Subscriber Screens

- Subscriber Screens Overview, on page 1
- Find a Subscriber, on page 1
- Create a Subscriber, on page 2
- Edit a Subscriber, on page 4
- Change the Credential ID of a Subscriber, on page 5
- Deactivating or Activating a Subscriber, on page 5
- Delete a Subscriber, on page 6
- Subscriber Screens Definitions, on page 6
- Overview Screen, on page 6
- Details Screens, on page 7
- Sessions Screen, on page 17
- Balance Screen, on page 18

Subscriber Screens Overview

This chapter provides discussion and examples for an administrator with full read and write privileges. As a full privilege admin, you are able to change, delete, and deactivate subscriber information.

After you log in, the default page of the Control Center interface displays the **Subscribers tab** > **Find Subscriber** screen.

The Subscribers tab lets you look at details for a subscriber, any subaccounts under a subscriber, and any sessions a subscriber may have.

From the menu tree on the left, you have access to session information screens at the subscriber level and the network level. Read about these screens in Sessions Screen.

Find a Subscriber

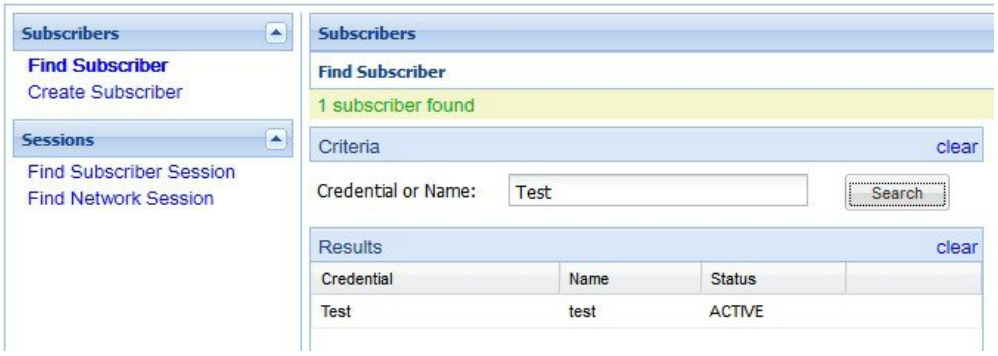
Finding a subscriber is often the first step in performing other tasks for a subscriber.

Note To list all subscribers, leave the Credential Name field blank. The maximum number of records returned is 1000.

Enter search criteria into either the Credential or Name field. You can use any portion of a subscriber's name, but when searching on a credential ID, you must use the full credential. No wild cards are permitted.

Step 1 Click **Subscribers tab** > **Subscribers node** > **Find Subscriber** item in the menu tree.

Step 2 Enter your search criteria in the Credential or Name field and click **Search**.

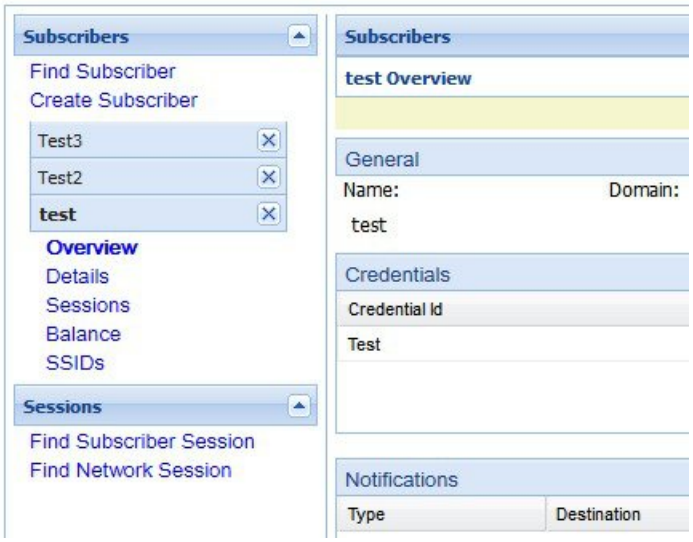


Step 3 Matches to your search criteria appear in the Results table.

Use the open link on the right to display more information about the subscriber

Use the delete link to delete the subscriber.

Note As you find and use subscriber screens, the menu tree keeps track of the most recent finds. Dismiss these items from the tree with the X icon.

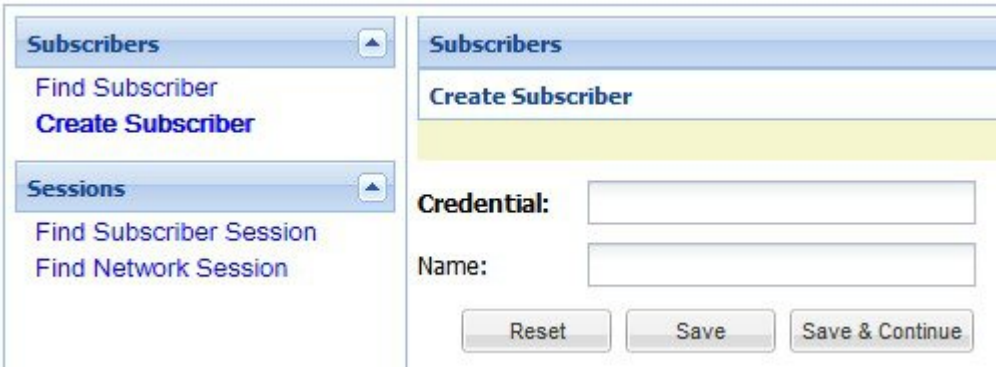


Create a Subscriber

To import a large number of subscribers, use your own subscriber profile repository (SPR) software.

Use these steps to create subscribers one at a time.

