

# Oracle® Communications Convergent Charging Controller Voucher Manager User's Guide



Release 15.2

G48090-01

January 2026

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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# Contents

## About This Content

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## 1 System Overview

---

Vouchers Introduction	1
Converged Charging System (CCS) Component	1
Voucher Data	1
Voucher Types	2
Voucher Life Cycle	2
Voucher States	3
Reported Voucher State	4
Redeeming Vouchers	4
Automatic Voucher Deletion	4
User Access	4
Security	5
Voucher PINs	5
Generating GPG Keys	5
CB-10 Voucher Security	5
Power Charge Scenarios	5
Examples of Scenarios	6
Redemption Rules	6
Redemption Notifications	6

## 2 Voucher Management

---

Voucher Manager Module	1
Voucher Management Relationship Diagram	1
Accessing the Voucher Manager Screen	2
Voucher Type	3
New Voucher Type Screen	4
Voucher Types Fields	5
Adding Voucher Types	5
Editing Voucher Types	6
Deleting Voucher Types	7

Adding Scenarios to a Voucher Type	7
Editing Scenarios for a Voucher Type	7
Deleting Scenarios for a Voucher Type	8
Balance Type Fields	8
Adding Balance Types to a Voucher Type	10
Editing Balance Types for a Voucher Type	10
Deleting Balance Types for a Voucher Type	11
Voucher Batches	11
New Voucher Batch Screen	11
Voucher Batch Fields	12
Finding Voucher Batches	15
Adding Voucher Batches	16
Checking Voucher Batch Status	16
Editing Voucher Batches	17
Edit Voucher Batch Screen	17
Deleting Voucher Batches	18
Vouchers	19
Vouchers Tab	19
Voucher	20
Voucher Fields	21
Changing Voucher States	21
Decrypting Voucher Private Secret	22
Setting Voucher Expiry	23
Batch	23
Batch Fields	23
Subscriber	24
Subscriber Fields	24
Info	24
Info Fields	25
History	25
History Fields	25
Voucher Validation	26
Validating a Voucher	26
Voucher Validation Results	26
Voucher Ranges	26
Activating Voucher Ranges	27
GPG Public Keys	28
Importing GPG Public Keys	28
Verifying Public Keys	29
Deleting GPG Public Keys	29
AVD Configuration	29
AVD Configuration Fields	30

Node Status Fields	30
Changing AVD Configuration	31

# About This Content

The scope of this document includes all functionality a user must know in order to effectively operate the CCS Voucher Management feature. It does not include detailed design of the service.

## Audience

This guide is written primarily for administrators who are responsible for creating and maintaining Vouchers. However, the overview sections of the document are useful to anyone requiring an introduction. Although there are no prerequisites for using this guide, familiarity with the target platform would be an advantage. This manual describes system tasks that should only be carried out by suitably trained operators.

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## Related Resources

The following documents are related to this document:

- *Advanced Control Services User's Guide*
- *Charging Control Services Technical Guide*
- *Charging Control Services User's Guide*
- *Control Plan Editor User's Guide*
- *Feature Nodes Reference Guide*
- *Service Management System User's Guide*
- *Voucher Manager Technical Guide*

## Conventions

The following text conventions are used in this document.

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.

Convention	Meaning
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

# 1

## System Overview

This chapter explains the main features of Voucher Manager and describes the basic functionality of the system.

### Vouchers Introduction

Vouchers are credit coupons which are used to add value to wallet balances.

Telcos can create and distribute the vouchers according to their preference and need. They can be distributed in card form or as mail-out discount offers. They may be purchased from the telco.

CCS provides systems for:

- Creating voucher types and batches
- Securing vouchers (through Personal Identification Number (PINs))
- Redeeming vouchers
- Automatic deletion of archived vouchers

#### Note

Vouchers are sometimes referred to as scratch cards.

### Converged Charging System (CCS) Component

#### Note

Vouchers are part of the Prepaid Charging solution and build on functionality provided by CCS. To fully understand how tasks work, also see *CCS User's Guide*.

### Voucher Data

Each voucher contains the following data:

- Product types they can be used for
- Balance type to credit
- Amount to be credited
- Expiry date for each new bucket
- Pre-Use expiry period sets date a voucher must first be used or its balance will expire

- Balance expiry period sets the time after a voucher is first used after which any outstanding voucher balance will expire

Vouchers used for recharge may affect multiple balance types.

## Voucher Types

Voucher types provide a voucher's core data. It also defines how a recharge can be applied. For more information about voucher types, see [Voucher Type](#).

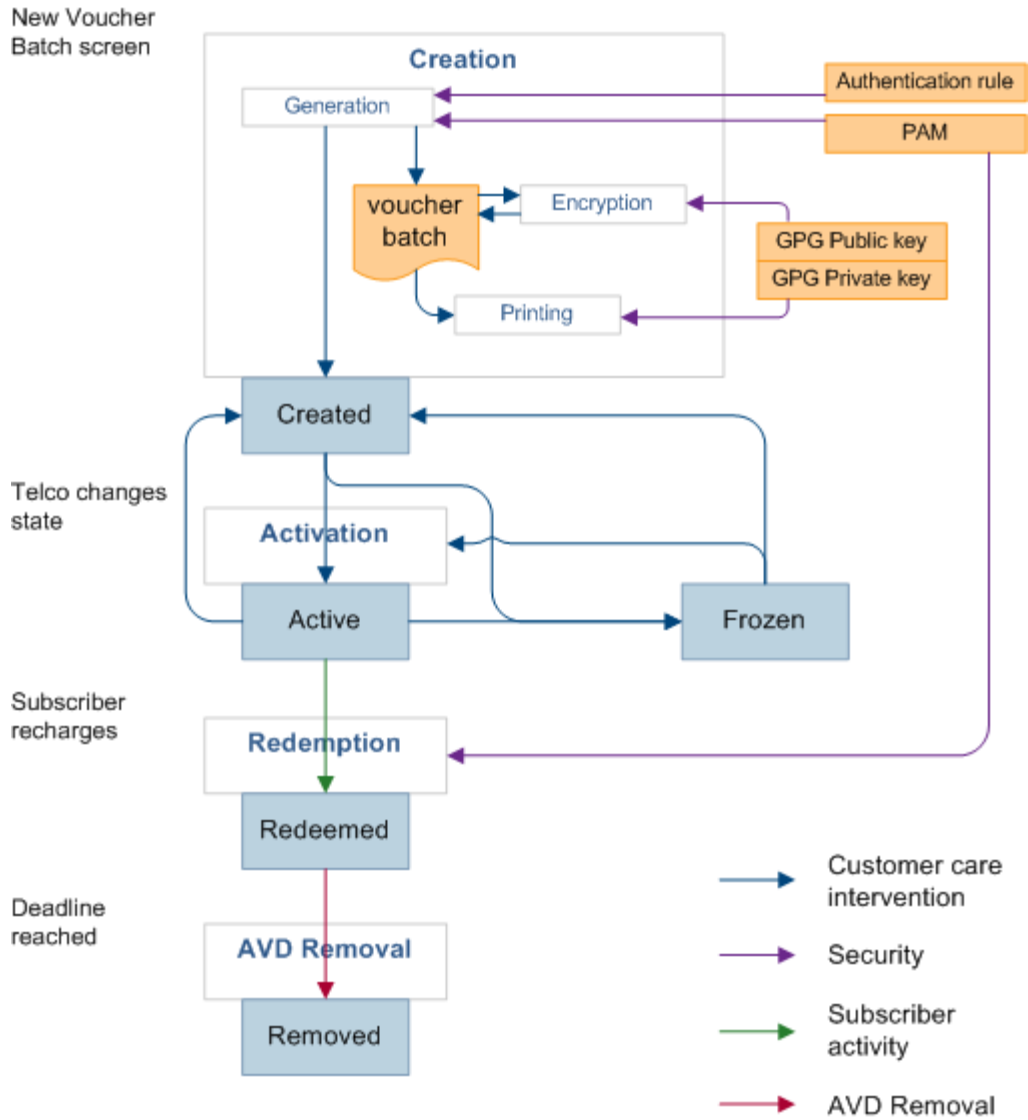
## Voucher Life Cycle

This diagram shows the life cycle of a voucher.

