

# **HP CloudSystem Chargeback for MOE**

For the Windows<sup>®</sup> operating system

Software Version: 9.40

## **User Guide**

Document Release Date: June 2013

Software Release Date: June 2013



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# Chapter 1

## Introduction

Enterprise customers today are looking to the cloud to help them better deliver existing as well as new, innovative services on demand across network, computing, and storage resources—at reduced cost.

The HP CloudSystem Chargeback (CSC) provides a method of accounting for technology-related expenses that applies the costs of services, hardware and software to the business unit in which they are used. Cloud chargebacks are sometimes called “responsibility accounting” because this sort of accounting demonstrates which departments or individuals are responsible for significant expenses.

CSC reporting systems that leverage chargeback provide end users with more transparency into which business decisions are creating expenses and help management identify how to achieve greater efficiency.

CSC shares the same code base, and leverages the existing capabilities of HP Asset Manager which has decades of experience providing financial and cost management, infrastructure services management, Software Asset Management (SAM) as a completed infrastructure asset management solution specifically to cater for converged infrastructure strategy.

## Who is this guide intended for?

This guide is intended for the organization users, organization managers, and IT managers who wish to utilize CSC for HP Matrix Operating Environment (MOE) to:

- View and analyze the statuses of the cloud services that are requested in MOE.
- Achieve chargeback and budget management across multiple organizations.

## Business overview

This section introduces the business case and background information of CSC for MOE.

## HP Matrix Operating Environment

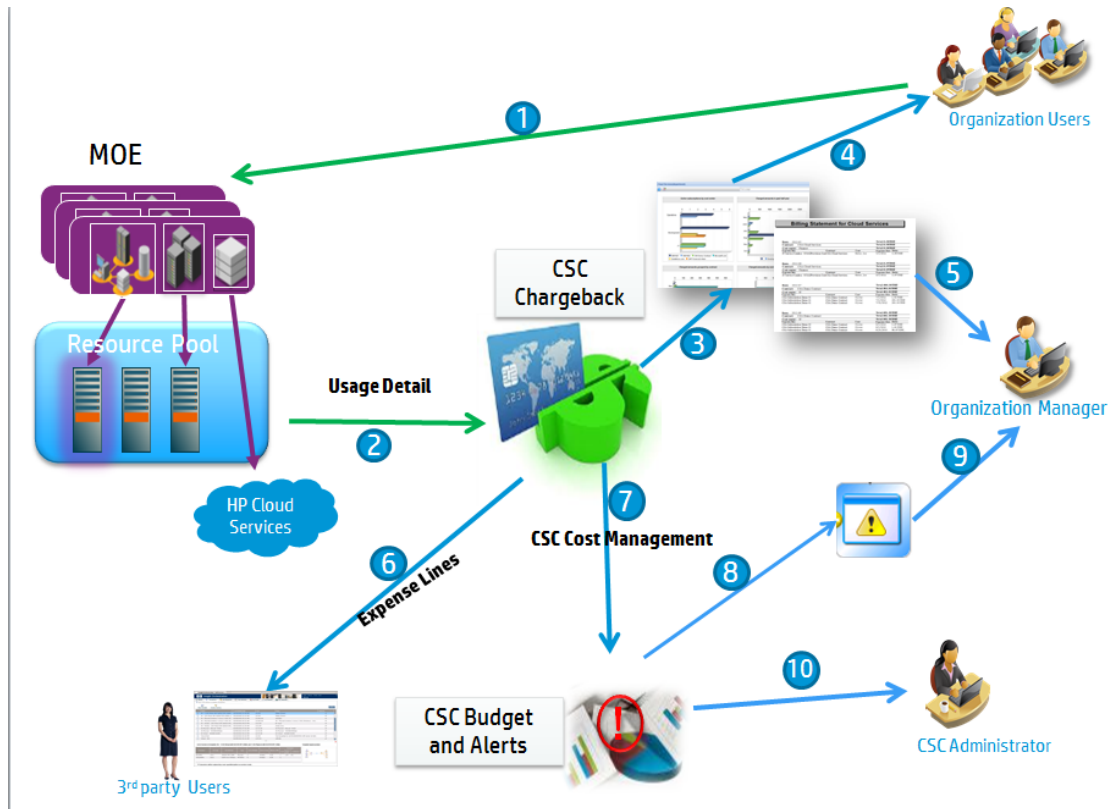
The HP Matrix Operating Environment is a cloud management software for infrastructure as a service (IaaS) that enables you to:

- Design and provision infrastructure services in minutes via a self-service portal
- Optimize infrastructure for capacity planning and showback/chargeback
- Protect service continuity with automated cost-effective failover



The HP Matrix Operating Environment, which includes HP Insight Control, is at the core of the HP CloudSystem Matrix, an IaaS solution for private and hybrid cloud deployments, built on proven HP Converged Infrastructure technologies. It is available for both HP ProLiant and HP Integrity servers as well as for provisioning third party x86 virtual machine environments.