Step 1 Click **Subscribers tab** > **Subscribers node** > **Create Subscriber** item in the menu tree.



Step 2 Select a Domain from the drop-down menu.

Domains are created in the Policy Builder interface and are displayed here. Domains are a point of intersection between Control Center and Policy Builder.

Step 3 Type in a credential that specifically identifies the new subscriber.

A credential is a unique identifier that subscribers and subaccount customers use to log in. Typically, a credential is defined when you create the subscriber or subaccount. However, you can manage credentials separately from the create process.

The credential can be any letter or number with a length of one or more alphanumeric characters. Best practice is to not use special characters, although apostrophe and hyphen may be part of a name.

Step 4 Enter the subscriber's name, first and last, in the same field.

Step 5 Click **Save** to create the subscriber with just a domain, name, and credential defined. You can return later and fill in more details later.

Click **Save and Continue** to provide more details of the new subscriber at this time.

The details of a subscriber are captured and displayed on the screens. To fill out the various detail screens, see those specific sections.

- General
- Credentials
- Services
- Notifications
- Subaccounts

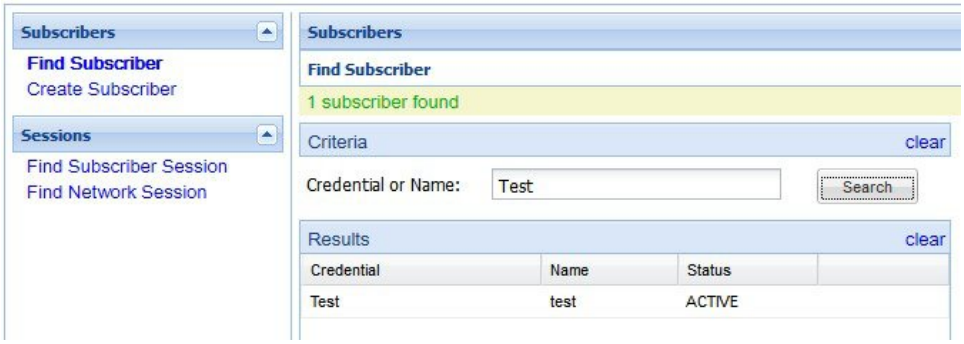
The other two areas, Sessions and Balance, show you more information about the user, but there is nothing editable.

If you want to check your work, use the Find Subscriber task in the menu tree and make sure you can find the subscriber you just created.

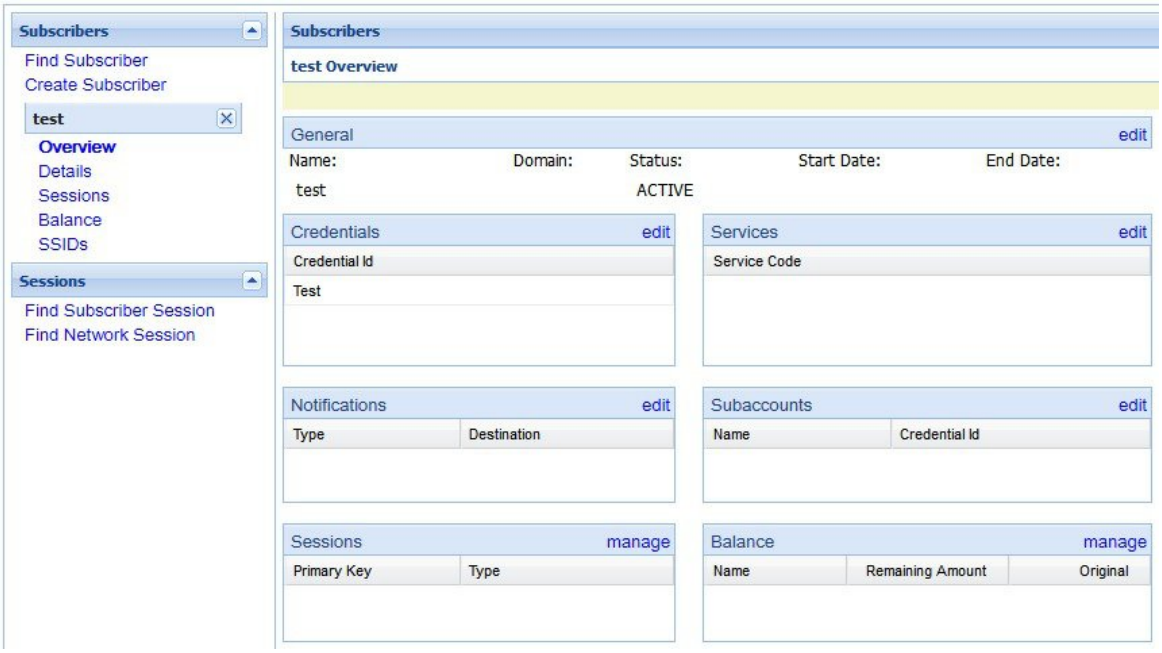
Edit a Subscriber

Step 1 Find the subscriber as described at Find a Subscriber.

Step 2 Hover over the name displayed in the Results table and click **Open**.



The Subscriber Overview screen appears.



Step 3 From this screen, click any of the edit or manage links to change subscriber information about that topic.

You can also use the menu items in the menu tree on the left to display individual screens.

For help on using any of the screens shown here, see the sections written specifically about them:

a. Overview Screen

b. Details Screens

c. General Screen

d. Credentials Screen

e. Services Screen

f. Notifications Screen

g. Subaccount Screen

h. Sessions Screen

i. Balance Screen

Change the Credential ID of a Subscriber

Step 1 Click **Subscribers tab** > **Subscribers node** > **Find Subscriber** item in the tree.

