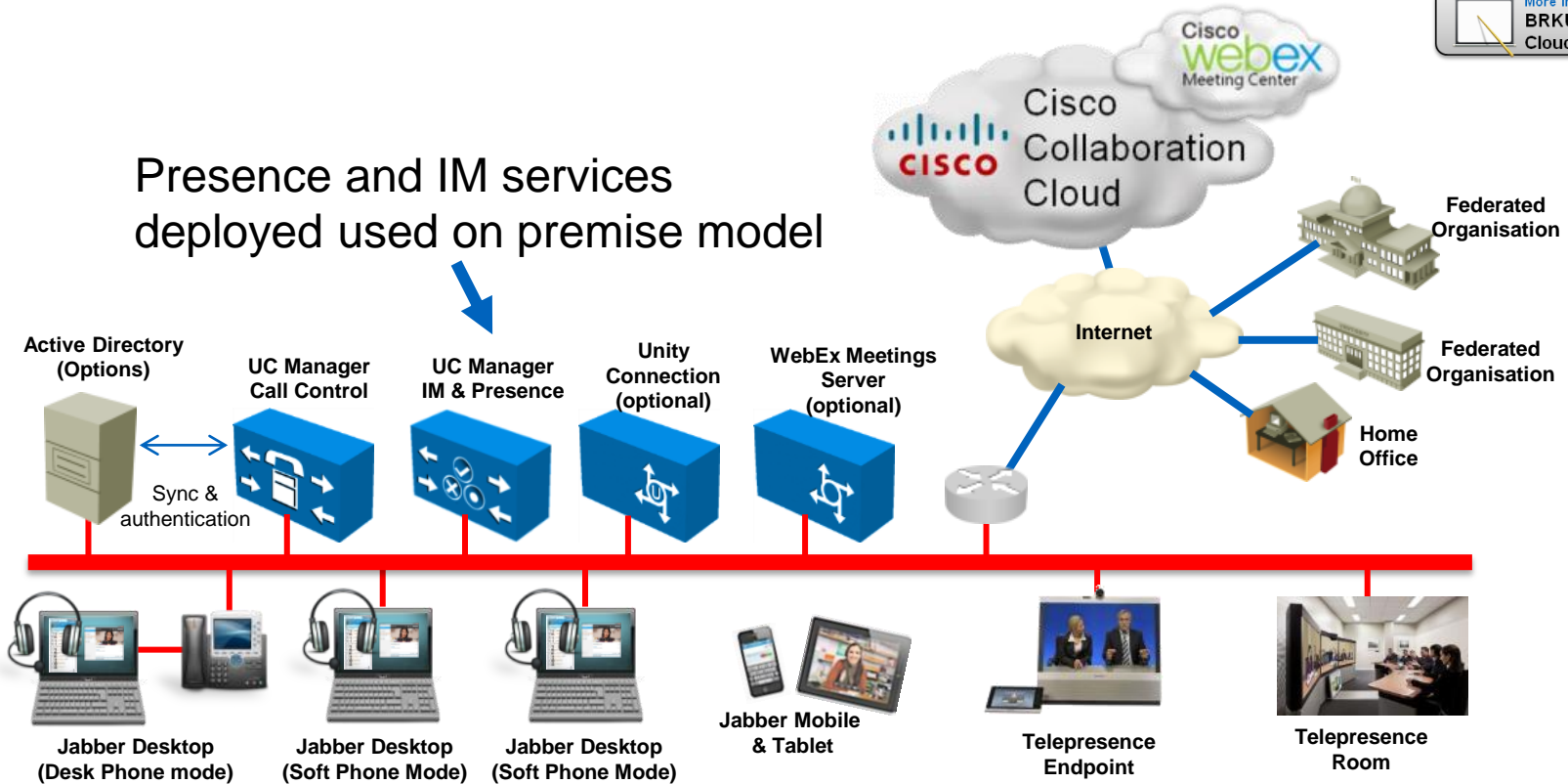
Collaboration using **Desktop sharing** and **Web Conferencing**



On Premise Architecture

More Information on Jabber Cloud
BRKUCC-2355
Cloud Deployment

Presence and IM services
deployed used on premise model



Deployment Flexibility

- Start with the features you need

Start Solution with...

 **Instant Messaging**



Jabber IM Only
(Includes Jabber for Everyone and desk phone control)

Start Solution with...

 **Voice & Video**



**Jabber Phone Mode
Media Termination**



Start Solution with...

 **Unified Comms**



Jabber Full UC
IM and Media Termination



In place migration to ...

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Creating Jabber Users

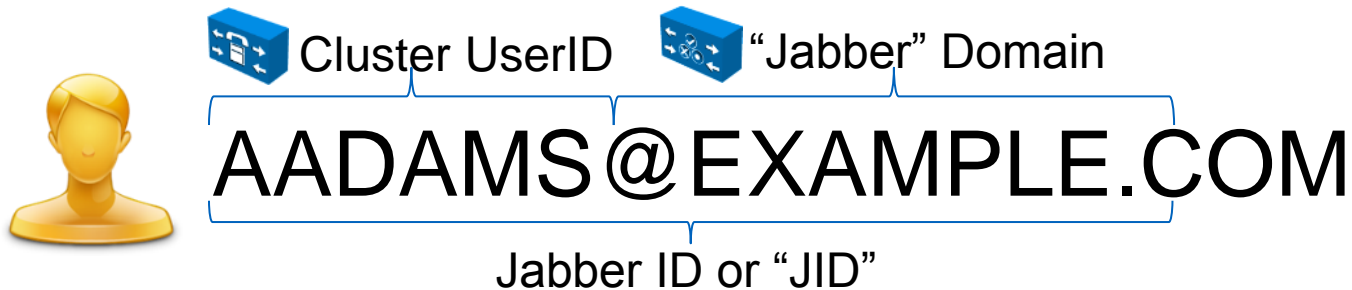
Summary of tasks to Configure Jabber IM&P User



1. Setup base infrastructure
2. Create/Sync Users in CUCM
3. Enable Users for Presence/Client Access
4. Configure Contact Source Access
5. Review Jabber Certificate Validation
6. Configure DNS System for Service Discovery

Creating Jabber Users

Deciding on User Jabber IDs (JID)



- Consider your Jabber domain carefully, **you’ll live with it for a while!**
- Multi-modal communications address (Email, IM, Voice, Video & Federation)
- User created on UC Manager (can be synced from LDAP, AD Server)
- User is authenticated (can be authenticated from LDAP/AD)
- Presence domain is configured on Presence server

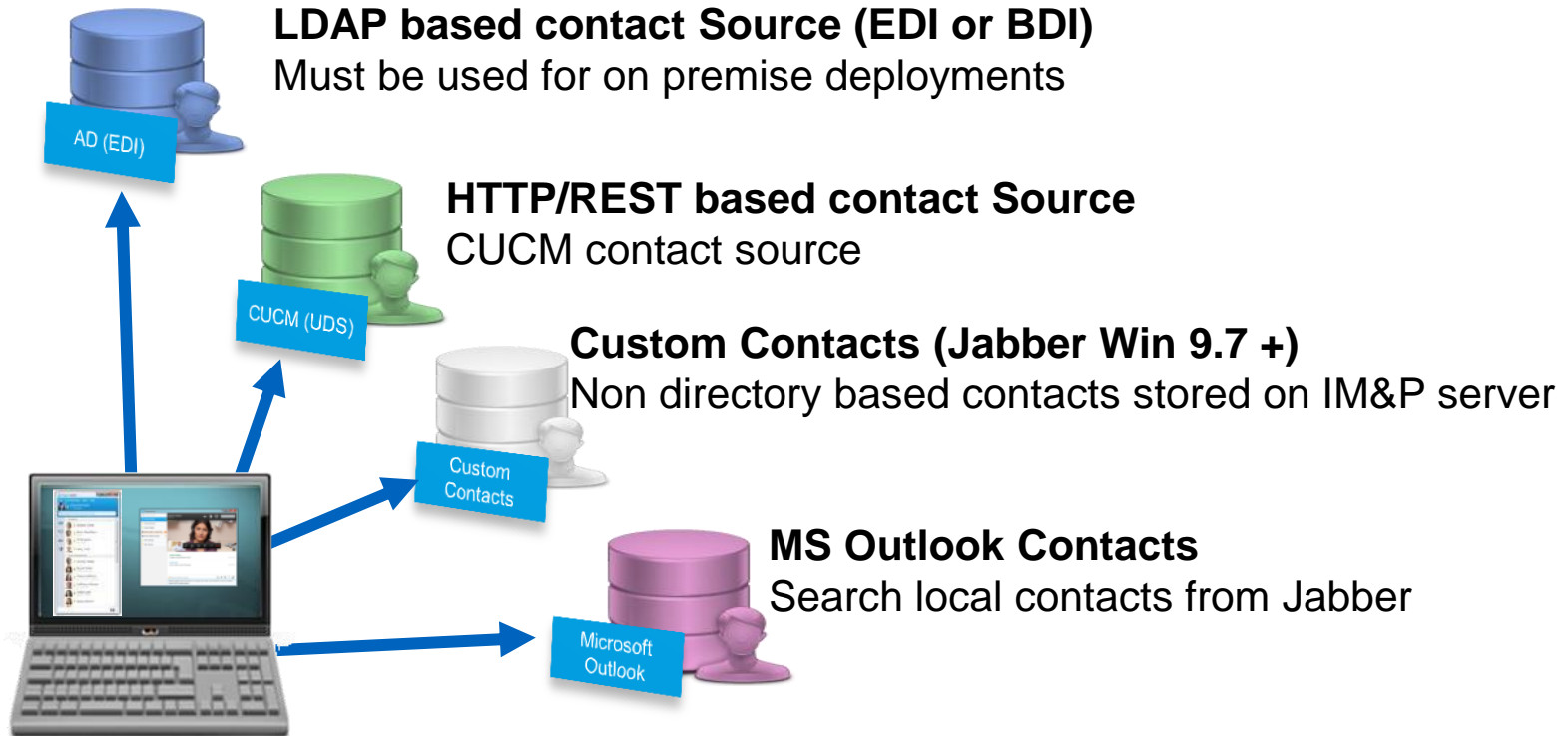
Jabber Contact Sources

Introduction

- Jabber search the directory to add contacts, resolve contacts and phone numbers.
- What directory does the organisation use? Do they use more than one?
- Which Jabber Contact Source are we going to deploy
- You need to understand the directory infrastructure
 - Directory Architecture (AD?, Domain?, Forest)
 - Attribute Usage / Mapping (custom attributes)
 - Connection Parameters (LDAP / LDAPS, DC / GC, Ports)
 - Data completeness / Data quality (Phone Formats?)
 - Phone numbers should not include space, dash or bracket etc.

Jabber Contact Sources

What can be used



Jabber Contact Sources

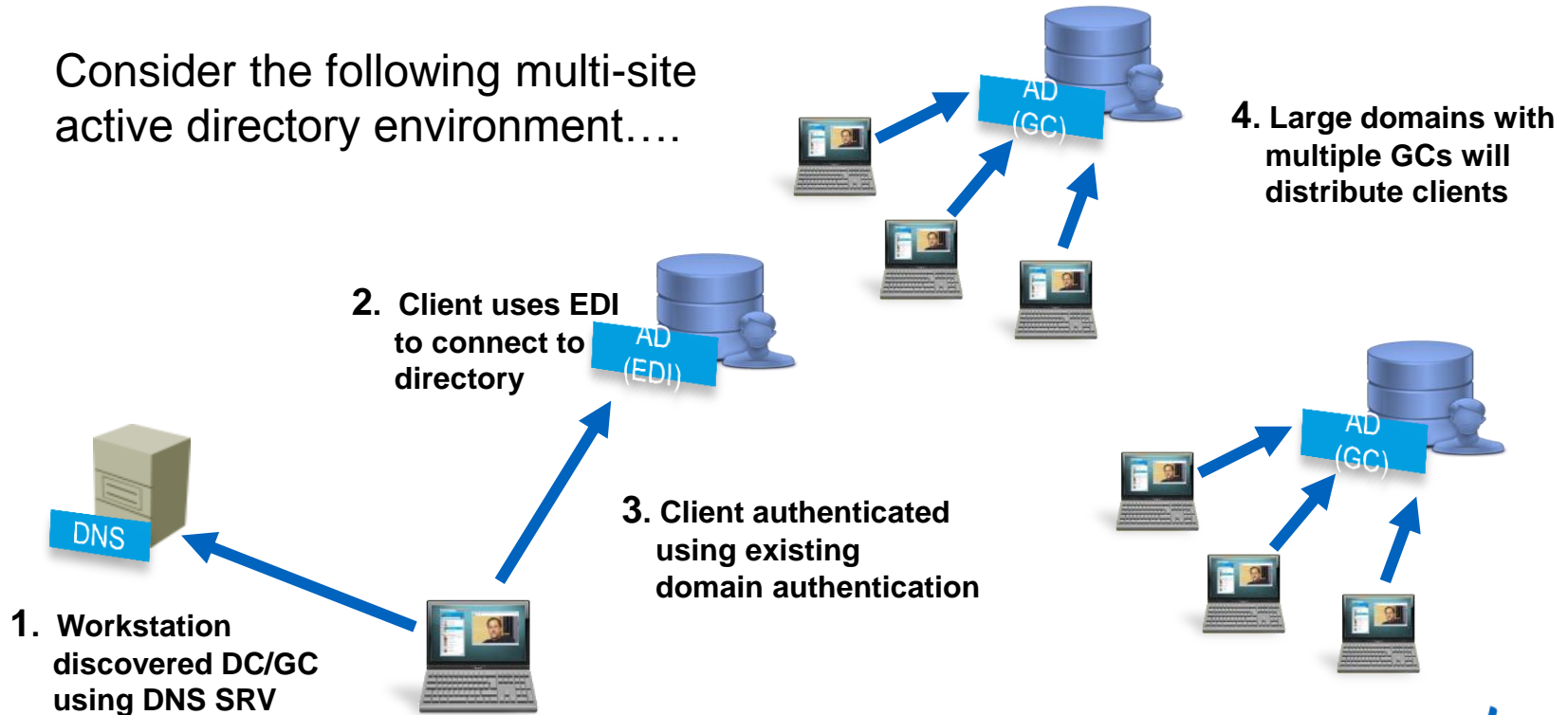
EDI : Enhanced Directory Integration (LDAP)

- **On Premise Jabber for Windows by default uses auto-discovery for LDAP directory access (EDI Mode)**
- **Workstation MUST be a member of a domain for auto discovery to work**
- Jabber connects to a Global Catalog server in the current domain (windows selects exact GC, so distributes load)
- Jabber uses encrypted authentication to directory based on current logged on user (workstation)
- Ambiguous name resolution (ANR) is used for search, ANR is more efficient and uses less server resources than other search methods.

