Hierarchy Management

Cisco Unified Communications Domain Manager 10.6(1) Overview

The major change in the configuration of Cisco Unified Communications Domain Manager from 8.x to 10.x is the location of the master data for different aspects of the solution. In 8.x deployments the master copy of all data was stored in the Shared Data Repository (SDR). Consequently any changes to the data had to be made in Cisco Unified Communications Domain Manager and then synchronized down to the UC Applications such as Cisco Unified Communications Manager. In 10.X the source of master data is distributed between domain manager and the call manager and a bi-directional sync can export and import data from the domain manager and the applications. This approach enables configuration changes to be made on either the domain manager or on the UC applications giving greater flexibility and enabling a faster resolution when problems occur.

The following chapters include content on provisioning Cisco Unified Communications Domain Manager 10.6(1) specifically as it relates to Customer Onboarding. This will include information on the provisioning steps and interactions between the domain manager and the various UC applications supported by Cisco HCS.

For more information on Cisco Unified Communications Domain Manager 10.6(1) see:

- *Cisco Unified Communications Domain Manager 10.6(1) Planning and Install Guide*
- *Cisco Unified Communications Domain Manager 10.6(1) Maintain and Operate Guide*

- *Cisco Unified Communications Domain Manager 10.6(1) Troubleshooting Guide*
- *Cisco Unified Communications Domain Manager Release 10.6(1) Self Service Guide*
- *Cisco Unified Communications Domain Manager Release 10.6(1) API Developer Guide*
- *Cisco Unified Communications Domain Manager Release 10.6(1) API Schema Reference Guide*
- *Cisco Unified Communications Domain Manager Release 10.6(1) Bulk Provisioning Guide*

These documents are available at: http://www.cisco.com/c/en/us/support/unified-communications/hosted-collaboration-solution-hcs/tsd-products-support-series-home.html.

Note The focus of this document is on Customer onboarding. Details on User and Subscriber management, including LDAP related move and push operations, are available in the *Cisco Hosted Collaboration Solution, Release 10.6(1) End-User Provisioning Guide*.

View the Hierarchy

An administrator can view the portion of the hierarchy that the administrator has access to. The provider administrator can view the complete hierarchy, while a customer admin can view only the customer, any intermediate nodes beneath the customer, and customer sites.

Procedure

Step 1 To view the hierarchy, select **Hierarchy** > **Hierarchy Management**.
A table containing the hierarchy nodes visible to the admin is displayed containing the following:

Field	Description
Name	Node name
Description	Node description
Hierarchy Node Type	Indicates Provider, Reseller, Customer, or Site. Is blank for an intermediate node.
Hierarchy	Shows the node location in the hierarchy in dot notation.

Step 2 To view a subset of the visible hierarchy, you can adjust the hierarchy path.

Example:
For instance, a provider admin, may set the path to point to a particular customer, and then will see only the hierarchy nodes for that customer.

Step 3 The hierarchy nodes can be sorted by clicking on the field headers. The hierarchy nodes can be searched by clicking the search icon on the field headers.

Create a Provider

Procedure

Step 1 Log in to Cisco Unified Communications Domain Manager 10.6(1) as hcsadmin@sys.hcs.

Step 2 Select **Provider Management** > **Providers**.

Step 3 Click **Add**.

Step 4 Complete the following fields:

Field	Description
Name	The name of the provider. This field is mandatory. **Note** Once you enter a provider name, it cannot be changed. **Note** Any spaces in the provider name will be converted to underscores in the provider local administrator name and e-mail, if **Create Local Admin** is checked.
Description	A description of the provider.
Domain Name	The domain of the provider. For example, provider.com. Used when creating the default local admin user so the admin can log in with an email ID such as ProviderAdmin@provider.com. This field is mandatory.
Create Local Admin	Controls whether a default local administrator is created.
Cloned Admin Role	The HCS default provider role used to create a new role prefixed with the provider name. The created provider role, shown in **Default Admin Role** field, is assigned to the default local admin. This field appears only if **Create Local Admin** is checked.
Default Admin Role	The created provider role that is assigned to the default local admin. This field is read only and appears only if **Create Local Admin** is checked.
Default Admin Password	The password to assign to the default local admin. This mandatory field appears only if **Create Local Admin** is checked.
Repeat Default Admin Password	Confirm the default local admin password. This mandatory field appears only if **Create Local Admin** is checked.

