Cisco live!

What You Make Possible
Cisco Jabber Web SDK – Maximize Your Business Application by Enabling Collaboration

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Required GAAP Reconciliation and Forward-Looking Statements

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Session Abstract

• Using the Cisco Jabber Software Development Kit (SDK) you can integrate Cisco Unified Communications capabilities into any web application easily and quickly. Application developers, customers, and partners alike can take advantage of this powerful SDK to incorporate voice, video, instant messaging (IM), presence, voice messaging, and conferencing capabilities.

• Join this session to hear about how the Jabber web toolkit enables products and services to be built on top of the Cisco collaboration portfolio. We will also discuss how the toolkit can be used to add value to your existing collaboration portfolio by incorporating collaboration capabilities pervasively within your line of business application or web portal.

• Finally, we will demonstrate the power and ease of use of the SDK by walking though a Hello World example – add Voice, Video, IM and Presence to a web page in less than 10 minutes.
Agenda

Add Cisco Collaboration to your Enterprise Web Application

• Introducing the Cisco Jabber Family
• Add Cisco Collaboration to Enterprise Web Applications
  – Why? What’s in it for you?
  – What? Use cases, feature deepdive and demos
  – How? Hello World! Chat it, speak it, see it. Add voice, video, im and presence to a webpage in 10 minutes
• Live demonstration
• What’s next for the Jabber Web Toolkit?
• Jabber client extensibility and integrations
• Support, tools and GTM
Introducing the Cisco Jabber Family
Cisco Jabber

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 on-demand
• Integration with Microsoft Office
Cisco Integrated Collaboration Experience

INTEGRATED COLLABORATION EXPERIENCE
Wide Variety of Collaboration Needs

ANYWHERE

Flexible Access
from all Clients

Any Device

Video Handled as Easily as Voice

Any Content

Secure Intra- and Inter-Company Communications

INTEGRATED COLLABORATION ARCHITECTURE

Wide Variety of Collaboration Technologies

Richest Experience in Any Location
Add Cisco Collaboration to Enterprise Web Applications with the Jabber SDK
Collaboration In Transition

Communications is key for...

**ERP**
- Faster notification process and exception resolution

**CRM**
- Improved sales effectiveness and customer satisfaction

**Cloud eMail**
- Enabling choice in email and personal productivity

Simplicity – Speed – Reactiveness - Productivity
Collaboration In Transition

Communications is key for...

**ERP**
- Faster notification process and exception resolution
  - SAP

**CRM**
- Improved sales effectiveness and customer satisfaction
  - Salesforce.com

**Cloud eMail**
- Enabling choice in email and personal productivity
  - Gmail

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Jabber SDK
The Jabber web toolkit

- Easily and rapidly add collaboration to enterprise web applications and business processes
- Increase productivity and maintain context of interactions for end users
- Add incremental value to Cisco Collaboration deployments based on unique needs
Web toolkit to collaboration enable web apps

- Voice
- Video
- IM/Chat
- Presence
- Voice mail
- Web Conferencing

Easily add collaboration to web applications and business processes
Jabber SDK is for Partners / Developers

Cisco Not Creating Integrations

White Space for Partners

Monetize as a Service or as a Product

Cisco Not Creating Integrations

White Space for Partners

Monetize as a Service or as a Product

Cisco Web SDK

Voice & Video

IM & Presence

Meetings

Voicemail

Voice & Video

IM & Presence

Meetings

Voicemail
Add Cisco Collaboration to Enterprise Web Applications – The Why
Access Market-Leading UC Services

Number one in Enterprise Call Control
Number one in Video
Number one in Web Conferencing
Number one in Audio Conferencing
Number one in Unified Messaging

Sources: Synergy Research, Frost & Sullivan, Gartner, Intellicom Analytics, Cisco Q4 2009.
Note: Enterprise Call Control excludes low-end KTS category.
What’s it all about? For the IT Pro…

• Providing the building blocks to rapidly and easily Cisco UC enable enterprise web applications – providing Voice, Video, Presence/IM, Voicemail, WebEx

• Consolidate the desktop and integrate collaboration deep into existing applications, increasing productivity and maintain context of interactions for end users

• Every browser experience can become an interactive collaboration experience

• Add incremental value to your Cisco Collaboration deployment based on your unique needs

• Unique offering - No other enterprise UC provider has voice, video Web plug-in/SDK
What’s it all about? For the ISV …

• Providing the building blocks to rapidly and easily Cisco UC enable enterprise web applications – providing Voice, Video, Presence/IM, Voicemail, WebEx

