Deploying Cisco Jabber Desktop Clients

BRKUCC-2480

Bryan Morris – Technical Marketing Manager
Session Description

- This session provides information for planning and deployment of Cisco Jabber soft clients. Cisco Unified communication desktop clients leverage the Client services framework.
- This session provides detailed information on the Cisco Unified Client services framework. If you want to know how Cisco persistent chat is deployed, how the Cisco client selects video quality/rates, how the Cisco client integrates into Microsoft Office or just general architectural information then this session would be of interest to you.
- The session will also discuss Cisco Unified Presence, integrations with Cisco Unity connection, conferencing resources and WebEx conferencing.
Deploying Cisco Jabber Desktop Clients

Session Agenda

- Cisco Jabber Product Set
- Selecting an Architecture
- Creating a Jabber baseline system
- Feature Configuration
  - Voice & Video
  - Desktop share
  - Visual Voicemail
  - WebEx Integration
  - Microsoft Integration
- Configuration with UC Manager 9.0
- 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
Deploying Cisco Jabber Desktop Clients

Cisco Desktop Client Evolution

Cisco Unified Personal Communicator

Cisco Jabber for Windows

Cisco WebEx Connect
Deploying Cisco Jabber Desktop Clients

Presence and Contact Management

- See instantly who is available and how
- Instantly and efficiently interact
- Search for contacts using optimized predictive search
- Customisable rich presence status
- Start communication using text chat, voice and video
- Contact management using personal groups
- Chat and calling history
- Business to business and business to consumer federations
Deploying Cisco Jabber Desktop Clients

Instant Message / Group Chat

Enterprise Class Instant Messaging

- Standard based XMPP protocol
- Encryption point to point and group chat
- Emoticons & rich text
- Screen capture for content sharing*
- Escalation to voice/video
- Federated chat to other organisations and services
- Chat history and logging

* Feature not available in all clients
Voice & Video Communication

Enterprise Class Voice, Video and Call Control

- Industry standard based voice and video for greater interoperability
- Leverage capabilities of Cisco Unified CM manager and network
- Soft phone and Desktop operating modes
- High quality audio
- High definition business video experience
- Visual Integration to voicemail with message transcription*

* Feature not available in all clients
Deploying Cisco Jabber Desktop Clients

Desktop Collaboration

- Video desktop share providing cross device interoperability
- WebEx Meeting center integration

* Feature not available in all clients
Deploying Cisco Jabber Desktop Clients
Integration with Desktop Applications

- See who is available directly in Microsoft Office suites
- Easily start
  - Chat
  - Group Chat
- Easily escalate to
  - Voice
  - Video
  - Web Share

* Feature not available in all clients
Planning your Jabber Deployment

Planned deployments are successful deployment!
Cisco Jabber Deployment

Plan Your Deployment

- Which Architecture are you going to deploy?
- Check current software versions deployed (if applicable)
- Plan your baseline deployment? (Scaling, Servers)
- Review the release notes for software version you’re going to deploy!
- Confirm where/how users will be created?
- Confirm how users going to be authentication?
- Decide which contact lookup sources you’re going to use?
- Plan which additional feature you’re going to deploy?
- Network bandwidth and policy requirements
- Configure internal firewalls based on traffic types.
Deploying Cisco Jabber Clients

Client Architecture

Feature Configuration

- Voice
- Video
- Share
- CUCM
- Visual Voicemail
- Webex
- Microsoft Desktop Integration
- Authentication

Baseline Configuration

- IM / Chat Service
- Presence Service
- Contact Service
- Authentication

Baseline Architecture

- On Premise
- Cloud
Deploying Cisco Jabber Clients

Client Architecture

Feature Configuration
- Voice
- Video
- Share
- CUCM
- Visual Voicemail
- Webex
- Microsoft Desktop Integration
- Authentication

Baseline Configuration
- IM / Chat Service
- Presence Service
- Contact Service
- Authentication

Baseline Architecture
- On Premise
- Cloud
Cisco Jabber Clients – Baseline Architecture
SaaS/Cloud Based Deployment Model

- Aligns with Webex Connect model
- Client Connects to Webex cloud for service
- Configuration information provided from OrgAdmin tool
- Instant Messaging and presence service cloud based
- Contact source / directory service is cloud based
- Optional PC to PC calling feature for voice*