Jabber Contact Sources

EDI : Enhanced Directory Integration (LDAP)

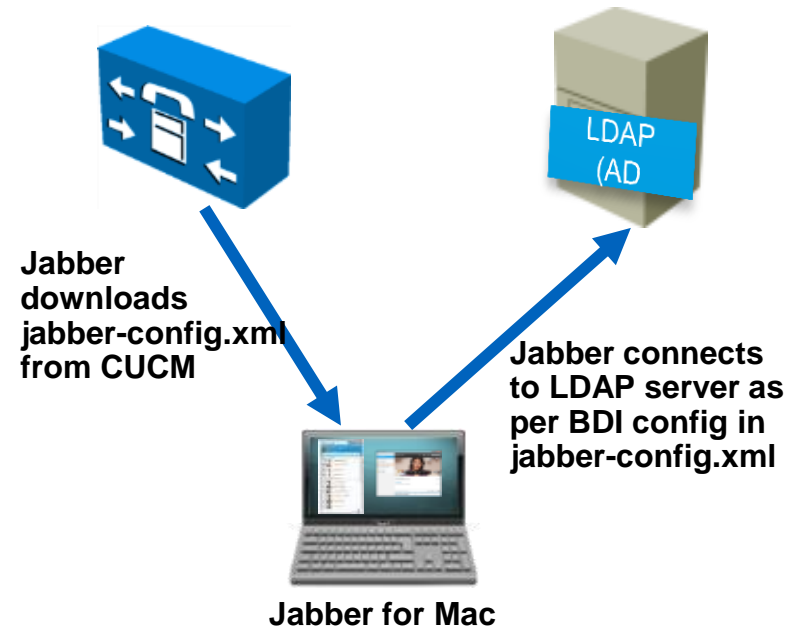
Consider the following multi-site active directory environment....



Jabber Contact Sources

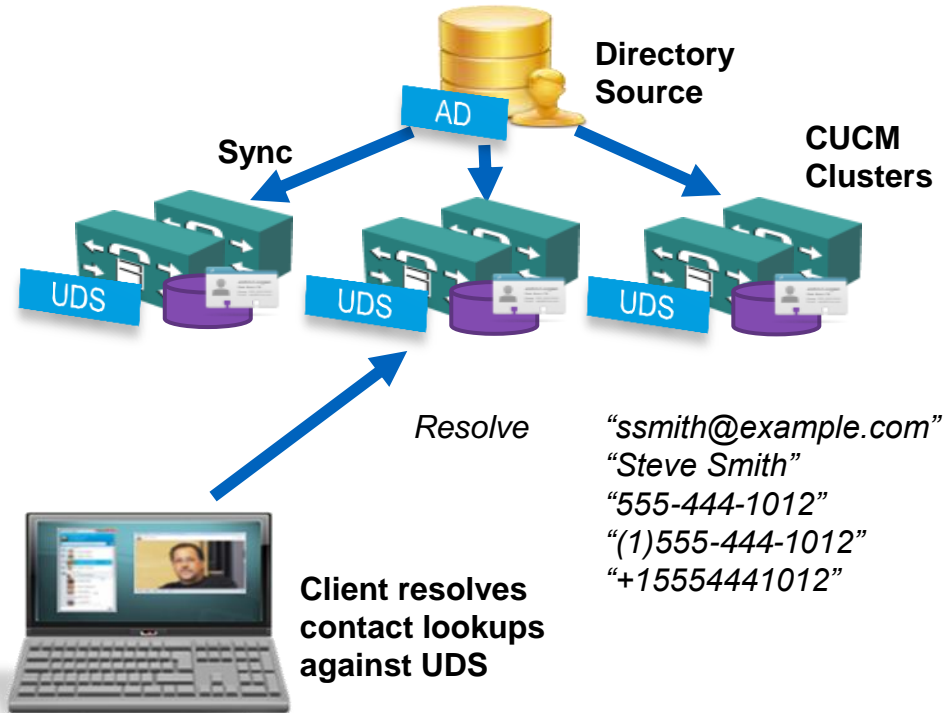
BDI : Basic Directory Integration (LDAP)

- **On Premise Jabber for Mac must use a BDI integration to the LDAP server for directory integration**
- BDI uses a common application username and password to access the LDAP server which is used
- BDI configuration is obtained from the jabber-config.xml
- BDI is also used for Jabber mobile clients



Jabber Contact Sources

UDS – User Data Services (Contact Service)



- The UDS directory integration is used when Jabber clients are connected via Remote and Mobile Access.
- UDS is not used on premise for Jabber 9.6 + deployments

Jabber Contact Sources

Jabber Config File – Directory Section

<Directory>

```
<!-- EDI Settings -->
<SearchBase1>OU=Employees,OU=AllUsers,DC=example,DC=com</SearchBase1>
<PhotoURISubstitutionEnabled>True</PhotoURISubstitutionEnabled>
<PhotoURISubstitutionToken>sAMAccountName</PhotoURISubstitutionToken>
<PhotoURIWithToken>http://photos.example.com/photo/sAMAccountName.jpg</PhotoURIWithToken>

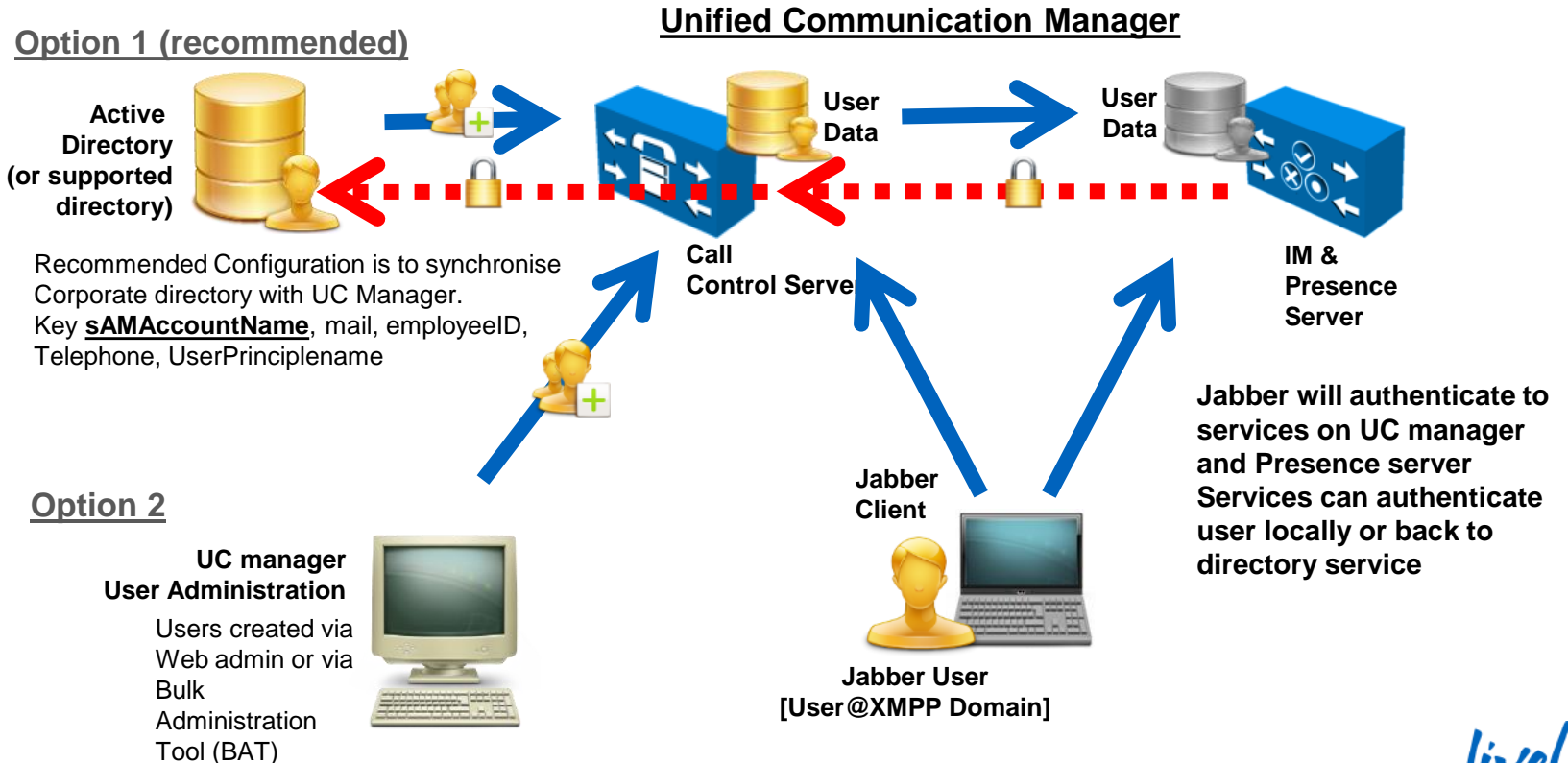
<!-- BDI Settings -->
<BDIPrimaryServerName>ds.example.com</BDIPrimaryServerName>
<BDIConnectionUsername>readonly@example.com</BDIConnectionUsername>
<BDIConnectionPassword>readonly</BDIConnectionPassword>
<BDISearchBase1>OU=Employees,OU=AllUsers,DC=example,DC=com</BDISearchBase1>
<BDIPhotoURISubstitutionEnabled>True</BDIPhotoURISubstitutionEnabled>
<BDIPhotoURISubstitutionToken>sAMAccountName</BDIPhotoURISubstitutionToken>
<BDIPhotoURIWithToken>http://photos.example.com/photo/sAMAccountName.jpg</BDIPhotoURIWithToken>
<EnableLocalAddressBookSearch>>true</EnableLocalAddressBookSearch>

<!-- UDS Settings for Edge users only -->
<UDSPhotoURIWithToken>http://photos.example.com/photo/%%uid%%.jpg</UDSPhotoURIWithToken>
```

</Directory>

Adding Users as UC Manager Users

Creating Jabber Users



Adding Users as UC Manager Users

LDAP Sync – SIP URI Attribute

Standard User Fields To Be Synchronized	
Cisco Unified Communications Manager User Fields	LDAP Attribute
User ID	sAMAccountName
Middle Name	middleName ▼
Manager ID	manager
Phone Number	telephoneNumber ▼
Title	title
Mobile Number	mobile
Directory URI	mail ▼

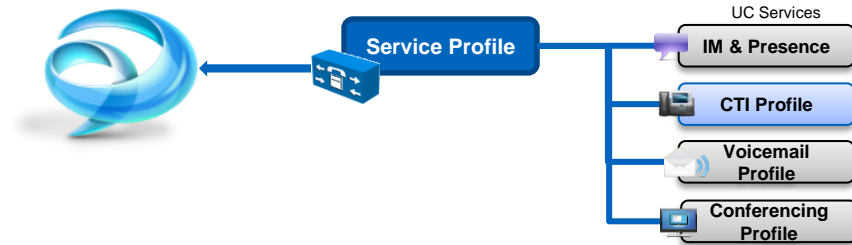
Standard User Fields To Be Synchronized	
Cisco Unified Communications Manager User Fields	LDAP Attribute
User ID	sAMAccountName
Middle Name	middleName ▼
Manager ID	manager
Phone Number	telephoneNumber ▼
Title	title
Mobile Number	mobile
Directory URI	msRTCSIP-primaryuseraddress ▼

- mail – email address attribute
 - Jabber SIP URI address in CUCM
 - Recommended attribute for SIP URI
-
- msRTCSIP-primaryuseraddress-
Lync/OCS SIP URI attribute
 - Only available where Lync/OCS installed
 - May be useful in migration federation scenario



Adding Users as UC Manager Users

Service Profiles

- Services Profiles detail the configuration and address of UC services
- Service Profiles are configured on CUCM in 9.x and later.
- Jabber desktop clients read service profile information for the following services
 - Voicemail
 - Conferencing
 - IM and Presence
 - CTI



IM&P Service Profile

Status	
	Status: Ready
Add a UC Service	
UC Service Type:	IM and Presence
Product Type*	Unified CM (IM and Presence) <input type="text"/>
Name*	CUP9 <input type="text"/>
Description	CUP9 Server <input type="text"/>
Host Name/IP Address*	10.53.54.101 <input type="text"/>
<input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Copy"/> <input type="button" value="Reset"/> <input type="button" value="Apply Config"/> <input type="button" value="Add New"/>	
	*- indicates required item.