• Exciting technology enabler to build product and services based on Cisco collaboration technology

• Leverage large Cisco collaboration presence

• Co-marketing opportunities

• Unique offering - No other enterprise UC provider has voice, video Web plug-in/SDK
Add Cisco Collaboration to Enterprise Web Applications – The What
Usage examples and case studies

• Example 1 & 2: Cisco UC enablement of online desktop and line of business applications

• Example 3: Cisco UC enhancing collaboration applications
  – E.g. online mail providers, social media vendors

• Example 4: Cisco UC enablement of custom web 2.0 portals and custom web applications

• Example 5: Cisco UC enablement of online email application
Use Case: Pervasive Cisco UC in Business Applications

- UC, Collaboration, Video capabilities everywhere
- Example only – an ISV or IT Pro could do the project
Use Case: Salesforce.com Cisco UC Integration

- Use Cases: Immediate collaboration with people who are relevant to the current SFDC transaction and receive information from Salesforce workflows and approval processes.
Use Case: Pervasive UC in Enterprise Social Application

- Presence and UC capabilities throughout the application
- Cisco on Cisco Integration – Cisco Quad leverages public facing APIs

Presence enabled
IM / Chat enabled
Click 2 WebEx enabled
Click 2 Call enabled
Use Case: Cisco UC enabled Corporate Directory

- Search and connect: real-time collaboration within corporate directories
- Presence, Click 2 Voice / Video / IM / WebEx /
Use Case: Cisco voice enabled Gmail

- Cisco UC Enable Gmail and Google Apps for Business
- Cisco Jabber APIs
  - Web Softphone (AJAX)
  - IM / Presence (CAXL)
- User Capabilities
  - View Presence
  - Click 2 IM
  - Click 2 Call
- Deployment Requirement
  - Corporate VPN active session
- Demo: Completed Integration
  - [http://www.youtube.com/watch?v=pIGyEu bjBrU](http://www.youtube.com/watch?v=pIGyEu bjBrU)
The Jabber web toolkit

Your UC enabled web application

Web Phone (AJAX)  CAXL (AJAX)  CUMI (REST)  WebEx (URL/XML)

Video  Audio  Call Cntl  IM/Chat  Presence  Pub/Sub  Voice mail  Meeting

Cisco Unified Infrastructure

Communications Manager  Unified Presence  WebEx Connect  Unity Messaging  WebEx Collaboration
Webphone library

- Web Phone provides two operating modes
  - Control of a physical desk phone
  - Soft Phone functionality
- JavaScript library
- Browser plug-in required for media termination
Webphone library

Feature highlights

• Make voice or video call
• Answer, drop
• Hold/Resume
• Conference
• Transfer
• Enter DTMF
• Add/remove video
• Picture in Picture
• Resize
• Full screen
• Video adaptation and resolution
Video Becomes Pervasive
Jabber for Windows

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.

• CPU optimised experience delivers HD experience to dual core CPUs

• 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**.
Jabber for Windows

Video Stream considerations

• Jabber will always aim to Transmit and Receive HD video.
• Factors that throttle HD video are:

  - Far end device Video Capability
  - CPU Processor
  - Admin Settings
  - Lighting Conditions
  - Local Camera Capabilities/Quality
  - Communications Manager Region Control (CAC)

H.264 Level 3.1
Cisco Ajax XMPP Library

- CAXL is a Web 2.0 JavaScript client SDK for integration of Instant messaging, Presence and Roster services
- Evolution of Jabbers former jabberwerx suite
- Common SDK for on-prem (CUP) and off-prem (Webex) integration
- Uses BOSH for server communication (Bidirectional streams over synchronous HTTP)
Cisco Ajax XMPP Library

• 1:1 Instant Messaging
  • Ability to initiate and receive P2P IM
  • Supports xHTML-IM rich-text

• Multi-user chat room (including Persistent Chat)
  • Ability to create adhoc and persistent chat rooms
  • Ability to invite and be invited to chat rooms.
  • Ability to search for existing chat rooms

• Pub/Sub Applications (e.g. for GeoLocation)
  • Personal Eventing Protocol - Ability to create/publish/subscribe to pub/sub service nodes on a server.

• User Authentication

• Roster Presence and Roster (Contacts List) management
  • Ability to Add/Update/Remove Contacts
  • Ability to move contacts between groups

• My presence
  • Ability to set device presence
  • When integrated with CUP, SDK can be configured to set CAXL device presence to be the same as Presence engine composed presence.

