What You Make Possible
Deploying Cisco Jabber Desktop Clients

Session Agenda

- Cisco Jabber Product Set
- WebEx Messenger baseline
- Cisco UC Manager IM&P baseline
- Cisco Jabber Unified Communication
- WebEx Meetings
- Integration with Microsoft Office
- Extending Cisco Jabber
- Summary
Deploying Cisco Jabber Desktop Clients
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 available in Cisco Jabber

User Management & Authentication

Instant Messaging / Group Chat

Rich Presence

Contact Search

App Integration (MS Office)

Enterprise Call Control

Business Video

Web/Desktop Collaboration

Conferencing

MediaNet

Visual Voicemail

App Integration

(MS Office)
A Brief tour of Jabber
Jabber for Windows

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

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

Standards based Voice and high definition video calling

Collaboration using Desktop sharing and Web Conferencing
Planning your Jabber Deployment

Chat/IM & Presence
Jabber On Premise Solution Architecture
Baseline Architecture

Feature Configuration
- Unified Communications
- Voice Messaging
- WebEx Meetings
- Application Integration

Baseline Configuration (IM Only deployment)
- IM & Presence Service
- User Authentication and Policy
- Contact Information
- User Creation

Baseline Architecture
Cloud / SAAS Deployment
On Premise Deployment
WebEx 11 Administration Tool
Organisation Configuration

Domain Settings
- Domain(s)
- Resource Management
- User Provisioning
- File Settings
- Password Settings
- Security Settings

Email Template
- Branding
- Email Templates

IM Service
- General IM
- Contact List
- IM Block Settings
- XMPP IM Clients
- Upgrade Management
- P2P Settings
Configuring User Accounts
Defining User JID, Jabber User ID

- Consider your Jabber domain carefully, **you’ll live with it for a while!**
- Multi-modal communications address (Email, IM, Voice, Video & Federation)
Configuring User Accounts
Understanding User Policy and Groups

- Messenger can use default settings which doesn’t apply policy restrictions
- If Policies used then Policies are assigned to ALL users
  OR
- Users are assigned to Policy Groups which link to Policy lists/items

Example Policy Items:
- Edit Profile
- File Transfer
- Screen Capture

UC Setting
Policy Group
Policy Item
Policy List
Policy Item
Jabber User
Manual Provisioning via WebEx Administration Tool
   Manually create and manage users via the Admin web interface

User File Import via WebEx Administration Tool
   Import a CSV file of users and groups into the Connect database
   - Self Registration
     Accounts are created when users log in for the first time to Connect
   - Single Sign-On

NOTE: Clicking here opens that specific section of the WebEx online guide for more detailed information
**Configuring User Accounts**

**Manual User Creation**

1. **WebEx Admin** creates a new account using the web interface.

2. **WebEx sends** a welcome email to the new user's email address.

   ![Welcome Email](image)

3. The user sets a password for their WebEx Account.

4. **WebEx sends** Jabber client onto the user's workstation (Jabber needs to be enabled).

   ![Jabber Client](image)

---

User sets a password for WebEx Account....
Configuring User Accounts

Manual User Creation

– Admin Tool: User tab > Add

Tabs: Account settings, Profile information, Policy Group Assignment, Unified Communications

Simple method for a small number of users or pilot scenario
Configuring User Accounts
Email Templates and Branding

- WebEx administration tool provides access to library of email templates
- Administrator can create organisation specific email templates based on different service requirements
- Administrator can also add company branding to site.
Configuring User Accounts
Admin Tool: User tab > More Actions > Import/Export

Create a CSV file with user information – full list of headers and mappings are in the Admin tool guide
Simple method, saves admin time by adding and making changes in bulk
If Directory Integration and/or SSO is enabled, manual user import is not an option
Configuring User Accounts
Self Registration

Enable Self-Registration as a last option
User’s email address must match customer (site) domain
Security based upon user’s domain details and email account
Account creation notification can be sent to Site Contact