Adding Users as UC Manager Users

Device Configuration

CUCM 9.x

- The Device Owner User ID must be mapped on the device to link the service profile to a user – service profile maintained on CUP in 9.x environments
- If Owner User ID is not specified, user will use the default service profile
- IM only users use the default service profile

- Custom Jabber-Config file name
- (Default = jabber-config.xml)

CUCM 10.x

- On sign in UDS delivers the users specific service profile. No device association required

Owner	<input checked="" type="radio"/> User <input type="radio"/> Anonymous (Public/Shared Space)
Owner User ID*	<input type="text" value="cholland"/>

Cisco Support Field	<input type="text" value="configurationfile=Jabber-Config-Galway.xml"/>
---------------------	---

Adding Users as UC Manager Users

User Configuration

- Assign user to Home Cluster (Service Discovery)
- Enable IM & P for user
- Assign Appropriate UC Service Profile to user

Service Settings

Home Cluster

Enable User for Unified CM IM and Presence (Configure IM and Presence in the associated UC Service Profile)

Include meeting information in presence(Requires Exchange Presence Gateway to be configured on CUCM IM and Presence server)

[Presence Viewer for User](#)

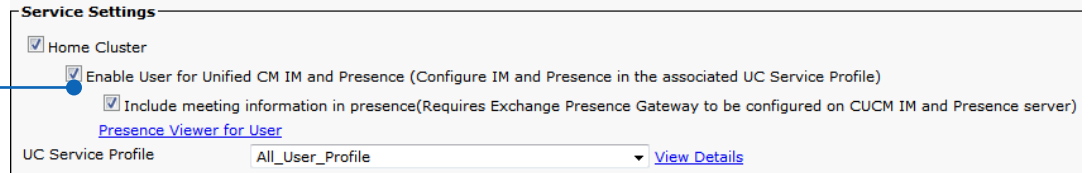
UC Service Profile [View Details](#)

Miscellaneous

- Assign device to the user and associate device to user
- Add user to appropriate permission groups
- Enable Mobility (e.g. Extend and Connect)

Syncing Users to IM & P

Enable users for IM & P



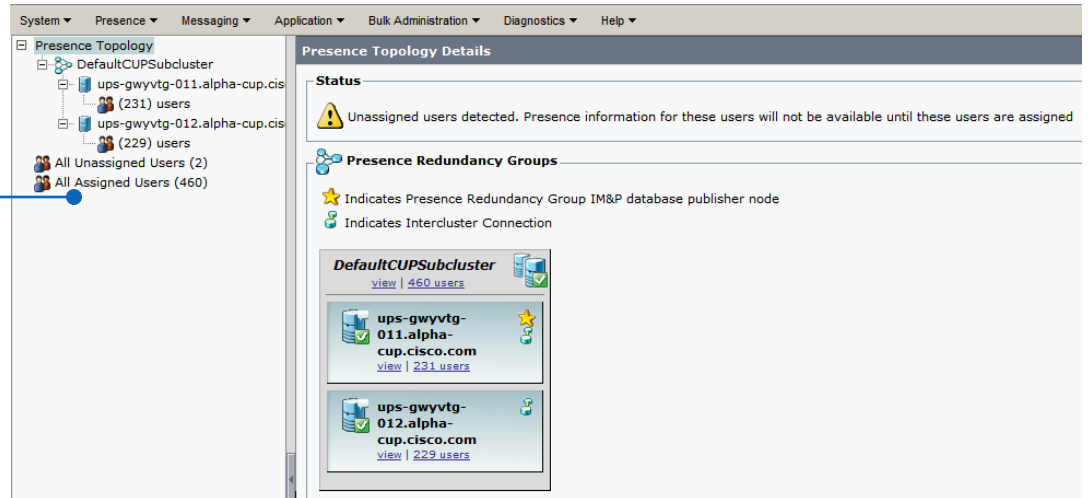
Service Settings

- Home Cluster
- Enable User for Unified CM IM and Presence (Configure IM and Presence in the associated UC Service Profile)
 - Include meeting information in presence (Requires Exchange Presence Gateway to be configured on CUCM IM and Presence server)

[Presence Viewer for User](#)

UC Service Profile: [View Details](#)

Users synced across all nodes



System ▾ Presence ▾ Messaging ▾ Application ▾ Bulk Administration ▾ Diagnostics ▾ Help ▾

Presence Topology

- DefaultCUPSubcluster
 - ups-gwyvtg-011.alpha-cup.cis (231) users
 - ups-gwyvtg-012.alpha-cup.cis (229) users
 - All Unassigned Users (2)
 - All Assigned Users (460)

Presence Topology Details

Status

⚠ Unassigned users detected. Presence information for these users will not be available until these users are assigned

Presence Redundancy Groups

- ★ Indicates Presence Redundancy Group IM&P database publisher node
- 🌐 Indicates Intercluster Connection

DefaultCUPSubcluster
[view | 460 users](#)

- ups-gwyvtg-011.alpha-cup.cisco.com**
[view | 231 users](#)
- ups-gwyvtg-012.alpha-cup.cisco.com**
[view | 229 users](#)

- IM & P nodes can also be used as HA nodes

Certificate Validation

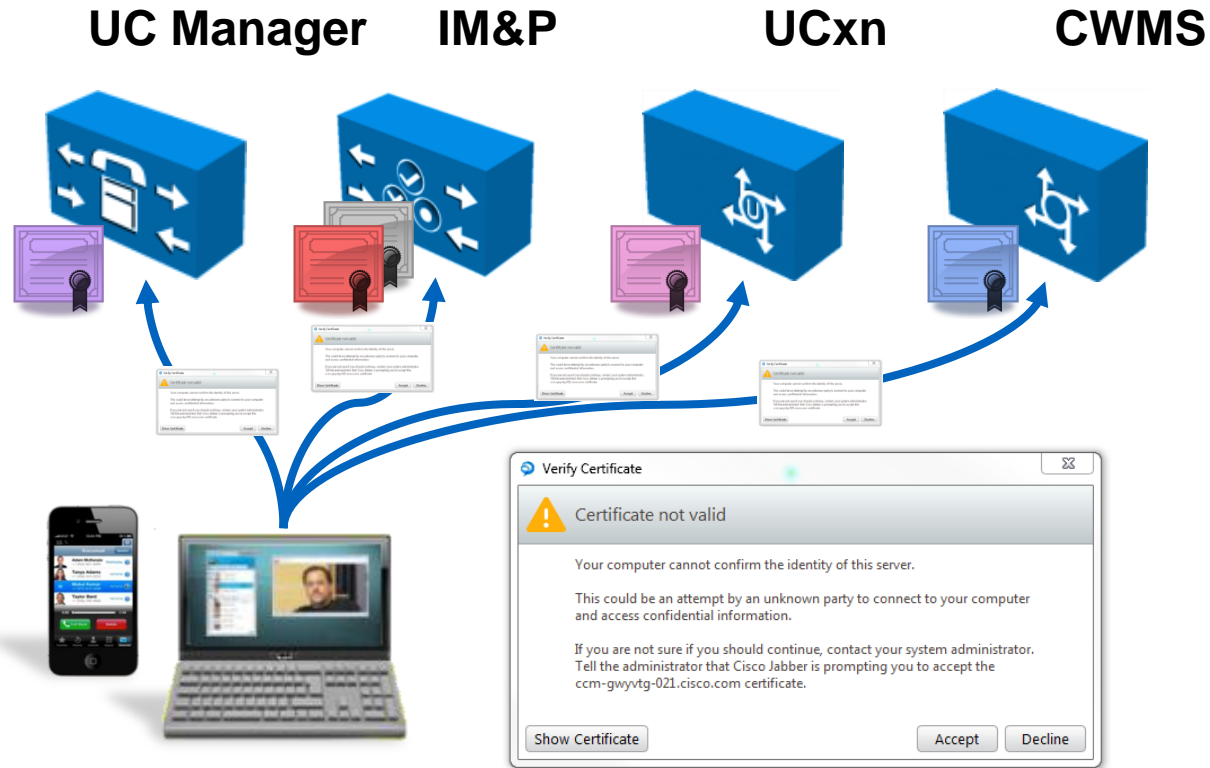
Jabber Certificate Management

- In order to enhance the security environment of our Cisco Collaboration solution Cisco Jabber clients will shortly default to validate all server certificates in order to establish secure connections between client and server.
- Administrators will need to decide if they want to deploy CA signed certificates to services used by Jabber.
- Jabber clients with this enhancement will prompt end users if a invalid or self signed certificate is presented by a service.



Certificate Validation

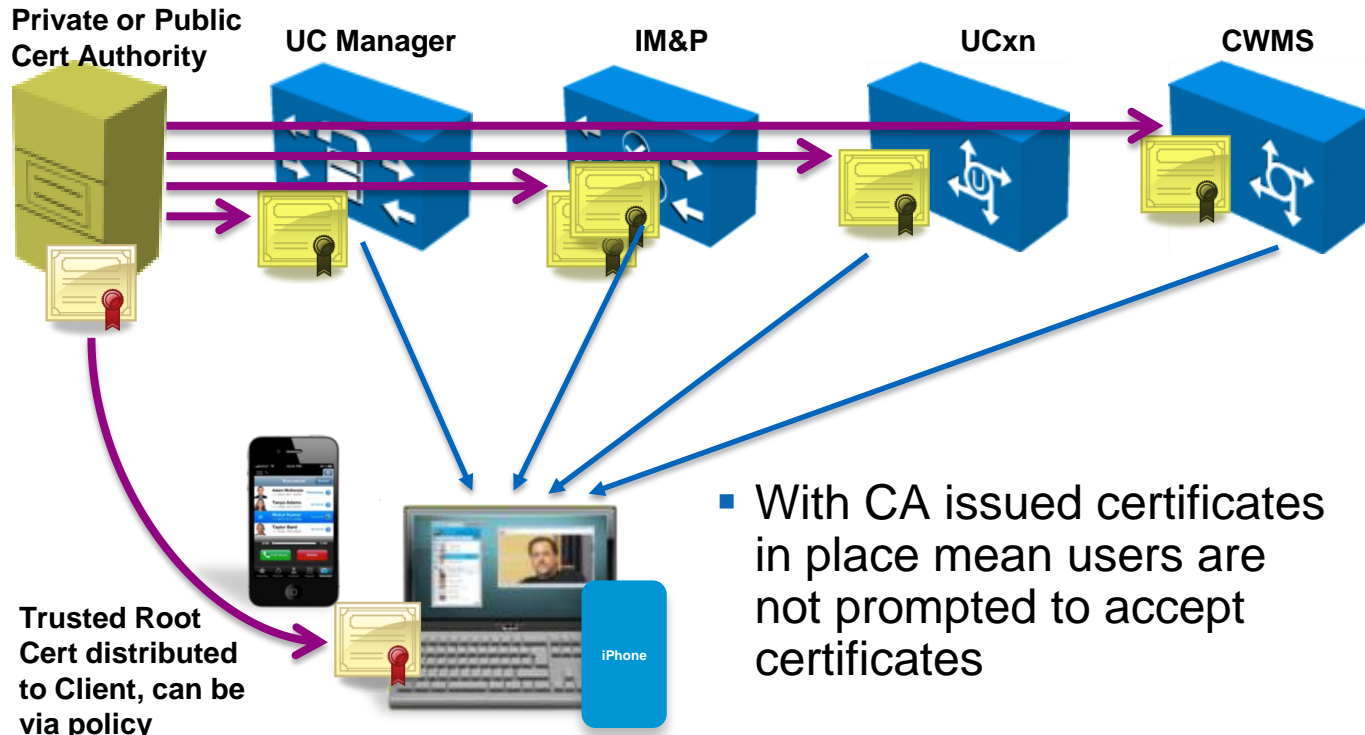
Self Signed Option



- Jabber will validate certificates.
- When Jabber receives a new certificate it will prompt the user to accept each certificate
- If the user accepts the certificate it will be added to the users device.
- For windows the users enterprise trust certificate store is used.

Certificate Validation

Private/Public CA Option



Trusted CA issued certificates installed on each server in cluster

UC Manager

Tomcat Cert

IM & P

Tomcat and XMPP Cert

Unity Connection

Tomcat Cert

WebEx Meeting Server

Tomcat Cert

- CAPF functionality uses CTL files so not affected by this change.

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Certificate Validation

What do I need to do

- Jabber clients will now validate infrastructure certificates (UC manager, Unity, IM&P etc)
- Administrators have two options

Self Signed Certificates (Less Configuration)	Public/Private CA issued certificates (Most Secure)
<p>Jabber user accepts certificates using Jabber prompt and Jabber adds to into enterprise certificate store.</p> <p>-- OR --</p> <p>Admin pre distributes all self signed certificates to users certificate store</p>	<ul style="list-style-type: none">• Administrator replaces infrastructure self signed certs with public or private CA issued certificates• Administrator installs CA certificates on each node within a cluster• Root Certificate from CA needs to be published to user workstations

- To distribute certificate an administrator can use tools such as Microsoft group policies.
- When deploying Jabber pre plan how you will manage certificates

Service Discovery

What is it?

- Aims to streamline Jabber configuration and sign in process
- Allows Jabber to establish operating mode
 - On premise deployment
 - Cloud based deployment
 - Hybrid Cloud based deployment
- Users and devices must be configured on CUCM and IM & P/WebEx Messenger prior to discovery
- Can leverage user **email address, existing cache information, msi transformation (Windows) or URI Configuration (Mac)** to locate and connect to UC services

Service Discovery

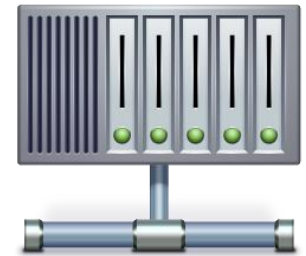
HTTP CAS Lookup and SRV Records

- Jabber will query DNS for SRV records based on user domain in parallel

Priority	Service	HTTPRequest/DNS SRV
1	WebEx Messenger	HTTP CAS lookup
2	UC Manager 9.x	_cisco-uds._tcp.example.com
3	Cisco Presence 8.x	_cuplogin._tcp.example.com
4	Collaboration Edge	_collab-edge._tls.example.com

- The highest priority returned record will be used for service the discovery process.
- Even if you are on prem you may own a WebEx Messenger domain!!