Step 5 Click **Save**.

The provider hierarchy node in Cisco Unified Communications Domain Manager 10.6(1), the ServiceProvider name in SDR, and optionally a default provider admin are created. All existing Cisco HCS System Administration level dial plan schema and schema groups are auto-cloned to the new provider. For more information on auto-cloning, see *Cisco Hosted Collaboration Solution, Release 10.6(1) Dial Plan Management Guide for Cisco Unified Communications Domain Manager, Release 10.6(1)*.

Create Reseller

Creating a reseller is optional.

Before You Begin

Note During Cisco Unified Communications Domain Manager 10.6(1) installation, the hcsadmin Administrator must configure the HCM-F device and create the Provider. See *Cisco Unified Communications Domain Manager, Release 10.6(1) Planning and Install Guide* for details.

Procedure

Step 1 Log in to the server as the Provider admin.
Log in with the Provider admin's email address, which is case-sensitive. The hcsadmin Administrator can find the Provider admin's email address by selecting **User Management** > **Local Admins** and then clicking the Provider.

Step 2 Select **Reseller Management** > **Resellers** from the menu.

Step 3 Click **Add**.

Step 4 Complete the following fields:

Option	Description
Name	The name of the reseller. This field is mandatory. **Note** Once you enter a name, it cannot be changed. **Note** Any spaces in the reseller name will be converted to underscores in the reseller local administrator name and e-mail, if **Create Local Admin** is checked.
Description	Reseller description
Directory Domain	Reseller domain. This field is used to create an e-mail address for the reseller default local administrator, for example Reseller1Admin@reseller1.com. If omitted, the domain of the provider is used.
Create Local Admin	Controls whether a default local administrator is created for the reseller.
Cloned Admin Role	The Provider role used to create a new role prefixed with the reseller name. The created reseller role, shown in **Default Admin Role** field, is assigned to the default local admin user. This field appears only if **Create Local Admin** is checked.
Default Admin Role	The created reseller role that is assigned to the default local admin. This field is read only and appears only if **Create Local Admin** is checked.

Option	Description
Default Admin Password	The password to assign to the default local admin. This field appears and is mandatory only if **Create Local Admin** is checked.
Repeat Default Admin Password	Confirm the default local admin password. This field appears and is mandatory only if **Create Local Admin** is checked.

Step 5 Click **Save**.

Create Customer

Procedure

Step 1 Log in to server as the provider or reseller admin, depending on what organization will manage the customer. Log in with the provider or reseller admin's email address, which is case-sensitive. The provider admin can find the reseller admin's email address by selecting **User Management** > **Local Admins** and then clicking the reseller.

Step 2 If logged in as a provider, and the customer is to be added under a reseller, set the hierarchy path to the reseller.

Step 3 Select **Customer Management** > **Customers**.

Step 4 Click **Add**.

Step 5 Complete the following fields:

Field	Description
Customer Name	The name of the customer. This field is mandatory. **Note** Any spaces in the customer name will be converted to underscores in the customer local administrator name and e-mail, if **Create Local Admin** is checked.
Description	Customer description
Extended Name	The Extended Name can be used to provide a more descriptive name of the customer, and can be used by external clients to correlate their own customer records with the customer records stored in HCS. This Extended Name value is synced to the Customer record in the Shared Data Repository (SDR). The Extended Name is not referenced by other components in HCS.