WebEx Admin

User Provisioning

- Enable user self-registration using Cisco WebEx registration page
- Send notification to Administrator when users self register using Cisco WebEx registration page

Set mandatory fields for user profile
- First Name
- Last Name
- Email Address
- Address 1
- Address 2
- City

- State
- Zip
- Country
- Business Phone
- Mobile Phone

Save  Reset
Configuring User Accounts
SSO Account Creation / Update

Admin Tool: Configuration tab > Security Settings

– For auto-account creation, check the appropriate boxes

Must be enabled when the organisation is provisioned and configured (AS engagement)
Configuring User Accounts
Federated Single Sign On (SSO)

- SAML 2.0 compliant or meets WS Federation 1.0 standard
- IdP – Identity Management System (on customer premise)
- Ping Identity, CA SiteMinder, ADFS, Oracle Access Manager (OpenSSO) and other SAML conformant systems
- WebEx Connect site must be enabled by WebEx provisioning
- X.509 certificate uploaded to the WebEx Cloud
- URL for the corporate single sign-on service
- Client to be setup with a command line for SSO

1. User launches Connect Client, sends request
2. Browser window opens to IdP for user credentials
3. Credentials are challenged and validated against corporate directory
4. IdP sends assertion containing trusted user info
5. Central Authentication Service (CAS) validates the user with the Connect database and returns validated user token to the Client
Jabber On Premise Solution

On Premise Architecture

Presence and IM services deployed used either on premise or cloud model

Active Directory (Options) → UC Manager Call Control
UC Manager IM & Presence → Unity Connection (optional)
WebEx Meetings Server (optional) → Internet

Cisco Collaboration Cloud

Federated Organisation
Federated Organisation
Home Office

Sync & authentication

On Premise Deployment

TelePresence Endpoint
TelePresence Room

Jabber Desktop (Desk Phone mode)
Jabber Desktop (Soft Phone Mode)
Jabber Desktop (Soft Phone Mode)
Jabber Mobile & Tablet

We just went On Premise
Jabber On Premise Solution Architecture
Solution Components 9.0

Unified Communications Manager Cluster
- Call Control Server
  - UC Manager 7.1(3) – 9.x
- IM & Presence Server
  - Presence 8.6 or 9.x

Contact Source
- Directory
  - UC Manager UDS
  - Active Directory 2003
  - Active Directory 2008
  - Microsoft ADAM
  - Microsoft AD LDS
  - OpenLDAP

- Contact Search
- Contact Resolution
- Telephone Resolution
- Authentication (Optional)
- Contact Photo*

* Contact Photos may be provided by Contact source or HTTP service.

*Unified presence 8.x provided
Client profiles pre 9.x
Jabber On Premise Solution Architecture
Scaling Solution to Customer Requirements

**JABBER Domain – Example.com**

**UC Manager Cluster**
- UC Manager
- Host Cluster
  (User Management)
- IM&P Server
  - 25,000 IM users
  - 15,000 UC users
- Sub-Custer
  - =50,000 IM users
  - =30,000 UC users
- Sub Cluster
  - =75,000 IM users
  - =45,000 UC users

High Availability

Enterprise License Manager
Creating Jabber Users

What’s your JID? (Jabber ID)

• 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 or *SSO) (H1 CY13)
• Presence domain is configured on Presence server
Creating Jabber Users
Adding Users as UC Manager Users

**Option 1 (recommended)**

- **Active Directory** (or supported directory)

  Recommended Configuration is to synchronise Corporate directory with UC Manager. Key `sAMAccountName`, mail, `employeeID`, Telephone, `UserPrincipalName`

**Unified Communication Manager**

- **User Data**
  - Call Control Server
  - IM & Presence Server
  - Jabber Client
  - Jabber User [User@XMPP Domain]

**Option 2**

- **UC manager User Administration**
  - Users created via Web admin or via Bulk Administration Tool (BAT)

Jabber will authenticate to services on UC manager and Presence server. Services can authenticate user locally or back to directory service.

