



## Contact Source

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## Configure Contact Source Workflow

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	Configure directory integration: <ul style="list-style-type: none"><li>• <a href="#">Configure Directory Integration in a Service Profile, on page 2</a></li><li>• <a href="#">Advanced Directory Integration in the Configuration File, on page 7</a></li></ul>	Configure directory integration through service profiles using Cisco Unified Communications Manager or with the configuration file.
<b>Step 2</b>	Optional: <a href="#">Configure Photos, on page 6</a>	Review the options for configuring photos for users.
<b>Step 3</b>	Optional: <a href="#">Configure Intradomain Federation for BDI or EDI, on page 8</a>	Let Cisco Jabber users communicate with users who are provisioned on different systems and who are using client applications other than Cisco Jabber.

# Client Configuration for Directory Integration

You can configure directory integration through service profiles using Cisco Unified Communications Manager release 9 or later or with the configuration file. Use this section to learn how to configure the client for directory integration.

When both a service profile and a configuration file are present, the following table describes which parameter value takes precedence.

Service Profile	Configuration File	Which Parameter Value Takes Precedence?
Parameter value is set	Parameter value is set	Service profile
Parameter value is set	Parameter value is blank	Service profile
Parameter value is blank	Parameter value is set	Configuration file
Parameter value is blank	Parameter value is blank	Service profile blank (default) value

## Configure Directory Integration in a Service Profile

With Cisco Unified Communications Manager release 9 and later, you can provision users with service profiles and deploy the `_cisco-uds` SRV record on your internal domain server. The client can then automatically discover Cisco Unified Communications Manager and retrieve the service profile to get directory integration configuration.

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<a href="#">Add a Directory Service, on page 2</a>	Create a Directory UC Service.
<b>Step 2</b>	<a href="#">Apply Directory Service to a Service Profile, on page 6</a>	Add the Directory UC Service to the Service Profile.

## Add a Directory Service

### Procedure

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- Step 1** Open the **Cisco Unified CM Administration** interface.
- Step 2** Select **User Management > User Settings > UC Service**.

The **Find and List UC Services** window opens.

**Step 3** Select **Add New**.

The **UC Service Configuration** window opens.

**Step 4** Select **Directory** from the **UC Service Type** menu and then select **Next**.

**Step 5** Set all appropriate values for the directory service.

To configure Cisco Jabber directory searches on the Global Catalog, add the following values:

- **Port**—3268
- **Protocol**—TCP

**Step 6** Select **Save**.

### What to Do Next

Apply Directory Service.

### Directory Profile Parameters

The following table lists the configuration parameters you can set in the directory profile:

Directory Service Configuration	Description
<b>Primary server</b>	Specifies the address of the primary directory server.  This parameter is required for manual connections where the client cannot automatically discover the directory server.
<b>Secondary server</b>	Specifies the address of the backup directory server.
<b>Tertiary Server</b>	Applies to Cisco Jabber for Windows only.  Specifies the address of the tertiary directory server.
<b>Use UDS for Contact Resolution</b>	Specifies if the client uses UDS as a contact source.  <b>True (Default)</b>  Use UDS as a contact source. When this option is selected the following parameters in this table are not used.  <b>False</b>  Use EDI or BDI as a contact source.  The following parameters are used to connect to the LDAP server.  By default, UDS provides contact resolution when users connect to the corporate network through Expressway for Mobile and Remote Access.

Directory Service Configuration	Description
<b>Use Logged On User Credential</b>	<p>Specifies if the client uses the logged on username and password for LDAP contact resolution.</p> <p>If you have configured Active Directory (AD) SSO, this will take priority over this setting.</p> <p><b>True (default)</b></p> <p>Use logged on user credentials. This value maps to the values for the UseWindowsCredentials parameter for Windows clients, and the BDIUseJabberCredntials parameter for other clients.</p> <p><b>False</b></p> <p>Do not use logged on user credentials.</p> <p>When you have SSO configured, Jabber uses those credentials before using the ConnectionUsername and ConnectionPassword parameters.</p> <p>You must specify the logged on user credentials with the following parameters:</p> <ul style="list-style-type: none"> <li>• ConnectionUsername</li> <li>• ConnectionPassword</li> </ul> <p>You must specify the logged on user credentials with the following parameters:</p> <ul style="list-style-type: none"> <li>• EDI (Windows client) <ul style="list-style-type: none"> <li>◦ ConnectionUsername</li> <li>◦ ConnectionPassword</li> </ul> </li> <li>• BDI (Mac, Android, iOS clients) <ul style="list-style-type: none"> <li>◦ BDIConnectionUsername</li> <li>◦ BDIConnectionPassword</li> </ul> </li> </ul>
<b>Username</b>	<p>Lets you manually specify a shared username that the client can use to authenticate with the directory server.</p> <p>By default, Cisco Jabber for Windows uses Integrated Windows Authentication when connecting to the directory server.</p> <p>You should use this parameter only in deployments where you cannot authenticate with the directory server using Microsoft Windows credentials.</p> <p>Use only a well-known or public set of credentials for an account that has read-only permissions.</p>