**Note**

Voucher batches have a slightly different life cycle.

**Figure 1-1 Voucher Life Cycle**



## Voucher States

Here is the list of voucher and voucher batch states:

- Created
- Active
- Frozen

When you create a voucher batch the batch state is set to Created. You must set the batch state to Active if you want to redeem the vouchers in the batch. You may also need to set the state of each voucher within the batch to Active.

**Note**

A voucher may only be redeemed if it is in an active state and the voucher batch it belongs to is also in an active state.

## Reported Voucher State

The status of an individual voucher or a range of vouchers within a batch can be updated. This means that individual vouchers within the batch may have different states to the batch itself. When the batch and voucher states are different, the batch state may override the voucher state so that the reported state of the voucher is different to its actual state.

This table shows what the reported voucher state will be for the available voucher and batch states.

**Table 1-1 Reported Voucher State**

Actual Voucher State	Created Batch	Active Batch	Unavailable Batch
Created	Voucher reported as created	Voucher reported as created	Voucher reported as frozen
Active	Voucher reported as created	Voucher reported as active	Voucher reported as frozen
Frozen	Voucher reported as created	Voucher reported as frozen	voucher reported as frozen
Deleted	Voucher reported as created	Voucher reported as deleted	voucher reported as frozen

## Redeeming Vouchers

Vouchers can be redeemed by providing voucher details using the IVR menu set up in a control plan.

Redeeming a voucher changes wallet balances and voucher status. Voucher recharges add value to the personal wallet by default. The business wallet can be selected using normal wallet selection features. If the subscriber only has one wallet, their recharge is automatically applied to that wallet. Wallet balance changes are made using VWS's voucher subsystem.

## Automatic Voucher Deletion

Vouchers that have been redeemed will be archived on a weekly basis. The archived vouchers will be automatically deleted from the VWS after a configurable number of weeks have elapsed.

The number of weeks to keep archived vouchers is set on the *AVD Configuration* tab. This tab also displays the date ranges for which redeemed vouchers will be deleted.

## User Access

User access to the Voucher Manager functionality is managed through the user templates defined in the SMS User Management screen. For more information about creating and maintaining user templates, see *SMS User's Guide*.

# Security

## Voucher PINs

Vouchers generally come with a PIN. PINs validate the voucher by number.

### Note

Voucher PINs are different from Bad-PIN counts for credit cards.

For more information about how PINs are generated and checked, see *CCS Technical Guide*.

## Generating GPG Keys

A public and private GPG key can be generated from a pass-phrase. The private key is held only by the print shop and used only to decode the encrypted batch file. The public key is used to encrypt the file and must therefore be supplied to the operator who will be responsible for generating the voucher batch file.

For more information about using GPG keys with exported files, see *Print Shop Operations Guide*.

## CB-10 Voucher Security

If CB-10 voucher security functionality is installed and activated on your system and the HRNGEN private keys and SHA hash keys are generated, you can use CB10 and CB10 HRN encryption when creating voucher batches. The authentication rules for generating CB10 and CB10 HRN encryption parameters are configured on the **Security** tab on the CCS Service Management screen.

### Note

For more information about CB10 authentication rules, see *CCS User's Guide*. For more information about enabling the CB10 voucher security feature, see *Installation Guide*.

## Power Charge Scenarios

A scenario is an alternative set of multiple balances that is associated with a voucher type. When a voucher is redeemed, a subscriber can select a particular scenario from the different options available for redeeming the voucher.

**Note**

It is possible for a scenario to increment a balance, or extend the expiry date for the balance, or both.

## Examples of Scenarios

A single voucher can be redeemed in multiple ways, depending on the options available at redemption. The subscriber is presented with a list of scenarios and prompted to select one.

For example, a voucher can be redeemed one of the following ways:

- 120 minutes of international calling (180 minutes during a special promotion).
- 200 short messages made within a 30 day period (300 SMS during a special promotion).
- Gold customers will receive an additional 10% on their chosen option.

## Redemption Rules

Scenarios are applied and redeemed according to the following rules:

- The default scenario value '0' will always be applied in addition to any selected scenario.
- The scenario name selected by the subscriber must match a scenario defined against the voucher type for the recharge to occur.
- If only one scenario exists against the voucher type, no scenario needs to be selected.

## Redemption Notifications

When a subscriber's account is changed due to a voucher being redeemed, a real-time wallet notification is sometimes sent to the subscriber's handset. For more information about wallet notifications, see [Real-Time Wallet Notifications](#).

For vouchers which are redeemed with a scenario, a notification template must be configured for each scenario. The notification template is selected by matching the scenario number to the digit on the end of the notification template name.

**Example:** For a basic recharge notification with two scenarios, the following two notifications must be configured:

- BasicRecharge1
- BasicRecharge2

# 2

## Voucher Management

This chapter explains how to create and manage vouchers.

### Voucher Manager Module

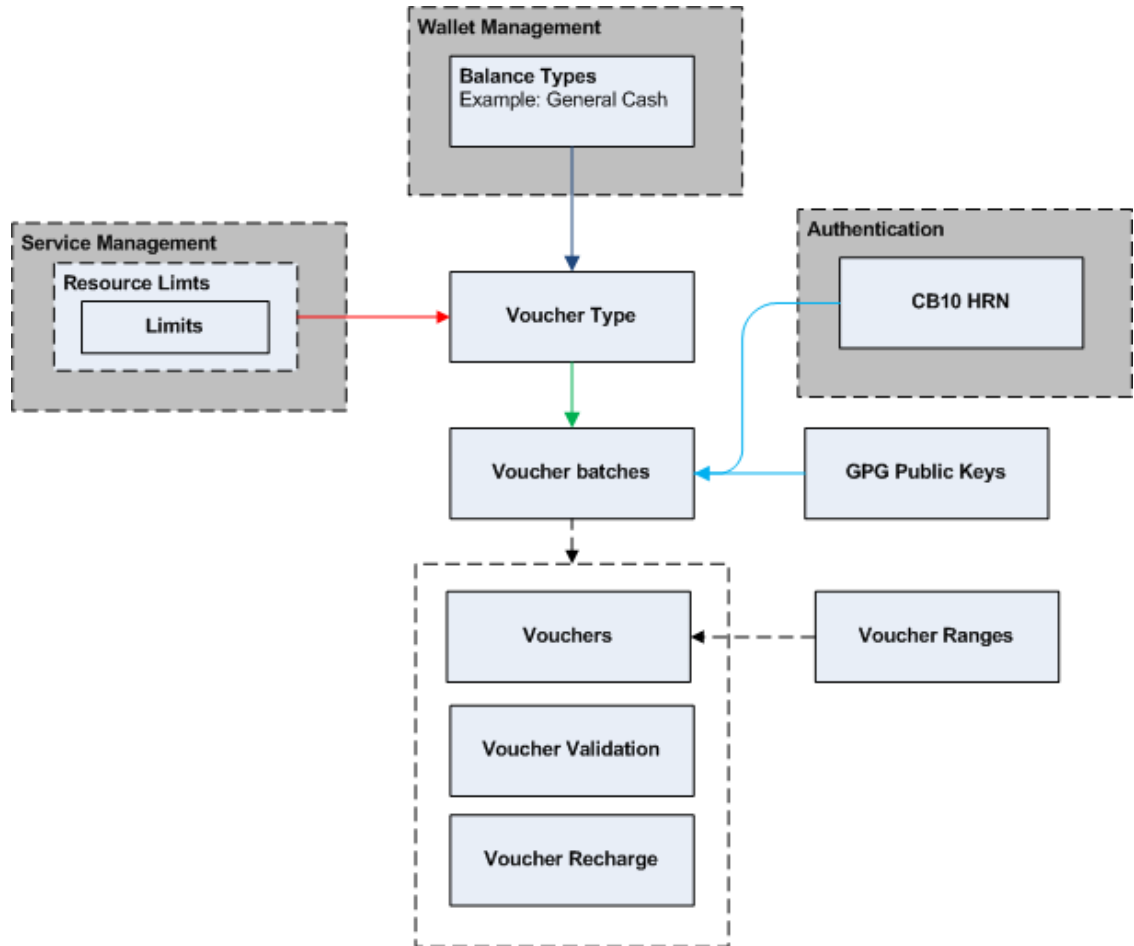
The Voucher Management screen allows you to configure vouchers. It contains these tabs:

- [Voucher Type](#)
- [Voucher Batches](#)
- [Voucher](#)
- [Voucher Validation](#)
- [Voucher Ranges](#)
- [GPG Public Keys](#)
- [AVD Configuration Fields](#)

### Voucher Management Relationship Diagram

This diagram shows the relationships between the various screens available in the Voucher Manager module.

