Main page: Cisco Unified Presence, Release 7.x

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Previous Topic

- Configuring a Cisco Unified Presence Server for Deployment in the Network

Notes:

- This module is only applicable if you are configuring a multi-node deployment.
- Perform the system topology configuration on the Cisco Unified Presence *publisher* node.
- Before configuring the system topology, read the multi-node planning and deployment information for best practice information on configuring this type of deployment.
- See the online help in Cisco Unified Presence Administration for additional instructions on configuring the system topology interface.
- The system topology interface is only used to configure your *local* Cisco Unified Presence cluster. See the intercluster peer module for information on configuring intercluster peer relationships with remote Cisco Unified Presence clusters.

- About Subcluster, Node and User Management Recommendations
- Creating Subclusters in System Topology
- Creating, Assigning and Moving Nodes in System Topology
- Configuring User Assignment in System Topology

About Subcluster, Node and User Management Recommendations

- Node Creation and Movement Recommendations
- Node Name Recommendations
- User Assignment Mode Recommendations
- Manual User Assignment Recommendations
- User Redistribution

Node Creation and Movement Recommendations

When you create nodes using the system topology interface you can:

- Assign the nodes to a subcluster in Cisco Unified Presence, or allow the nodes to remain unassigned. These states are interchangeable.
- Assign Cisco Unified Presence users to the nodes, or allow the nodes to remain without any user assignments.
- Move a node from one subcluster to another if the node is assigned and has no users.
- Configure real pingable nodes, or logical nodes which can be installed later and which remain inaccessible until that time.

To move nodes with users assigned, perform one of the following actions:

- Unassign the users, move the node, and then reassign the users to the node. Note that when you unassign the users, they will lose service.
- If you have a high-availability deployment, move the users to the second node in the high-availability pair of nodes. Move the first node and then reassign the users to the first node.
- Create a logical node and move the users to the logical node. Move the node, reassign the users to the node, and remove the logical node.

Notes:

- You must remove all users from a node before you can unassign or move it.
- We strongly recommend that you perform any node movements that involve unassigning or moving a large numbers of users at off peak times. Such large operations can adversely impact performance.

Node Name Recommendations

By default, the name for a node is the hostname that you configure during the Cisco Unified Presence installation. For example, if the hostname of your Cisco Unified Presence node is called"cup1", the node name is "cup 1". From the system topology interface, you can change the node name to the dotted IP address or the FQDN, for example, "192.168.0.1" or "cup1.acme.com". If you change the default name for the node, note the following:

- You must be able to resolve the hostname or the FQDN from the Cisco Unified Presence server, and Cisco Unified Personal Communicator client computers.
- If either Cisco Unified Presence server or the Cisco Unified Personal Communicator client computer cannot resolve the hostname or the FQDN, you must configure the IP address for the node name value.
- To test the name resolution from the Cisco Unified Presence server, use the command

  ```
  utils network ping <node_name>
  ```

- To test the name resolution from the Cisco Unified Personal Communicator client computer, use the command

  ```
  ping <node_name>
  ```

User Assignment Mode Recommendations

You can manually or automatically assign users in a Cisco Unified Presence deployment. You can manage user assignment using the User Assignment Mode parameter on the Sync Agent on Cisco Unified Presence.

You can set the User Assignment Mode parameter to **Balanced** (automatic), **Active/Standby** (automatic), or **None** (manual):

- If set to **Balanced**, all users are equally divided across all nodes in all subclusters. This mode is used for the Balanced Mode Non-Redundant High-Availability and the Balanced Mode Redundant High-Availability deployment options.
- If set to **Active/Standby**, all users are assigned only to the first node of an subcluster. If there is only a single node in the subcluster then this node is used for assignment regardless of the location of the node within the subcluster.
- If set to **None**, the users are not automatically assigned to subclusters and nodes. You must manually assign your users to nodes using the system topology interface.

Notes:

- If all hardware in a cluster is the same generation and has the same capacity, then you should set the User Assignment Mode to **Balanced**.
- If you have hardware of mixed generations and capacities in a node, then you should set the User Assignment Mode to **None**. You must then assign users manually to make sure that each server is not loaded beyond capacity.

Manual User Assignment Recommendations

If you select to manually assign users from the system topology interface, note the following:

- You can manually unassign, assign or reassign users. You can assign users to a single node, and you can also distribute groups of users across the node, or nodes, in a cluster, or a given subcluster.
- If you assign a user to one of the nodes in a subcluster, the other node in the subcluster becomes the backup (redundant) node for the user. If you do not configure a backup node in the subcluster, the user does not have high-availability failover protection.
- Users who are assigned may be reassigned, that is, moved to another subcluster, or to a specific node. You can move users individually or in bulk.
- Users can remain unassigned. Unassigned users do not receive availability information.

When you are assigning users, note the following:

- You can only assign users if they are licensed.
- Unassigning or reassigning users results in termination of active sessions. In such instances, clients must reconnect to the new location.
- You can export users in bulk using the Bulk Administration Tool (BAT). You can also use BAT to perform bulk user reassignment from one node to another.

We recommend that you take the Presence Engine and Proxy services offline when performing bulk operations. Note that taking these services offline will adversely impact performance.