Jabber support 2H CY2012
Cisco Jabber Clients – Baseline Architecture
On Premise deployment (Pre UC Manager 9.0)

- Aligns with CUPC “style” model
- Client uses on premise services
- Client configuration on CUCM & CUP
- Instant Messaging and presence provided by CUP
- Contact source / directory service is on premise (Active directory / LDAP)
- Supported with CUCM 7.1(4) thru 8.6(2)

<table>
<thead>
<tr>
<th></th>
<th>IM Only</th>
<th>Full UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,000 Users</td>
<td>25,000 Users per server</td>
<td>15,000 Users per server</td>
</tr>
<tr>
<td>75,000 users</td>
<td>75,000 users per cluster</td>
<td>45,000 user per cluster</td>
</tr>
<tr>
<td>75,000 users</td>
<td>75,000 users per cluster</td>
<td>45,000 user per cluster</td>
</tr>
</tbody>
</table>
Building a Baseline System
Deploying Cisco Jabber Clients

Client Architecture

Feature Configuration

Voice, Video, Share

CUCM

Visual Voicemail

Webex

Microsoft Desktop Integration

Authentication

Baseline Configuration

IM / Chat Service

Presence Service

Contact Service

Authentication

Baseline Architecture

On Premise

In this session we are going to work through an example on premise Jabber for windows client deployment.
Cisco Jabber
Cisco Client Services Framework

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
Base Deployment

TASK LIST (on premise / pre 9)

- Create/Sync Users in CUCM
- Enable Users for Presence/Client Access
- Enable/Configure IM Policy
- Configure Directory Access
  - Configure LDAP access (CUPC / Jabber for Mac)
  - Configure Enhanced directory access (Jabber for windows)
- Client Service Discovery
- Deploy Client Installer
Base Deployment
Server Architecture (On premise/pre 9)

- Directory Server
  - Contact Lookup

*recommended configuration
Base Deployment
Create/Sync Users on CUCM

- User added to CUCM
- LDAP sync and authentication is recommended
- Capabilities assigned to user (system>Licensing>Capabilities Assignment)
  - Assigning Capabilities consumes DLU's
- Bulk Update Supported
Base Deployment

Instant Message Policy

- IM Policy can be managed by the admin
- IM Policy can be set to disable IM or features

Users enabled for IM will be able to:

Start Point to Point IM
Start group chat session
Use Rich Text IM

Screen Capture (Windows only)
File Transfer (Jabber Clients only)

IM logging can be configured on Cisco presence server
- Server logging
- Actiance application
Clients will search the directory to add contacts, resolve contacts and phone numbers.

Which Contact Service are we going to deploy
- EDI – Active Directory or other directory service
- UDS – UC Manager contact server – synced from directory?

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.
EDI – Enhanced Directory Integration

Auto-Discovery Configuration

- Jabber for Windows by default uses auto-discovery for directory access
- Clients connect to a Global Catalog server in the current domain (Windows selects exact GC)
- 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.

1. Workstation discovered DC/GC using DNS SRV
2. Client uses ASDI to connect to directory
3. Client authenticated using existing domain authentication
EDI – Enhanced Directory Integration