Figure 2-1 Voucher Management Relationships

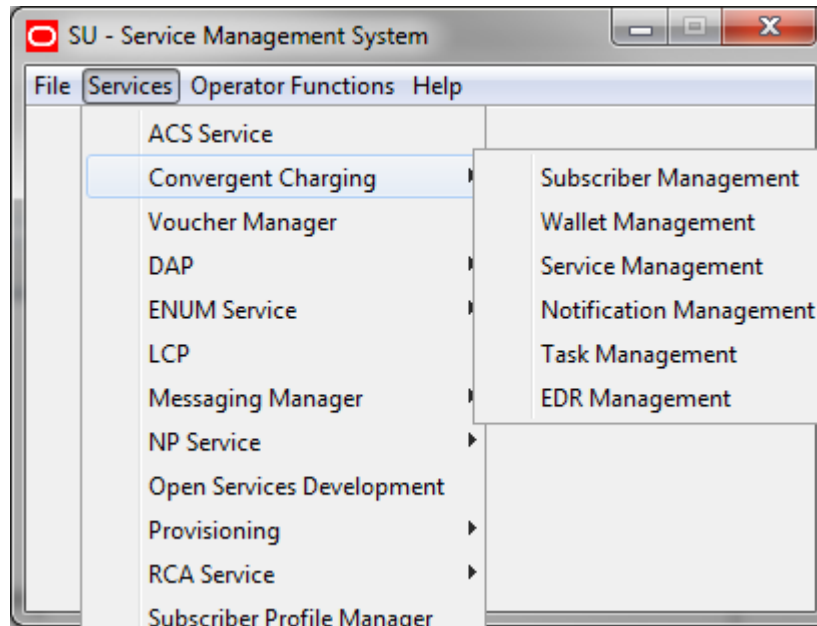


The arrows show which screen populates a drop down field on the target screen and consequently the order in which screens must be filled in. The objects in shaded boxes are screens in different modules or applications which have a relationship with this module.

## Accessing the Voucher Manager Screen

To open the Voucher Manager screen:

1. Select the **Services** menu from the SMS main screen.



### Note

The services which are available under the **Services** menu depend on the components which have been installed, and the permissions of the user. The services displayed in this screen shot may not match the services you have available on your system.

## 2. Select **Voucher Manager**.

The **Voucher Manager** screen appears.

## Voucher Type

The **Voucher Type** tab allows you to add, modify, or delete voucher types.

The voucher type determines the tariff plan, the restriction control plan, and the value of the calls for which recharges (including vouchers) are valid.

For each voucher type, you can:

- Define multiple balance types, see [Multiple Balance Type](#)
- Associate tax plans to voucher type recharges, see *Tax Plan*.
- Define power charge scenarios, see [Power Charge Scenarios](#)

Voucher types define core details and restrictions for recharges such as vouchers and the balance increase part of credit transfers.

For more information about redeeming vouchers, see *Vouchers Introduction*. For more information about credit transfers, see *Transfer Management in CCS User's Guide*.

### Multiple Balance Type

You can add more than one balance type to a voucher type. When a recharge or voucher is redeemed, all balance types associated with the voucher type are recharged. This can include both monetary balance types (such as general cash or promotional cash) and non-monetary

balance types (such as free SMS or time). You can add more than one entry for the same balance type, with different details for each entry, including:

- Unique expiry dates and extension policies
- The period during which this balance type entry can be recharged
- The product types for which this balance type entry can be recharged

### Power Charge Scenarios

You can associate recharge scenarios to a balance type for a voucher type. The voucher type can then be redeemed in multiple ways depending on the scenario options available when it is redeemed. Scenarios can include both monetary balance types, such as general cash or promotional cash, and non-monetary balance types, such as free SMS or time. You can do one or more of the following:

- Increment a balance
- Extend the expiry date for the balance

#### ① Note

The scenarios functionality will only be available in the screens if it has been activated. For more information about activating scenarios, see *CCS Technical Guide*.

## New Voucher Type Screen

Here is an example New Voucher Type screen. For more information about voucher types, see [Voucher Type](#).

**Figure 2-2 New Voucher Type Screen**

The screenshot shows the 'New Voucher Type' window with the following sections:

- Details:**
  - Name: [Text Field]
  - CDR Description: [Text Field]
  - Description: [Text Area]
  - Pre-use Expiry Period: 365 days 0 hours
  - Wallet Expiry Period: 0 days 0 hours
  - Expiry Period Type:  Hours  Months
  - Wallet Expiry Policy:  Best  Extend
- Limited Product Types:**
  - Product Type: [List Box]
  - Buttons: Add, Edit, Delete
- Product Swap Rules:**
  - From: [Text Field] To: [Text Field]
  - Buttons: Add, Edit, Delete
- Multi-Balances:**

Balance Type	Value	Scenario	Tax Plan	New Bucket	Expiry Mo
- Scenario:**

ID	Name	Classification
0	Default (All)	

Buttons at the bottom: New, Edit, Delete, Save, Cancel.

For more information about voucher type fields, see [Voucher Types Fields](#).

## Voucher Types Fields

This table describes the function of each field.

**Table 2-1 Voucher Types Field**

Field	Description
<b>Name</b>	A unique name for the voucher type. <b>Note:</b> If this voucher type uses scenarios and you will be sending real-time wallet notifications for recharges, this field must be reflected in the name of the template you use for the notification. For more information about the required format, see <i>CCS Technical Guide</i> .
<b>CDR Description</b>	The description to use for EDRs which are produced by vouchers with this voucher type. <b>Tip:</b> You can use a maximum of 100 characters.
<b>Description</b>	A brief description of the voucher type.
<b>Pre-use Expiry Period</b>	The period (in days and hours) between this voucher being issued and when it will expire. <b>Example:</b> If a voucher has a pre-use expiry period of seven days, the holder of the voucher has seven days from the date of issue to begin using the voucher. If not used in seven days, the voucher expires and is no longer valid.
<b>Scenario</b>	The scenarios to associate with the balance type when the voucher is redeemed. <b>Tip:</b> You can add multiple scenarios to the same balance type by adding different scenario values. You can also edit/delete the default scenario. <b>Note:</b> This panel will only be visible on the tab if the scenarios functionality has been activated. For more information about activating scenarios see <i>CCS Technical Guide</i> .
<b>Multi-Balances</b>	The details of the changes vouchers with this type make to balance types when the voucher is redeemed. For more information about the fields in these records, see <a href="#">Balance Type Fields</a> . <b>Tip:</b> You can add multiple balance types to the same voucher type and you can specify the product type for each balance type. You can include the same balance type more than once.

## Adding Voucher Types

To add a new voucher type:

1. In the Voucher Management screen, select the **Service Provider** from the drop down box.
2. From the **Voucher Type** tab, click **New**.  
The **New Voucher Type** screen appears.
3. Start to configure this record by entering data in the fields in the top left of this screen. For more information about the fields on this screen, see [Voucher Types Fields](#).
4. If the Scenario panel is visible in the screen, then add the scenarios to associate with the balance type when vouchers of this type are redeemed. For details, see [Adding Scenarios to a Voucher Type](#).

 **Tip**

You can add multiple scenarios to the same balance type by adding different scenario values.

 **Note**

The Scenario panel will only be visible in the screen if the Scenarios functionality has been activated on your system.