Jabber on premise deployment will introduce single sign on (SSO) in H1 CY13.
Creating Jabber Users
Enabling Users for IM & Presence

- Users are enabled for IM and Presence in UC manager 9.0
- Enabling the User for IM&P will enable them and allocate them to a node in the IM&P nodes
- If using 7.x or 8.x UC manager then users are enabled on 8.X presence server.
Creating Jabber Users
IM and Presence Architecture

Unified Communication Manager

Active Directory (or supported directory) 

Contact Sources

User Data

Call Control Server

User Data

IM & Presence Server

Jabber will download configuration information from the presence server

Jabber will download saved contact list from presence server

Instant messaging and presence is routed via UC manager IM & Presence server

Contact search and resolution

Contact cache also maintained locally

Jabber User [User@XMPP Domain]

Cisco Jabber

File Communicate View Help

Contacts and records

Contact Sources

Jabber Client
Jabber Contact Sources
Information/Access to Directory Service

- Clients 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
Selecting a Contact Source

LDAP based contact Source (On Prem Default)
Active Directory by default but can be customised for other directory environments

HTTP/REST based contact Source (On Prem)
Built into UC Manager 8.6(2)+ and provides an alternative to LDAP integration

WebEx Contact Source (cloud)
Default for cloud based deployments

MS Outlook Contacts
Search local contacts from Jabber (requires Windows 9.1)
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
  • Clients connect to a Global Catalog server in the current domain (windows selects exact GC, so distributes load)
  • Client 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....

1. Workstation discovered DC/GC using DNS SRV

2. Client uses EDI to connect to directory

3. Client authenticated using existing domain authentication

4. Large domains with multiple GCs will distribute clients
Jabber Contact Sources
EDI : Customisation - One Model doesn't fit all....

- Administrator can customise many elements of EDI operation for different deployment environments.
- The Administrator creates a custom XML configuration file for directory access.
- TFTP or HTTP is used to download file
- Filename: Jabber-config.xml
- Only define non default items.

```xml
<?xml version="1.0" encoding="utf-8"?>
<config version="1.0">
  <Directory>
    <DirectoryServerType>EDI</DirectoryServerType>
    <PrimaryServerName>D1.test.lab</PrimaryServerName>
    <ServerPort1>1234</ServerPort1>
  </Directory>
</config>
```

(Example only)
Jabber Contact Sources
EDI : Alternative Directory Access

- EDI can connect to a single AD forest. If you need to connect to multiple forests you can use Microsoft AD Application mode / lightweight directory services.
- ADAM/LDS is commonly used to build to an aggregated directory from multiple AD forests.
- EDI also supports ADAM/LDS using proxy authentication.
- Connection to other LDAP application servers (i.e. non Microsoft)
Jabber Contact Sources
EDI : Custom Directory Access Parameters

**Connection Settings**
- Connection Type
- UseSecureConnection
- UseSSL
- PrimayServerName
- Port1
- SecondaryServerName
- Port2

**Search**
- SearchBase1
- SearchBase2
- SearchBase3
- BaseFilter

**Attribute Map**
- CommonName
- Nickname
- FirstName
- PostalCode
- LastName
- State
- EmailAddress
- StreetAddress
- SipUri
- PhotoURI
- BusinessPhone
- CompanyName
- HomePhone
- UserAccount
- OtherPhone
- Domain
- PreferredPhoneNumber
- Location
- Title

**Authentication**
- UseWindowsCredentials
- ConnectionUsername
- ConnectionPassword
Jabber Contact Sources
EDI: Example Configurations

• Connect to DC not GC

```xml
<?xml version="1.0" encoding="utf-8"?>
<config version="1.0">  
  <Directory>
    <DirectoryServerType>EDI</DirectoryServerType>
    <ConnectionType>1</ConnectionType>
  </Directory>
</config>
```