Directory Service Configuration	Description
<b>Password</b>	<p>Lets you manually specify a shared password that the client can use to authenticate with the directory server.</p> <p>By default, Cisco Jabber for Windows uses Integrated Windows Authentication when connecting to the directory server.</p> <p>You should use this parameter only in deployments where you cannot authenticate with the directory server using Microsoft Windows credentials.</p> <p>Use only a well-known or public set of credentials for an account that has read-only permissions.</p>
<b>Search Base 1</b> The following parameters only apply to Cisco Jabber for Windows: <b>Search Base 2</b> <b>Search Base 3</b>	<p>Specifies a location in the directory server from which searches begin. In other words, a search base is the root from which the client executes a search.</p> <p>By default, the client searches from the root of the directory tree. You can specify the value of up to three search bases in your OU to override the default behavior.</p> <p>Active Directory does not typically require a search base. Specify search bases for Active Directory only for specific performance requirements.</p> <p>Specify a search base for directory servers other than Active Directory to create bindings to specific locations in the directory.</p> <p><b>Tip</b> Specify an OU to restrict searches to certain user groups.</p> <p>For example, a subset of your users have instant messaging capabilities only. Include those users in an OU and then specify that as a search base.</p>
<b>Recursive Search on All Search Bases</b>	<p>Select this option to perform a recursive search of the directory starting at the search base. Use recursive searches to allow the Cisco Jabber client contact search queries to search all of the LDAP directory tree from a given search context (search base). This is a common option when searching LDAP.</p> <p>This is a required field.</p> <p>The default value is True.</p>
<b>Base Filter</b>	<p>Specifies a base filter for Active Directory queries.</p> <p>Specify a directory subkey name only to retrieve objects other than user objects when you query the directory.</p> <p>The default value is (&amp;(objectCategory=person)(objectClass=user).</p>

Directory Service Configuration	Description
<b>Predictive Search Filter</b>	<p>Defines filters to apply to predictive search queries.</p> <p>You can define multiple, comma-separated values to filter search queries.</p> <p>The default value is <code>ANR</code>.</p> <p>When Cisco Jabber performs a predictive search, it issues a query using Ambiguous Name Resolution (ANR). This query disambiguates the search string and returns results that match the attributes that are set for ANR on your directory server.</p> <p><b>Important</b> Configure your directory server to set attributes for ANR if you want the client to search for those attributes.</p>

### Attribute Mappings

It is not possible to change the default attribute mappings in a service profile. If you plan to change any default attribute mappings, you must define the required mappings in a client configuration file.

## Apply Directory Service to a Service Profile

### Procedure

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- Step 1** Select **User Management > User Settings > Service Profile**.  
The **Find and List Service Profiles** window opens.
- Step 2** Select **Add New**.  
The **Service Profile Configuration** window opens.
- Step 3** Add the directory services to the directory profile. See the *Directory Profile Parameters* topic for information about the specific settings that are needed for the directory profile.
- Step 4** Select **Save**.
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## Configure Photos

Cisco Jabber uses the following methods to configure Photos for users:

- **Active Directory Binary Objects**—No configuration needed, Cisco Jabber retrieves the binary photo from the `thumbnailPhoto` attribute.
- **PhotoURL attribute**—Use the `PhotoSource` parameter in the `jabber-config.xml` file to specify an attribute in your directory. The client will retrieve the attribute and determine if it is a URL or binary data and display the photo from either source.