5. Add the balance types that this type of voucher recharges when it is redeemed. For details, see [Adding Balance Types to a Voucher Type](#).

 **Tip**

You can add multiple balance types to the same voucher type and you can specify the product type for each balance type. You can include the same balance type more than once.

6. Click **Save**

## Editing Voucher Types

To edit an existing voucher type:

1. In the Voucher Management screen, select the **Service Provider** from the drop down box.
2. On the **Voucher Type** tab, select the record to edit.
3. Click **Edit**.

The **Edit Voucher Type** screen appears. For information about voucher type fields, see [Voucher Types Fields](#).

4. Make the changes that you need to by editing the fields in this screen.
5. Add the scenarios to associate with the balance type when vouchers of this type are redeemed. For details, see [Adding Scenarios to a Voucher Type](#).

 **Tip**

You can add multiple scenarios to the same balance type by adding different scenario values.

6. Add the balance types that this type of voucher recharges when it is redeemed. For details, see [Adding Balance Types to a Voucher Type](#).

 **Tip**

You can add multiple balance types to the same voucher type and you can specify the product type for each balance type. You can include the same balance type more than once.

7. Click **Save**.

## Deleting Voucher Types

To delete an existing voucher type:

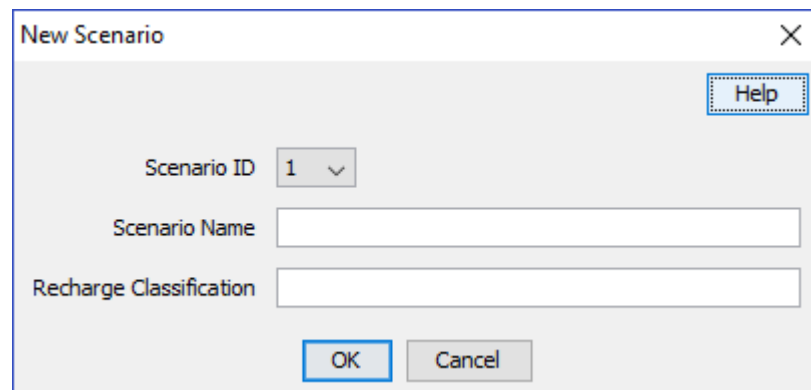
1. In the Voucher Management screen, select the **Service Provider** from the drop down box.
2. In the table on the **Voucher Type** tab, select the record to delete.
3. Click **Delete**.  
The Delete Confirmation prompt appears.
4. Click **OK** to delete the record from the database.  
The record is deleted and the Voucher Type prompt appears.
5. Click **OK**.

## Adding Scenarios to a Voucher Type

To add a scenario to the scenario list on the New or Edit Voucher Type screens:

1. In the **Scenario** area, click **Add**.  
The **New Scenario** window is displayed.

**Figure 2-3 New Scenario Window**



2. From the **Scenario ID** drop down list, select the scenario number to associate to the scenario.
3. In the **Scenario Name** field, enter a name for the scenario.
4. In the **Recharge Classification** field, enter a description for how the recharge will be made.
5. Click **OK**.

You are returned to the **New or the Edit Voucher Type** screen and the new scenario is added to the list of scenarios.

## Editing Scenarios for a Voucher Type

To edit a scenario in the scenario list on the New, or Edit Voucher Type screen:

1. In the **New or the Edit Voucher Type** screen, select the scenario to edit.
2. In the **Scenario** area, click **Edit**.  
The **Edit Scenario** screen is displayed.
3. Edit the details as required. See [Adding Scenarios to a Voucher Type](#) for field details.
4. Click **OK**.

## Deleting Scenarios for a Voucher Type

To delete a scenario in the scenario list on the New, or Edit Voucher Type screen:

1. In the **New or the Edit Voucher Type** screen, select the scenario to delete.
2. Click **Delete**.  
The record is deleted from the list of scenarios.

## Balance Type Fields

This table describes the function of each field.

**Table 2-2 Balance Type Fields**

Field	Description
<b>Action</b>	Provides three actions: <ul style="list-style-type: none"> <li>• <b>Recharge</b> – The recharge value is added to the current balance value</li> <li>• <b>Replace Balance</b> – The recharge value replaces the current balance value</li> <li>• <b>Reload Counter</b> – The balance value is a counter for the number of reloads of the selected balance type</li> </ul>
<b>New Bucket</b>	Whether to create a new bucket for the balance type when the voucher is redeemed.
<b>Balance Type</b>	The balance type to recharge when vouchers of this type are redeemed. This field is populated by the records on the Balance Types tab. <b>Note:</b> Any valid balance type can be selected. This includes non cash balance types, such as time.
<b>Value</b>	The amount to recharge the balances of the balance type selected in the <b>Balance Type</b> field.
<b>Expiry Policy</b>	How to apply the expiry period for this balance type when vouchers of this type are redeemed. Select: <ul style="list-style-type: none"> <li>• <b>Best</b> – The system selects the best policy option for the subscriber depending on their particular circumstances.</li> <li>• <b>First</b> – The expiry is set to the date of the first use of the balance.</li> </ul> <p>The following fields exist when the <code>jnlp.ECEExtensions</code> application property is true. These fields are only applicable when using an ECE charging domain. Select:</p> <ul style="list-style-type: none"> <li>• <b>First Use with Offset</b> – The expiry is set a number of months or hours after the first use of the balance</li> <li>• <b>First Use – Account Cycle</b> – The expiry is set to the date of the first use of the balance, plus a number of account cycles</li> <li>• <b>First Use – Bill Cycle</b> – The expiry is set to the date of the first use of the balance, plus a number of billing cycles</li> </ul>

Table 2-2 (Cont.) Balance Type Fields

Field	Description
<b>Balance Expiry Period</b>	<p>The period between when the voucher is activated and when the balance expires. Enter one of:</p> <ul style="list-style-type: none"> <li>• Days and hours</li> <li>• Months</li> <li>• Cycles (if <b>First Use- Account Cycle</b> or <b>First Use – Billing Cycle</b> is selected in <b>Expiry Policy</b>)</li> </ul> <p><b>Example:</b> If a voucher has an expiry period of 30 days, the holder of the voucher has 30 days from the date the voucher is first used to use the outstanding voucher balance. At the end of the expiry period any outstanding voucher balance expires.</p> <p><b>Note:</b> Month expiries set expiry dates measured in calendar months. If a bucket is created on the 31st of the month, and the expiry will be on month which has 30 days or less, the expiry date is set for the 1st of the month after. For example, a two-month bucket created on the 31st of December will expire on the 1st of March.</p> <p><b>Tip:</b> The <code>expireAtMidnight</code> configuration option in <code>eserv.config</code> overrides the displayed hour for expiry and will expire the balance only at midnight on the expiry date. For further information about this configuration option, see <i>VWS Technical Guide</i>.</p>
<b>Credit Available</b>	<p>Select one of the following:</p> <ul style="list-style-type: none"> <li>• <b>Now</b> – Credit is available immediately</li> <li>• <b>In</b> – Activates <b>Dates/Hours</b> and <b>Months</b>, from which you can set when credit becomes available in specified number of days and hours, or months</li> <li>• <b>On</b> – Activates the date selector, from which you can set the exact date when credit becomes available</li> </ul> <p><b>Note:</b> You can only specify <b>Credit Available</b> for chargeable or cross balance types.</p>
<b>Scenario</b>	<p>The scenario which will apply this balance.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• This field will only be visible in the screen if the scenarios functionality has been activated. For more information about activating scenarios, see <i>CCS Technical Guide</i>.</li> <li>• Only required if more than one scenario has been defined for this voucher type.</li> <li>• The scenario value 'Default (All)' indicates that the balance type applies to all scenarios. If scenarios have been defined, you cannot use the default scenario.</li> <li>• If only one scenario has been defined, you do not have to specify a scenario.</li> </ul>
<b>Allowed Product Types</b>	<p>The product types which vouchers of this type can recharge for this balance type.</p> <p><b>Tip:</b> An empty <b>Allocated</b> list means that the balance type can be recharged for all product types.</p>
<b>Configuration Restriction</b>	<p>Restricts the day, month and year that a balance starts and ends. Select the following:</p> <ul style="list-style-type: none"> <li>• <b>Applies From</b> – Sets the date when balances of this type can be redeemed by vouchers of this type. To activate this field, select the check box to the left of the field, then, in the date selection boxes, select the day, month and year for the end date.</li> <li>• <b>Applies Until</b> – Sets the date when balances of this type can no longer be redeemed by vouchers of this type. To activate this field, select the check box to the left of the field, then, in the date selection boxes, select the day, month and year for the end date.</li> </ul>

## Adding Balance Types to a Voucher Type

To add a balance type to the current voucher type:

### Note

To add multiple balance types to the voucher type, repeat this process as required.