• Manual Server selection

```xml
<?xml version="1.0" encoding="utf-8"?>
<config version="1.0">  
  <Directory>
    <DirectoryServerType>EDI</DirectoryServerType>
    <PrimaryServerName>primary_server_name.domain.com</PrimaryServerName>
    <ServerPort1>1234</ServerPort1>
    <SecondaryServerName>secondary_server_name.domain.com</SecondaryServerName>
    <ServerPort2>5678</ServerPort2>
  </Directory>
</config>
```
Jabber Contact Sources

EDI: Example Configurations

- Common access account

  ```xml
  <UseWindowsCredentials>0</UseWindowsCredentials>
  <ConnectionUsername>ldap_user</ConnectionUsername>
  <ConnectionPassword>ldap_password</ConnectionPassword>
  ```

- Search specified OU

  ```xml
  <SearchBase1>ou=employee,dc=example,dc=com</SearchBase1>
  ```

- Exclude defined entry based on attribute

  ```xml
  <BaseFilter>(&amp;(objectCategory=person)(UserAccountControl:1.2.840.113556.1.4.803:=2))
  ```

- Use alternative attribute for phone

  ```xml
  <BusinessPhone>aNonDefaultTelephoneNumberAttribute</BusinessPhone>
  <MobilePhone>aNonDefaultMobileAttribute</MobilePhone>
  <HomePhone>aNonDefaultHomePhoneAttribute</HomePhone>
  <OtherPhone>aNonDefaultOtherTelephoneAttribute</OtherPhone>
  ```

- Note: Jabber-config.xml file also holds a number of other configuration parameters, alternative files can also be defined by administrator.
Jabber Contact Sources
Retrieving Photos for Contacts

- Jabber provides a number of methods to retrieve contact photos to support many different customer environments

Option 1: Cloud Default (no config)
WebEx Contact Photos

Option 2: On Prem Default (no config)
Active Directory Binary Objects
Retrieve binary photo from thumbnailPhoto attribute load with Powershell

Option 3: On Prem
PhotoURL Attribute/ Retrieve URL
http://photo.example.com/staff/msmith.jpg

Option 4: On Prem (XML config)
URL Substitution/Macro style
http://photo.example.com/staff/%uid%.jpg

Note: Option 2 & 3 phase object to detect binary object or URL

Jabber will also retrieve thumbnail photos from MS Outlook for personal contacts if photo available

Photo can be JPG, PNG or BMP

Recommended size 128x128 but jabber can resize
Jabber Contact Sources
Retrieving Photos for Contacts

- EDI Photo Service Configuration – XML file settings
  - Number / Name resolution should be configured/operational
  - Use custom configuration settings to configure photos
  - Directory method

<table>
<thead>
<tr>
<th>Photo Parameters</th>
<th>Example Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhotoSource</td>
<td>Client will parse attribute to binary object or URI</td>
</tr>
</tbody>
</table>

Substitution method

<table>
<thead>
<tr>
<th>Photo Parameters</th>
<th>Example Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhotoUriSubstitutionEnabled</td>
<td>True</td>
</tr>
<tr>
<td>PhotoUriWithToken</td>
<td><a href="http://photosvr/dir/sAMAccountName.jpg">http://photosvr/dir/sAMAccountName.jpg</a></td>
</tr>
<tr>
<td>PhotoUriSubstitutionToken</td>
<td>sAMAccountName</td>
</tr>
</tbody>
</table>

Define in XML Config File
Jabber Contact Sources

UDS – User Data Services (Contact Service)

- When using the UDS Contact Record Source the client performs contact resolution against communication manager.
- The communications manager Universal Data Service provides an optimised contact lookup service from CUCM 8.6(2)
- UDS provides a cross cluster contact service supporting up to 160,000 contacts.
- UDS support being added to all Jabber clients.

