



# Workflows

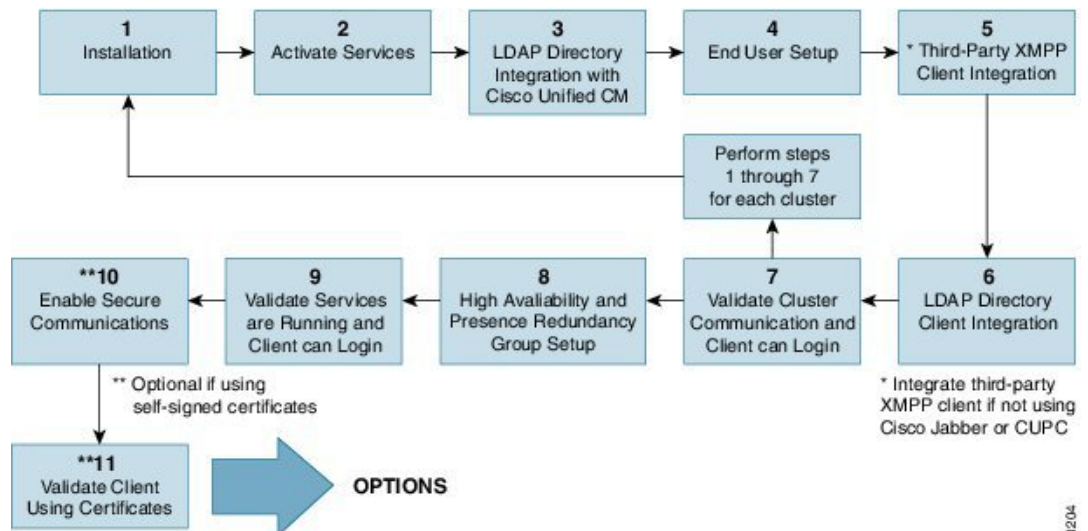
- [Basic Deployment with High Availability Workflow, on page 1](#)
- [Basic Deployment with High Availability and IP Phone Presence Workflow, on page 3](#)
- [Federation Deployment Workflow, on page 6](#)

## Basic Deployment with High Availability Workflow

The following workflow diagram shows the high-level steps to set up a basic IM and Presence Service deployment with High Availability. Users have access to the core IM and availability features, such as basic IM functionality, presence, and Ad Hoc group chats after a basic setup. Optional features can be configured to enhance user functionality.

For more advanced deployment scenarios and workflows, see topics related to workflows that include phone presence setup and federation.

**Figure 1: Basic IM and Presence Service Deployment Workflow with High Availability**



The following table describes each task in the workflow.



**Tip** Perform all preparation tasks before installing or configuring the IM and Presence Service node. Review topics related to deployment options and planning requirements.

**Table 1: Task List for Basic Workflow with High Availability**

	Task	Description
1	Installation	For detailed Installation instructions, see <i>Installing Cisco Unified Communications Manager</i> .
2	Activate Services	You must manually activate feature services after you install the node. For detailed instructions, see <i>Installing Cisco Unified Communications Manager</i> .  <b>Tip</b> Network services start automatically after you install the node.
3	LDAP Directory Integration with Cisco Unified Communications Manager	Set up LDAP directory integration on the IM and Presence Service node: <ul style="list-style-type: none"> <li>• Secure the Cisco Unified Communications Manager and LDAP directory connection.</li> <li>• Secure the connection between IM and Presence Service and the LDAP server.</li> </ul> <b>Tip</b> Integration of Cisco Unified Communications Manager and Cisco Jabber with the LDAP server is the recommended setup. For alternative setups, see topics related to LDAP integration.
4	End User Setup	Assign users to nodes and presence redundancy groups in your IM and Presence Service deployment. You can manually or automatically assign users to the nodes in your IM and Presence Service deployment. See the <i>Cisco Unified Communications Manager Administration Guide</i> for instructions to assign users. The <b>User Assignment Mode for Presence Server Enterprise Parameter</b> is used to set the user assignment mode to balanced, active-stand-by, or none.  <b>Tip</b> Use Cisco Unified CM IM and Presence Administration to migrate users, export and import contact lists.
5	Third-Party XMPP Client Integration	(Optional) Integrate your third-party XMPP client if you are not using Cisco Jabber.
6	LDAP Directory Client Integration	Setup user integration with the LDAP directory: <ul style="list-style-type: none"> <li>• Configure LDAP synchronization for user provisioning.</li> <li>• Upload LDAP server certificates.</li> <li>• Configure LDAP user authentication.</li> </ul> <b>Tip</b> Integration of Cisco Unified Communications Manager and Cisco Jabber with the LDAP server is the recommended setup. For alternative setups, see topics related to LDAP integration.