Step 2 Enter search criteria for the subscriber in the **Find Subscriber** screen.

Step 3 Hover over the subscriber in the Results list and click the open link.

Step 4 In the Credentials area, click the edit link.

Step 5 Either add a new credential or edit one already present.

- To add an additional credential to the list, click the add link.
- To edit a credential already in the list, hover over the credential and click **edit**.

In the **Credential Detail** screen that appears, set the expiration date for the credential, or add or change an optional password to the credential.

See also the Credentials Screen. That screen contains the fields for a secondary password for the subscriber.

Deactivating or Activating a Subscriber

Deactivate a subscriber if you don't want to completely delete them from your subscriber base. This way you can reactivate them later.

Step 1 Click **Subscribers tab** > **Subscribers node** > **Find Subscriber** item in the menu tree.

Find the subscriber as described on Find a Subscriber.

Step 2 On the Overview screen, click the edit link in the General area.

Step 3 In the Status drop-down menu, change the subscriber's status to Suspended or Active.

Delete a Subscriber

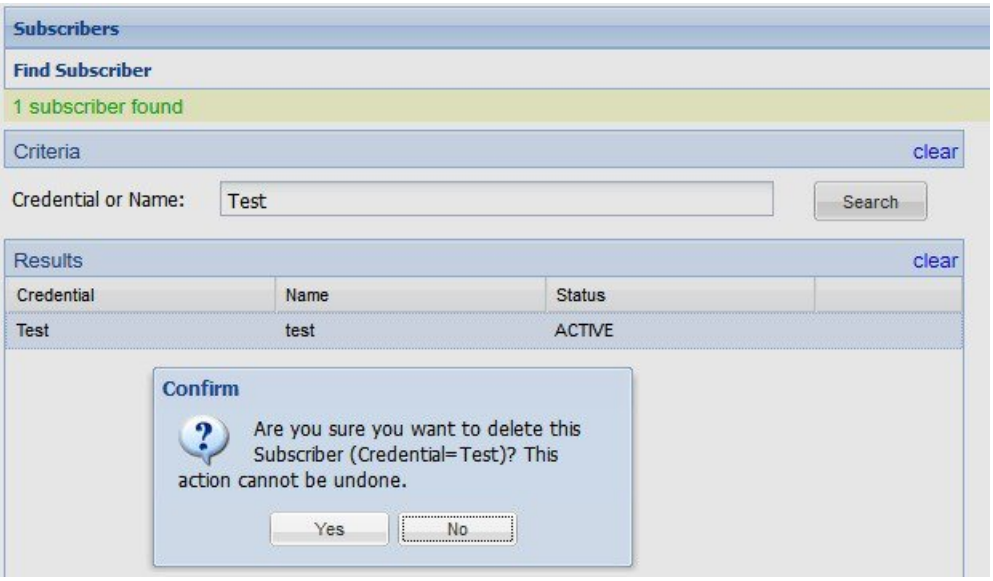
If deleting a subscriber is too drastic, you can deactivate them with the procedure on Deactivating or Activating a Subscriber.

Step 1 Click **Subscribers tab** > **Subscribers node** > **Find Subscriber** item in the menu tree.

Find the subscriber as described on Find a Subscriber.

Step 2 Hover over the subscriber in the Results table and click **Delete**.

Step 3 Be sure you are deleting the correct subscriber. Check the credential in the Confirm screen and make sure.



The Results table displays your matches, but without the deleted subscriber.

Subscriber Screens Definitions

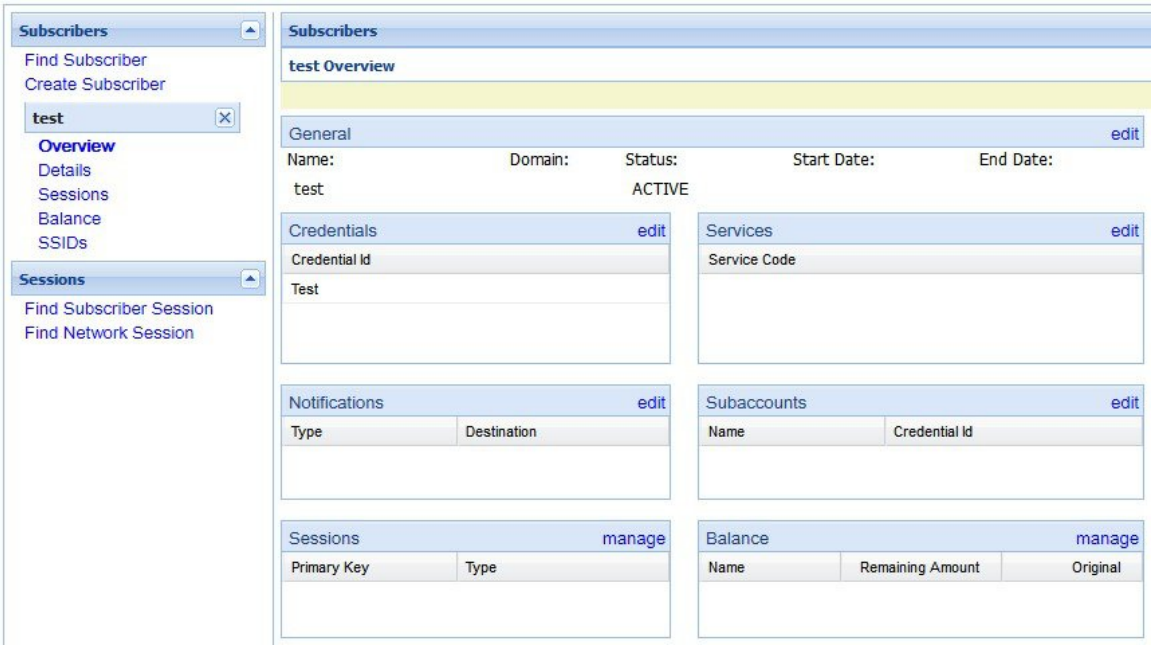
This section describes the screens used to support subscribers. After you find a subscriber you can access these screens.