DNS Server



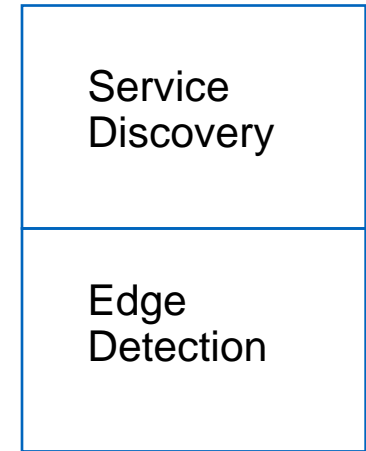
`http://loginp.webexconnect.com/cas/FederatedSSO?org=<domain>`

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Service Discovery

Edge Detection and Service Discovery – 2 layer process

- Service Discovery consists of two layers
 - Edge Detection
 - Service Discovery
- Edge Detection determines whether Jabber is inside or outside the corporate firewall
 - Based on SRV records returned from DNS
 - `_collab-edge` -> outside corporate firewall
 - HTTP transform all traffic and route through expressway-e
 - `_cisco-uds` -> inside the company firewall
 - Do not transform traffic and route to appropriate service
- Service discovery is used to obtain login service
 - Based on highest priority SRV record returned



JCF

Service Discovery

How Jabber gets discovery domain

- Email Address
 - User enters username@domain.com when Jabber starts for the first time
 - Zero admin configuration
- Existing Cache
 - Jabber locates service discovery domain from cache
 - Migration
- MSI Transform (Windows only)
 - Jabber locates service discovery domain from bootstrap file
 - Ability to configure separate domain for remote access
- URI Configuration (Mac, IOS and Android)
 - Jabber locates service discovery domain from URI
 - Ability to configure separate domain for remote access

Service Discovery

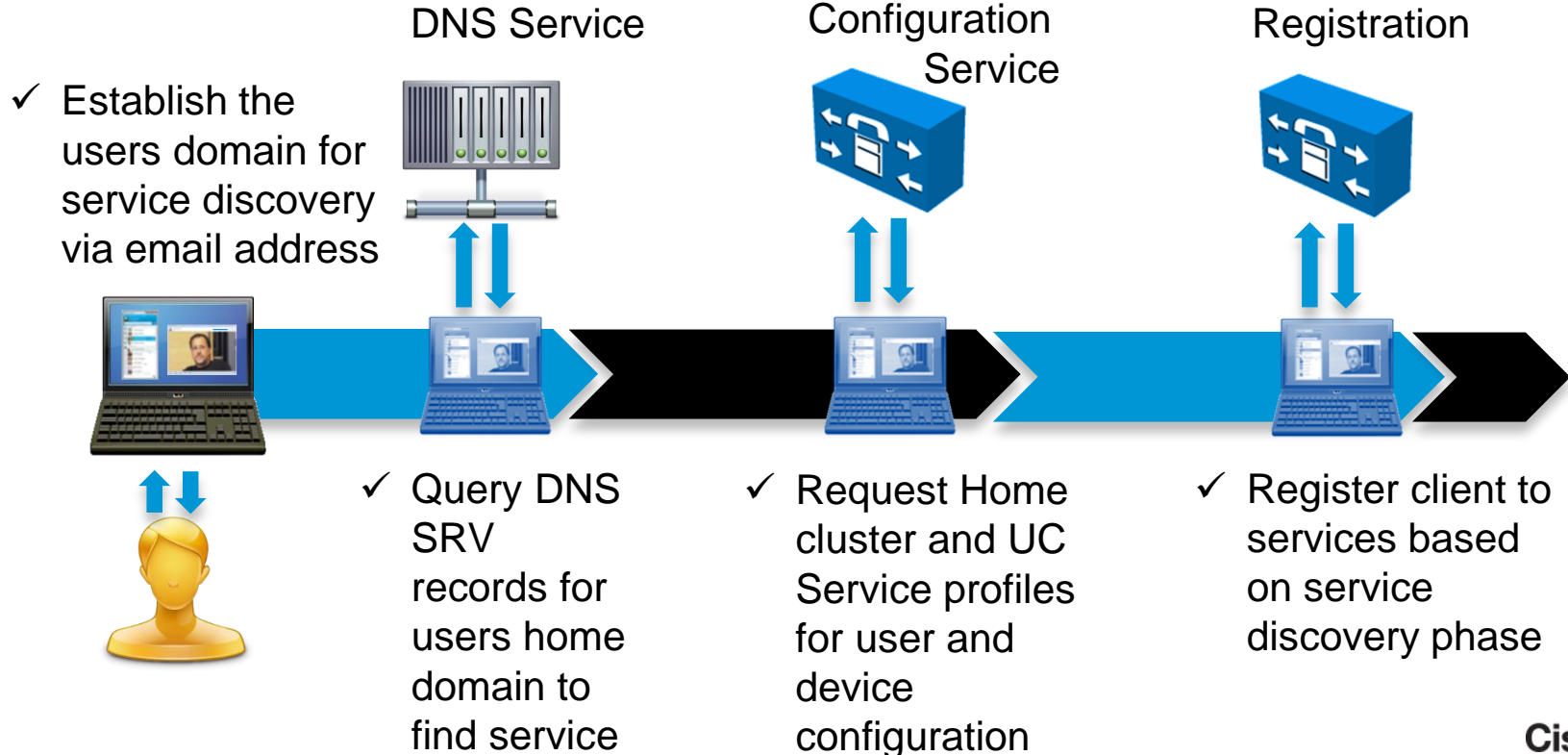
Email Address

- When Jabber is installed on the first run the user is asked to enter their email address.
- Jabber will use this address to establish the domain to query for service discovery.
- Jabber will also allow manual configuration to be performed if required via manual setup option.
- If service discovery fails manual configuration will be used



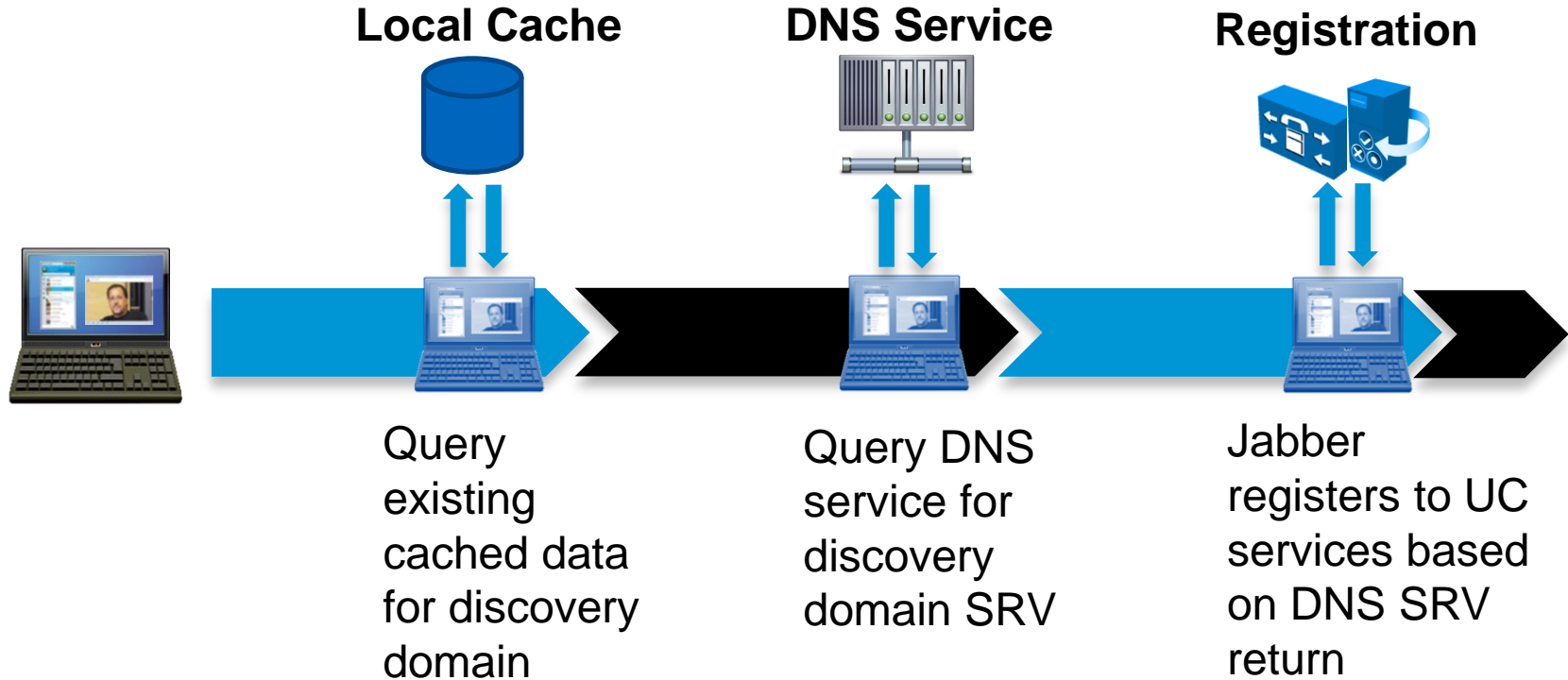
Service Discovery

Email Address Discovery Flow



Service Discovery

Cached Configuration Discovery Flow



Service Discovery

MSI Transformation

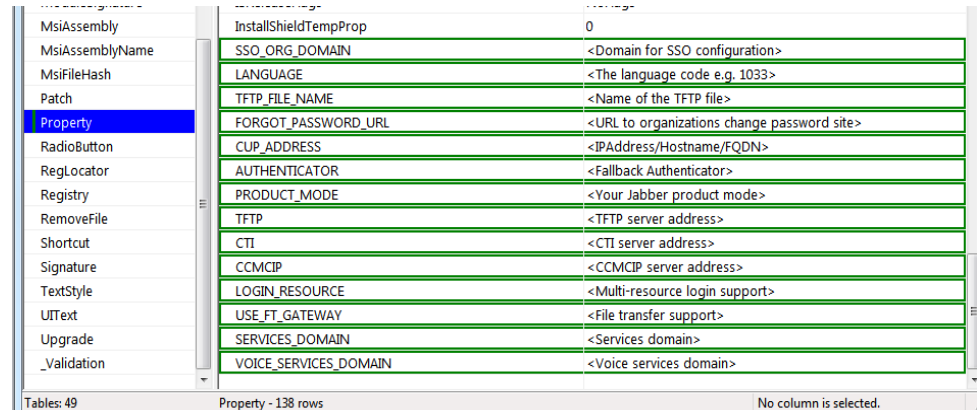
- Administrative ability to apply discovery information pre deployment
 - Use CiscoJabberProperties.mst file to transform CiscoJabberSetup.msi
- Recommended when UC Service domain != Remote Access domain
- User will not see “email address” window on first login



Services Discovery

MSI Transformation

- SERVICES_DOMAIN
 - Set to domain for login service (WebEx Messenger, CUCM or CUP)
- VOICE_SERVICES_DOMAIN
 - Set to domain used for discovering Remote Access infrastructure
- AUTHENTICATOR
 - Set to authentication service name if service discovery is not used or fails
- TFTP
 - CUCM TFTP address if service discovery is not used or fails



Property	Value
InstallShieldTempProp	0
SSO_ORG_DOMAIN	<Domain for SSO configuration>
LANGUAGE	<The language code e.g. 1033>
TFTP_FILE_NAME	<Name of the TFTP file>
FORGOT_PASSWORD_URL	<URL to organizations change password site>
CUP_ADDRESS	<IPAddress/Hostname/FQDN>
AUTHENTICATOR	<Fallback Authenticator>
PRODUCT_MODE	<Your Jabber product mode>
TFTP	<TFTP server address>
CTI	<CTI server address>
CCMCIP	<CCMCIP server address>
LOGIN_RESOURCE	<Multi-resource login support>
USE_FT_GATEWAY	<File transfer support>
SERVICES_DOMAIN	<Services domain>
VOICE_SERVICES_DOMAIN	<Voice services domain>

MS Orca tool for transforming msi file

Service Discovery

MSI Transform Discover Example

- Example Solutions Ltd have
 - Provisioned UC services (CUCM & IM & P) on example.com
 - deployed Remote Access Infrastructure on remoteaccess.example.com
 - CUCM 10.0 deployed
- DNS admin has deployed
 - _cisco-uds._tcp.example.com
 - _collab-edge_tls.remoteaccess.example.com
 - WebEx Messenger CAS lookup will fail for example.com
- How does Jabber perform discovery on two separate domains?

SERVICES_DOMAIN	example.com
VOICE_SERVICES_DOMAIN	remoteaccess.example.com

URI Configuration

Mac, Android and IOS

- We cannot bootstrap Jabber for Mac
- URI provisioning will be used to apply service discovery information to Jabber for these platforms
- During Jabber install time, Jabber registers *ciscojabber* protocol handler
- Administrator creates URI
ciscojabber://provision?ServicesDomain=example.com.com&VoiceServicesDomain=example.com
- User downloads Jabber and installs
- Admin sends out above URI using email or using wiki
- User launches Jabber using the URI and data is stored permanently

Service Discovery

CAS Request and SRV Records

[http://loginp.webexconnect.com/cas/
FederatedSSO?org=example.com](http://loginp.webexconnect.com/cas/FederatedSSO?org=example.com)



New Resource Record

Service Location (SRV)

Domain:

Service:

Protocol:

Priority:

Weight:

Port number:

Host offering this service:

Delete this record when it becomes stale

Record time stamp:

Allow any authenticated user to update all DNS records with the same name. This setting applies only to DNS records for a new name.