1. In the Multi-Balances area at the bottom of the New or the Edit Voucher Type screen, click **New**.

The **New Multi-Balance** screen is displayed.

2. Start to configure this record by entering data in the fields in the top of this screen. For more information about the fields on this screen, see *Multi-Balance fields*.
3. In the **Allowed Product Types** section, select the Product Types for which the voucher can recharge this balance type:
  - To allocate a product type, select it in the **Available** list and click the **>>** button
  - To remove an allocated product type, select it in the **Allocated** list and click the **<<** button.

### Tip

An empty **Allocated** list means that the balance type can be recharged for all product types.

4. Click **Save**.

The balance type details are saved, and you return to the **Voucher Type** screen.

## Editing Balance Types for a Voucher Type

To edit an existing balance type for the current voucher type:

1. In the New or Edit Voucher Type screen, select the balance type record to edit from the **Multi-Balances** table.
2. Click **Edit**.
3. Edit the fields to reflect the changes you need to make.

For more information about the fields in this screen, see *Multi-Balance fields*.
4. If required, in the **Allowed Product Types** section, select the Product Types for which the voucher can recharge this balance type:
  - To allocate a product type, select it in the **Available** list and click the **>>** button
  - To remove an allocated product type, select it in the **Allocated** list and click the **<<** button.

 **Tip**

An empty **Allocated** list means that the balance type can be recharged for all product types.

5. Click **Save**.

The modified balance type record is saved, and you return to the **Voucher Type** screen.

## Deleting Balance Types for a Voucher Type

To delete an existing balance type from a voucher type:

1. In the New or the Edit Voucher Type screen, select the balance type record to delete from the **Multi-Balances** table.
2. Click **Delete**.  
The Delete Multi-Balance prompt is displayed.
3. Click **Apply** to delete the record from the database.

## Voucher Batches

The **Voucher Batches** tab lets you search, display, create, and delete batches of vouchers for the selected customer.

You use the New Voucher Batch screen to create a simple voucher batch file, eliminating the need to generate the batch from the command line.

 **Tip**

Configuration for the voucher tool used to create voucher batches is defined in **eserv.config**. For more information about **eserv.config**, see *CCS Technical Guide*.

## New Voucher Batch Screen

Here is an example New Voucher Batch screen. To add a voucher batch, see [Adding Voucher Batches](#). To edit a voucher batch, see [Editing Voucher Batches](#).

Figure 2-4 New Voucher Batch

The screenshot shows the 'New Voucher Batch' dialog box with the following fields and values:

- Domain: DCDDomain
- Authentication Rule: Voucher Authentication Rules
- GPG Public Key: (empty dropdown)
- Voucher Type: 50 Euros
- Initial Voucher State: Created
- Batch Expiry: (empty text field) Use Default
- Batch Name: DCDBatch
- Batch Code: (empty text field)
- Voucher Number Length: 10
- Voucher PIN Length: 4
- Start Voucher Number: 4000000010
- End Voucher Number: 4000000019
- Batch Size: 10
- Pause Time: 10
- CDR Description: DCDBatch 1
- Remote Filename: Batch-20141215133712
- GPG Public Key Description: (empty text area)

Buttons: Save, Cancel, Help

For more information about voucher batch fields, see [Voucher Batch Fields](#).

## Voucher Batch Fields

This table describes the functions of Voucher Batch fields.

Table 2-3 Voucher Batch Fields

Field	Description
<b>Batch Code</b>	The identifier which will be used to group the vouchers in this batch. This field can be used to group vouchers from several batches. <b>Note:</b> This field is not available: <ul style="list-style-type: none"> <li>On the <b>Edit Voucher Batch</b> screen, and cannot be changed after the batch is generated</li> </ul>
<b>Batch Id</b>	The batch ID for the voucher batch. This field is automatically populated when the vouchers are first generated. It cannot be changed and is only visible on the <b>Voucher Batches</b> tab.
<b>Domain</b>	The domain where the voucher batch was created. This field is only available on the <b>New Voucher Batch</b> screen.
<b>Batch Name</b>	The unique name for the batch. It can be up to 50 characters long and is optional.
<b>Activation Date</b>	Activation date of the voucher batch. This field cannot be changed after the batch is activated. <b>Note:</b> This field is not available on the <b>New Voucher Batch</b> screen.
<b>Voucher Type</b>	The type of the vouchers in this batch. This field is populated by the <b>Voucher Types</b> tab. For more information, see <a href="#">Voucher Type</a> . This field cannot be changed after the batch is generated.
<b>Expiry Date</b>	The expiry date of the vouchers in this batch. This field enables a user to specify the voucher expiry date, which sets a batch to expire on a specific day and shows users that a batch is no longer active and not available for use.
<b>State</b>	Displays the state of the voucher batch. Available states are: <ul style="list-style-type: none"> <li>Active</li> <li>Created</li> <li>Unavailable</li> <li>Expired</li> </ul> <b>Note:</b> This is different to the state of the individual vouchers within the batch. These states are available within the <b>Voucher Batch Search</b> screen but not in the <b>New Voucher Batch</b> screen.
<b>Description</b>	Reason for the voucher state change. <b>Note:</b> This field is only displayed in the <b>New Voucher Batch</b> screen, not in the <b>Voucher Batch Search</b> screen.

Table 2-3 (Cont.) Voucher Batch Fields

Field	Description
<b>Initial Voucher State</b>	<p>The state new vouchers in a batch will be in when they are first generated.</p> <p>This field allows individual vouchers or ranges of vouchers in a voucher batch to be made <b>Active</b> as an additional security feature for service providers.</p> <p>In the <b>New Voucher Batch</b> screen a new batch should normally be created with the <b>Initial Voucher State</b> set to <b>Active</b>. This sets the individual voucher records in the batch to <b>Active</b> in the <code>CCS_VOUCHER_REFERENCE</code> table. Once the batch has been created, the <b>Voucher Batches</b> tab should be used to set the batch status to <b>Active</b>. This sets the batch record in <code>CCS_VOUCHER_BATCH</code> to <b>Active</b> enabling all vouchers in the batch.</p> <p>If a new batch is created with the <b>Initial Voucher State</b> set to <b>Created</b>, then vouchers can only be redeemed when their state has been reset to <b>Active</b> in the <b>Vouchers</b> tab ( for individual activation) or in the <b>Voucher Ranges</b> tab (for a range of vouchers).</p> <p>To enable vouchers, set both the batch state and the voucher state to <b>Active</b>.</p> <p><b>Note:</b> This is different to the state of the voucher batch (which is automatically set to <b>Created</b> when the batch is first generated).</p> <p>This field is only displayed in the <b>New Voucher Batch</b> screen, not in the <b>Voucher Batch Search</b> screen.</p>
<b>Voucher Number Length</b>	<p>The number of digits in the voucher number. This is set by the authentication rule for this voucher batch and cannot be changed after the batch is generated.</p> <p><b>Note:</b> This field is only displayed in the <b>New Voucher Batch</b> screen, not in the <b>Voucher Batch Search</b> screen.</p>
<b>Start Voucher Number</b>	<p>Displays the number of the first voucher in the batch and the starting point for the voucher number range.</p> <p><b>Note:</b> The length of the voucher number must match the voucher number length defined for the authentication rule being used. You can use a voucher number range more than once for CB10 HRN encrypted vouchers with or without GPG selected. Vouchers are generated from unused voucher numbers from the range.</p> <p>This field cannot be changed after the batch is generated.</p>
<b>End Voucher Number</b>	<p>Displays the number of the last voucher in the batch and the ending point for the number range. The value must be greater than the start of range value and have a matching number of digits.</p> <p><b>Note:</b> This field cannot be changed after the batch is generated.</p>
<b>Start Serial Number</b>	<p>Displays the serial number of the first voucher in the batch.</p> <p><b>Note:</b> This field is automatically populated and cannot be changed after the batch is generated. It is not available on the <b>New Voucher Batch</b> screen.</p>
<b>End Serial Number</b>	<p>Displays the serial number of the last voucher in the batch.</p> <p><b>Note:</b> This field is automatically populated and cannot be changed after the batch is generated. It is not available on the <b>New Voucher Batch</b> screen.</p>
<b>Batch Size Original Count</b>	<p>The number of vouchers in this batch. This can be equal to or less than the difference between the start voucher number and the end voucher number.</p> <p><b>Note:</b> This field cannot be changed after the batch is generated.</p>
<b>Authentication Rule</b>	<p>Indicates which encryption scheme the voucher batch has been created with.</p> <p>This field cannot be changed after the batch is generated.</p> <p>This list is populated by records from the <b>Security</b> tab in the Service Management screen. For more information about the <b>Security</b> tab, see <i>CCS User's Guide</i>.</p>