Overview Screen

When you find a subscriber and open their record, the Overview screen opens.

The menu tree on the left displays the subscriber name and four submenus (Overview, Details, Sessions, Balance).

The Overview screen, with its six subsections, appears on the right.



Click the edit or manage links at the right of the sections to add, edit, or remove information for that specific aspect of the subscriber. Refer to Edit a Subscriber for more information.

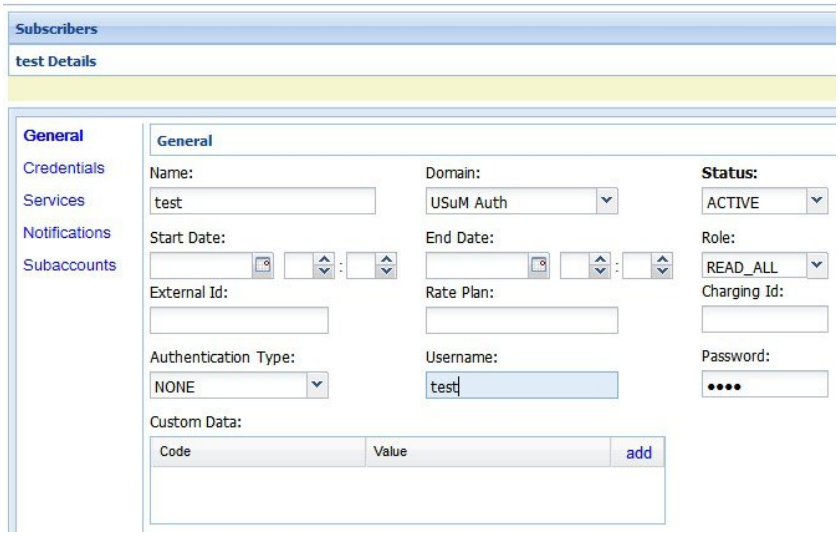
Details Screens

The Details item in the menu lets you view and edit five other screens that contain even more specific information about a subscriber or a subaccount:

- General information
- Credentials or passwords
- Services the subscriber pays for
- Notification preferences
- Subaccount users under the subscriber

General Screen

1. Click **Subscribers tab** > **Subscribers node** > **Find Subscriber** item in the menu tree.
2. Find the subscriber as described in Find a Subscriber.
3. Click **Details** > **General**.



Field	Description
Name	This single field is for both the first and last name of the subscriber.
Domain	This drop-down list displays the domain to which the subscriber is assigned. Domains themselves are created in the Policy Builder interface.
Status	The Status field shows these three states for a subscriber: • Active and able to use services • Deleted and no longer part of your system • Suspended and in the system, but not able to use services By default, status for a new subscriber is always ACTIVE, but you can change this.
Start Date End Date	Use the calendar widget to specify the start and stop date and time of service to the subscriber.

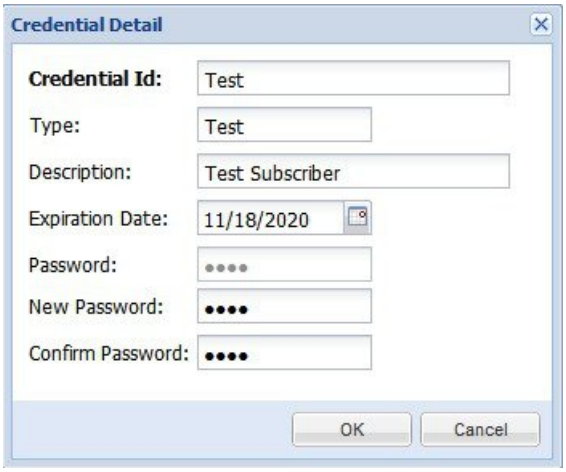
Field	Description
Role	When the subscriber logs in to your subscriber portal, this field determines how much read-write privilege is granted to them. The primary subscriber is always granted the Write All role, permitting editing of all subaccounts under it. You can change this role if you wish. For example, the primary subscriber might be a team leader responsible for team member accounts. See Subaccount Screen. If a user is not a primary subscriber, they are created as a subaccount user under a primary subscriber. Assign roles for subaccount users in the Details > Subaccounts screen. Be sure to assign the access privileges of a subaccount user. When first created, they have Write all privileges. • Write all—can read and write all information for themselves and any subaccounts • Read all—can view all portal information • Write self—can read and write only their own information • Read self—can view only their own information
External ID	Occasionally, a subscriber may need to connect with or relate to an external third-party system. This field identifies the subscriber to that external service.
Rate Plan	Enter predefined rate plan codes, such as prepaid or postpaid. Rate plans are created in Policy Builder and are obtained from that administrator.
Charging ID	A subscriber might have a unique charging ID. Using this, usage by members of a subaccount, or 'children' of the subscriber can be billed to their 'parent'.
Authentication Type	Not used.
Username	This field is used to provision the EAP username in the subscriber profile. This field is provided to support the EAP-TTLS/MSCHAPv2 call flow introduced in the CPS 7.5 release.
Password	This field is used to provision the EAP password in the subscriber profile. This field is used together with the Username field.
Custom Data Area	This area lets you use a look up list, or key-value pairs to keep track of other variables that concern your subscriber.
Code	This is the key portion of a key-value pair.
Value	This is the definition or value of the key-value pair.