Client resolves contact lookups against UDS

Directory Source

Sync

CUCM Clusters

Resolve

“ssmith@example.com”
“Steve Smith”
“555-444-1012”
“(1)555-444-1012”
“+15554441012”
Jabber Contact Sources
UDS – Configuration

- UDS Record source is configured in UC manager 8.x via jabber-config.xml file

```xml
<?xml version="1.0" encoding="utf-8"?>
<config version="1.0">
  <Directory>
    <DirectoryServerType>UDS</DirectoryServerType>
    <PhotoURISubstitutionEnabled>True</PhotoURISubstitutionEnabled>
    <PhotoURISubstitutionToken>uid</PhotoURISubstitutionToken>
    <PhotoURIWithToken>http://10.53.54.240/staff/%%%uid%%%_.jpg</PhotoURIWithToken>
  </Directory>
</config>
```
Software Deployment

Client Deployment

- Jabber for Windows is shipped as an MSI Installer
  - Windows XP 32bit, Vista 32/64 bit, Windows 7 32/64 bit and Apple OS X

- Jabber doesn’t need to prompt users for server addresses.
  - Package the client for your organisation
  - Use SRV service discovery
  - Use Installer command line options
  - Use Installer properties file

- Client can check for updates on start-up
Software Deployment
Manual Service Configuration

- Server and server type can also be manually configured in Jabber client.
- Settings can also be configured during installer.
- Admin can specify installer parameters to select presence server.
Software Deployment
Windows Client Install/Packaging

- MSI Installer
- Command line switches
- Default configuration Cloud mode
- Install with switches

Msiexec.exe /i CiscoJabberSetup.msi
  TYPE=CUP/Webex
  ADDRESS=x.x.x.x
  DOMAIN=example.com
  LANGUAGE=xxxx
  TFTP_FILE_NAME=myfile.xml
  FORGOTTEN_PASSWORD_URL=
  SSO_ORG_DOMAIN=

- Repacking with Microsoft ORCA
Software Deployment
DNS SRV Service Discovery

- Jabber windows can use DNS SRV records for IM & P service discovery

- Admin defines SRV record in DNS server

- IM&P cluster can perform client redirection in multi cluster deployment
Software Deployment
Creating DNS SRV Record

- SRV record is created in DNS server
- In DNS Manager create SRV record with:
  - Server: _cuplogin
  - Protocol: _tcp
Jabber On Premise Solution Architecture
Unified Communications

Feature Configuration
Unified Communications
Voice Messaging
WebEx Meetings
Application Integration

Baseline Configuration
(IM Only deployment)
IM & Presence Service
User Authentication and Policy
Contact Information
User Creation

Baseline Architecture
Cloud / SAAS Deployment
On Premise Deployment
Unified Communications
Modes of Operation

- **Soft Phone Mode**
  Audio uses sound devices on workstation. Video is displayed on workstation, audio is via headset (recommended) or PC Speakers.

- **Desk Phone Mode**
  Jabber client controls Cisco Phone to make and receive calls. Includes Video for Cisco Voice handsets.

- **Extend & Connect Mode**
  Control PBX/PSTN Phone from Jabber (Requires UC Manager 9.1 which must be connected to PBX via SIP/Telco trunk)

- Clients can be configured for all modes of operation
Unified Communication
UC Manager Interactions

Jabber connects to UC Manager using **CCMCI/UDS** to Populate device list

If connecting in Soft phone mode
Jabber connects as a **SIP / CSF** endpoint

If connecting in Desk phone mode
Jabber connects to UC manager CTI manger with **CTI-QBE**
Unified Communications

User Configuration

**Jabber / UC Manager User**

- **Cluster Profile**
  - Profile for UC Manager & VM
  - Configure Profiles

- **Devices**
  - Device Types – eg CSF, TAB, BOT, TCT
  - Add Devices

- **User Rights**
  - User Roles, Rights and Associations
  - Assign Rights

**Note**

Jabber desktop clients don’t support Connect Click2Call/Web dialler configuration.

