Entitlement Management

Entitlement

Cisco Unified Communications Domain Manager Entitlement represents the set of rules surrounding the suite of services and devices (and their number) available for particular subscribers. For instance, one customer may specify that end users may only have voice service with a maximum of two devices, one being a flavor of IP set, and the other being an analog set. Another customer may configure their end users to have both voice and voicemail services, with a maximum of ten devices limited to SIP sets. Both of these are valid rule sets intended to govern their respective users' service or device set.

There are four principal Cisco Unified Communications Domain Manager models from which the entitlement rule sets are built:

- Device Types
- Device Groups
- Entitlement Catalogs
- Entitlement Profiles

Device Types

Device types represent the suite of physical devices which may be grouped into device groups for subsequent entitlement purposes. These device types should mirror the supported product types available on the Cisco Unified Communications Manager.

The device type data model is prepopulated with a snapshot of current product types; however, the provider administrator can add, as well as update or remove, additional device types, if needed.

Device Groups

A device group is a subset of device types. Device groups are not necessarily discrete; that is, different device groups may share specific device types.

Provider administrators can add, delete, and update device groups. Reseller and customer administrators can only view device groups.

Entitlement Catalogs

An entitlement catalog specifies supported device groups and available services (broad categories of functionality) for a particular hierarchy. The services which are available to be selected in an entitlement catalog are as follows: Voice, Voicemail, Presence, and Extension Mobility. Entitlement catalogs also set the maximum allowed number of total devices and the maximum allowed number of devices in each device group within the catalog.

If entitlement is to be used, an entitlement catalog must exist at the Provider hierarchy node. No more than one entitlement catalog may exist at any given hierarchy node. The entitlement catalog at a particular hierarchy node restricts the device groups, device counts, and services which are available to entitlement profiles at or below that node in the hierarchy. No entitlement profile may exceed the restrictions imposed by its associated entitlement catalog. Similarly, an entitlement catalog at a particular hierarchy imposes limitations on any subsequent entitlement catalogs beneath it in the hierarchy structure. No entitlement catalog created deeper in the hierarchy structure may exceed the restrictions specified in a higher entitlement catalog.

Provider administrators can add, update, and delete entitlement catalogs at their hierarchy level and below. Reseller and customer administrators can only view entitlement catalogs.

Entitlement Profiles

Entitlement profiles establish the set of services, device groups, and device limits to which an end user may subscribe. No entitlement profile may exceed the specifications dictated by the hierarchy-associated entitlement catalog. An entitlement profile may not exist at a particular hierarchy node unless an entitlement catalog exists at or above the entitlement profile's hierarchy node.

Unlike entitlement catalogs, there may be multiple entitlement profiles at a given hierarchy node. Each of these entitlement profiles must have a unique name within the hierarchy. Additionally, no device type may appear in more than one device group within a given entitlement profile.

Entitlement profiles can be assigned to users when users are synched from Cisco Unified Communications Manager or from LDAP, or when users are added or modified in Cisco Unified Communications Domain Manager via Subscriber Management and User Management.

One entitlement profile at a given hierarchy node can be designated as the default entitlement profile. The default entitlement profile is applied to any users at or below the hierarchy node, if those users are not explicitly assigned another entitlement profile.

Provider administrators can add, update, and delete entitlement profiles at their hierarchy level and below. Reseller and customer administrators can only view entitlement profiles.

Entitlement Enforcement

Service Levels

The following table shows the impact to a user when a service is disabled in the entitlement profile applied to the user.

Note An entitlement profile can be explicitly assigned to a user, or implicitly applied if an entitlement profile is designated as the default entitlement profile in a hierarchy node at or above the user's hierarchy node.

Service disabled	Result
Voice	Adding a phone to a user in Subscriber Management will fail. For an existing user with a phone, updates to the user in Subscriber Management will fail after an entitlement profile with Voice disabled is applied to the user.
Voicemail	Adding Voicemail to a user in Subscriber Management will fail. For an existing user with Voicemail, updates in Subscriber Management will fail after an entitlement profile with Voicemail disabled is applied to the user.
Presence	Enabling Cisco Unified Communications Manager IM and Presence Service for a user in Subscriber Management will fail. For an existing user with Cisco Unified Communications Manager IM and Presence Service enabled, updates in Subscriber Management will fail after an entitlement profile with Presence disabled is applied to the user.
Extension Mobility	Adding Extension Mobility to a user in Subscriber Management will fail. For an existing user with Extension Mobility, updates in Subscriber Management will fail after an entitlement profile with Extension Mobility disabled is applied to the user.
Single Number Reach	For a new user, adding Single Number Reach in Subscriber Management will fail, and for an existing user with **Enable Mobility** checked, adding Single Number Reach will fail after an entitlement profile with Single Number Reach disabled is applied to the user.

Device Groups

A user to whom an entitlement profile is applied is limited to devices in the device groups assigned in the entitlement profile. Adding a Phone to a user in Subscriber Management will fail if the added Phone is not in a device group assigned to the entitlement profile applied to the user.

Device Limits

A user to whom an entitlement profile is applied is subject to the following device limits set in the entitlement profile:

- Total number of devices

- Total number of devices in a device group

Adding a Phone to a user in Subscriber Management will fail if the total number of devices limit or the total number of devices in a device group limit is exceeded.

Transaction Log

The transaction log messages contain detailed information that can be used to determine what entitlement profile limitation caused an action to fail.