Admin Custom Configuration

- Administrator can customize many elements of EDI operation for different deployment environments.
- The Administrator will create a custom XML configuration file on pre 9.0 UC manager deployments. (post 9.0 can also support XML file)
- TFTP server must be defined on CUP server
- Jabber-config.xml
- No attribute value assumes default value

```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)

NOTE: AD Contact Record source does not use CUP LDAP profile

XML file not required in CUCM 9.0
EDI – Enhanced Directory Integration

Alternative Directory Access

- EDI provides support for 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)
EDI – Enhanced Directory Integration

Alternative Authentication

- EDI default authentication will use windows integrated authentication.
- Admin can push alternative credential set to client for authentication.
- Allows the use of a common username/password for a group of users.
- Anonymous connection can also be configured
EDI – Enhanced Directory Integration

Custom LDAP Search Filter

- EDI allows admin customisation of base LDAP query.
- Admin can add criteria to LDAP Query
- Can be used to restrict LDAP query based on additional attribute values.

Admin criteria (Costcentre=NS33)

Costcentre=NS32
Costcentre=NS32
Costcentre=NS33
# EDI – Enhanced Directory Integration

## Custom Directory Access Parameters

### Connection Settings
- **Connection Type**
- **UseSecureConnection**
- **UseSSL**
- **PrimaryServerName**
- **Port1**
- **SecondaryServerName**
- **Port2**

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

### Attribute Map

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>CommonName</td>
<td>Nickname</td>
</tr>
<tr>
<td>FirstName</td>
<td>PostalCode</td>
</tr>
<tr>
<td>LastName</td>
<td>State</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>StreetAddress</td>
</tr>
<tr>
<td>SipUri</td>
<td>PhotoURI</td>
</tr>
<tr>
<td>BusinessPhone</td>
<td>CompanyName</td>
</tr>
<tr>
<td>HomePhone</td>
<td>UserAccount</td>
</tr>
<tr>
<td>OtherPhone</td>
<td>Domain</td>
</tr>
<tr>
<td>PreferredNumber</td>
<td>Location</td>
</tr>
<tr>
<td>Title</td>
<td></td>
</tr>
</tbody>
</table>

### Authentication
- **UseWindowsCredentials**
- **ConnectionUsername**
- **ConnectionPassword**
EDI – Enhanced Directory Integration

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>
```
EDI – Enhanced Directory Integration

Example Configurations

- Common access account
  
  `<UseWindowsCredentials>0</UseWindowsCredentials>`
  `<ConnectionUsername>ldap_user</ConnectionUsername>`
  `<ConnectionPassword>ldap_password</ConnectionPassword>`

- Search specified OU

  `<SearchBase1>ou=muppets,dc=example,dc=com</SearchBase1>`

- Exclude defined entry based on attribute

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

- Use alternative attribute for phone

  `<BusinessPhone>aNonDefaultTelephoneNumberAttribute</BusinessPhone>`
  `<MobilePhone>aNonDefaultMobileAttribute</MobilePhone>`
  `<HomePhone>aNonDefaultHomePhoneAttribute</HomePhone>`
  `<OtherPhone>aNonDefaultOtherTelephoneAttribute</OtherPhone>`
Enabling photos greatly enhances the user experience of the client.

Photo’s can be retrieved in 3 ways:
- Binary object in Active Directory (thumbnailPhoto)
- Photo URI from directory
- URI substitution

(Cloud mode uses WebEx photos)
Baseline Deployment
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
When using the UDS Contact Record Source the client performs contact resolution against communication manager.

The communications manager Universal Data Service provides an optimized contact lookup service from CUCM 8.6(2)

UDS provides a cross cluster contact service supporting up to 80,000 contacts.
UDS – User Data Service
Contact Record Source 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>
```
Baseline Deployment

DNS SRV Service Discovery

- Jabber windows can use DNS SRV records for CUP service discovery
- Admin defines SRV record in DNS server
- CUP cluster can perform client redirection in multi cluster deployment

1. Client SRV lookup for CUP_LOGIN
2. DNS Server
3. CUP Servers 1.1.1.1
   - Optional Redirection

Cluster A: 1.1.1.1
Cluster B: 2.2.2.2
Baseline Deployment
Creating DNS SRV Record

- SRV record is created in DNS server
- In DNS Manager create SRV record with:
  - Server:_cuplogin
  - Protocol:_tcp
Baseline 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.
Baseline Deployment

Client Deployment

- Jabber Windows is shipped with two installers
  - .MSI – for Software distribution systems
  - (No installer on Mac platform)

- Jabber for is supported on the following Desktop OSs
  - Microsoft Windows XP SP3 - 32 bit
  - Microsoft Windows 7 – 32 bit
  - Microsoft Windows 7 – 64 bit
  - Apple OS X – 10.6.8 and later

(Vista support to follow)

Jabber for Windows is NOT a Microsoft .NET application so doesn’t require the installation of Microsoft .NET

Jabber for Windows doesn’t use JAVA modules.
Baseline Deployment
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
FORGOT_PASSWORD_URL=
SSO_ORGDOMAIN=
```