• Temporary Presence Subscriptions
  • Ability to create temporary subscriptions to users who are not on your roster (“Quick Contacts”)
  • Ability to do bulk subscribe/unsubscribe of temporary subscriptions. Useful in multi-page applications where each page may have a different list of users
Cisco Unity Connection REST APIs

- Web 2.0 interface for accessing Cisco Unity Connection Voicemail
- CUMI – Cisco Unity Messaging interface for retrieving and managing messages
- CUNI – Cisco Unity Notifications interface for managing notifications
- CUTI – Cisco Unity Telephony interface for telephone record and playback
Cisco Unity Connection REST APIs

• Provides access to a wide set of Unity Connection Messaging functionality:
  – Access to messages (including broadcast messages)
  – Send new messages
  – Reply to messages
  – Receive notifications of new messages
  – Telephone Record and Playback of messages

• Specify what messages are returned and how
  – Filtering
  – Sorting
WebEx Meetings Library

- **Account Admin and Login**
  - User account login
  - User account log out
  - User account creation
  - User account editing
  - User Profile

- **Manage meetings**
  - My WebEx features
  - Schedule meetings
  - Delete meetings
  - Host meetings
  - Join meetings
  - List meetings
  - Start meetings
Add Cisco Collaboration to Enterprise Web Applications – The How
Getting Started – Cisco Developer Network

• Download SDKs, Samples, Videos, Community
• www.jabberdeveloper.com

The power of UC in your web app

The Cisco Jabber™ tool kit makes enabling unified communications in your web app easy. Allow your users to initiate a call, manage voice mail, work with instant messaging, and conduct meetings with WebEx all within your existing web application.
Portal Tour
HELLO WORLD!
Hello World!

Add voice, video, chat and presence to your web application in 10 mins

The HTML Markup

```html
<body>
  <label for="numtodial">Number to dial:</label>
  <input type="text" id="numtodial">
  <button type="button" id="callbtn" disabled="true">Make Call</button>
  <div id="container">
    <div id="callcontainer">
      <div class="remotename"></div>
      <div id="videocontainer"></div>
      <button type="button" class="endbtn">End Call</button>
    </div>
  </div>
</body>
```

Renders simply as

Number to dial: [input] Make Call | End Call
Hello World!

Add voice, video, chat and presence to your web application in 10 mins

Add some JavaScript

```javascript
$(document.body).ready(function() {
    var videoObject = null;
    $('#container').cwc('init', {
        ready: function() {
            $(this).cwc('registerPhone', {
                username: '**username**', password: '**password**',
                success: function() {
                    $('#callbtn').attr('disabled', false);
                    $('#videocontainer').cwc('createVideoWindow', {id: 'videocallobject', success: function(id) {
                        videoObject = $('#id')[0];
                    }});
                },
            });
        }
    }).click(function() {
        var num = $('#numodial').val();
        $('#container').cwc('startConversation', {participant: {recipient: num}, videoDirection: 'sendrecv', remoteVideoWindow: videoObject});
    });
    $('#container').bind('conversationStart.cwc', function(event, conversation) {
        $('#callcontainer').show();
        $('#container').cwc('updateConversation', {addRemoteVideoWindow: 'videocallobject'});
    });
    $('#callcontainer .endbtn').click(function() {
        $('#container').cwc('endConversation');
    });
    $('#container').bind('conversationEnd.cwc', function(event, conversation) {
        $('#callcontainer').hide();
    });
});
```
Hello World!

Add voice, video, chat and presence to your web application in 10 mins

Enter a number, and this is your HD video call
Hello World!
Add voice, video, chat and presence to your web application in 10 mins

Now for Chat & Presence

Some new markup

```html
<body>
  <label for="jid">Chat with:</label><input type="text" id="jid">
  <label for="message">Message:</label><input type="text" id="message">
  <button type="button" id="chatbtn" disabled="disabled">Chat</button>
  <div id="IMdialog" class="IMdialog"></div>
</body>
```

Rendered simply as:

Chat with: 
Message:  Chat
Hello World!

Add voice, video, chat and presence to your web application in 10 mins

Include the following lines of Javascript

```javascript
var connectArgs = {
  httpBindingURL: 'https://your-binding-url'
};

jabberwerx._config.unsecureAllowed = true;
jabberwerx._config.serviceDiscoveryEnabled = false;
$(document.body).ready(function() {
  client = new jabberwerx.Client("MyClient");
  controller = new jabberwerx.RosterController(client);
  client.connect("m", '********', connectArgs);
});

$('#chatbtn').click(function() {
  var jid = $('#jid').val();
  var message = $('#message').val();
  client.sendMessage(jid, message);
});

client.event("messageReceived").bind(function(evt) {
  var message = evt.data;
  var body = message.getBody();
  if (body) {
    var incomingIM = '<div>'+message.getFrom()+': '+body+'</div>;
  }
  $("#IMdialog").append(incomingIM);
});
```
Hello World!