User Redistribution

After adding or removing nodes, you can redistribute users using the **Rebalance Users** parameter on the system topology interface. This parameter redistributes users *based on the configured User Assignment mode*. These are examples of how you can use the Rebalance Users parameter with the User Assignment mode to manage user assignment:

- Scenario A: The customer has a subcluster with two nodes, and each node contains 5000 users. The User Assignment mode is set to Balanced. The customer then adds a second subcluster with two nodes, and sets the Rebalance Users parameter, the users are evenly distributed to the four nodes. Each node now has 2500 users.
- Scenario B: The customer has a subcluster with two nodes, and each node contains 2500 users. The User Assignment mode is set to Balanced. The customer wants to add a second subcluster with two nodes, but also wants to change the User Assignment mode to Active/Standby. The customer changes the mode to Active/Standby, whereby all 5000 users are redistributed to the first node in the subcluster. The customer then adds a second subcluster with two nodes, and sets the Rebalance Users parameter. The users are evenly distributed across both *first* nodes in each subcluster. Each first node now has 2500 users.

We strongly recommend that any node movements that involve unassigning or moving a large numbers of users are performed at off peak times. Such large operations can adversely impact performance.

Related Topics

- Getting More Information

Creating Subclusters in System Topology

The Cisco Unified Presence publisher node is automatically assigned to a subcluster in the system topology interface. Following the installation of the Cisco Unified Presence publisher node, you must create the required subclusters and subsequent nodes in your Cisco Unified Presence cluster.

Repeat this procedure for each subcluster that you require for your deployment.

Note: Perform this procedure on the publisher Cisco Unified Presence node.

Before You Begin

- Plan your multi-node deployment model.
- Read the subcluster DNS SRV topic.

Procedure

1. Select **Cisco Unified Presence Administration > System > Topology**.
2. Select **Add New Subcluster**.
3. Define a unique name for the subcluster.
4. (Optional) Define an SRV address for the subcluster.
5. Select **Save**.

Troubleshooting Tips

To update a subcluster, or view the status of a subcluster, select the **edit** link on the subcluster.

Related Topics

- Planning a Cisco Unified Presence Multi-Node Deployment
- Subcluster-wide DNS SRV
- Getting More Information

What To Do Next

Creating, Assigning and Moving Nodes in System Topology

Creating, Assigning and Moving Nodes in System Topology

You must create the required subsequent nodes for your deployment. By creating the subsequent nodes in the topology view of the publisher node, the subsequent nodes are associated with the publisher node.

Notes:

- Perform this procedure on the publisher Cisco Unified Presence node.
- Perform this procedure *before* you install any of the subsequent Cisco Unified Presence nodes. If you assign a subsequent Cisco Unified Presence node to a subcluster prior to installing it, users in remote clusters will not receive availability information. A presence outage will occur until the node is installed.

Before You Begin

- Create the required subclusters for your deployment.
- Read the node name recommendation topic.
- Depending on how you plan to configure your node name, obtain the required value for your nodes (for example hostname, dotted IP address, FQDN or DNS-SRV).

Restrictions

- If you wish to change the default node name, there are certain node name restrictions. Read the node name recommendations topic.
- You can only move a node from one subcluster to another if the node is assigned and has no users.

Procedure

1. Select **Cisco Unified Presence Administration > System > Topology**.
2. Create the required subsequent nodes for your deployment:

   1. Select **Add New Node**.
   2. Define a unique name for the node.
   3. Select **Save**.
3. Perform one of these actions:

If you want to:	Action	Notes
Assign a node to a subcluster	Drag the node into the empty slot in the subcluster	Do not assign the subsequent node to a subcluster until *after* you install it, and you have checked the status of the node.
To move a previously assigned node.	Drag the node from the subcluster and drop it into the empty slot of the peer subcluster.	Unassign all users from the node before you move it.

Troubleshooting Tips

- To update a node, or view the status of a node, select the **edit** link on the node.
- You can verify the status of your topology configuration by selecting **Cisco Unified Presence Administration > Diagnostics > System Troubleshooter**.

Related Topics

- Creating Subclusters in System Topology
- Subcluster-wide DNS SRV
- Node Name Recommendations
- Node Creation and Movement Recommendations
- Getting More Information

What To Do Next

Configuring User Assignment in System Topology

Configuring User Assignment in System Topology

Note: This topic is only applicable if you have chosen to manually assign your users in the system topology interface.

From the system topology interface, you can manually unassign, assign or reassign users. You can assign users to a single node, and you can also distribute groups of users across the node, or nodes, in a cluster, or a given subcluster.

Before You Begin

- Read the user assignment recommendations topic.
- You may want to export users in bulk. Use the Bulk Administration Tool (BAT) to perform this procedure.

Restriction

You can only assign users if they are licensed.

Procedure

1. Select **Cisco Unified Presence Administration > System > Topology**.

2. Perform one of these actions:

If you want to:	Action
Assign users	Select **Assign Users**.
Unassign or reassign users	Select **All Assigned Users** in the left pane of the system topology interface.

3. Use the Find User Assignment window to find and display users.

4. Perform one of the following actions:

   ◊ Check the users that you wish to assign, and select **Assign Selected Users**.
   ◊ Select all users, and select **Assign All Users**.

5. Using the list boxes in the Change Assignment frame, specify your user assignment:

   ◊ to a named node
   ◊ to a named subcluster (auto-assigned)
   ◊ to all subclusters (auto-assigned)
   ◊ to nothing (Unassigned)

6. Select **Save**.

Troubleshooting Tips

- You can verify the status of your topology configuration by selecting **Cisco Unified Presence Administration > Diagnostics > System Troubleshooter**.

Related Topics

- Creating, Assigning and Moving Nodes in System Topology
- Planning a Cisco Unified Presence Multi-Node Deployment
- User Assignment Mode Recommendations
- Getting More Information
- For information on exporting users in bulk using BAT, see the *Configuration and Maintenance Guide for Cisco Unified Presence*.

What To Do Next

Configuring a Cluster-Wide Cisco Unified Presence Address