- Repacking with Microsoft ORCA
Cisco Jabber
Jabber Feature Configuration

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
Cisco Jabber
& Client Services Framework
Adding Voice & Video to Jabber

Modes of Operation

- Two Operating modes

**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. (Workstation Video support Q2 CY12) (Video phone control supported)

- Clients can be configured for either or both modes of operation
Adding Voice & Video to Jabber
Cisco UC Manager 7.x/8.x Services

- Directory Server
  - Contact Lookup
  - *recommended configuration

- User Administration
- AD LDAP
  - LDAP sync*
  - LDAP Auth*

- Database
- Call Control (SIP)
  - CTI Manager
  - CCMCIP

- TFTP Server
- UC Manager
  - Jabber Client

- Presence Server
- Chat Server
- Presence Server
- Client Profile

- Authentication & Configuration
  - Presence
  - Chat Services
  - Logging

- XMPP & SIP Stacks

* recommended configuration
Adding Voice & Video to Jabber
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
User Configuration Architecture (CUP 8.x)
Adding Voice & Video to Jabber
Planning for Desk Phone Control Configuration

• Voice
• Video*

*Desk phone video support planned for 2H CY12

- 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.
Adding Voice & Video to Jabber
Planning for Soft Phone Configuration

- 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
Creating Config Profiles on Presence server

CCMCIP Service

- (Desk phone and Soft phone modes)

- CCMCIP service is used to learn about the devices associated to the logged in user.
- The CCMCIP provides an HTTPS based service for user/device association information.
- A profile is required to define where the CCMCIP services are located.
- To login to CCMCIP user must be a member of “standard CCM User group”
- Users must be associated to profile (unless default)
Creating Config Profiles on Presence server

Configuring TFTP Server

- (Desk phone and Soft phone modes)

- Configured on CUP server in CUPC Settings
- TFTP Server is used to download:
  - CNF configuration file when using soft phone mode
  - Custom Configuration file for Enhanced Directory integration
  - Application Dial rules (if configured)
  - Directory Lookup rules (if configured)
Creating Config Profiles on Presence server

Creating CTI Profiles

- (Desk phone modes only)
- CTI Profile used to specify CTI Server
- CUP install will create default profile
- Additional profiles can be created to distribute CTI Load
- Users must have CTI group membership (Standard CTI)
- Users must be associated to profile (unless default)
Alternative Configuration
Setting UC Manager Setting Client Side

- Jabber clients can also be configured client side

![Advanced manual settings]

Advanced>> exposed manual settings
Creating CSF devices on UC Manager

CSF Device (Soft Phone Only)

- **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

**Example Device Names**

- **CSFBMORRIS** (username)
- **WXP112442** (workstation name)
- **CSF489232** (Directory Number)
Configuring Association on UC Manager

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)
Configuring Permissions on UC Manager
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
Cisco Precision Video Engine

- Cisco Precision Video Engine (PVE) is a H.264 AVC standard based media engine using in Cisco Jabber clients.
- The engine uses Cisco intellectual property originally developed by Tandberg which was original released in the Movi product.
- The PVE 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)
- Supports frame sizes from QCIF to 720p HD at up to 30 frames per second.
Client Services Framework

Precision Video Engine

- **Supported Encoding for transmit**
  - QCIF (176 x 144) @30fps
  - CIF (352 x 288) @30fps
  - w288p (512 x 288) @30fps
  - q720p (640 x 360) @30fps
  - VGA (640 x 480) @30fps
  - w448p (768 x 448) @30fps
  - w576p (1024 x 576) @30fps
  - w720p (1280 x 720) @30fps

- **Client will decode any resolution within negotiated H.264 level**

- **Factors which influence video frame rates**
  - Camera / Light Conditions
  - Network conditions
  - CPU and load on receiver
  - Rate encoded by sender
  - UC Manager configuration
  - Rate Adaption (RTCP)
Video Rate Adaption

Enabling RTCP on UC Manager

- Device>Device Settings>Common Phone Profile

The Product specific configuration layout on certain devices allows this to be overridden.