Permissions Information

- **Groups**
  - Standard CCMUSER Administration
  - Standard CCM End Users
  - Standard C1T Allow Control of Phones supporting C

- **Roles**
  - Standard CCMUSER Administration
  - Standard CCM End Users
  - Standard C1T Allow Control of Phones supporting C

View Details
Administrator can define multiple “cluster” profiles

Cluster profile contains UC manager and Voicemail settings

For advanced clusters individual server nodes can be defined for TFTP, CTI and CCMCIP
Unified Communications
Client Configuration

Service Profile
Profile for UC Services

Devices
Device Types – eg CSF, TAB, BOT, TCT

User Rights
User Roles, Rights and Associations

Configure Profiles
Add Devices
Assign Rights

Jabber / UC Manager User

Permissions Information

Groups
- Standard CMI Allow Control of Phones supporting C
- Standard CCM End Users
- Standard CTI Enabled

Roles
- Standard CMIUSER Administration
- Standard CCM End Users
- Standard CTI Allow Control of Phones supporting C
- Standard CTI Enabled

View Details
On the UC Manager IM& Presence Server set the TFTP address for the CUCM

On the UC Manager IM& Presence Server create the CCMCIP profile

On the **UC Manager Server** create and associate a CTI profile to the user
Unified Communications
CSF Device (Soft Phone Only)

- **Jabber Device Types**
  - CSF
  - CSF
  - TCT
  - BOT
  - TAB
  - CTIRD

- **Device Naming Convention**
  - Free form, no correlation to username required
  - Any character [A-Z,0-9] up to 15 characters

- **Required Device Parameters**
  - Parameters without default values (must be explicitly set)
    - Device Name
  - Device Pool, Phone Buttons Template, Device Security Profile, SIP Profile
Unified Communications
Device / Line Association  (Soft & Deskphone Modes)

- **Device must be associated to user**
  - Standard CCM User required for CCMCIP access

- **Line needs to be associated to user**
  - Line Presence (this is configured on device)
Unified Communications
Group/Role Membership (Soft & Deskphone Mode)

- User be given required permissions on UC Manager

- Soft Phone required permissions
  - Standard CCM End Users – Allows access to CCMCIP Service

- Desk Phone Control required permissions
  - Standard CCM End Users – Allows access to CCMCIP Service
  - Standard CTI Enabled
  - Standard CTI allow control of Phones supporting connected xfer/conf
  - Standard CTI Allow control of phones supporting Rollover mode
Unified Communications
Desk Phone Control Configuration Summary

- Client must be configured with CCMCIP, TFTP and CTI Server name/addresses
- Client will use CCMCIP Service to discover device information (Authenticated)
  - User must have Standard End user right to connect to CCMCIP Server
- Client will connect to CTI server to control device (CTI authenticated)
  - Device must have CTI control enabled
  - User must be associated to device
  - User must have CTI group/role membership
- On Premise phone presence requires user to be associated to line
  - Publish trunk must be configured between CUCM and CUP
- Devices must be enabled for video operation.

• Voice
• Video*
Client must be configured with CCMCIP, TFTP Server name/addresses

Client will use CCMCIP Service to discover device information (Authenticated)
  - User must have Standard End user right to connect to CCMCIP Server

Client will download CSF device config from TFTP server

Client will register using SIP to UC manager call control agent

On Premise phone presence requires user to be associated to line
  - Publish trunk must be configured between CUCM and CUP

Voice
Video
Desktop Share
Unified Communications
Configuring Publish Trunk

On Premise deployments use Network based presence updates for call state

- Create SIP Trunk to CUP server host/address
- Update Service Parameter
  
  Service Parameter
  Cisco Call Manager
  CUP PUBLISH Trunk
  (set to Trunk Name)

- CUP Tasks
  - Create Presence Gateway
    Type: CUCM
    Gateway: CUCM Host/address
Unified Communications
Cisco Jabber Video Engine

- Cisco Jabber Video Engine is a H.264 AVC standard based media engine using in Cisco Jabber clients.
- The Engine provides full HD interoperability between Jabber desktop clients and TelePresence solutions.
- Provides standard based audio (G.711a/u, G.722.1, G.729a)
- Provides Video rate adaption and support for Cisco ClearPath Media Resilience Mechanisms. (Rate adaption required RTCP with must be enabled on some devices) Supports frame sizes from QCIF to 720p HD at up to 30 frames per second.
Jabber uses CDP protocol to discover tethered Cisco Phone.