Table 2-3 (Cont.) Voucher Batch Fields

Field	Description
<b>GPG Public Key</b>	The GPG Public key to use to encrypt the voucher batch export file. The key must have been imported and verified on the SMS. If you do not want to use a GPG Public key, select the blank entry. <b>Note:</b> This field is only available for voucher batch files generated using an authentication rule based on DES PIN encryption or CB10 HRN encryption. This field is only available on the <b>New Voucher Batch</b> screen. For more information about GPG public keys, see <a href="#">GPG Public Keys</a> .
<b>Pause Time</b>	The time in seconds to pause after loading each 100 vouchers for writing to the export file. <b>Note:</b> This field is only displayed in the <b>New Voucher Batch</b> screen, not in the <b>Voucher Batch Search</b> screen.
<b>Creation Date</b>	The creation date of the batch.
<b>CDR Description</b>	Description to use for this voucher batch in any EDRs that are created for vouchers from this batch.
<b>Remote Filename</b>	The name of the voucher batch export file to write the details of the generated vouchers to. <b>Note:</b> This field is only displayed in the <b>New Voucher Batch</b> screen, not in the <b>Voucher Batch Search</b> screen.

## Finding Voucher Batches

To search for an existing voucher batch:

1. In the Voucher Manager screen, choose the **Service Provider** from the drop down list.
2. On the **Voucher Batches** tab, enter the search strings you are using to find the required batch. Perform one of the following:
  - Enter the first few characters of the specified batch code in the **Code** field and click **Search**
  - Select the Voucher Batch state from the **State** drop down box and click **Search**

### Note

There are three states:

- Active
- Created
- Unavailable

The **Voucher Batches** table will display the first 100 records matching the search criteria. Results include creation date.

3. If the required voucher batch is not displayed and more than 100 records were returned, enter a longer search string and click **Search** again.

## Adding Voucher Batches

To add a new voucher batch:

### ① Note

The values for the voucher number length and voucher PIN length are determined by the authentication rule selected and cannot be edited. The **GPG Public Key Description** field is for information only.

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. From the **Voucher Batches** tab, click **New**.

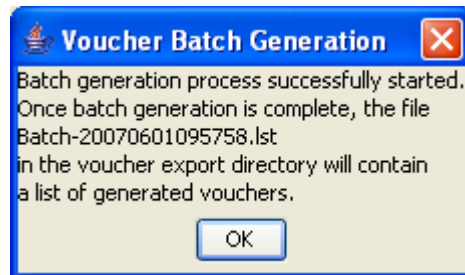
You see the New **New Voucher Batch Screen**.

3. Enter data in the fields to configure this record.

For more information about the fields on this screen, see [Voucher Batch Fields](#).

4. Click **Save**.

The batch generation process is started and you see the Voucher Batch Generation prompt.



5. Click **OK**.

The Voucher Batch Progress bar is displayed. The COMPLETE message is displayed in the bar once the batch has been successfully created.

6. Click **x** to close the progress bar.

## Checking Voucher Batch Status

To check the status of an existing voucher batch:

1. Read the ccsSmsORB output log. For more information about the ccsSmsORB, see *CCS Technical Guide*.
2. Check for any error messages from the actual voucher-creation process.
3. Go to the ***IIN/service\_packages/CCS/voucher/export/*** directory.
4. Check that the following file exists:

*remote\_filename* .lst.print

where *remote\_filename* is the name entered in the Remote Filename field of the New Voucher Batch screen.

5. If the file exists, is larger than 0 bytes in size and contains full records, the voucher batch job has been created successfully.

If the file does not exist, is 0 bytes in size or only contains headers, the voucher batch job has failed. You will need to repeat the procedure in [Adding Voucher Batches](#).

## Editing Voucher Batches

To edit an existing Voucher Batch:

### Note

The **Voucher Batch**, **Edit Voucher Batch**, and **Vouchers** tabs have a creation date read-only value which preserves the creation date when a batch is edited.

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. On the **Voucher Batches** tab enter the search criteria for the required voucher batch in the search fields and click **Search**. For details on finding voucher batches, see [Finding Voucher Batches](#).
3. In the table on the tab, select the record you want to edit and click **Edit**.

The **Edit Voucher Batch Screen** is displayed.

4. Edit the fields with the changes to make.

You can update only the following fields:

- **CDR Description**
- **Voucher Batch Status**

### Tip

For descriptions of voucher batches fields, see [Voucher Batch Fields](#).

5. Click **Save**.

## Edit Voucher Batch Screen

Here is an example Edit Voucher Batch screen. To edit a voucher batch, see [Editing Voucher Batches](#).

Figure 2-5 Edit Voucher Batch

Activation Date

Creation Date 2014-10-15 10:30:29

Batch Expiry 2014-12-30 13:43:59 Use Default

Voucher Type 50 Euros

CDR Description

Batch Name

Domain UBE

Voucher Batch Status Created

Description

State Change User

Start Voucher Number 3690000100

End Voucher Number 3690000100

Original Count 1

Start Serial Number 101305

End Serial Number 101305

Authentication Rule Voucher Authentication Rules

Save Cancel

For more information about voucher batch fields, see [Voucher Batch Fields](#).

## Deleting Voucher Batches

To delete an existing voucher batch:

1. In the **Voucher Manager** screen, select the service provider from the **Service Provider** list.

2. On the **Voucher Batches** tab enter the search criteria for the voucher batch to delete and click **Search**.

For more information about finding voucher batches, see [Finding Voucher Batches](#).

3. In the table on the tab, select the record to delete.

#### **Note**

Selecting **Delete** on an active batch will calculate if the batch is stale. Only active batches that are stale and unavailable batches can be deleted.

4. The **Delete Voucher Batch** prompt displays. Confirm your desire to delete the voucher batch by clicking **OK**.

The voucher batch is deleted.

## Vouchers

The **Vouchers** tab allows you to view details of a voucher, change its status, and set voucher expiry.

The **Vouchers** tab has the following subtabs:

- [Voucher](#)
- [Batch](#)
- [Subscriber](#)
- [Info](#)
- [History](#)

## Vouchers Tab

Here is an example **Vouchers** tab.

Figure 2-6 Voucher Manager

## Voucher

The **Voucher** subtab enables you to:

- View details of a voucher
- Change voucher status
- Set voucher expiry

## Voucher Fields

The following table describes the Voucher subtab fields.