Example 9971 has a device level RTCP option.
Adding Voice & Video to Jabber

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
Adding Voice & Video to Jabber

Dial Plan Considerations

- If UC Manager dial plan does not match the LDAP dial plan you will 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.
UC Manager dial plan consideration

Dial Plan Mapping

Application Dial Rule Configuration

Status

Status: Ready

Application Dial Rule Information

Name*: SanJose_ADR
Description: San Jose
Number Begins With: +1408571
Number of Digits*: 12
Total Digits to be Removed*: 7
Prefix With Pattern: 0

Application Dial Rule Priority

<table>
<thead>
<tr>
<th>Name</th>
<th>Number Begins With</th>
<th>Number of Digits</th>
<th>Total Digits to be Removed</th>
<th>Prefix With Pattern</th>
<th>Up</th>
<th>Down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gelway ADR</td>
<td>+353</td>
<td>12</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SanJose ADR</td>
<td>+1408571</td>
<td>12</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
UC Manager Dial Plan Consideration

Using Phone Masks for Formatted Strings

- A phone mask can be used if your directory has formatted number strings in phone attributes.
- A phone mask can be used to add brackets, spaces, dashes and other character to a number string before a search:
  - +(1) 408 555 0100
  - +1-510-5550101
- A phone mask is a client configuration parameter and is part of the EDI custom directory configuration.

<table>
<thead>
<tr>
<th>Phone mask</th>
<th>PhoneNumberMasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>+1408</td>
<td>+(#) ### ### ####</td>
</tr>
</tbody>
</table>

- Single parameters supports multiple masks, format is area code (pipe) mask. Use pipe for additional masks.
Adding Desktop Sharing to Jabber

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.
Adding Visual Voicemail to Jabber

Voicemail Access/Visual Voicemail

- Unity only supported with CUPC
- Jabber clients only support Unity Connection

Visual interface varies with each client (CUPC shown)
Adding Visual Voicemail to Jabber

Voicemail Profiles

- The Voicemail profile contains a voicemail server configuration and mail store configuration.
- Profile is associated to users (unless default)
Cisco recommends service accounts in Jabber are synchronised across servers.

- UC Manager
- Unity Connection

If an administrator doesn’t link accounts then the client will expose an accounts tab in the client

Policy is configured in OrgAdmin, UCM9.0 or via Jabber XML file.
Adding WebEx Web Conferencing to Jabber

Escalate to a Web Conference

- Cisco Webex provides a web based conferencing service
- Jabber clients provide the ability to escalate a conversation to a Webex session
- Meeting Place is not supported with Jabber for Windows (On prem, Webex Type 1 & 2)
- Jabber for Windows supports direct Webex integration
Adding Application Integration to Jabber
Microsoft Office 2007 Integration

- Office 2007 integration allows conversations to be initiated directly inside Office and SharePoint applications

Microsoft SharePoint 2007

Microsoft Outlook 2007

Cisco Presence Light-Ups

Cisco Click to IM/Call
Adding Application Integration to Jabber
Microsoft Office 2010 Integration

- Office 2010 integration allows conversations to be initiated directly inside Office and SharePoint applications
Adding Application Integration to Jabber
Office 2010 Presence Light-up

- Office 2010 requires the AD proxyAddress attribute to be populated with SIP URI for presence to be associated
- This can be set by administrator in
  - Active Directory Users and Computers
  - Exchange Management Console
  - ADSI Edit

- Cisco AD Wizard is a bulk update tool for settings proxyAddress
  (download from CUPC admin pack on cisco.com)
Adding Application Integration to 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 used to provide further functions.
Adding Application Integration to Jabber

**HTML URI’s**

- Administrators can include URL’s in the HTML to provide click to X functions:
  - This include:
    - **XMPP**: Start an IM conversation with a contact
    - **TEL**: Make a call to a number (with confirmation, RFC based)
    - **Clicktocall**: make a call to a number without confirmation

**TEL: URI**
Adding Application Integration to Jabber

Custom Tab – Configuration File

- All tabs are held in the custom configuration file

```xml
<?xml version="1.0" encoding="utf-8"?>
<config version="1.0">
  <Client>
    <jabber-plugin-config>
      <browser-plugin>
        <page refresh="false" preload="true">
          <tooltip>Sample App</tooltip>
          <icon>http://server_name.example.com/icon.png</icon>
          <url>http://example.com/app</url>
        </page>
        <page refresh="true" preload="true">
          <tooltip>Cisco</tooltip>
          <icon>http://server_name.cisco.com/logo.gif</icon>
          <url>http://www.cisco.com</url>
        </page>
      </browser-plugin>
    </jabber-plugin-config>
  </Client>
</config>
```