## CloudSystem Chargeback for MOE



CSC utilizes the capabilities of HP Asset Manager financial management to serve as a consolidated place to manage the Cloud service billing, budget management, and provisioned IT resources. It provides the visibility to the IT management level users to manage and control the cost to deliver the service with the resource information in HP Matrix products such as MOE. The most important, with the exposure usage and billing information through MOE, CSC plays the IT cost engine role given the Chargeback reporting and tailor-able billing statements capabilities.

CSC is an important part of the supporting infrastructure and best practices that should be in place to support IT's transformation into a Provider of Services in the Hybrid Cloud. CSC focuses on the Cloud billing foundation as a reliable "source of truth," supporting chargeback for cost and budget management and finally on infrastructure assets and services portfolio to increase data accuracy, integrity, increase customer time to value.

CSC provides various reports and statistics that enable you to improve your cost strategy, and provides data for budgeting and gives your finance group the information they need to re-define their financial model.

# Chapter 2

## General concepts

This chapter introduces the main terms used in CSC.

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## Chargeback

Chargebacks are used to re-allocate an expense paid by a (source) billing center to the (target) billing centers that were really at the origin of the expense. CSC for MOE enables you to define chargeback rules to automate the creation of chargeback expense lines.

The source billing center is credited with the amount of the chargeback, whereas the target billing centers are debited with the same amount. The amount credited and the sum of the amounts debited cancel each other out.

For example, chargeback rules have been defined corresponding to the installation of computers by the IS organization, when a computer record is created in MOE, CSC automatically creates two expense lines:

- An expense line crediting the IS billing center to account for services performed
- An expense line debiting the billing center of the organization for which the computer was installed

## Expense line

An expense line is the full description of an expense (debit amount, credit amount, date, tax, etc.).

## Chargeback rule

A chargeback rule is a set of parameters used to define how to reallocate expenses:

- Triggering conditions.
- Source and target billing centers.
- Calculation method and chargeback amount.

For more information about how chargeback rules work, refer to ["How chargeback rules work" on page 53](#).

## Budget

A budget gives you a central location to manage revenues and expenses according to a time division (one fiscal year, for example). A budget consists of multiple budget lines.

To achieve budget management in CSC, you need to manually create budgets in a budget center.

## Budget center

A company's budgets are normally defined in the period of one financial year, which lasts an entire calendar year. However, there is something that lasts even longer than the one-year budget: the budget center. A budget center is a perpetual structure that houses the budgets for a particular entity in your company. For example, you can have a budget center for each organization in your company.

A budget center is made up of budgets and billing centers. The budget center does not need to be bounded in time to a given type of expense. Budgets, on the other hand, are specific to a period and a type of expenses. A budget center enables you to plan and track expenses for a set of billing centers.

When data is ported from MOE to CSC, a budget center is created for an organization by default. You can create new budget centers for the organization.

## Billing center

A billing center (as known as cost center) is used to group together expenses generated by a business unit. To implement budget management, each billing center must belong to a budget center.

The ID of the billing center is called billing code.

When importing data to CSC, the chargeback rules are triggered to calculate initial expenses. The chargeback rules rely on the proper setting of these billing centers:

- The subscriber's billing center
- The billing center from which the subscription cost is initially deducted

In this way, the subscription cost is re-allocated from the billing center where the cost is initially deducted to the billing center of the user who actually subscribed to the cloud service.

Make sure these billing centers are populated with the correct value. Otherwise, some unresolved chargeback events may be generated. To handle these unresolved events, refer to "[Unresolved chargeback events](#)" on page 42.

## Financial year

A financial year is the time span covered by a budget.

A given financial year can be divided into a set of periods. Each set of periods corresponds to a time division.

## Time division

A time division is a way of dividing a financial year into a set of periods.