Credentials Screen

The Credentials screen lets you specify more than one credential or password for a subscriber. More than one credential may be necessary for the subscriber to log in from different devices or locations.

The rows in this screen are populated by the Credential Detail screen shown below.

Click the add or edit link to display the Credential Detail screen.

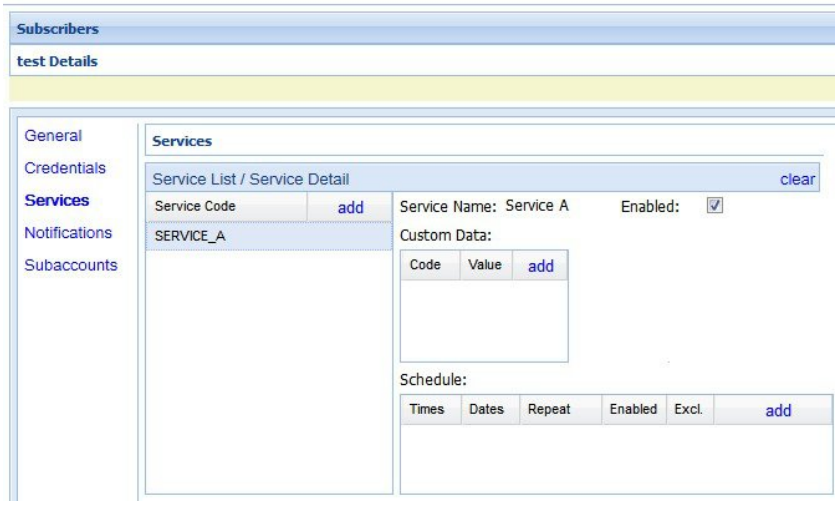


Field	Description
Credential ID	A credential is a unique identifier that subscribers and subaccount customers use to log in. Typically, a credential is defined when you create the subscriber or subaccount. However, you can manage credentials separately from the create process. The credential can be any letter or number with a length of one or more alphanumeric characters. Best practice is to not use special characters, although apostrophe and hyphen may be part of a name.
Type	Use this field for sorting and reporting. In this field, you can indicate if the credential is for a subscriber or a subaccount, or for permanent or guest use.
Description	This field lets you provide more information about this particular credential.

Field	Description
Expiration Date	Uses the calendar widget to set an end date to the credential and so restrict logins.
Password	In addition to a credential ID, a subscriber can log in with a password. A password is optional because MAC addresses, for example, do not have a password.
New Password	Change the password already defined.
Confirm Password	This entry must match the new password.

Services Screen

The Services link lets you administer what services or service plans a subscriber may access.

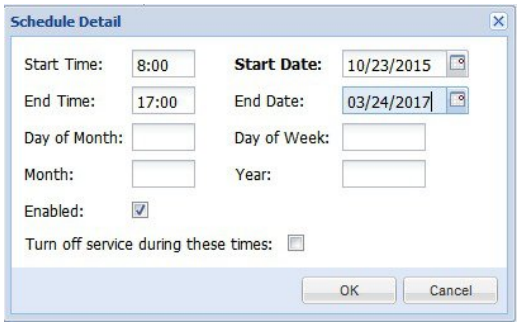


The Services screen shows this information about the service provided to the subscriber. Recall that a subscriber can have one or more services.

Services and service plans are developed in Policy Builder and are reflected here for you to choose from.

Services are a point of intersection between Control Center and Policy Builder.

Field	Description
Service Name	Enter the name or code of the service.
Enabled	If checked, this box allows the subscriber to use the service. Unchecked, the subscriber cannot access the service.
Custom Data	This area lets you use a look up list, or key-value pairs to keep track of other variables that concern your service.
Code	This is the key portion of a key-value pair.
Value	This is the definition or value of the key.

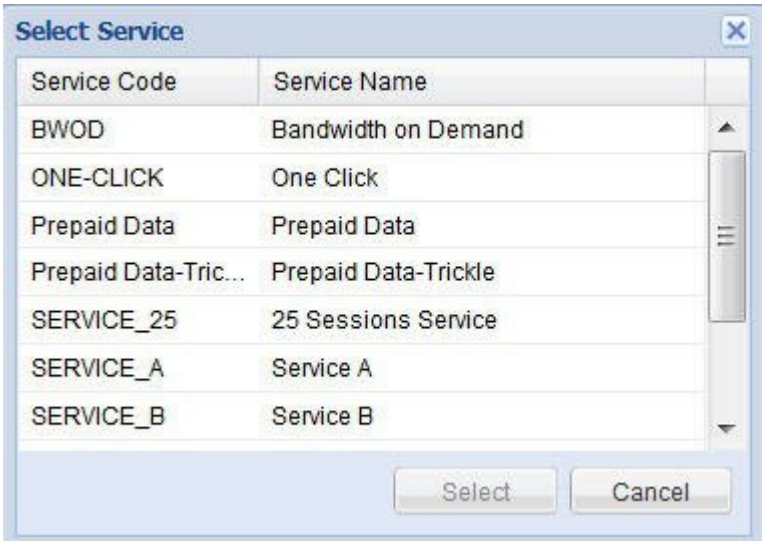
Field	Description
Schedule	This area lets you define specific times and recurrence for when the service is available to the subscriber. Click the add link to fill in the Schedule Detail window. 
Start Time End Time	These two fields let you limit the hours of the day your subscriber may access your system. The example shows access times from 8:00 in the morning to 5:00 in the afternoon. Conversely, if you check the Turn off service during these times check box, you prevent access during the times specified here.
Dates	Set dates to limit subscriber access on a wider basis.
Start Date End Date	Use the calendar widget to set a specific start and end date to service. Conversely, check the Turn off service during these times check box and prevent access during the dates specified here.
Day of month	Select a day of the month to permit the subscriber to access this service. If you want, you can allow access on the 5th, 10th, and 30th of the month by creating three schedules. Conversely, check the Turn off service during these time check box to deny access to a service on a particular day of the month.
Day of Week	Select the day of the week to permit the subscriber to access this service. You can allow access on only Tuesday, Wednesday, and Thursday by creating three schedules specifying those days of the week. For another example, you might create two schedules, one for Saturday and one for Sunday. If you check the Turn off service during these times check box for both schedules, you prevent access on weekends specifically.
Month	Select a month that you would like to allow service, perhaps for an introductory offer. Services is granted for that calendar month only. To affect more than one month, create multiple schedules, that is, one for June, one for July, one for August and so on. Conversely, check the Turn off service during these times check box to deny access to a service for a particular month, perhaps during vacation period.