Time to live (TTL): : : : (DDDD:HH.MM.SS)

```
expressway-e.remoteaccess.example.com           IN      A      0.53.54.21
_collab-edge._tls.remoteaccess.example.com      86400   IN      SRV    0      0      8443   expressway-e
```

Service Discovery

Excluding Services

Possible Issues

- If WebEx Messenger domain exists - CAS lookup will succeed, Jabber will authenticate/login with WebEx Messenger
 - CUCM configuration must be in Org Admin
 - CUCM Service profiles will not be used
 - Cannot run service discovery for phone mode users
- IM&P deployed internally, also own a WebEx Messenger domain so CAS lookup will succeed (e.g. previous trial)
 - Jabber will authenticate with WebEx Messenger instead of CUCM / IM&P

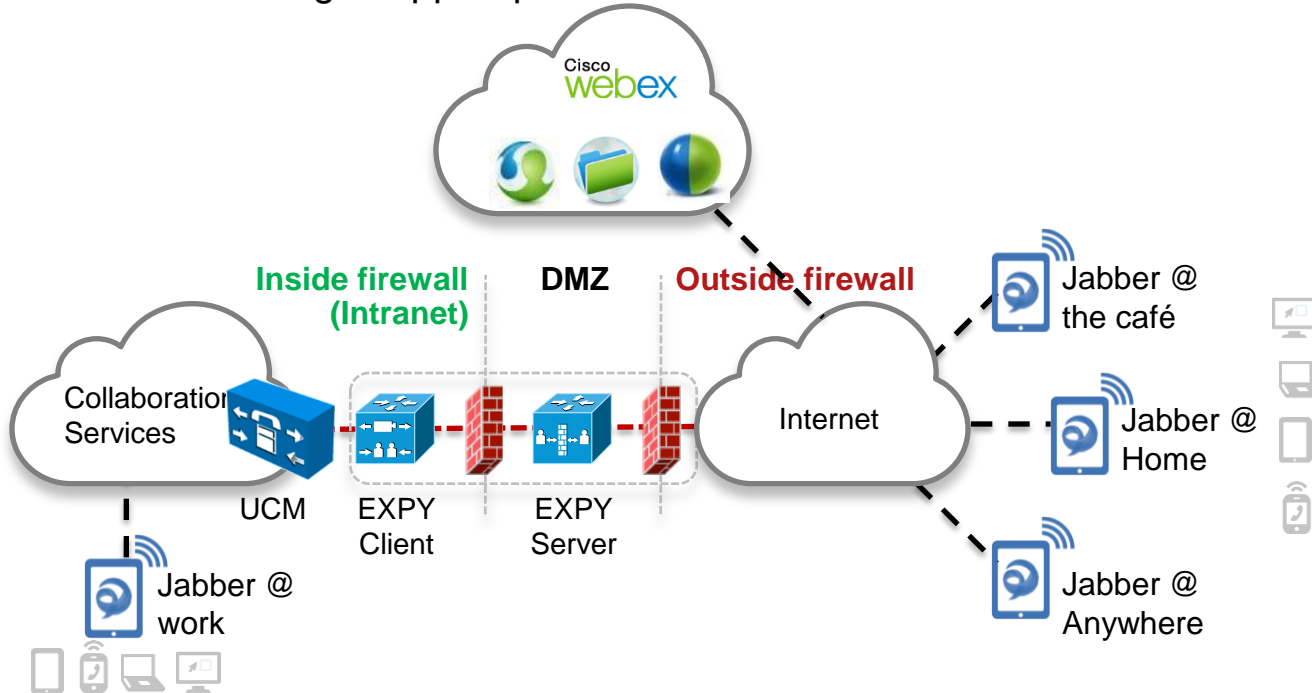
Solution

- Argument made available to exclude a service from service discovery
 - `SERVICEDISCOVERYEXCLUDEDSERVICES=WEBEX,CUP`

Mobile and Remote Access

What is it?

Collaboration Edge support provides VPN'less access for Jabber clients



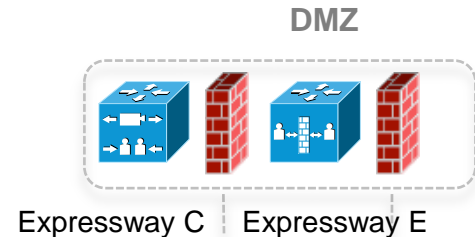
- Service discovery from outside the corporate network
- Support for Hybrid service models
- Secure communication over encrypted connection

Mobile and Remote Access

Components

- Expressway Core
 - Deployed inside corporate firewall
 - Proxies traffic to and from internal UC (CUCM, IM&P)
- Expressway Edge
 - Deployed in DMZ
 - Routes incoming traffic to Expressway Core
 - Routes outgoing traffic to endpoints outside firewall
- Mobile and Remote access
 - Service that runs on Expressway C & E to provide VPN'less access to internal services for Jabber clients
- Collaboration Edge
 - Overlying architecture name for Mobile and Remote access solution

More Information on
Expressway
BRKUC-2801



Mobile and Remote Access

Turn it on!

- Enable Mobile and Remote Access on Expressway C & E
- Disabled by default in Jabber 9.6 (Windows and IOS)
- Enabled by jabber-config key

<Policies>

<RemoteAccess>ON</RemoteAccess>

</Policies>

- Mobile and Remote Access can be enabled for groups of users

Unified Communications

Configuration

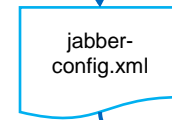
Mobile and remote access On

Jabber Guest support Off

Save

Desktop Client Settings

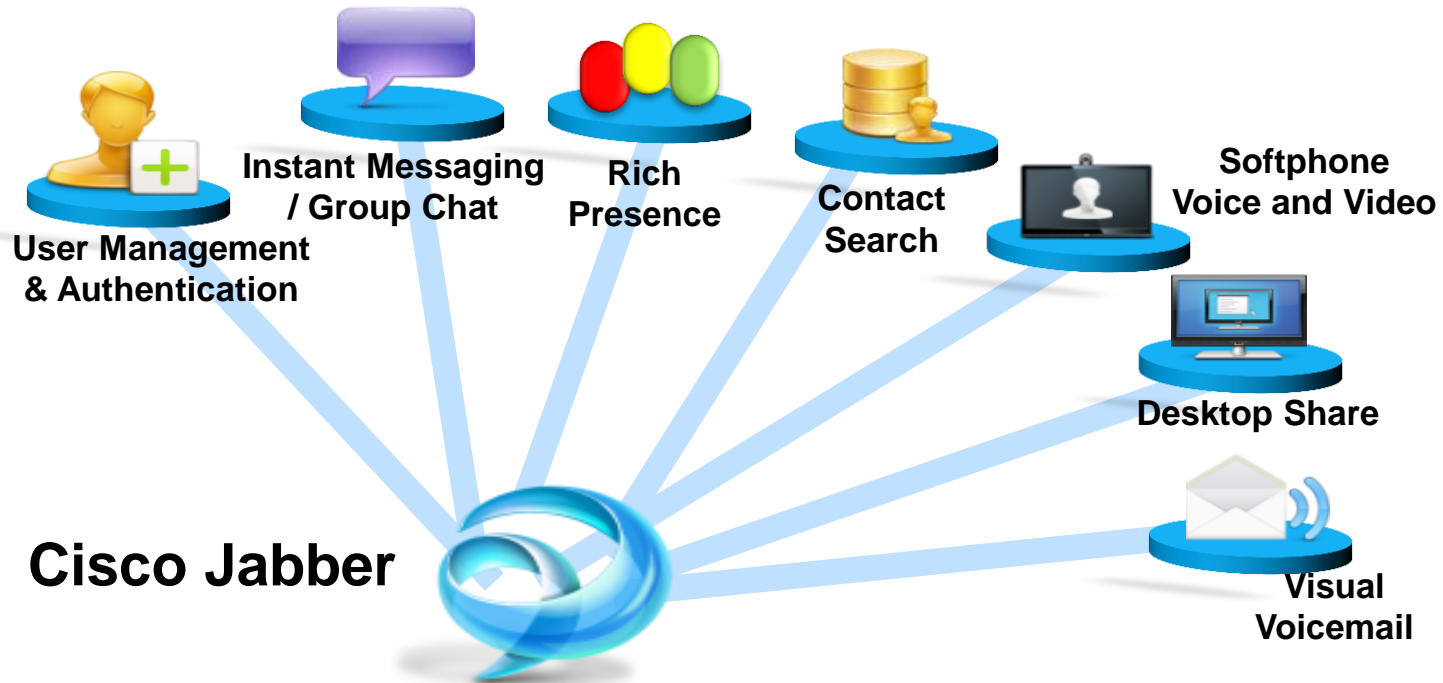
Automatically Start in Phone Control*	Disabled	<input type="checkbox"/>
Automatically Control Tethered Desk Phone*	Disabled	<input type="checkbox"/>
Extend and Connect Capability*	Enabled	<input type="checkbox"/>
Display Contact Photos*	Enabled	<input type="checkbox"/>
Number Lookups on Directory*	Enabled	<input type="checkbox"/>
Jabber For Windows Software Update Server URL		<input type="checkbox"/>
Problem Report Server URL		<input type="checkbox"/>
Analytics Collection*	Disabled	<input type="checkbox"/>
Analytics Server URL		<input type="checkbox"/>
Cisco Support Field	configurationfile=Jabber-Config-RemoteAccess.xml	<input checked="" type="checkbox"/>



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Mobile and Remote Access

Jabber Services with Mobile and Remote Access



Mobile and Remote Access

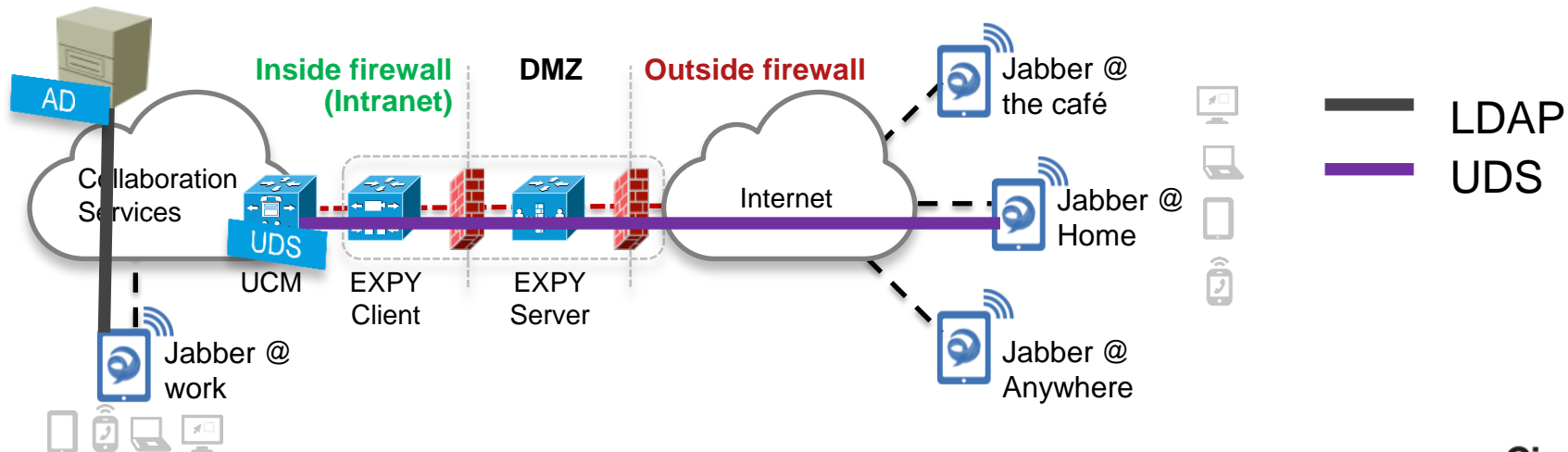
Directory Integration (On Premise IM/P or Phone Mode)

- LDAP traffic does not traverse the Collaboration Edge solution
- When in “edge” mode, UDS directory service provides directory integration for Jabber. UDS service runs on CUCM by default (Cisco Tomcat Service)
- When inside the firewall, Jabber will connect to a LDAP server to provide directory integration
 - Jabber for Windows supports Enhanced Directory Integration (EDI). Jabber for Windows can automatically discover and load balance connections to Active Directory global catalog. Windows credentials used for authentication.
 - Jabber for Mac, Android and IOS, support Basic Directory Integration (BDI). BDI uses a common username and password to connect to a LDAP server for directory integration. BDI configuration is specified in the jabber-config.xml file.
- WebEx Messenger provides directory integration for Jabber/Cloud based deployments.

Mobile and Remote Access

Directory Integration

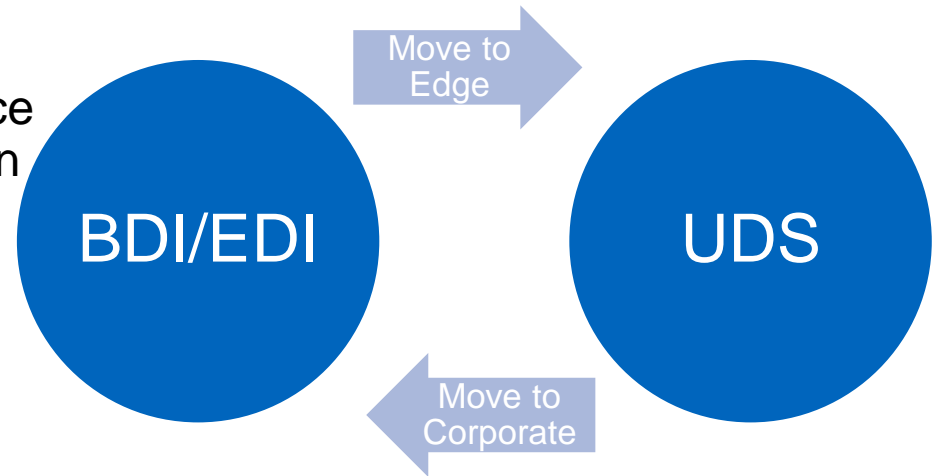
- LDAP directory integration to be used in on prem mode
- UDS integration to be used in edge mode [for on-prem deployments]



Mobile and Remote Access

Directory Integration Transitions

- Jabber connects to LDAP directory to provide directory integration on corporate network
- Jabber connects to UDS directory service on CUCM to provide directory integration when connected via collaboration edge architecture
- Jabber Edge Detection will dynamically detect operation mode and set directory integration type accordingly



Mobile and Remote Access

Directory Integration

- Directory integration configured in jabber-config.xml (except for cloud mode)

```
<Directory>
  <!-- EDI Settings -->
  <SearchBase1>OU=Employees,OU=AllUsers,DC=example,DC=com</SearchBase1>
  <PhotoURISubstitutionEnabled>True</PhotoURISubstitutionEnabled>
  <PhotoURISubstitutionToken>sAMAccountName</PhotoURISubstitutionToken>
  <PhotoURIWithToken>http://photos.example.com/photo/sAMAccountName.jpg</PhotoURIWithToken>

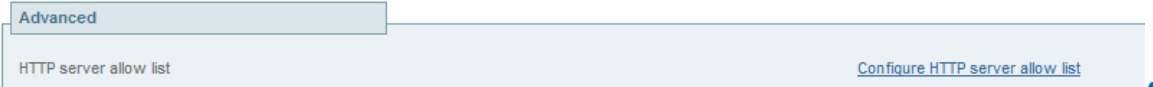
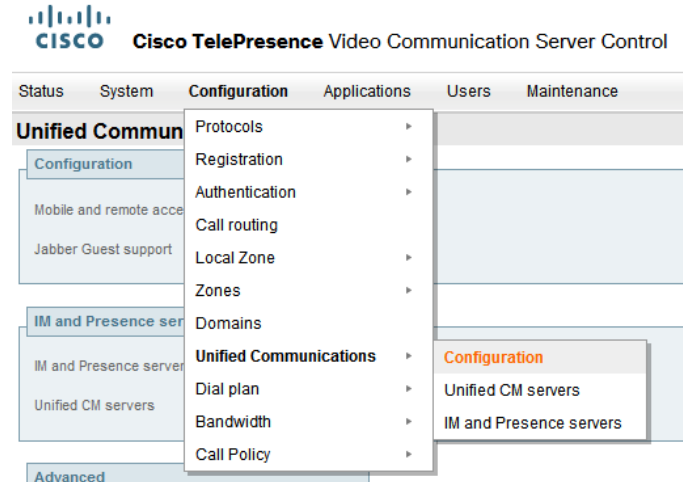
  <!-- BDI Settings -->
  <BDIPrimaryServerName>ds.example.com</BDIPrimaryServerName>
  <BDIConnectionUsername>readonly@example.com</BDIConnectionUsername>
  <BDIConnectionPassword>readonly</BDIConnectionPassword>
  <BDISearchBase1>OU=Employees,OU=AllUsers,DC=example,DC=com</BDISearchBase1>
  <BDIPhotoURISubstitutionEnabled>True</BDIPhotoURISubstitutionEnabled>
  <BDIPhotoURISubstitutionToken>sAMAccountName</BDIPhotoURISubstitutionToken>
  <BDIPhotoURIWithToken>http://photos.example.com/photo/sAMAccountName.jpg</BDIPhotoURIWithToken>
  <EnableLocalAddressBookSearch>true</EnableLocalAddressBookSearch>

  <!-- UDS Settings for Edge users only -->
  <UDSPhotoURIWithToken>http://photos.example.com/photo/%%uid%%.jpg</UDSPhotoURIWithToken>
</Directory>
```


Mobile and Remote Access

Visual Voicemail and Whitelists

- Jabber connects to Unity Connection over a REST interface to gather voicemail data to display in the visual voicemail tab
 - This is a HTTP connection and will not be allowed through the collaboration edge architecture by default.
- On the Expressway-C, we can create a HTTP whitelist which allows Jabber to send HTTP requests to specified internal hosts




Mobile and Remote Access

What to whitelist?