Add voice, video, chat and presence to your web application in 10 mins

Let's test!

Chat with: [Input field]
Message: Hi Mags [Chat button] me: Hi Mags

/gmail.CE821009: Hi there
/gmail.CE821009: Not just chats, but federated chats ;)

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Hello World!

Add voice, video, chat and presence to your web application in 10 mins

Now to light up your app

Some HTML to represent a name and their presence state

```html
<span id="headerName">Mags Moran (Gmail)</span><br>
<span id="renderPresence"></span>
```

In JavaScript register for presence updates

```javascript
client.event("presenceReceived").bind(function(evt) {
  var presence = evt.data;
  var jidStr = evt.data.getFromJID().getBareJIDString();
  if (jidStr == 'i______________') {
    var presenceDisplay = presence.getShow() || 'available';
    //
    $('#renderPresence').attr('class', presenceDisplay).text(presenceDisplay);
    $('#renderPresence').text(presenceDisplay);
  }
});
```

Resulting in:

Mags Moran (Gmail)

dnd
Recommended Skillsets

• Industry standard web technologies
  – REST
  – JavaScript
  – jQuery
  – HTML
• API naming is easy to understand
• Developers don’t need to be UC or voice experts
Best practices for developing real time collaboration for the web

• Notifications
  – HTML5
  – Popup windows
• Using the Jabber SDK browser plugin in multiple tabs
• Page loading

• [Link to best practices page]
Best practices for developing real time collaboration for the web

- Notifications
  - HTML5
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- Using the Jabber SDK browser plugin in multiple tabs
- Page loading

http://developer.cisco.com/web/jabber-developer/best-practices1
What’s next for the Jabber Web toolkit?
Collaboration enable the mobile web

We understand there is gap in our current web SDK

No support for mobile browsers for chat, presence, voice or video
Collaboration enable the mobile web

Extend Cisco Ajax XMPP Library to support Mobile Browsers

Voice and video is being investigated.
Challenge: mobile browsers don’t support plugins
Jabber Client extensibility and integrations
What’s available today

Url based cross launching of installed Jabber applications

ciscojabber://call?address=%s

ciscotel://%

To send an IM:
ciscochat://goim?screenname=%s&message=%s
Cross-launching Cisco Jabber Apps

Cisco Jabber for iPhone

Initiate VoIP call

ciscotel://%

Cisco Jabber IM for iPhone

Send IM:

ciscochat://goim?screenname=%s&message=%s

Add buddy:

ciscochat://addbuddy?screenname=%s

Go profile:

ciscochat://goprofile?screenname=%s
Cross-launching Cisco Jabber Apps

Cisco Jabber for iPad

Send IM

ciscojabber://goim?screenname=%s&message=%s

Initiate VoIP/video call:

ciscojabber://call?address=%s&type=%s

Add buddy:

ciscojabber://addbuddy?screenname=%s

Go profile:

ciscojabber://goprofile?screenname=%s

Login:

ciscojabber://login?type=%s&username=%s&token=%s&primaryserver=%s&secondaryserver=%s&sipdomain=%s&devicename=%s
Cross-launching Cisco Jabber Apps

Sample HTML to start chats or calls from HTML

<html>
  <a href="tel:+353-87-413-1978"><img src="call.png" border="0" alt="Launch Jabber to call"></a>
  <a href="im:rheadon@cisco.com"><img src="chat.png" border="0" alt="Launch Jabber to chat"></a>
</html>
Extensibility of our Jabber for Windows client

- Allows customers to extend Jabber
- Add additional capabilities directly into the Jabber client
- Using HTML/Javascript via Extensibility tabs
- Leverage tel and im protocol capabilities of the client to invoke chat and call from the extensible tab
JabberDeveloper.com is for you!
Cisco Jabber Developer Site

The single source for all Cisco Jabber related development news, downloads, and technical support.

- SDK Downloads
- Samples & Reference Kits
- Use Cases
- FAQs
- Instructional Videos
- Community / Support Forum

www.jabberdeveloper.com
Custom Integration: Cisco Partners that can help

Need help scoping or building your integration?