A given financial year can have several associated time divisions (semesters, quarters, and so on).

Time divisions are used to delimit the scope of budgets.

By linking a budget to a time division, the budget is indirectly linked to the financial year covered by the time division.

For example, a time division can be **Monthly**, **Bimonthly**, **Quarterly**, **Semiannually**, and so on.

# Chapter 3

## User roles

This chapter introduces the user roles of the CSC.

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## Organization user

An organization user can view his authorized cost and consumption data. People of this persona can perform self-service to request and subscribe cloud services in MOE.

An organization user can leverage the following CSC functionalities:

- After logon, the personal business home page (My cloud) is presented.
- The organization user can view his service list and details, but cannot modify them.
- The organization user can view his billing reports.

## Organization manager

An organization manager manages the billing centers, the budget centers, and the users of the organization. An organization manager can also view the costs of the entire organization.

An organization manager can leverage the following CSC functionalities:

- An organization manager manages the organization and employee information by:
  - Viewing the employee list.
  - Performing user role management by:
    - Assigning user role to certain users. Note that an organization manager can only grant the **Organization user** role or the **Organization manager** role to a user.

**Note:** An organization manager cannot modify the user information of a CSC administrator.

- An organization manager can view and resolve unsolved chargeback events.

- An organization manager manages the budgets and costs of the organization by:
  - Viewing and modifying the billing centers.
  - Viewing and modifying the budget centers.
  - Viewing and modifying the budgets and budget lines.
  - Setting an alert threshold for each budget line and designating supervisors who can receive budget alarms when the expense crosses the threshold.
- After an organization manager logs on, the business home page of the organization (My organization's cloud) is presented.
- An organization manager can view the organization's service list and details, but cannot modify them.
- An organization manager can view his personal business home page (My cloud).
- An organization manager can view his service list and details, but cannot modify them.
- An organization manager can view his and his organization's billing reports.

## CSC administrator

A CSC administrator (also known as Service Provider in MOE) manages the basic financial settings of the billing centers, budget centers, chargeback rules, and organizations. After integrating with MOE, a CSC administrator user account is created for a Service Provider. By default, this CSC administrator has the highest privilege and is able to manage all the organizations. You can create new CSC administrators by using this user account, the CSC administrators created in CSC may be able to manage all the organizations, or may only be able to manage certain specified organizations.

A CSC administrator can leverage the following CSC functionalities:

- A CSC administrator manages the organization and employee information by:
  - Viewing the employee list.
  - Performing user role management by:
    - Assigning user role to certain users. Note that a CSC administrator can assign any role to a user.
- A CSC administrator can view and modify the chargeback rules for his organizations by:
  - Viewing the list of chargeback rules.
  - Enabling and disabling chargeback rules. By default, a global (out-of-box) chargeback rule is created and enabled.
  - Viewing and modifying the chargeback rules.

- Viewing and resolving unsolved chargeback events.


**Note:** A CSC administrator can only view and modify the chargeback rules on the CSC Windows client.

- A CSC administrator manages the budgets and costs of his organizations by:
  - Viewing and modifying the billing centers.
  - Viewing and modifying the budget centers.
  - Viewing and modifying the budgets and budget lines.
  - Setting an alert threshold for each budget line and designating supervisors who can receive budget alarms when the expense crosses the threshold.
  - Viewing and modifying the financial years.
  - Viewing and modifying the currencies.
- After a CSC administrator logs on, the business home page of the organizations he manages (My organization's cloud) is presented.
- A CSC administrator can view the organizations' service list and details, but cannot modify them.
- A CSC administrator can view his personal business home page (My cloud).
- A CSC administrator can view his service list and details, but cannot modify them.
- A CSC administrator can view his and his organizations' billing reports.

## Primary organization

A CSC administrator can manager multiple organizations. However, when he tries to create a new object such as a billing center and a budget center, the object is only created in the primary organization of the CSC administrator.

To change the primary organization, log on to CSC with the CSC administrator account, click the organization on the upper-right of the page, and then select the primary organization for the user.

 Eugene Organization: HP\_APJ | Help | Logout

### Viewable organizations

A CSC administrator can view shared data and the data of his viewable organizations. He can switch primary organization in the list of viewable organizations. He can only modify the data of the primary organization. To modify or create data of an organization, switch primary organization to

that organization. On the **Profile** tab of the **User/Organization unit** screen, there is a check box of **Can create or modify shared data**. Only when the check box is selected, the CSC administrator can create or modify shared data. To create or modify shared data, switch the primary organization to **Shared data**.