- What should we whitelist?
 - Unity Connection Server for Visual Voicemail
 - Directory photo server if using http server to deliver photos
 - HTML tab host e.g. company intranet html tab
 - HTML tab icon host
 - Jabber update host

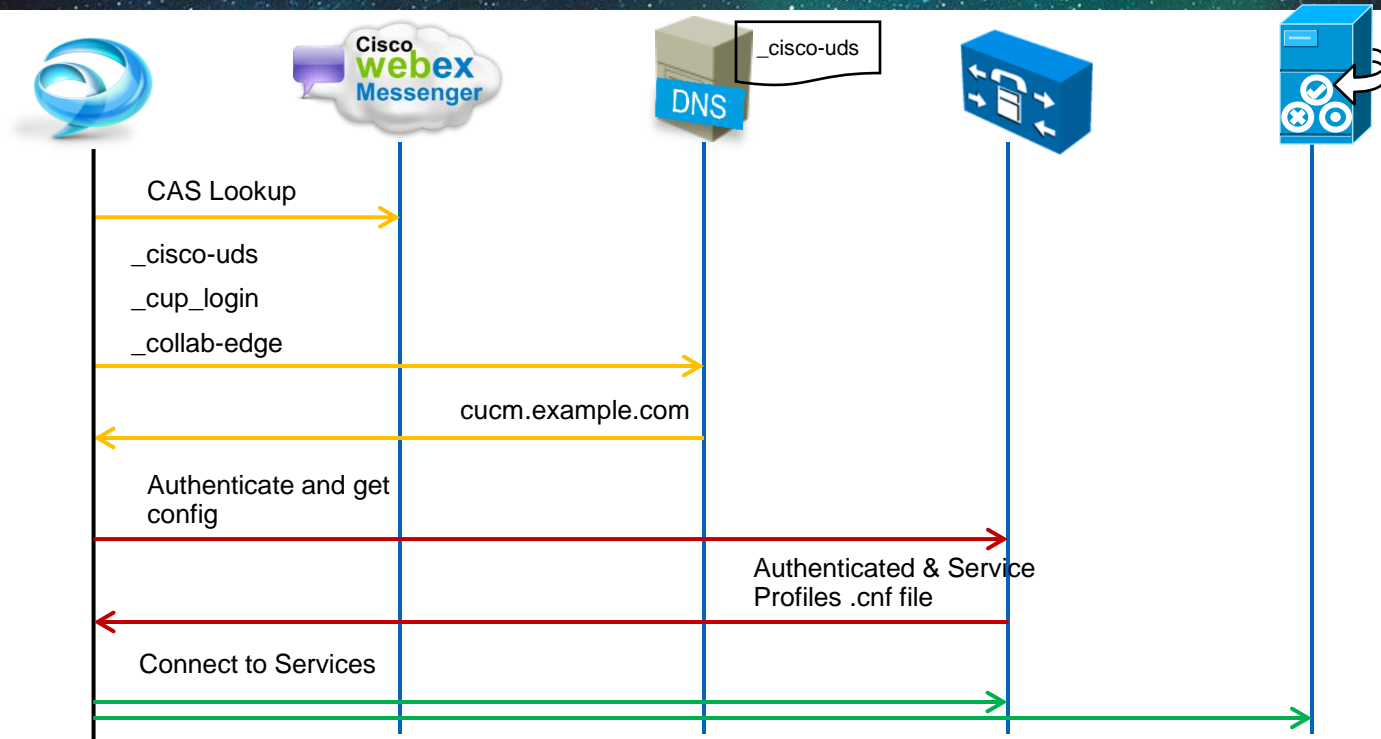
HTTP server allow list

 **Success: Saved**

Server hostname	Description
<input type="checkbox"/> ucxn1.example.com	Unity Connection Server
<input type="checkbox"/> icons.example.com	HTML Tab Icon Server
<input type="checkbox"/> companyintranet.example.com	HTML Tab Access to Intranet homepage
<input type="checkbox"/> photos.example.com	Photo Server

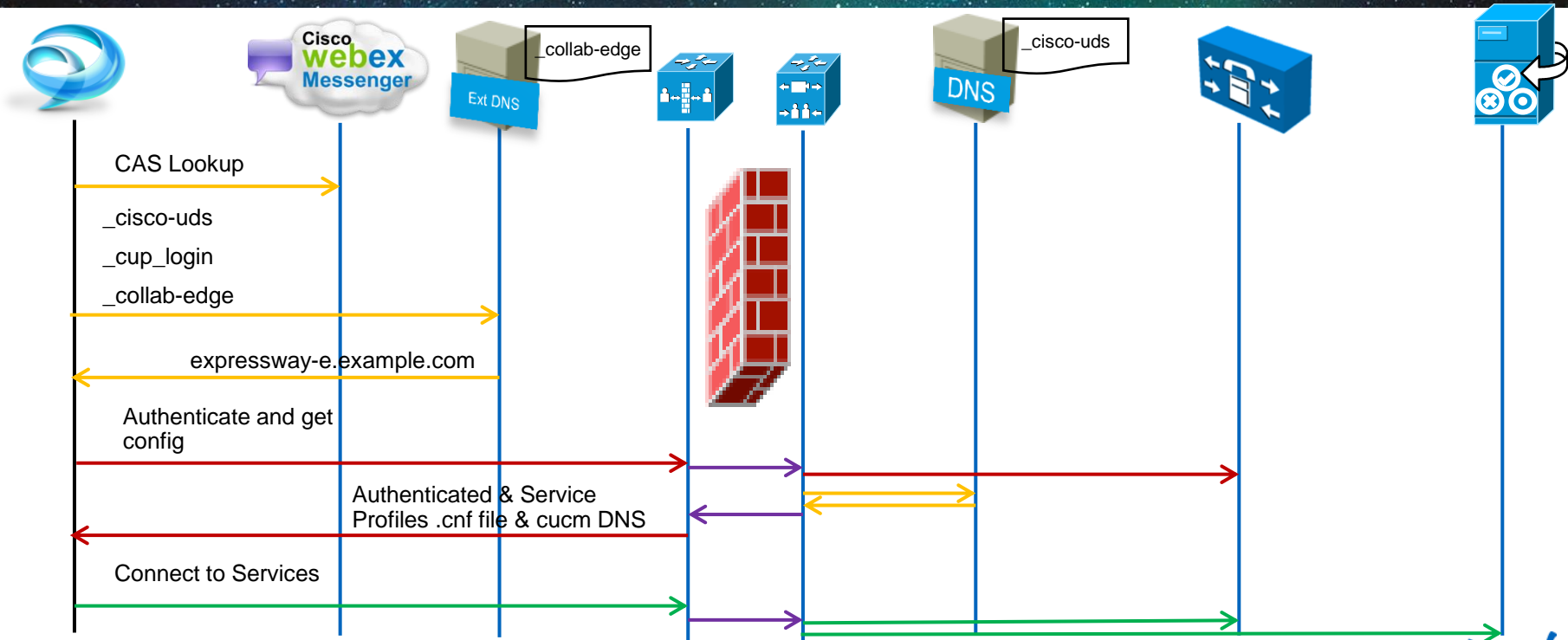
Mobile and Remote Access

Scenario 1 – CUCM/IM & P 10.0, inside firewall



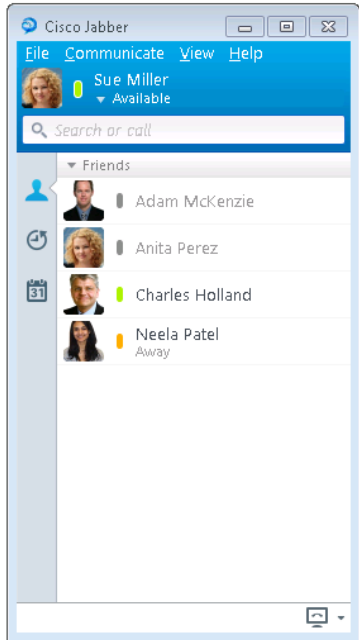
Mobile and Remote Access

Scenario 2 – CUCM/IM & P 10.0, outside firewall



Jabber and SIP URI Dialling

Configuration

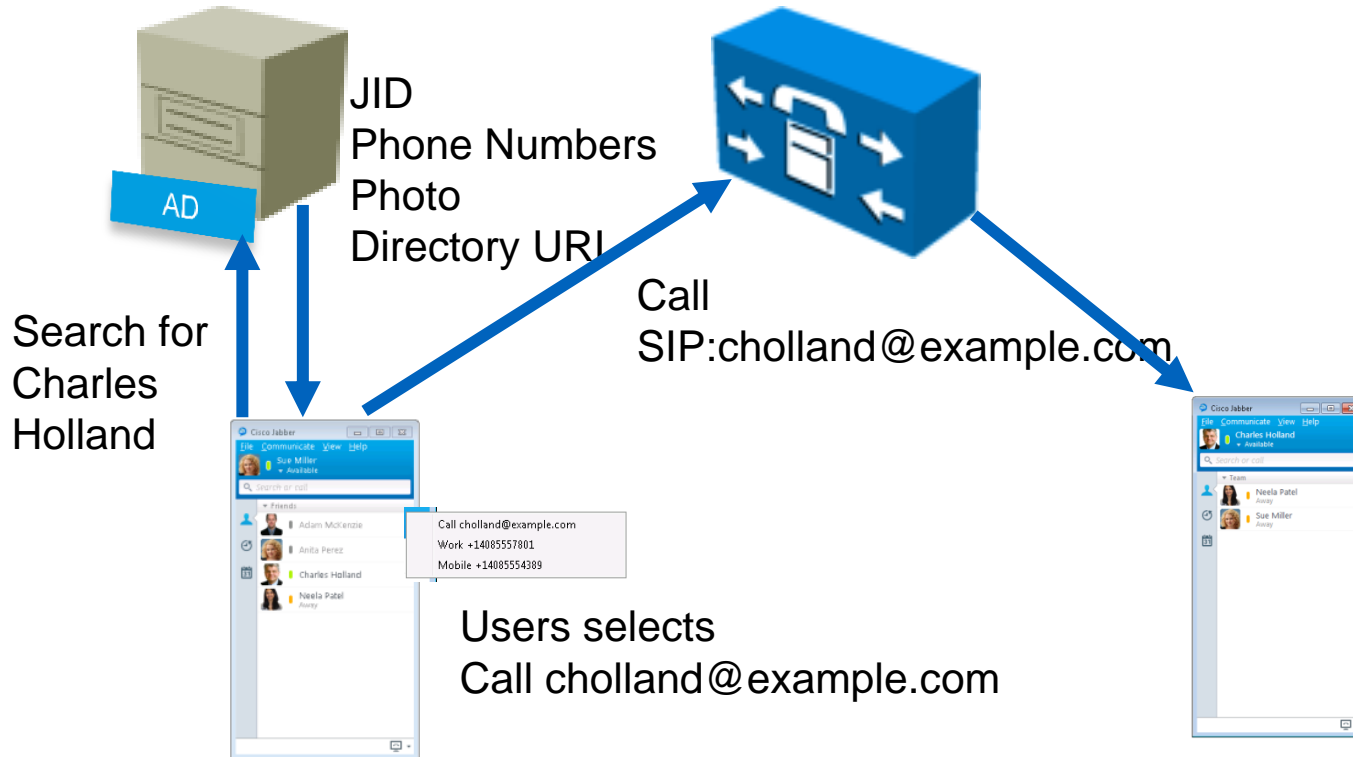


- CSF Device must be associated with a DN
- SIP URI is associated to DN and user
- 5 URIs can be associated to each CSF device for receiving URI calls
 - helpdesk@example.com
- Tel protocol supported
- SIP protocol supported
 - sip:cholland@example.com
- SIP URI as Call forward address

- CUCM 9.1.2 and above

Jabber and SIP URI Dialling

Call Flow



Jabber and SIP URI Dialling

URI Resolution

- Directory URI assigned to user during LDAP sync
- Jabber performs directory lookup on “mail” attribute by default
- On prem - to lookup msRTCSIP-primaryuseraddress apply the following jabber-config key

```
<directory>
```

```
<DirectoryURI>msrtcsip-primaryuseraddress</DirectoryURI>
```

```
</directory>
```