Field	Description
Year	Grant service for an entire calendar year. To affect more than one year, create multiple schedules, that is, one for 2014, 2015, and so on. Conversely, check the Turn off service during these times check box to deny access to a service for a particular year.
Repeat	This field interprets the Schedule detail, showing if the schedule has a recurring aspect.
Enabled	Select this check box to put the schedule into effect. If you are developing a schedule and don't want to invoke it yet, deselect this box. This selection is reflected on the Service Detail screen as a Yes or No in the Enabled column.
Turn off service during these times	Select this check box to make the scheduled time unavailable for login, that is, to create and excluded time. For example, you may want to block a subscriber from logging in during school time hours. This selection is reflected on the Service Detail screen as a Yes or No in the Excl column.

Add a Service to a Subscriber

Step 1 To add a service to a subscriber, click **Subscribers tab** > **Find Subscriber** > **Open** > **Details (in the tree)** > **Services (next to the form)** > **add (next to the Service Code column heading)**.

Step 2 Choose a service from the **Select Service** window.



Step 3 Click the **Select** button.

Services already provisioned to a subscriber are grayed out and you cannot select them again.

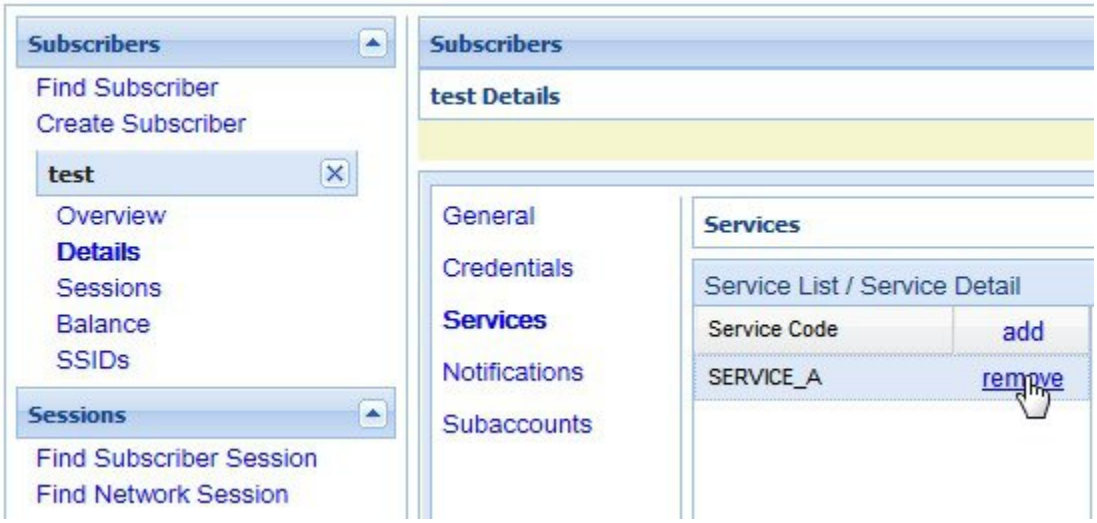
Step 4 Check that the new service is listed under the Service List area on the Subscriber screen.

Remove a Service from a Subscriber

Step 1 Click **Subscribers tab** > **Subscribers node** > **Find Subscriber** item in the menu tree.

Step 2 In the Services area of the Overview screen, click the edit link.

Step 3 In the Service Code list on the left, click the remove link.



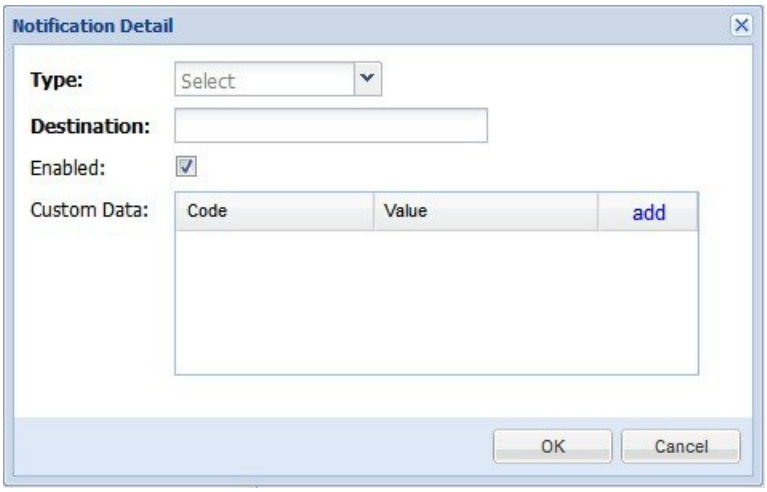
Notifications Screen

The Notifications screen lets you specify how to contact your subscriber for system messages or for special promotions, for example. You can notify subscribers by these methods.