Visit the “Custom Integration” page of our Jabber Developer site to see an overview and contact information for a selection of experienced Cisco partners who can work with you to build an integrated solution that best meets your needs.

http://developer.cisco.com/web/jabber-developer/custom-integration
Cisco Jabber Developer Site

Watch, Learn, Develop

What’s it all about?

It's about Cisco providing you with the ability to build Cisco UC applications and portals using Cisco Jabber. Jabber is the underlying voice, video, and conferencing capabilities of the Jabber IM app, internal enterprise directory, and portal for all your users, with all the APIs and services that you will need.

Cisco Jabber SDK

EsriTech have developed a middleware solution - Office-Linx™ Connect Edition for Cisco Unity Connect - that integrates Microsoft Outlook with the Cisco Jabber SDK to easily host and share Office-Linx alongside Jabber. This enables users to do the following:

- Single inbox: Voice messages in Cisco Unity Connect are synchronized in Google and Gmail accounts.
- Convenience: Users can read, listen, respond, and manage messages right within Gmail and Zimbra or from their native email clients on their mobile devices.
- Security: Secure and private message controls are supported in Outlook and Zimbra.
- Easy administration: Automated provisioning of Cisco Unity Connect users with easy to use configuration wizards.

www.jabberdeveloper.com

Supported Platforms:
- Windows XP/Windows 7/Windows 8/Windows 10
- Mac OS X 10.5 (Leopard) and 10.6 (Snow Leopard)
- Internet Explorer 8+, Firefox 10, Chrome 10+ and Safari 6
Cisco Developer Network: Collaboration Hub

The single source for all Cisco Collaboration related development news

- Central hub for developer news across Cisco's entire collaboration suite
- Stay connected

http://developer.cisco.com/web/collaboration-developer
Support Resources

Technical & Commercial Support

- Tutorials and reference packets
- FAQs
- Community Forum
- “Contact Us”
- White Glove treatment

Testing Your Solution

Lab Options & Support

Option 1
Shared Jabber Sandbox

Option 2
Rich UC Sandbox

Option 3
Install NFR Cisco back-end server products in your lab

http://developer.cisco.com/web/jabber-developer/testing/overview
Go-to-Market

Available resources

- CDN Member benefits
- Solutions Catalog
- Visibility Forums

http://developer.cisco.com/web/jabber-developer/go-to-market
Leverage the Marketing Resources available to CDN Partners

CDN Marketing Resources: [http://developer.cisco.com/web/partner/marketing-resources](http://developer.cisco.com/web/partner/marketing-resources)

To find a listing of all Partner Solutions that leverage the Jabber SDK, visit the Cisco Developer Network (CDN) Solutions Catalog at: https://marketplace.cisco.com/catalog

- Chose the option to search by ‘Technology’
- Under Technologies, select ‘Collaboration’
- Under Sub-Technologies, select ‘Jabber Solutions’
Tell us about your Solution & Stay Connected!

We are always looking for new and innovative integrations to highlight the versatility of the SDK.

Want a chance to be highlighted on our site, through our social media outlets, or at an upcoming webinar? Tell us about your Solution today!
http://developer.cisco.com/web/jabber-developer/contact-us

• Join our mailing list on: www.jabberdeveloper.com
• Follow us on Twitter @CiscoDev
Why Cisco Jabber SDK. . .

• **Collaboration** is more important than ever
• **Highly secure, clear, and reliable** communications within business application
• **Consistent user experience** for collaboration and business applications
• **Business opportunity** – strategic relevance
Next Steps

• Register on CDN and download the Jabber Web toolkit

• Visit us in the World of solutions to see some more demonstrations of the SDK in action

• Recommended Sessions
  – TECUCC2555 - Web-enabled UC & Video: Toolkits, Products & Trends
  – BRKUCC-2345 - Cisco Jabber: Deploying Cisco Jabber on Premise
  – BRKUCC-2355 - Cisco Jabber: Deployment Cisco Jabber with WebEx Messenger
  – BRKUCC-2785 Federating Cisco Jabber
Call to Action

• **Visit** the Cisco Campus at the World of Solutions
to experience Cisco innovations in action

• **Get** hands-on experience attending one of the Walk-in Labs

• **Schedule** face to face meeting with one of Cisco’s engineers
  at the Meet the Engineer center

• **Discuss** your project’s challenges at the Technical Solutions Clinics
Your feedback is important to us.

Complete the session survey at: 
www.ciscolivelondon.com/onsite 
or via the Cisco Live Mobile App
The NEW Cisco Developer Network Marketplace

Over 1,000 solutions that extend your Cisco investments