- URI Dialling is disabled by default – enable using jabber-config.xml

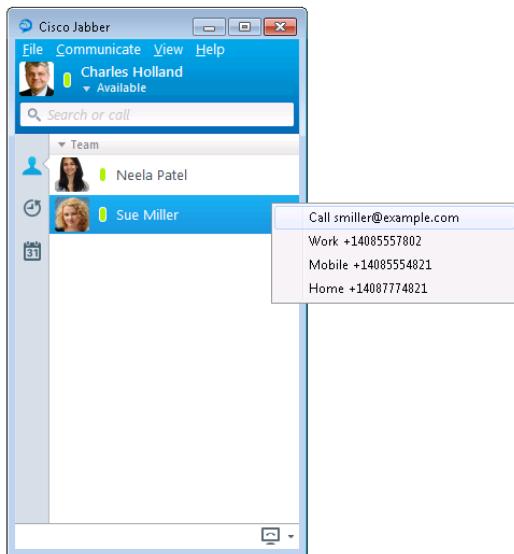
```
<Policies>
```

```
<EnableSIPURIDialling>True</EnableSIPURIDialling>
```

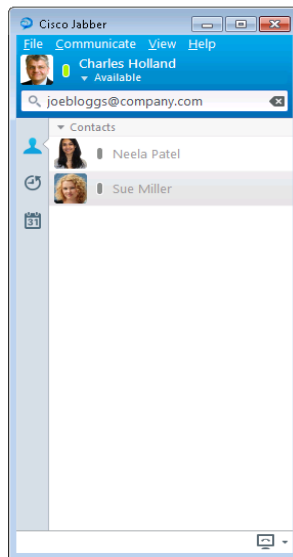
```
</Policies>
```

Jabber and SIP URI Dialling

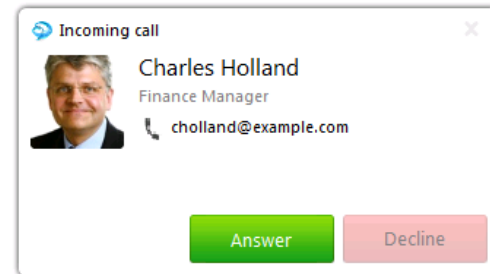
Making a call using URI



SIP URI Call from Contact list



SIP URI Call to non directory contact



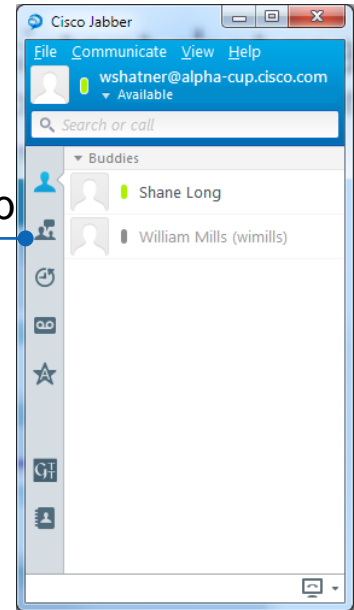
Incoming call toast

Persistent Chat

Feature Set and UI

- Room Discovery & Enrolment
 - Find and join chat rooms
- Room Participation
 - Send and receive IMs to/from other members of chat room
- Message Management
 - Create filters and notification service
- Jabber for Windows 9.7
- CUCM IM & P 10.x

Persistent Chat Tab



Persistent Chat

IM & P Configuration

- Configure database servers on IM& P
- Enable Persistent Chat and set database server per IM&P node
- Configure Group Chat Administrators

External Database (1 - 2 of 2) Rows per Page 50

Find External Database where Database Name begins with

<input type="checkbox"/>	Database Name ▲	Database Type	Description	User Name	Hostname	Port Number
<input type="checkbox"/>	gwytcdb	Postgres		gwytcuser	10.53.40.19	5432
<input type="checkbox"/>	gwytcdb2	Postgres		gwytcuser2	10.53.40.19	5432

Enable Persistent Chat

Archive all room joins and exits

Archive all room messages

Allow only group chat system administrators to create persistent chat rooms

Maximum number of persistent chat rooms allowed* 1500

Number of connections to the database* 5

Database connection heartbeat interval (seconds)* 300

Timeout value for persistent chat rooms (minutes)* 0

Persistent Chat Database Assignment	
Node	External Database
ups-qwvvtq-012.alpha-cup.cisco.com	<input type="text" value="gwytcdb2 (10.53.40.19)"/>
ups-qwvvtq-011.alpha-cup.cisco.com	<input type="text" value="gwytcdb (10.53.40.19)"/>

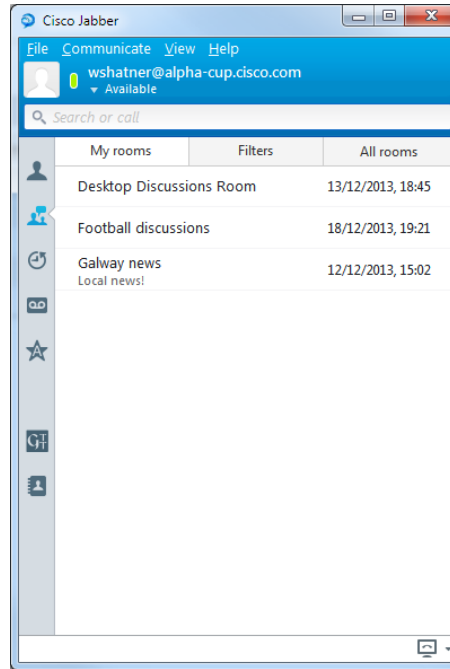
Room Settings

Maximum number of rooms allowed* 16500

Persistent Chat

Persistent Chat Tab

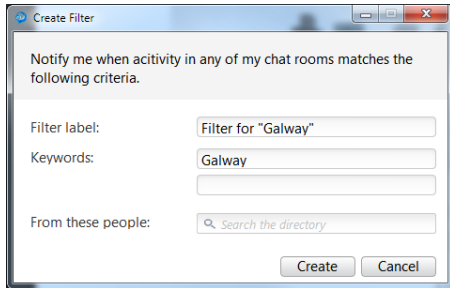
- My rooms
 - List of rooms to which I have joined
- Filters
 - Create filters by phrase and/or by person
 - Filter for name mentions
 - Callout using *@username*
- All rooms
 - List of all rooms provisioned on system
 - Ability to join open rooms from here



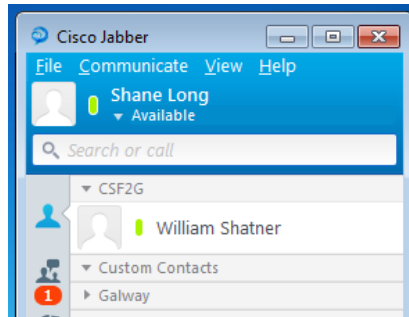
Persistent Chat

Filters and Notifications

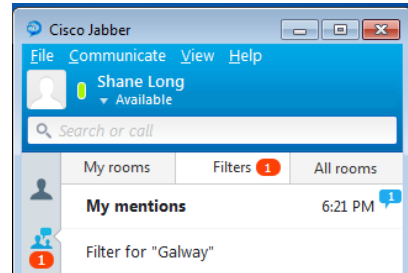
Creating a filter for the phrase “Galway”



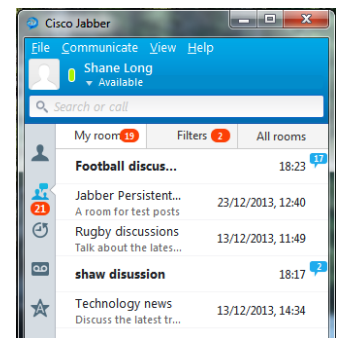
Notification service on hub window



Notification on “My Mentions”

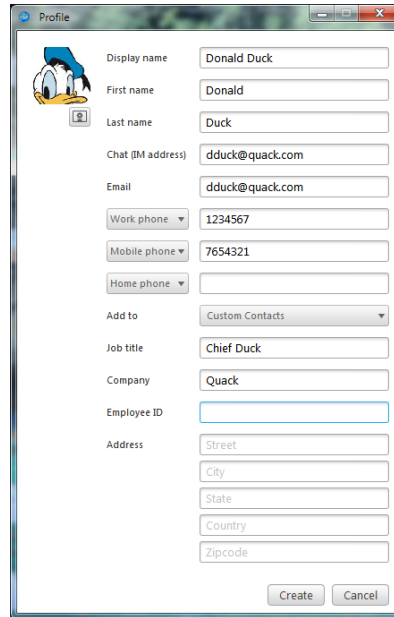


Multiple Notifications



Custom Contacts

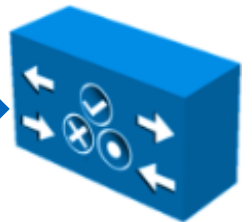
- Enables Jabber users to add non-directory contacts to the Jabber Contact list
- Enables Jabber users to add non-directory information to corporate directory contacts
- Enables Jabber users to add non-directory information to federated contacts
- User data stored on IM & P server



The screenshot shows a 'Profile' window with the following fields and values:

Display name	Donald Duck
First name	Donald
Last name	Duck
Chat (IM address)	dduck@quack.com
Email	dduck@quack.com
Work phone	1234567
Mobile phone	7654321
Home phone	
Add to	Custom Contacts
Job title	Chief Duck
Company	Quack
Employee ID	
Address	Street
	City
	State
	Country
	Zipcode

Buttons: Create, Cancel





Logitech

CISCO

Jabra

Cisco *live!*

Native Jabber Accessory Support

- No separate plugins required for Jabra and Logitech
 - Jabra Speak 450
 - Jabra Handset 450
 - Logitech C920-C
 - Logitech K725-C
- Plugins add ~4MB to msi
- No built in call control support for Plantronics based devices

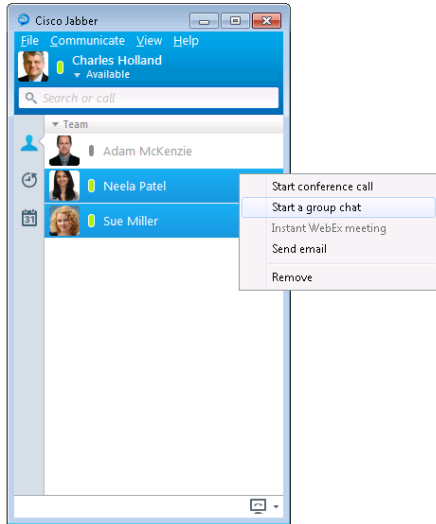


Plugins included in Jabber installer

Cisco *live!*

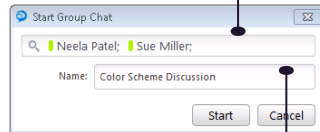
Group Chat Enhancements

Group Chat Subject



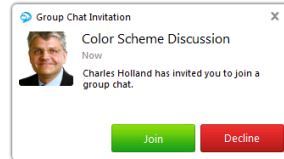
Start Group Chat

Add participants
(including
directory search)

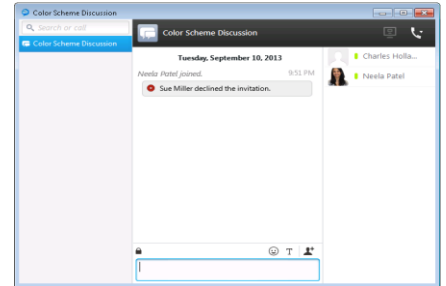


Set GC Subject

Add GC Subject



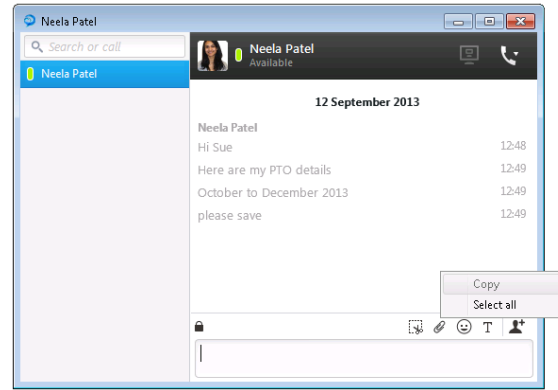
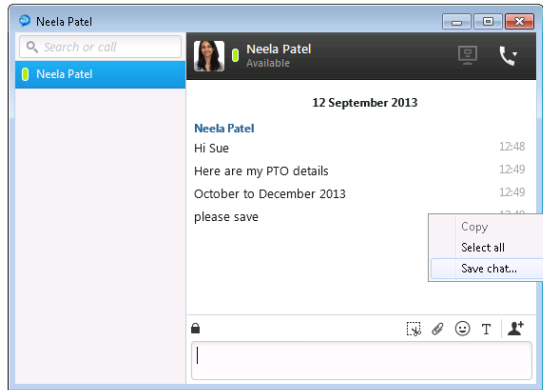
GC Invite
Notification



Declined Invite

Local Chat History

Disable Save Chat



<Policies>

<EnableSaveChatToFile>False</EnableSaveChatToFile>

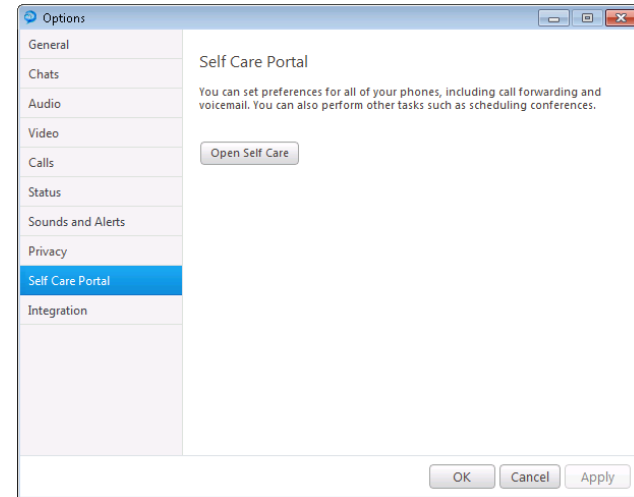
</Policies>

- This value is “True” by default

CUCM Self Care Portal

Open from Jabber

- CUCM Self Care address is obtained from TFTP file during service discovery
- Self Care portal hostname can be specified in CUCM Enterprise Parameters
- Opens in default system browser
- Self care portal allows Jabber users to...
 - Set Call forward
 - SNR
 - Extend & Connect
 - etc....