**Table 2-4 Voucher Subtab Fields**

Field	Description
<b>Voucher Number</b>	The voucher number.
<b>Serial Number</b>	The voucher serial number.
<b>Private Secret</b>	Encrypted voucher HRN or PIN.
<b>Voucher Type</b>	The type of the voucher in this batch. This field is populated by the <b>Voucher Types</b> tab.
<b>Voucher Created</b>	The voucher creation date.
<b>Archive Date</b>	The calculation date when archiving may take place.
<b>Voucher Status</b>	The status of the voucher. The available statuses are: <ul style="list-style-type: none"> <li>• Active</li> <li>• Created</li> <li>• Frozen</li> <li>• Deleted</li> </ul>
<b>Voucher Expiry</b>	The expiry date of the voucher. This field enables you to set a voucher to expire on a specific day. If an expiry date is already set for a voucher, this field displays the date and time when the voucher expires. You can set the date by clearing the <b>Remove</b> check box. <b>Note:</b> This field is enabled only if the <b>Remove</b> check box is cleared. By default, the <b>Remove</b> check box is selected.
<b>Description</b>	Additional information about the voucher state change or the voucher expiry date change.
<b>Last State Change User</b>	User name of the user who last changed the voucher state.

## Changing Voucher States

You can select a voucher owned by the selected service provider and set it to an 'active' or 'frozen' state.

In an 'active' voucher batch, if you set a voucher to the 'frozen' state, then the voucher can no longer be redeemed. If a voucher batch is in a 'created' or 'unavailable' state, then although you will be able to set a voucher within the batch to an 'active' state in this screen, you will not be able to redeem it. You may only redeem an active voucher if the voucher batch it belongs to is also in an 'Active' state.

To change the state of an existing voucher:

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. In the **Vouchers** tab, enter one of the following:
  - Voucher number or HRN in the **Voucher Number** field
  - Voucher serial number in the **Serial Number** field

**Note**

When searching on the voucher number, the number entered must be the length of the voucher number as defined for the authentication rule for this voucher.

**3. Click Search.**

The **Voucher** subtab displays the details for the voucher searched for.

**4. In the Voucher subtab, from the Voucher Status drop down box, select the status. Available statuses are:**

- **Active**
- **Frozen**

**Note**

If you want to be able to redeem the voucher, set the status to **Active**.

If the voucher has been redeemed already, this field is grayed out (indicating the value cannot be changed) and the status will be **Used**.

If the voucher has been deleted, this field is grayed out (indicating the value cannot be changed).

**5. Click Save.**

## Decrypting Voucher Private Secret

You can decrypt the private secret of a voucher to view its HRN.

To decrypt a voucher private secret:

- 1.** In the Voucher Manager screen, select the **Service Provider** from the drop down box.
- 2.** In the **Vouchers** tab, enter one of the following:
  - Voucher number or HRN in the **Voucher Number** field
  - Voucher serial number in the **Serial Number** field

**Note**

When searching on the voucher number, the number entered must be the length of the voucher number as defined for the authentication rule for this voucher.

**3. Click Search.**

The **Voucher** subtab displays the details for the voucher searched for.

**4. In the Voucher subtab, click Decrypt.**

The **HRN** field displays the decrypted voucher private secret.

The **Decrypt** button and the **HRN** field are displayed only if:

- The user has an allocated template with the access permission for private secret decryption.
- The Authentication Rule associated with the voucher supports private secret decryption.

## Setting Voucher Expiry

You can set a voucher to expire on any specific day beyond which it is not available for use.

To set an expiry date for a voucher:

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. In the **Vouchers** tab, enter one of the following:
  - Voucher number or HRN in the **Voucher Number** field
  - Voucher serial number in the **Serial Number** field

### Note

When searching on the voucher number, the number entered must be the length of the voucher number as defined for the authentication rule for this voucher.

3. Click **Search**.

The **Voucher** subtab displays the details for the voucher searched for.

4. In the **Voucher** subtab, in the **Voucher Expiry** field, clear the **Remove** check box and click the date chooser icon.

The **Date Chooser** window is displayed.

### Note

The **Voucher Expiry** field is disabled if the **Remove** check box is selected. By default, the **Remove** check box is selected.

5. In the **Date Chooser** window, select a date and time when you want the voucher to expire.
6. Click **Save**.

## Batch

The **Batch** subtab displays information related to voucher batches. It provides information about batch ID, batch name, batch state, and batch expiry.

## Batch Fields

The following table describes the Batch subtab fields.

Table 2-5 Batch Subtab Fields

Field	Description
<b>Batch Name</b>	The name of the voucher batch. This can be up to 50 characters long.
<b>Batch ID</b>	Unique ID for the voucher batch.
<b>Batch Code</b>	The batch code for the voucher batch that includes this voucher.
<b>Batch State</b>	The state of vouchers in the voucher batch. The batch states are: <ul style="list-style-type: none"> <li>• Active</li> <li>• Created</li> <li>• Unavailable</li> </ul>
<b>Batch Activated</b>	Activation date of the voucher batch.
<b>Batch Expiry</b>	The expiry date of the vouchers in this batch. This field enables you to specify the voucher batch expiry date, which sets a batch to expire on a specific day and shows users that a batch is no longer active and not available for use.

## Subscriber

The **Subscriber** subtab displays voucher redemption, wallet reference, subscriber ID, and scenario information for a voucher.

## Subscriber Fields

The following table describes the Subscriber subtab fields.

Table 2-6 Subscriber Subtab Fields

Field	Description
<b>Voucher Redeemed</b>	The voucher redemption date.
<b>Wallet Reference</b>	The wallet reference of the redeeming wallet.
<b>Subscriber ID</b>	The ID of the subscriber redeeming the voucher.
<b>Scenario</b>	The voucher scenario used to redeem the voucher. <b>Note:</b> This field is visible only if scenarios have been installed and activated on your system. For more information about installing and activating scenarios, see <i>CCS Technical Guide</i> .

## Info

The **Info** subtab displays details about distributor and retail channel and other additional information about a voucher.

**Note**

The fields in **Info** subtab are editable only if the following conditions are met:

- The voucher status needs to be in active, created, or frozen state.
- The **Info** subtab needs to have CreateDelete or ReadModify permissions. You can modify the permissions under **User Management > Template Creation > CCS > Voucher Info Subtab**.

## Info Fields

The following table describes the Info subtab fields.

**Table 2-7 Info Subtab Fields**

Field	Description
<b>Barcode</b>	The barcode number of the voucher. You can use a maximum of 12 digits.
<b>Text</b>	Description of the voucher. You can use a maximum of 50 characters.
<b>Card Design</b>	Version number of the voucher design. You can use a maximum of 4 digits.
<b>Distributor Channel</b>	Distributor of the voucher. You can use a maximum of 50 characters.
<b>Retail Channel</b>	Retailer of the voucher. You can use a maximum of 50 characters.
<b>Provisioning Date</b>	Date on which the voucher is created.
<b>Free Text Field_1</b>	Field for capturing business process information. You can use a maximum of 50 characters.
<b>Free Text Field_2</b>	Field for capturing business process information. You can use a maximum of 50 characters.
<b>Free Text Field_3</b>	Field for capturing business process information. You can use a maximum of 50 characters.

## History

**History** subtab displays the history of changes made for that particular voucher.

## History Fields

This table describes the History subtab fields.

**Table 2-8 History Subtab Fields**

Field	Description
<b>Date</b>	Date when the voucher was modified.
<b>Term</b>	The host that modified the voucher.
<b>User</b>	User name of the user who made the changes.
<b>Type</b>	Type of the operation performed. Types are: <ul style="list-style-type: none"> <li>• V: Voucher Recharge</li> <li>• S: Voucher State change</li> <li>• E: Voucher Expiry change</li> <li>• B: Both Voucher Expiry and Voucher State change</li> </ul>

Table 2-8 (Cont.) History Subtab Fields

Field	Description
Description	The description of the changes made.

## Voucher Validation

Use the **Voucher Validation** tab to test whether a given voucher signature (the voucher number and secret digits) is valid.

### Note

You will only have access to this facility if you have sufficient user privileges.

## Validating a Voucher

To validate a voucher:

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. In the **Voucher Signature** field in the **Voucher Validation** tab, enter the voucher number or HRN. Do not include any spaces.