- XML
- Email
- SMS
- Apple iPhone push

Note Notifications must be set up in Policy Builder prior to using this screen.

1. Click **Subscriber tab** > **Subscribers tree** > **find a subscriber** > **Details** > **Notifications**.
2. Click the add link at the top.
3. Fill in the Notification Detail screen.



Field	Description
Type	Contact your subscriber with one of these methods in the drop-down menu: • Real time / XML • SMS • Email • Apple iPhone push
Destination	Specify the address for the notification. For an XML message, provide URLs. For an SMS message, provide the destination number, perhaps 555544444. For an email notification, provide an email address. For an Apple iPhone push, provide the server gateway, server port, and certificate and certificate password.
Enabled	Click this check box to allow notifications to go through, or uncheck it if you are still developing the message.
Custom Data Area	This area lets you use a look up list, or key-value pairs and so keep track of other variables that concern your subscriber.
Code	This is the key portion of a key-value pair.
Value	This is the definition or value of the key.

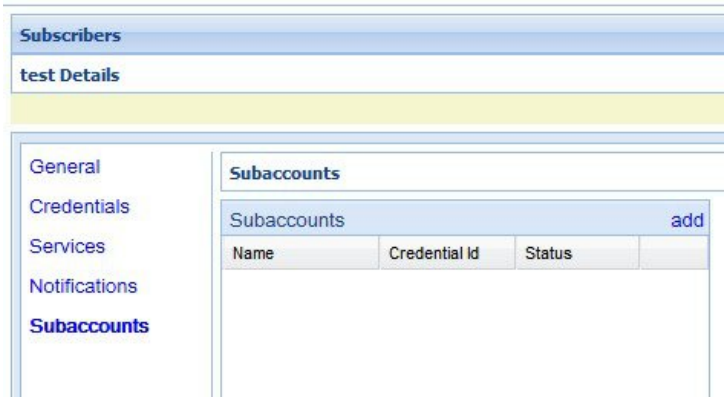
Subaccount Screen

You may be asked to create a subaccount under a primary subscriber so that the primary subscriber has authority over others, perhaps team members or family members. This construct forces a subaccount's login to count against the bill of the main subscriber.

For example, if the primary subscriber has a Charging ID of 123456, assign the subaccount users the same charging ID.

Note Currently, there is no method to move a primary subscriber to become a subaccount of a different subscriber. You must delete and then recreate such a subscriber.

1. Click **Subscribers tab** > **Subscribers node** > **Find Subscriber** item in the menu tree.
2. Find the primary subscriber, the person responsible for the subaccount.
3. Click **Details** > **Subaccounts** and click the add link in the corner.



The detail screen appears as when creating a primary subscriber. See these sections if you need help in filling out those screens.

- General Screen
- Credentials Screen
- Services Screen
- Notifications Screen

Note You cannot make another subaccount under the current subaccount. You can only provision subaccounts under a primary subscriber.

Sessions Screen

The Sessions item in the menu tree under a subscriber lets you see the sessions the subscriber has running. That is, find the subscriber first, and then check their sessions. A subscriber may have several sessions up, perhaps from different devices.

You can display a Sessions screen two ways:

- Find the subscriber and then view all their sessions:

  Subscribers tab > **Subscriber node** > **Subscriber item** > **Overview screen** > **Sessions area** > **manage**

  See Viewing a Subscriber Session.

- Find all sessions on the network and then look for a subscriber:

  Subscribers tab > **Subscriber node** > **Subscriber Sessions item** > **Current Sessions table** > **open**

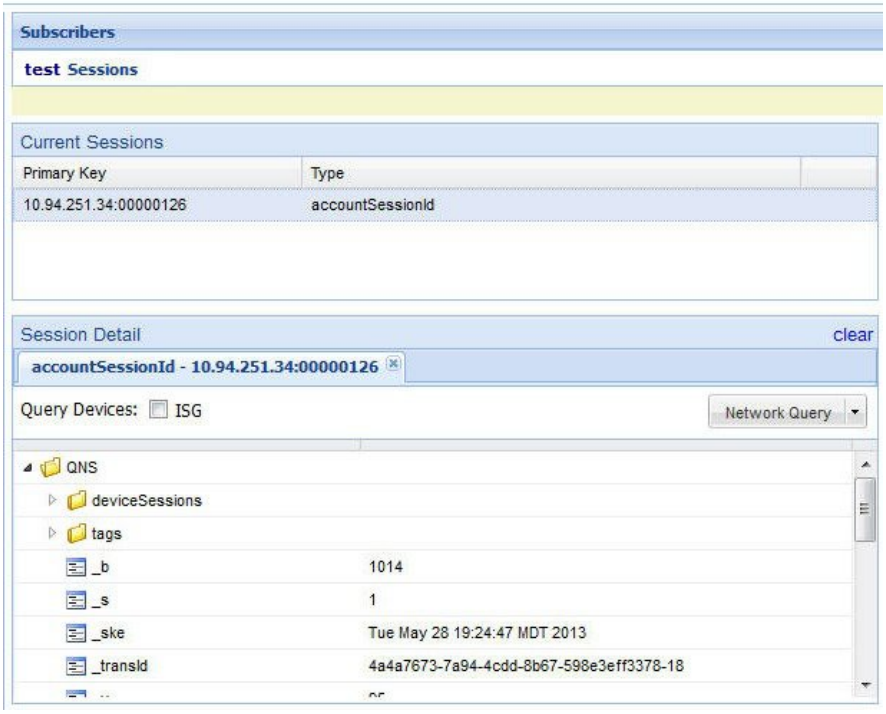
  See Finding Network Sessions.

Note If you would like a utility to start artificial sessions, contact your Cisco technical representative.