Registry Settings are no longer used for Tab configuration
Cisco Jabber
Considerations for Deploying MAC Client

- **Directories**
  - Jabber for Mac doesn’t auto-detect active directory configuration, LDAP profile is created on CUP Server
  - Mac doesn’t support binary object lookup for photos
    Photo URI configured on CUP Server

- **Video**
  - Jabber for Mac 8.6 doesn’t currently support video,
  - Video planned for Jabber for Mac 9.0 later this year

- **Desktop Share**
  - BFCP desktop sharing roadmap item, Webex desktop share supported

- **Custom Tabs**
  - Custom Tabs not currently supported on Mac client
Jabber with UC Manager 9.0
Server Architecture

- Jabber with UC Manager 9.0
- Server Architecture

- LDAP sync
- LDAP sync*
- LDAP Auth*
- DB sync

- User Administration
- Directory Server

- User Management
- AD LDAP

- User & License Management
- Database

- UDS
- Service Profiles
- Service Discovery

- TFTP Server

- Chat Server
- Presence Server

- Presence
- Chat Services
- Presence

- Jabber with UC Manager 9.0
- Jabber Client

- UDS Contact Lookup
- Configuration
- User Management

- LDAP sync*
Jabber with UC Manager 9.0
User Configuration

End User Configuration

Service Profile Configuration

UC Service
- Voicemail
- Mail Store
- Conferencing
- IM & Presence
- CTI
- AppStore
- Directory (BDI/EDI/UDS)

Cisco Unified CM Administration

The system is operating on demo licenses that will expire in 30 days. Please make sure to install sufficient licenses to cover its usage before expiration.

Cisco Unified CM Administration
System version: 9.0.0.980000-36
VMware Installation: 1 vCPU Intel(R) Xeon(R) CPU X5680 @ 3.33GHz, disk 1: 80Gbytes, 2048Mbytes RAM

Last Successful Logon: Mar 30, 2012 3:28:46 PM
Jabber with UC Manager 9.0
User Configuration
Jabber with UC Manager 9.0

Device Configuration

Instant Messaging
- File Types to Block in File Transfer
- URLs to Block in File Transfer

Desktop Client Settings
- Automatically Start in Phone Control
- Automatically Control Tethered Desk Phone
- Extend and Connect Capability
- Display Contact Photos
- Number Lookups on Directory
- Jabber For Windows Software Update Server URL
- Problem Report Server URL
- Analytics Collection
- Analytics Server URL
- Cisco Support Field

Cisco Support Field
- IM Policy
Summary

▪ First thought to take away…
  – In this session we have focused on Jabber deployments on premise
  – Jabber can be deployed both in a Cloud and On-Premise model to fit your organisation
Summary

- Second thought to take away
  - In this session we have focused on the Jabber for Windows client
  - Jabber can be deployed on the devices your organisation uses and on the devices your staff want to use.
Summary

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

Thank you for your attention.
Thank You
Complete Your Online Session Evaluation

- Give us your feedback and you could win fabulous prizes. Winners announced daily.
- Receive 20 Passport points for each session evaluation you complete.
- Complete your session evaluation online now (open a browser through our wireless network to access our portal) or visit one of the Internet stations throughout the Convention Center.

Don’t forget to activate your Cisco Live Virtual account for access to all session material, communities, and on-demand and live activities throughout the year. Activate your account at the Cisco booth in the World of Solutions or visit www.ciscolive.com.
Final Thoughts

- Get hands-on experience with the Walk-in Labs located in World of Solutions, booth 1042
- Come see demos of many key solutions and products in the main Cisco booth 2924
- Visit www.ciscoLive365.com after the event for updated PDFs, on-demand session videos, networking, and more!
- Follow Cisco Live! using social media:
  - Facebook: https://www.facebook.com/ciscoliveus
  - Twitter: https://twitter.com/#!/CiscoLive
  - LinkedIn Group: http://linkd.in/CiscoLI