Import Contacts

XML File Structure

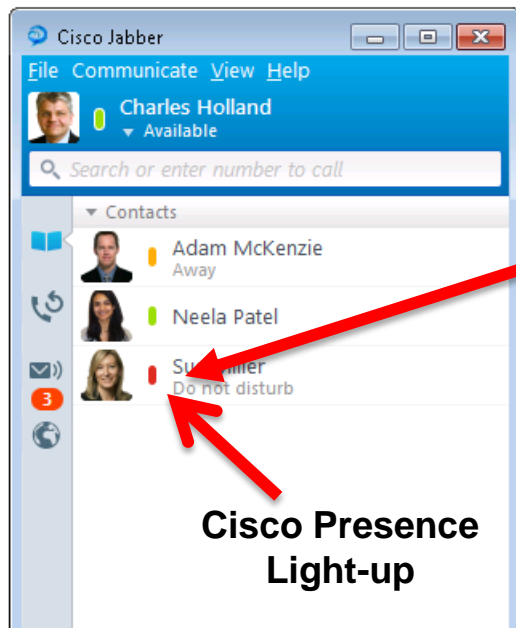
- Import groups and contacts from xml file
- Contacts stored on IM&P
 - Contact limit set by IM& P server
- Specify
 - group name
 - IM address (unique address)
 - Display name

```
<?xml version="1.0" encoding="utf-8"?>
<buddylist>
  <group>
    <gname>Team Mates</gname>
    <user>
      <uname>cholland@example.com</uname>
      <fname>Charles Holland</fname>
    </user>
    <user>
      <uname>smiller@example.com</uname>
      <fname>Sue Miller</fname>
    </user>
  </group>
</buddylist>
```

Microsoft Office Integration

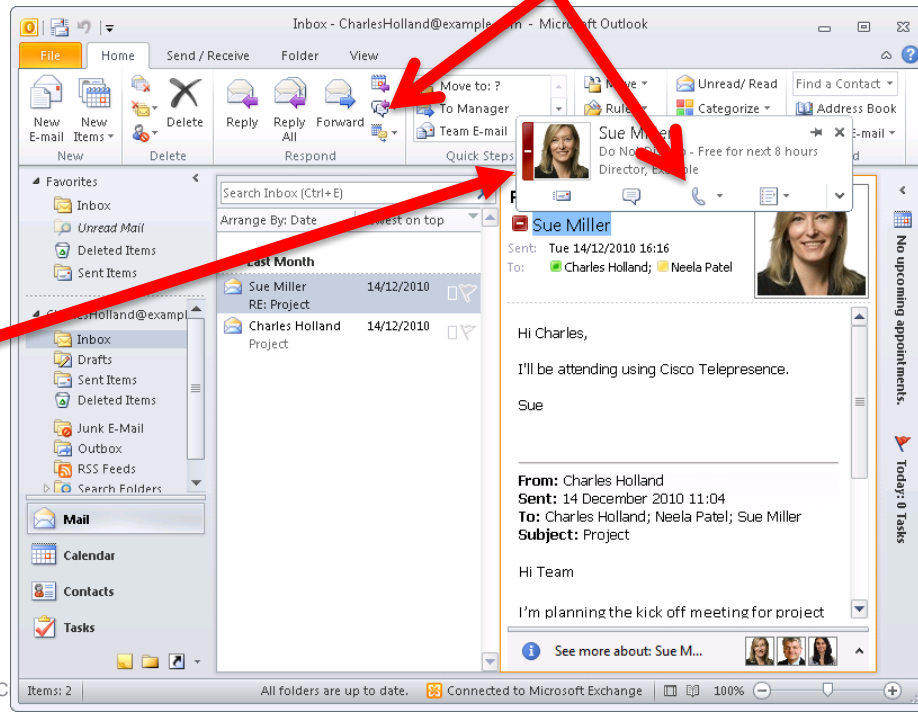
Microsoft Office 2010 Integration

- Office 2010 integration allows conversations to be initiated directly inside Office and SharePoint applications



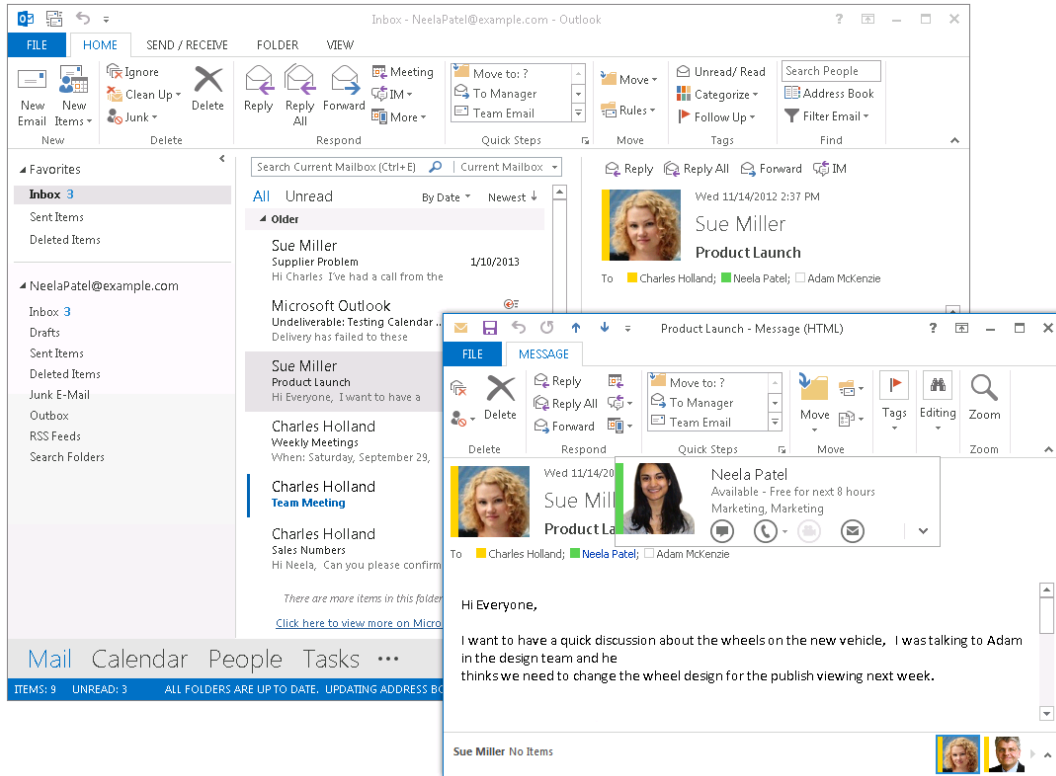
Cisco Presence Light-up

Cisco Click to IM/Call

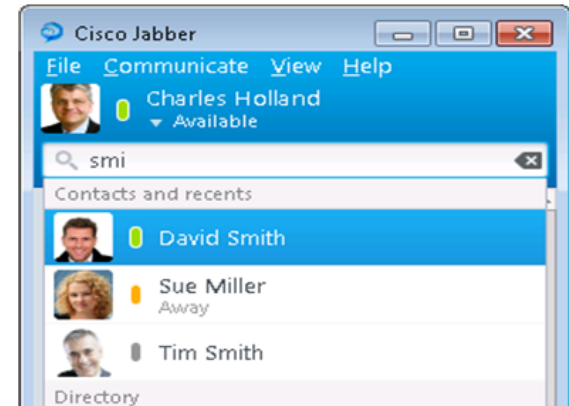


Microsoft Office Integration

Microsoft Office 2013 Integration



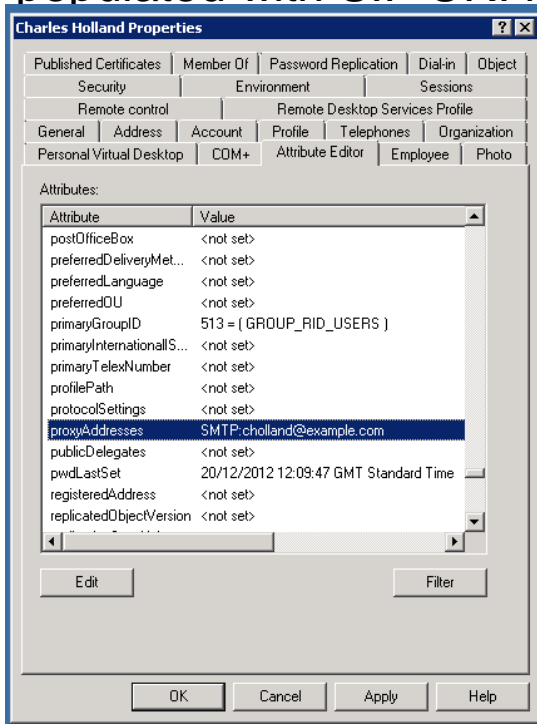
- Cisco Jabber for windows integrated with Outlook 2013



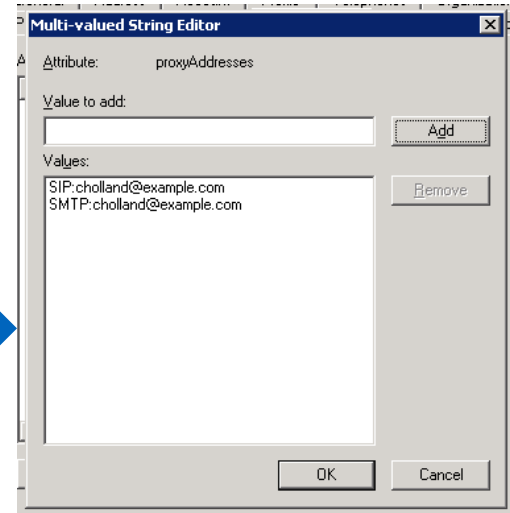
Microsoft Office Integration

Active Directory requirements

- Microsoft Office requires the AD **proxyAddress** attribute to be populated with SIP URI for presence to be associated

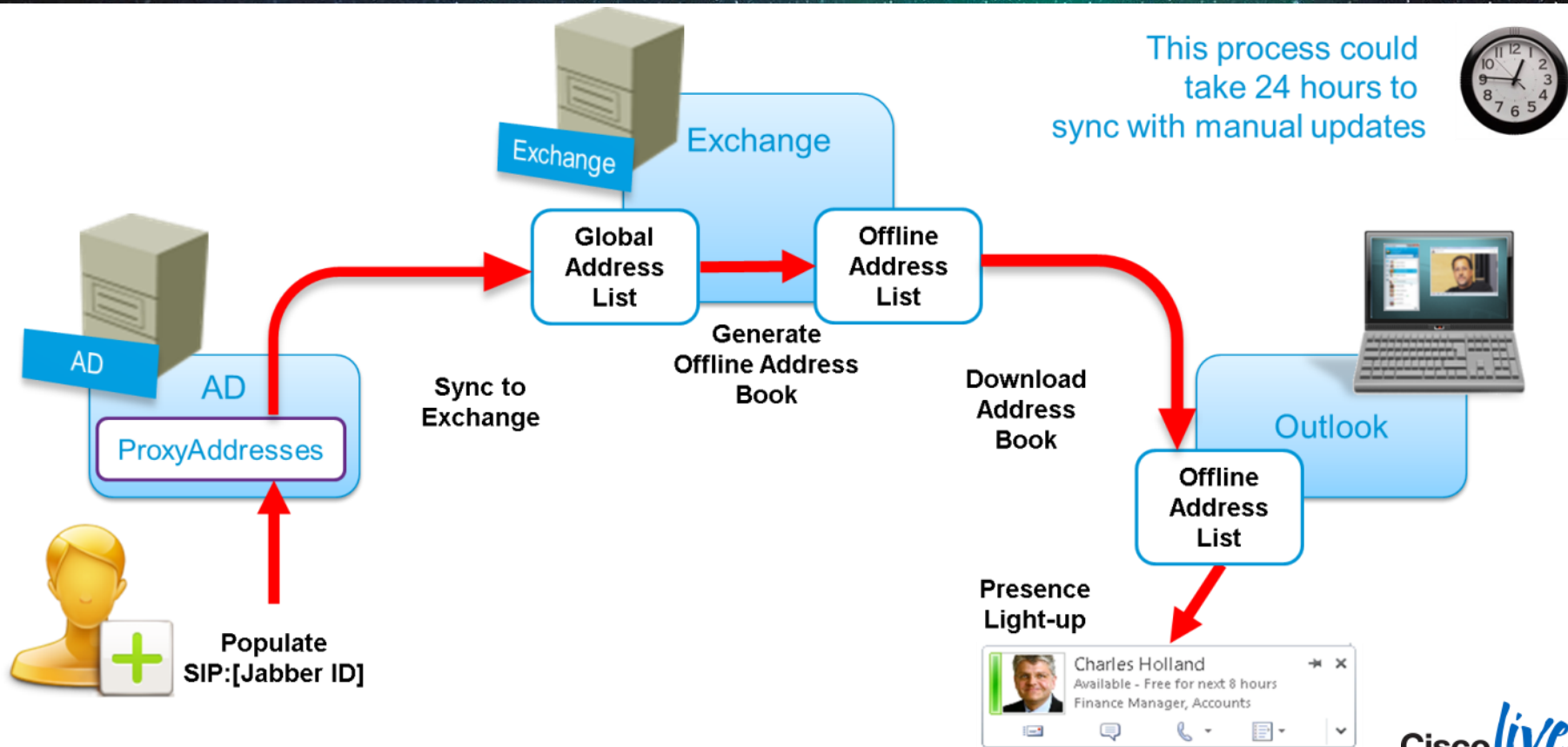


Add proxyAddress attribute
SIP:cholland@example.com



Microsoft Office Integration

Understanding ProxyAddress Update process



Version Matrix

Jabber Feature	CUCM	CUCM IM & P
Phone Mode/Windows	8.0 +	n/a
Service Discovery	9.0 +	8.5+
Remote and Mobile Access	9.1.2	n/a
SIP URI Dialling Dialling	9.1.2	n/a
Persistent Chat	10.0	10.0
Custom Contacts	n/a	8.5+

- Jabber for Windows 9.7 supports
 - CUCM 8.0+, CUP 8.0(3)+ environments
 - Windows 7, Windows 8



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