# Chapter 4

## CSC functionalities and user interfaces

This chapter introduces the CSC user interfaces and shows you how to leverage the CSC functionalities.

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## Start using CSC

This section shows how you can start using CSC. In particular, it details the basic actions that you can perform the first time you launch this application.

### Configuring the Web browser

You must define the security settings to enable the CSC Web application to run properly.

Adapt the security settings that enables the Web browser to:

- Execute JavaScript.
- Display pop-up windows.
- Accept cookies.

Security settings are defined at several levels:

- Globally, by the administrator of the IT department
- Locally, by each user's local browser security settings

**Note:** You must define the security settings of the zone in which your company has placed the CSC Web application (Internet, Local intranet, Trusted sites).

### Starting the Web application

To start CSC using a Web browser, follow these steps:

1. Start the Web browser.
2. Enter a URL using the following syntax:  
`http://<CSC Web Tier server name>:<Port used by CSC Web Tier>/AssetManager`

**Note:** By default, the port used by CSC Web tier is 30101. In addition, you have to use the full host name of the CSC server instead of the IP address to run the reporting service correctly.

3. Populate the following fields:

Field	Value
Login	The user account used to connect to CSC
Password	Password associated with the user account

## Disconnecting from CSC

Click **Logout** at the upper right of the Web page.

**Note:** Save the modifications before you log out because the CSC will not remind you to do so.

## Operations on records

This section explains how to create, modify and delete records in CSC.

Only an organization manager or a CSC administrator may need to perform operations on records when configuring financial or user settings.

### *Use of record detail*


A record's detail contains the full set of information that is related to this record. This information is divided into tabs organized by subject matter.

For example, a budget record's may be detailed as follows:

---

**Modify** **New** **Duplicate** **Save** **Cancel** [List of budgets](#)

 \* **Name:** HP\_EMEA Cloud Service Budget

**General** | **Lines**

---

\* **Budget center:** HP\_EMEA budget center  
Code: TestBudget2

\* **Division:** 2013: Monthly

\* **Classification:** IT activity  
Status: In preparation

Comment:

**Modify** **New** **Duplicate** **Save** **Cancel** [List of budgets](#)

## ***Creating a record***

1. Open the list in which you want to create the record.  
For example, to create a budget line, select the **Finance management/ budget lines** link on the navigation bar.
2. Click **New**.
3. Populate the fields and links of the record detail.
4. Do one of the following:
  - Click the **Cancel** button to cancel creation of the record.
  - or
  - Click **Save** to add the record to the database.

## ***Modifying a record***

1. Open the list which contains the record to modify. For example, the **Budget lines** list under **Financial management**.
2. Click a record to display the details of the record.
3. Click **Modify**.
4. Make changes to the record.
5. Do one of the following:
  - Click the **Cancel** button to cancel modification of the record.
  - or
  - Click **Save** to update the record in the database.

## ***Duplicating a record***

1. Open the list in which you want to duplicate the record.  
For example, to duplicate a budget line, select the **Finance management/ budget lines** link on the navigation bar.
2. Click the record you want to duplicate.
3. Make changes to the new record that is duplicated from the record you selected.
4. Do one of the following:

- Click the **Cancel** button to cancel creation of the record.
- or
- Click **Save** to add the record to the database.

## Deleting a record

1. Open the list of records to delete.

For example, to delete a budget line, select the **Finance management/ budget lines** link on the navigation bar.

2. Display the details of the record to delete.
3. Click the **Delete** button.
4. Confirm the deletion (**Yes** button).

## Actions

An action is an operation that calls on a CSC program.

A contextual action is triggered by selecting the action from the contextual **Actions** drop-down list at the top of the list screens. For example, you can use the following action to create a budget.



## My cloud

The CSC **My cloud** module enables any MOE users to have an overview of the status and charges by requesting the IT services on the users' part.