Session Details Table

The Session Detail table contains information about the session, including a Remove Session link.

An example of a Session Detail is shown below.



Field	Description
Session Tabs	At the top, a tab exists for each session the subscriber has running. The example has one tab, the subscriber has one session up.
Query Devices	This check box lets you filter the session information below to one or more devices.
Network Query	This drop-down list lets you show details for only the devices you can provide IP addresses and secrets for, and so limits the data returned by the detail table.

The Policy Server folder has several subfolders to organize the session data.

Remove a Session

There are several ways to find a session and then remove it.

- Subscribers tab > Subscriber node > Find a subscriber > subscriber Sessions item > Remove Session link
- Subscribers tab > Subscriber node > Find a subscriber > Overview screen Sessions area > manage link > Remove Session link
- Subscribers tab > Sessions node > Find Subscriber session > open link > Remove Session link

Removing a session affects Cisco Policy Suite only, but other PEPs may be notified. Removing a session drops a subscriber and force them to log in again. If a subscriber reports that they cannot log in, check to see if there is a stuck session and remove it. If the system is experiencing performance troubles, dropping stuck sessions may help.

Balance Screen

The Balance item in the tree under a subscriber name provides a way to set balance amounts and quota amounts for the subscriber.

A subscriber can have several balance codes in place, and under each one, the subscriber can have several quota codes.

Balance codes and quota codes are developed and maintained in the Policy Builder interface. Control Center reflects that configuration.

Balances

Balances are of these types:

- Recurring—recurring balances automatically replenish on a configured cycle, for example daily, weekly, monthly, or per billing cycle. Any remaining balance is not carried over when the balance is reset.
    - Roll Over—a type of recurring balance. Roll over balances, which are additive, are similar to recurring balances, but any remaining balance is kept when the balance replenishes.

- One-time—one-time balances do not automatically replenish. One-time balances may be configured with an expiration date.
    - Top Up—a type of One-time balance. Top ups add to a subscriber's balance and may be applied to any of the above balance types. Top ups are differentiated from the balance to which they are applied, enabling the service provider to define the order in which top ups, and the underlying balance, is consumed. Top ups may be assigned an expiration date.

Balances can be configured to be automatically allocated for a subscriber during a balance reserve activity if a balance does not already exist. The fair use balances for new subscribers is an example. Auto-provisioned balances are created based on rules configured by the service provider, which may refer to parameters such as subscriber class, rate plan, and so on, when provisioning the balance.

Quotas

Quota may be either of two types, one-time or recurring.

One-time quotas are amounts of time use or data use that occur only one time and are not renewed. For example:

- If an ISP provider gives free introductory minutes
- If data bandwidth is provided on a tiered system, with the first 100 KB free, and then payment begins
- For a prepaid card use case

Recurring quota are those services the account subscriber signs up for and gets refreshed at some recurring period.

Managing Quotas and Balances

Balance codes and quota codes are developed and maintained in the Policy Builder interface for these drop-down lists.

In the data hierarchy, Balances contain Quota. If you delete information at the balance level, all the quotas underneath it are removed.

Step 1 In the menu, click Subscribers tab > Subscribers node > Find Subscriber.

Step 2 Open a subscriber record.

Step 3 Select the Balance item in the menu tree under the subscriber.

Step 4 Click the plus sign by the balance code name, to open the full view to the balances.

Step 5 Click a Credit link to apply more quotas or balance amounts for the subscriber.

Step 6 Use the date picker and time picker fields to change the start and expiration of a credit. Originally a credit amount is provided for you, but you can increase or decrease the amount you want to credit the balance using the date and time picker fields.

Step 7 When the credit data are correct, click apply credit.

Step 8 Wait for a screen refresh, and then review the new Balance chart. Be sure that your changes are in effect.

Add a Balance Type

A subscriber may have one or any number of balances available all at the same time. For example:

- A one-time introductory balance for a promotion
- A regular recurring balance that gets refreshed on a certain date
- A time-limited or data-limited balance that is tracked

Step 1 To add another type of quota for the subscriber's use, click the add link located just below the Last refresh message.

Step 2 Fill in the fields in the Add Balance window using the drop-down lists and calendar widgets.

Step 3 Select a balance and quota code and enter the amount you want to give the subscriber.

Note Recall that balance codes and quota codes are developed and maintained in the Policy Builder interface for these drop-down lists.

Credit or Debit an Existing Balance

Sometimes a subscriber's balance may need to be adjusted up or down.

Step 1 To adjust a balance, open the balance information with the plus sign.

Step 2 Then click either credit or debit links on the right. The credit link lets you specify an amount of credit and also a start and expiration date for when it may be used.

If you select to debit a balance, you are only prompted for the amount.

Step 3 Fill in the field for debit or credit amount. The remaining quota is calculated.

Delete a Balance

If you need to completely remove a specific balance type and all of its quota types from a subscriber, click the red circle/white dash icon.

This may be done during testing scenarios, but with real subscribers, another solution might be to simply debit balance until the balance approaches zero.

Delete a Quota

A quota is a part of an overall balance. You can delete any quota that contributes to a balance, and so affect the entire subscriber balance.

Note Take care about which you delete with the red circle/white dash. If you delete the Balance item on the screen, all of the quotas within it are deleted as well.

Click the red circle/white dash associated with a quota type, for example Quota1, to delete a single quota type within a balance type.

Check the History of Balances

On the Balance screen, you can review the credit transactions against a quota type, but not the debit history.

Step 1 Click the history link associated with the quota.

The History screen shows you the Start and Expiration dates, original amount, transacted amount and any reserved quota.

Step 2 Click on a column heading to sort that column.

Step 3 Click on the down arrow in a column to change the sort or add or remove columns from the display.