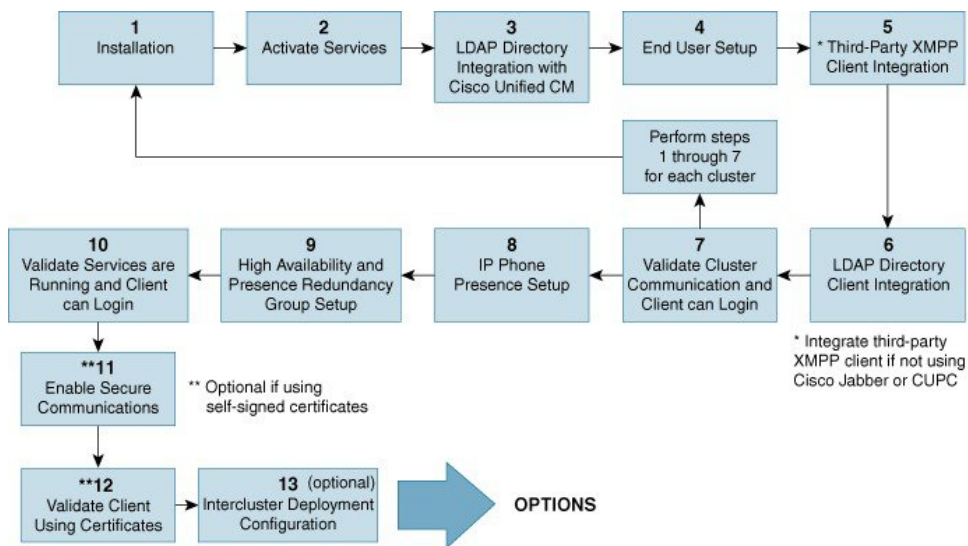
	Task	Description
7	Validate Cluster Communications and Client can Login	Confirm that IM and availability can be exchanged within the cluster. Verify that IM's can be sent and received, and that changes in a user's availability can be seen. When more than one cluster is setup, validate basic IM and availability across clusters.
8	High Availability and Presence Redundancy Group Setup	For instructions to set up high availability and presence redundancy groups, see the <i>Cisco Unified Communications Manager Administration Guide</i> .
9	Validate Services are Running and Client can Login	Perform validate tasks to ensure services are running. Confirm that the client can login to IM and Presence Service and has availability.
10	Enable Secure Communications	Perform the following tasks to enable secure communications on the IM and Presence Service node: <ul style="list-style-type: none"> <li>• Configure certificate exchange between IM and Presence Service and Cisco Unified Communications Manager.</li> <li>• Upload CA signed certificates to IM and Presence Service.</li> <li>• Configure SIP security settings on IM and Presence Service for the TLS peer subject.</li> <li>• (Optional) Configure XMPP security settings on IM and Presence Service.</li> </ul>
11	Validate Client using certificates	Confirm that the client can login to IM and Presence Service and has availability.

## Basic Deployment with High Availability and IP Phone Presence Workflow

The following workflow diagram shows the high-level steps to set up a basic IM and Presence Service deployment with High Availability and IP phone presence. Users have access to the core IM and availability features, such as basic IM functionality, presence, and Ad Hoc group chats after a basic setup. Optional features can be configured to enhance user functionality.

Optional features can also be configured to enhance user functionality. For more information about feature options or other deployment workflows, see topics related to features and options for IM and Presence Service and High Availability deployment setup.

Figure 2: Basic IM and Presence Service Workflow with High Availability and IP Phone Presence



The following table describes each task in the workflow.

Table 2: Task List for Basic Workflow with High Availability and IP Phone Presence

	Task	Description
1	Installation	For detailed Installation instructions, see <i>Installing Cisco Unified Communications Manager</i> .
2	Activate Services	You must manually activate feature services after you install the node. For detailed instructions, see <i>Installing Cisco Unified Communications Manager</i> . <b>Tip</b> Network services start automatically after you install the node.
3	LDAP Directory Integration with Cisco Unified Communications Manager	Set up LDAP directory integration on the IM and Presence Service node: <ul style="list-style-type: none"> <li>Secure the Cisco Unified Communications Manager and LDAP directory connection.</li> <li>Secure the connection between IM and Presence Service and the LDAP server.</li> </ul> <b>Tip</b> Integration of Cisco Unified Communications Manager and Cisco Jabber with the LDAP server is the recommended setup. For alternative setups, see topics related to LDAP integration.