The **My cloud** module is presented to the following user roles:

- Organization user
- Organization manager
- CSC administrator

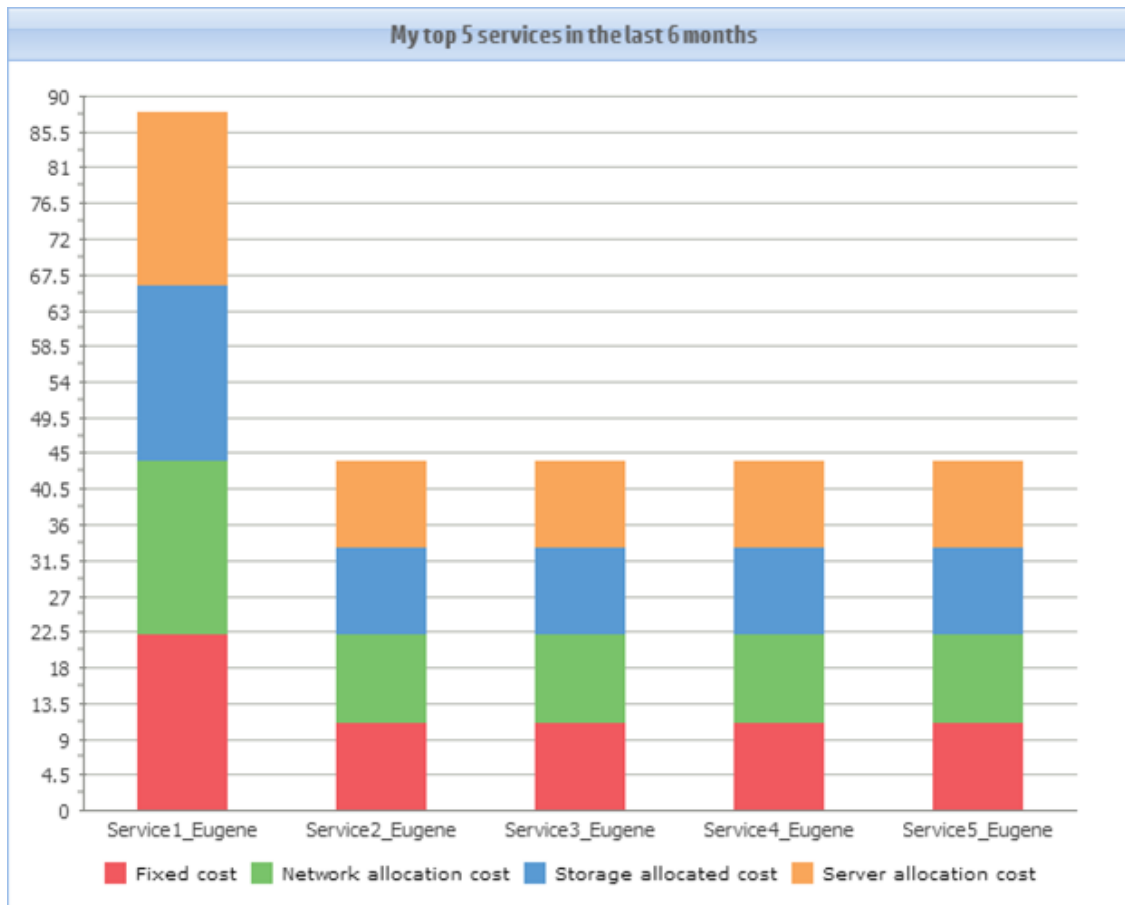
## Business homepage

The business homepage of the **My cloud** module provides the statistics that illustrate the cost and service conditions of an individual user. You can also click the bars/slices/lines to drill down into the corresponding lists that detail the service data.

To view the business homepage of **My cloud**, click the **My cloud** node on the navigation bar.