### Note

The voucher number to use for searching must be the length of the voucher number as defined for the authentication rule for this voucher.

3. Click **Validate**.

The **Voucher Status** field shows the validity of the voucher.

## Voucher Validation Results

This table lists the possible messages displayed when you validate a Voucher.

Table 2-9 Voucher Messages

Message	Description
No Voucher to Check	You clicked <b>Validate</b> before entering the voucher signature.
Voucher Is Valid	The signature has been confirmed by the SMS.
Voucher Is Not Valid	The signature was not recognized by the SMS.

## Voucher Ranges

The **Voucher Ranges** tab enables you to change the state of a group of vouchers. The vouchers are a defined range of voucher numbers.

**Note**

The voucher state cannot be changed from **Frozen** to **Active** for a range of vouchers.

## Activating Voucher Ranges

To change the state of a range of vouchers:

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. On the **Voucher Ranges** tab, from the **Voucher Batch** drop down list, select the voucher batch which contains the range to change.

**Note**

The voucher batch corresponds with the **Batch ID** field in the Voucher Batches screen.

3. From the **Voucher State** drop down list, select the new state the vouchers in the range should be.

**Note**

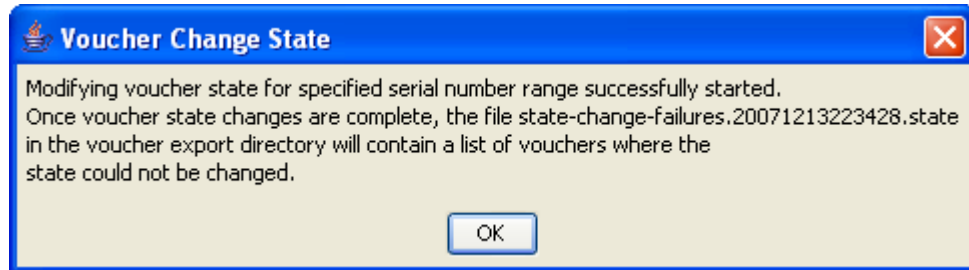
If you want to be able to redeem the vouchers, you must set the voucher state to active.

4. In the **Start Serial No** field, enter the lowest voucher serial number in the voucher range you want to change.
5. In the **End Serial No** field, enter the highest voucher serial number in the voucher range you want to change.

**Note**

The range must be 100,000 vouchers or less.

6. In the **Description** field, enter a description for the voucher range, if required.
7. Click **Change**.  
The Confirm Voucher Change Operation prompt will appear.
8. Click **OK**.  
The Voucher Change State prompt will appear.

**Figure 2-7 Voucher Change State**

9. Click **OK**.

## GPG Public Keys

The **GPG Public Keys** tab allows you to:

- Import new GPG public keys into CCS
- Verify imported keys

GPG keys are used to increase security when creating voucher batch export files for printing.

Once a public key has been verified it can be used as part of the security mechanism for creating voucher batches.

### Note

You cannot remove public keys from the SMF database or from the GPG key-ring store on the SMS.

## Importing GPG Public Keys

To import new GPG public keys from a specified file:

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. Select the **GPG Public Keys** tab.
3. In the **Import File** field, enter the path and filename of the file containing the new GPG public keys or click **Browse** to select the file.
4. Click **Import Keys**.

### Note

This button becomes enabled once the import file has been specified.

Any keys not currently in the system are imported from the file and you see the GPG Key Importation prompt.

5. Click **OK**.

The **GPG Public Keys** tab is refreshed to include the new keys.

## Verifying Public Keys

To verify a GPG public key:

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. In the table on the **GPG Public Keys** tab, select the GPG Key to verify.

### Note

If the value in the **Verified** column for this key is 'Y', then it has already been verified.

3. Click **Verify Key**.  
You see the GPG Key Importation validation prompt.
4. Click **OK**.

## Deleting GPG Public Keys

To delete GPG public keys:

1. In the Voucher Manager screen, select the **Service Provider** from the drop down box.
2. In the table on the **GPG Public Public Keys** tab, select the public key to delete.
3. Click **Delete**.  
The Confirmation prompt appears.
4. Click **OK** to confirm.

## AVD Configuration

The **AVD Configuration** tab allows you to:

- Update the common configuration that will be used on the SMS and across all VWS voucher domains by the automatic voucher delete process.
- View the date ranges for vouchers that are in the process of being deleted for each of the configured VWS domain nodes.

### Note

- Automatic voucher deletion (AVD) is performed on a regular basis by the ccsBeAvd binary processes. For information about ccsBeAvd, see *CCS Technical Guide*.
- You manage the configuration of ccsBeAvd from the **AVD Configuration** tab. This tab also lists the current tasks that the ccsBEAvd binary processes are required to perform. However, it does not show the progress of the deletion of the redeemed vouchers from the VWS domain nodes.

## AVD Configuration Fields

This table describes the configuration fields in the **AVD Configuration** tab.

**Table 2-10 AVD Configuration fields**

Field	Description
<b>Keep Redeemed Vouchers For</b>	Sets the number of weeks for which redeemed voucher records will be kept on the SMS and VWS nodes. Must be between 1 and 99 weeks.
<b>Archive Frozen Vouchers</b>	Globally archives frozen vouchers.
<b>Max Records to Process</b>	Sets the maximum number of voucher records to delete per run of the automatic deletion process (ccsBeAvd) on the VWS. Must be between 1 and 999999. <b>Note:</b> The frequency and times that the ccsBeAvd process is run on each VWS node is controlled by the crontab for the ccs_oper user. For more information, see <i>Charging Control Services Technical Guide</i> .
<b>Commit After Num Rows</b>	Sets the number of redeemed voucher records for ccsBeAvd to delete on the VWS node before committing the changes to the database. You must specify a value between 1 and 9999. If the value you specify is <ul style="list-style-type: none"> <li>Less than the value for <b>Batch Size</b>, then ccsBeAvd commits the changes after deleting the number of vouchers defined by <b>Batch Size</b>.</li> <li>More than the value for <b>Batch Size</b>, then ccsBeAvd continues to delete batches of voucher records until the value of <b>Commit After Num Rows</b> is exceeded. Then it commits the changes to the database.</li> </ul> <b>Note:</b> It is not possible to roll back changes once they have been committed.
<b>Batch Size</b>	Sets the maximum number of redeemed voucher records to delete in a single batch. You must specify a value between 1 and 999999.
<b>Sleep Time</b>	Sets the amount of time (in seconds) for ccsBeAvd to wait after the number of vouchers defined by <b>Batch Size</b> are deleted. You must specify a value between 1 and 999999 seconds. <b>Note:</b> This allows the system processing time for other jobs.

## Node Status Fields

The **Node Status** table on the **AVD Configuration** tab lists the deletion tasks currently under progress by the automatic deletion process on each VWS node. If there are no entries it means that currently there are no vouchers to delete on any VWS node.

This table describes the fields listed in the **Node Status** table.

### Note

These fields are read-only and cannot be changed. The values in these fields are updated automatically by the automatic voucher deletion process.

**Table 2-11 Node Status Fields**

Field	Description
<b>Domain Name</b>	The voucher domains that are currently undergoing automatic voucher deletion processing. <b>Note:</b> You configure domains on the Domain tab in the Service Management screen. See the Service Management chapter in <i>CCS User's Guide</i> for details.
<b>Node Name</b>	The defined domain nodes from which voucher records to be deleted.
<b>Redeem Start Date</b>	The start date of the date range for which redeemed vouchers to be deleted.
<b>Redeem End Date</b>	The end date of the date range for which redeemed vouchers to be deleted.
<b>Voucher Batch</b>	The batch IDs of the the voucher batch to be deleted.
<b>Voucher Serial</b>	The serial number of the first voucher in each batch to be deleted.

## Changing AVD Configuration

To change AVD configuration:

1. In the Voucher Manager window, click on the **AVD Configuration** tab.  
The current AVD configuration details are displayed. See [AVD Configuration Fields](#).
2. Edit the fields to reflect the changes you need to make.  
For more information about the fields on this tab, see [AVD Configuration Fields](#).
3. Click **Save**.