	Task	Description
4	End User Setup	<p>Assign users to nodes and presence redundancy groups in your IM and Presence Service deployment. You can manually or automatically assign users to the nodes in your IM and Presence Service deployment. See the <i>Cisco Unified Communications Manager Administration Guide</i> for instructions to assign users. The <b>User Assignment Mode for Presence Server Enterprise Parameter</b> is used to set the user assignment mode to balanced, active-stand-by, or none.</p> <p><b>Tip</b> Use the IM and Presence Service GUI to migrate users, export and import contact lists.</p>
5	Third-Party XMPP Client Integration	(Optional) Integrate your third-party XMPP client if you are not using Cisco Jabber.
6	LDAP Directory Client Integration	<p>Setup user integration with the LDAP directory:</p> <ul style="list-style-type: none"> <li>• Configure LDAP synchronization for user provisioning.</li> <li>• Upload LDAP server certificates.</li> <li>• Configure LDAP user authentication.</li> </ul> <p><b>Tip</b> Integration of Cisco Unified Communications Manager and Cisco Jabber with the LDAP server is the recommended setup. For alternative setups, see topics related to LDAP integration.</p>
7	Validate Cluster Communications and Client can Login	Confirm that IM and availability can be exchanged within the cluster. Verify that IM's can be sent and received, and that changes in a user's availability can be seen. When more than one cluster is setup, validate basic IM and availability across clusters.
8	IP Phone Presence Setup	<p>Set up the following on IM and Presence Service node:</p> <ul style="list-style-type: none"> <li>• Static routes</li> <li>• Presence Gateway</li> <li>• SIP publish trunk</li> <li>• Cluster-wide DNS SRV name for SIP publish trunk</li> </ul>
9	High Availability and Presence Redundancy Group Setup	For instructions to set up high availability and presence redundancy groups, see the <i>Cisco Unified Communications Manager Administration Guide</i> .
10	Validate Services are Running and Client can Login	Perform validate tasks to ensure services are running. Confirm that the client can login to IM and Presence Service and has availability.

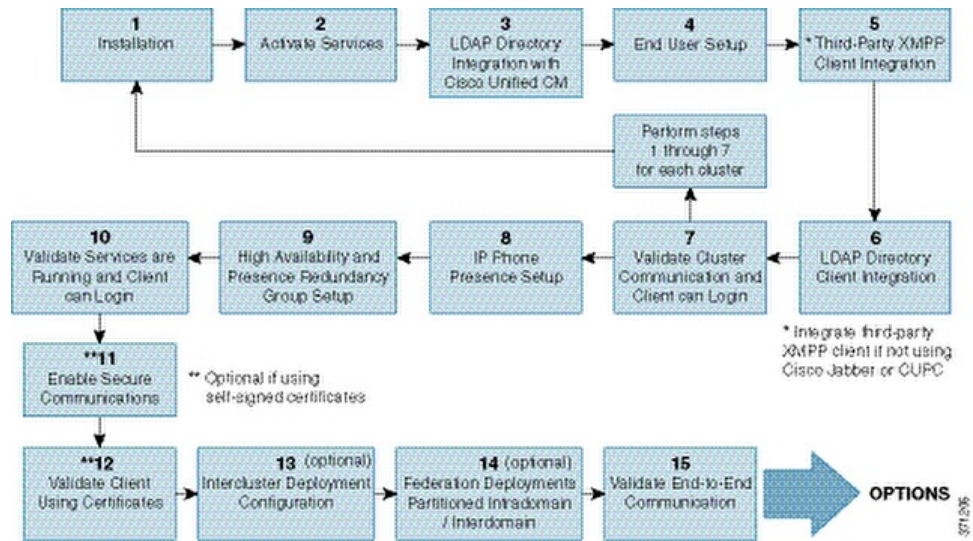
	Task	Description
11	Enable Secure Communications	<p>Perform the following tasks to enable secure communications on the IM and Presence Service node:</p> <ul style="list-style-type: none"> <li>• Configure certificate exchange between IM and Presence Service and Cisco Unified Communications Manager.</li> <li>• Upload CA signed certificates to IM and Presence Service.</li> <li>• Configure SIP security settings on IM and Presence Service for the TLS peer subject.</li> <li>• (Optional) Configure XMPP security settings on IM and Presence Service.</li> </ul>
12	Validate Client using certificates	Confirm that the client can login to IM and Presence Service and has availability.
13	Intercluster Deployment Configuration	Configure your intercluster peer relationships, router to router connections, and set the node name and IM address scheme.

## Federation Deployment Workflow

The following workflow diagram shows the high-level steps to set up IM and Presence Service deployment with High Availability and IP phone presence for a Federation deployment. For detailed instructions to configure federation, see the *Interdomain Federation for IM and Presence Service on Cisco Unified Communications Manager* guide and the *Partitioned Intradomain Federation for IM and Presence Service on Cisco Unified Communications Manager* guide.