CAST protocol is used to negotiate video sessions based on call setup (lip sync).

Jabber controls the phone using CTI protocol in desk phone mode.

CDP/CAST support is provided by Cisco Medianet MSI installer. (must be present)
Unified Communications
Multi-Party Voice & Video Calling

- Jabber clients support multi-party conferences
- Ad-hoc conference uses Media groups in UC Manager
- Conference capability will depend on DSP architecture available in media resource group
  - Audio only
  - Audio and video
- DSP provided by
  - Software bridge only
  - Router DSP Farm
  - Multi-point conference unit
- Scheduled video conferences call also supported

Video Multipoint Conferencing Units

Cisco TelePresence MCU 4500 Series
Cisco TelePresence Server 7010
Cisco TelePresence Server 8000
Cisco Integrated Services Router (with PVDM3)
Unified Communications
Dial Plan Considerations

- If UC Manager dial plan does not match the LDAP dial plan you may need to use rules or translation patterns.
- When initiating calls we need convert E.164 numbers to the UC manager dial plan.
- When receiving calls we need to extend internal numbers to E.164.
- Rules are created on CUCM and downloaded using TFTP.
- A COP file must be applied to update dial rules prior to UC manager 8.6.

Directory Number +14085253777

Destination Number 883777

Application Dial Rules
Translation Patterns

Directory Lookup Rules
PhoneLookupMasks
Unified Communications
Configuring Video Desktop Share

- Jabber for Windows supports Binary Floor Control Protocol (BFCP) for desktop sharing (RFC 4582).
- BFCP will encode a video stream of the sender's desktop, this can be in addition to a camera video stream.
- Video desktop sharing can be between Jabber client and Cisco Video endpoints.

**Requires UC Manager 8.6** and based on version may require COP file.
Unified Communications
Voicemail Access/Visual Voicemail

- Jabber can visually display voice messages from Cisco Unity Connection.
- A voicemail Service profile defines Unity Connection a mail store information.
Cisco WebEx Meetings

Escalate to a Web Conference

- Cisco Webex provides a web based conferencing service
- Administrator can create profiles for Cloud and On Premise WebEx services
- Jabber can support integration to WebEx SSO enabled sites
- Jabber can support 3rd Party TSP services with Webex Meetings

Cisco WebEx Meetings is a cloud based conferencing solution

Cisco WebEx Meetings Server is an on premise, highly secure, fully virtualised, conferencing solution
Cisco WebEx Meetings

Calendar Integration

- Jabber will show a schedule of WebEx meetings and other appointments in a Jabber Tab.
- Meetings information is retrieved from WebEx Meetings services as well as a choice between Microsoft Outlook, Lotus Notes or Google calendar.
Microsoft Office Integration
Microsoft Office 2007 and 2010 Integration

- Office 2010 integration allows conversations to be initiated directly inside Office and SharePoint applications.
Microsoft Office Integration
Understanding ProxyAddress Update process

Jabber admin file download contains tool to updated AD with Proxyaddress attribute

This process can take 24 hours to sync without Admin intervention
Extending Cisco Jabber
Extensible Tab / HTML Apps

Jabber uses the Segoe UI font which can be applied using CSS for common UE styling.

Up to 4 user defined tabs can be created.

If no Icon is created default globe icon is displayed.

HTML window instance running in client.

HTML apps can leverage IM and Call URI for click to X.

Jabber SDK could be used to provide further functions.
Summary

- Plan your deployment!!!
- Decide on Cloud or On Premise Model
- Think about your Jabber UserID
- Think about the data in the Contact Source
- Integrate with UC Manager and WebEx Meetings
- Use Office integration and tabs to integrate into the desktop.
Summary

- Cisco Jabber is a flexible architecture which provides a cross platform, intuitive user experience with rich productive multi-modal communications.

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