Field	Description
External Customer ID	The External Customer ID is used by the Service Inventory service. The External Customer ID is included as a column in the customer record of the service inventory report. Specify an External Customer ID in this field that matches the customer ID used by the external inventory tool which receives the Service Inventory reports. If the Service Inventory service is not being used, this field is not required. However, it can be used to correlate customer records in external systems with customer records in HCS.
Domain Name	Customer domain. This field is used to create e-mail addresses for: • The customer default local administrator, for example: Customer1Admin@customer1.com • Site default local administrators under the customer, for example: Site1Admin@customer1.com If the customer domain is omitted, the provider domain (or reseller domain, if the customer is under a reseller in the hierarchy and the reseller domain was provided) is used instead.
Create Local Admin	Controls whether a default local administrator is created for the customer.
Cloned Admin Role	The Provider or Reseller role used to create a new role prefixed with the customer name. The created customer role, shown in **Default Admin Role** field, is assigned to the default local admin user. This field appears only if **Create Local Admin** is checked.
Default Admin Role	The created customer role that is assigned to the default local admin. This field is read only and appears only if **Create Local Admin** is checked.
Default Admin Password	The password to assign to the default local admin. This field appears and is mandatory only if **Create Local Admin** is checked.
Repeat Default Admin Password	Confirm the default local admin password. This field appears and is mandatory only if **Create Local Admin** is checked.
Account ID	The Account ID can be used by external clients to correlate their own customer records with the customer records stored in HCS. This Account ID value is synced to the Customer record in the Shared Data Repository. The Account ID can be used by external clients to correlate their own customer records with the customer records stored in HCS. This Account ID value is synced to the Customer record in the Shared Data Repository.
Deal IDs	Deal IDs are used by the Hosted License Manager (HLM) service which can be activated on the Hosted Collaboration Management Fulfillment (HCM-F) server. HLM supports Point of Sales (POS) report generation. The report includes all customers on the system with aggregate license consumption at customer level. The optional Deal ID field associated with the customer will be included in the report. Each customer can have zero or more Deal IDs. The Deal ID field is free text format and each deal ID should be separated by a comma.

Field	Description
Prime Collaboration	Prime Collaboration is the application which monitors equipment used by this customer. Available Prime Collaboration applications must first be configured using the HCM-F User Interface, refer to *Cisco Hosted Collaboration Mediation Fulfillment Install and Configure Guide, Release 10.6(1)* for more information. Then HCM-F synchronization must be executed on Cisco Unified Communications Domain Manager 10.6(1). After the HCM-F data syncs into Cisco Unified Communications Domain Manager 10.6(1), available Prime Collaboration applications will appear in this dropdown. Select an available Prime Collaboration application to monitor Unified Communications applications and customer equipment configured for this customer.
Shared UC Apps	Indicates whether the customer can use Shared UC Apps. If checked, the customer sites can use Network Device Lists that contain Shared UC Apps. Shared UC Apps are UC Apps that are defined above the Customer hierarchy level.

Step 6 Click **Save**.

Note When deleting a customer, you must remove any entities associated with the customer like LDAP, SSO providers, Devices and NDLs.

Create Intermediate Node

An intermediate node is an optional node in the Cisco Unified Communications Domain Manager 10.6(1) hierarchy that is located between the standard hierarchy nodes: provider, reseller, customer, and site. An intermediate node can be used to logically group other nodes. Intermediate nodes can be used to restrict access by administrators to a defined subset of nodes.

For example, intermediate nodes could be used to group customers by industry, or sites by geography.

When an intermediate node is created, no default administrator is created for it. Adding an administrator for an intermediate node is a separate step.

Procedure

Step 1 Login as an administrator at the level under which you want to create the intermediate node.
For example, to create an intermediate node to group sites, log in as the customer administrator.

Step 2 Select **Hierarchy Management** > **Hierarchy**.

Step 3 To add an intermediate node, click **Add**.

Step 4 Enter the following information for the node:

Field	Description
Name	The name of the node. This field is mandatory. **Note** Once you enter a name, it cannot be changed.

Field	Description
Description	A detailed description of the node.

Step 5 Click **Save**.