Users have access to the core IM and availability features, such as basic IM functionality, presence, and Ad Hoc group chats after a basic setup. Optional features can be configured to enhance user functionality. For more information about feature options, see topics related to features and options for IM and Presence Service.

Figure 3: IM and Presence Service Workflow for Federation Deployment



The following table describes each task in the workflow.

Table 3: Task List for IM and Presence Service Workflow for Federation

Task	Description
1 Installation	For detailed Installation instructions, see <i>Installing Cisco Unified Communications Manager</i> .
2 Activate Services	You must manually activate feature services after you install the node. For detailed instructions, see <i>Installing Cisco Unified Communications Manager</i> . <b>Tip</b> Network services start automatically after you install the node.
3 LDAP Directory Integration with Cisco Unified Communications Manager	Set up LDAP directory integration on the IM and Presence Service node: <ul style="list-style-type: none"> <li>Secure the Cisco Unified Communications Manager and LDAP directory connection.</li> <li>Secure the connection between IM and Presence Service and the LDAP server.</li> </ul> <b>Tip</b> Integration of Cisco Unified Communications Manager and Cisco Jabber with the LDAP server is the recommended setup. For alternative setups, see topics related to LDAP integration.

	Task	Description
4	End User Setup	<p>Assign users to nodes and presence redundancy groups in your IM and Presence Service deployment. You can manually or automatically assign users to the nodes in your IM and Presence Service deployment. See the <i>Cisco Unified Communications Manager Administration Guide</i> for instructions to assign users. The <b>User Assignment Mode for Presence Server Enterprise Parameter</b> is used to set the user assignment mode to balanced, active-stand-by, or none.</p> <p><b>Tip</b> Use the IM and Presence Service GUI to migrate users, export and import contact lists.</p>
5	Third-Party XMPP Client Integration	(Optional) Integrate your third-party XMPP client if you are not using Cisco Jabber or Cisco Unified Communications Manager.
6	LDAP Directory Client Integration	<p>Setup user integration with the LDAP directory:</p> <ul style="list-style-type: none"> <li>• Configure LDAP synchronization for user provisioning.</li> <li>• Upload LDAP server certificates.</li> <li>• Configure LDAP user authentication.</li> </ul> <p><b>Tip</b> Integration of Cisco Unified Communications Manager and Cisco Jabber with the LDAP server is the recommended setup. For alternative setups, see topics related to LDAP integration.</p>
7	Validate Cluster Communications	Confirm that IM and availability can be exchanged within the cluster. Verify that IM's can be sent and received, and that changes in a user's availability can be seen. When more than one cluster is setup, validate basic IM and availability across clusters.
8	IP Phone Presence Setup	<p>Set up the following on IM and Presence Service node:</p> <ul style="list-style-type: none"> <li>• Static routes</li> <li>• Presence Gateway</li> <li>• SIP publish trunk</li> <li>• Cluster-wide DNS SRV name for SIP publish trunk</li> </ul>
9	High Availability and Presence Redundancy Group Setup	For instructions to set up high availability and presence redundancy groups, see the <i>Cisco Unified Communications Manager Administration Guide</i> .
10	Validate Services are Running and Client can Login	Perform validate tasks to ensure services are running. Confirm that the client can login to IM and Presence Service and has availability.



	<b>Task</b>	<b>Description</b>
11	Enable Secure Communications	<p>Perform the following tasks to enable secure communications on the IM and Presence Service node:</p> <ul style="list-style-type: none"> <li>• Configure certificate exchange between IM and Presence Service and Cisco Unified Communications Manager.</li> <li>• Upload CA signed certificates to IM and Presence Service.</li> <li>• Configure SIP security settings on IM and Presence Service for the TLS peer subject.</li> <li>• (Optional) Configure XMPP security settings on IM and Presence Service.</li> </ul>
12	Validate Client using certificates	Confirm that the client can login to IM and Presence Service and has availability.
13	Intercluster Deployment Configuration	Configure your intercluster peer relationships, router to router connections, and set the node name and IM address scheme.
14	Federation Deployments	Configure Interdomain Federation or Partitioned Intradomain Federation for your deployment. For instructions and requirements, see <i>Interdomain Federation for IM and Presence Service on Cisco Unified Communications Manager</i> and <i>Partitioned Intradomain Federation for IM and Presence Service on Cisco Unified Communications Manager</i> .
15	Validate End-to-End Communication	Perform validation tasks to confirm end-to-end communications. Confirm that IM and availability can be exchanged across clusters. Verify that IM's can be sent and received, and that changes in a user's availability can be seen.