EDI parameter: `PhotoSource`

Example:

```
<Directory>
  <PhotoSource>url</PhotoSource>
</Directory>
```

BDI parameter: BDIPhotoSource

```
<Directory>
  <BDIPhotoSource>url</BDIPhotoSource>
</Directory>
```

- **URI Substitution**—For your directory server type, use the following parameters in the jabber-config.xml file:

EDI parameters:

- PhotoUriSubstitutionEnabled
- PhotoUriWithToken
- PhotoUriSubstitutionToken

Example:

```
<PhotoUriSubstitutionEnabled>True</PhotoUriSubstitutionEnabled>
<PhotoUriSubstitutionToken>sAMAccountName</PhotoUriSubstitutionToken>
<PhotoUriWithToken>http://example.com/photo/sAMAccountName.jpg</PhotoUriWithToken>
```

BDI parameters:

- BDIPhotoUriSubstitutionEnabled
- BDIPhotoUriWithToken
- BDIPhotoUriSubstitutionToken

Example:

```
<BDIPhotoUriSubstitutionEnabled>True</BDIPhotoUriSubstitutionEnabled>
<BDIPhotoUriSubstitutionToken>sAMAccountName</BDIPhotoUriSubstitutionToken>
<BDIPhotoUriWithToken>http://example.com/photo/sAMAccountName.jpg</BDIPhotoUriWithToken>
```

UDS parameters:

- UdsPhotoUriSubstitutionEnabled
- UdsPhotoUriWithToken
- UdsPhotoUriSubstitutionToken

Example:

```
<UDSPhotoUriSubstitutionEnabled>True</UDSPhotoUriSubstitutionEnabled>
<UDSPhotoUriSubstitutionToken>sAMAccountName</UDSPhotoUriSubstitutionToken>
<UDSPhotoUriWithToken>http://example.com/photo/sAMAccountName.jpg</UDSPhotoUriWithToken>
```

## Advanced Directory Integration in the Configuration File

You can configure directory integration in the Cisco Jabber configuration file. For more information see the *Directory* chapter in the *Parameters Reference Guide for Cisco Jabber*.

**Important**

When a Service Profile and a configuration file are present, settings in the Service Profile always take priority.

## Federation

Federation lets Cisco Jabber users communicate with users who are provisioned on different systems and who are using client applications other than Cisco Jabber.

### Configure Intradomain Federation for BDI or EDI

In addition to configuring intradomain federation on the presence server, you might need to specify some configuration settings in the Cisco Jabber configuration files.

To resolve contacts during contact search or retrieve contact information from your directory, Cisco Jabber requires the contact ID for each user. Cisco Unified Communications Manager IM & Presence server uses a specific format for resolving contact information that does not always match the format on other presence servers such as Microsoft Office Communications Server or Microsoft Live Communications Server.

The parameters that you use to configure intradomain federation depend on whether you use *Enhanced Directory Integration* (EDI) or *Basic Directory Integration* (BDI). EDI uses native Microsoft Windows APIs to retrieve contact data from the directory service and is only used by Cisco Jabber for Windows. For BDI, the client retrieves contact data from the directory service and is used by Cisco Jabber for Mac, Cisco Jabber for Android, and Cisco Jabber for iPhone and iPad.

#### Procedure

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- Step 1** Set the value of the relevant parameter to true:
- For BDI: BDIUseSipUriToResolveContacts
  - For EDI: UseSIPURIToResolveContacts
- Step 2** Specify an attribute that contains the Cisco Jabber contact ID that the client uses to retrieve contact information. The default value is `msRTCSIP-PrimaryUserAddress`, or you can specify another attribute in the relevant parameter:
- For BDI: BDISipUri
  - For EDI: SipUri



**Note** When you deploy intradomain federation and the client connects with Expressway for Mobile and Remote Access from outside the firewall, contact search is supported only when the contact ID uses one of the following formats:

- sAMAccountName@domain
- UserPrincipalName (UPN)@domain
- EmailAddress@domain
- employeeNumber@domain
- phoneNumber@domain

**Step 3** In the UriPrefix parameter, specify any prefix text that precedes each contact ID in the relevant SipUri parameter.

**Example:**

For example, you specify msRtcsip-PrimaryUserAddress as the value of SipUri. In your directory the value of msRtcsip-PrimaryUserAddress for each user has the following format:

sip:username@domain.

- For BDI: BDIUriPrefix
- For EDI: UriPrefix

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The following XML snippet provides an example of the resulting configuration for BDI:

```
<Directory>
  <BDIUseSIPURIToResolveContacts>true</BDIUseSIPURIToResolveContacts>
  <BDISipUri>non-default-attribute</BDISipUri>
  <BDIUriPrefix>sip:</BDIUriPrefix>
</Directory>
```

The following XML snippet provides an example of the resulting configuration for EDI:

```
<Directory>
  <UseSIPURIToResolveContacts>true</UseSIPURIToResolveContacts>
  <SipUri>non-default-attribute</SipUri>
  <UriPrefix>sip:</UriPrefix>
</Directory>
```