The intermediate node is created in the hierarchy.

What to Do Next

Define a local administrator for the intermediate node.

Then create nodes underneath the intermediate node that the intermediate node local administrator can manage.

Delete a Hierarchy Node

Caution Unintentionally deleting a node can have catastrophic effects on the system. Proceed with caution.

Use this procedure to delete a provider, reseller, customer, site, or intermediate node.

Deleting a provider, reseller, customer, site, or intermediate node results in multiple related items also being deleted. Groups of items are displayed in the order that they must be deleted due to dependencies, and you can delete specific items by group. Checking a group will delete it and all of the groups above it.

Troubleshooting: Errors may occur in the following scenarios:

- Import for a device is running at the time of delete, which may have potential information on the node being deleted (Cisco Unified Communications Manager, CUCxn, or LDAP devices). Cancel all imports before attempting a node deletion.
- A customized data-model was added to the node that is not supported by node deletion. The transaction error should reveal the unsupported data-model. Remove the customized data-model before attempting the node deletion again.

Procedure

Step 1 Login as a provider, reseller, customer, or hcsadmin administrator that can manage the node to be deleted.

Step 2 Select the appropriate node to be deleted:

a) To delete a provider node, select **Provider Management** > **Delete Provider**
b) To delete a reseller node, select **Reseller Management** > **Delete Reseller**
c) To delete a customer node, select **Customer Management** > **Delete Customer**
d) To delete a site node, select **Site Management** > **Delete Site**

e) To delete an intermediate node, select **Hierarchy Management** > **Delete Intermediate Node**

Step 3 Select the node to be deleted from the **Node** drop-down list.

Step 4 To delete the node and all the items dependent on it, check the node. To delete node-specific items by group, click one of the groups above the node.

Step 5 To perform the deletion, click **Save**.

Important There is no confirmation box confirming the delete. Clicking **Save** starts the delete process.

Manage Local Administrators and Operators

Default local Cisco Unified Communications Domain Manager 10.6(1) administrators are created when provider, reseller, customer, and site hierarchy nodes are established. Use this procedure to modify or create additional local administrators or operators. Also use this procedure to create administrators for intermediate nodes.

An administrator for a particular hierarchy level can create or modify the administrators and operators at that hierarchy level and any level below. For example, a Customer XYZ administrator can create other Customer XYZ administrators as well as site administrators for Customer XYZ.

Procedure

Step 1 Log in as an administrator.

Step 2 To create or modify an admin or operator at a level below your current level, set the hierarchy path at the top of the window.
For example, if you have logged in as provider admin, and want to create a customer admin, set the hierarchy path to the customer for which you want to create the admin.

Step 3 Select **User Management** > **Local Admins**.

Step 4 At a minimum, complete the following fields:

Fields	Description
Username	Login username. This field is mandatory.
Email Address	User email address. This field is mandatory.
Password	Set the password. This field is mandatory.

Step 5 To modify an existing administrator or operator, click the administrator or operator.

a) Modify the appropriate settings for the admin or operator.
b) Click **Save**.

Set Localization Language at Hierarchy Node

A default language can be set at any hierarchy node. Users and local administrators will inherit the default language from the nearest hierarchy node in the hierarchy tree that has a default language set. If no default language is specified, English is used. The default language can be overridden for an individual user or local administrator under User Management.

Procedure

Step 1 Log in as provider, reseller, customer, or site admin.

Step 2 Set the hierarchy path to point to the node where you want to set a default language.

Step 3 Select **Hierarchy Management** > **Localization Language**.

Step 4 Click **Add**.

Step 5 Select the default language from the pull down menu.

Step 6 Click **Save**.

As an example, a provider has not set a default language at the provider level. The provider has a reseller in Germany, so the default language at the reseller is German. But that reseller has a customer in France, so the default language at that customer level is set to French. In addition, the customer in France has a site in Italy, so the default language for that site is set to Italian. In this scenario, users that are not under the reseller will have English as their language by default.