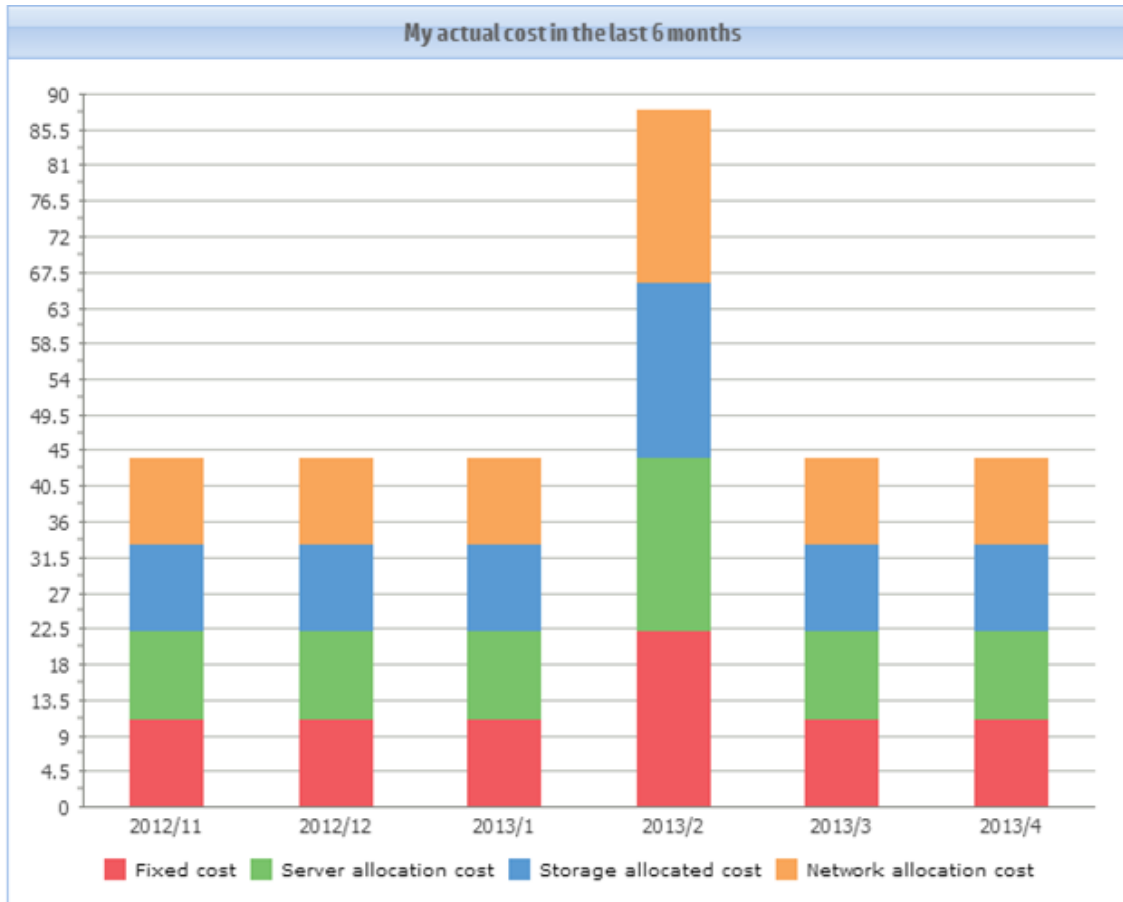
## ***My top 5 services in the last 6 budget periods***

This chart illustrates the top 5 MOE services you requested in the last 6 months.



## ***My actual cost in the last 6 months***

This chart illustrates the expenses charged for the MOE services you requested in the last six months.



## My services

The **My services** page of **My cloud** shows a table that lists the details of all your cloud services. The data in this table cannot be modified.

To view this page, expand the **My cloud** node in the navigation pane, and then click **My services**.

<div> <div>Cloud chargeback and billing</div> <div> <div>My organization's cloud</div> <div> <div>My cloud</div> <div> <div>My services</div> <div>User: Usage report in specified period</div> </div> </div> <div>Finance management</div> <div>Organization management</div> </div> </div>					
List of cloud services subscriptions					
New Delete					
	Subscription status	Description	Start	Initial fee	Recurring fee
<input type="checkbox"/>	Active	Service1_Eugene	Monday, April 08, 2013	10.00 USD	0.00 USD
<input type="checkbox"/>	Active	Service2_Eugene	Monday, April 08, 2013	10.00 USD	0.00 USD
<input type="checkbox"/>	Active	Service3_Eugene	Monday, April 08, 2013	10.00 USD	0.00 USD
<input type="checkbox"/>	Active	Service4_Eugene	Monday, April 08, 2013	10.00 USD	0.00 USD
<input type="checkbox"/>	Active	Service5_Eugene	Monday, April 08, 2013	10.00 USD	0.00 USD
<input type="checkbox"/>	Active	Service6_Eugene	Monday, April 08, 2013	10.00 USD	0.00 USD
<input type="checkbox"/>	Active	Service7_Eugene	Monday, April 08, 2013	10.00 USD	0.00 USD

## Reports

CSC leverages the SAP Crystal Reports integrating with the service cost data to provide organization users with a more transparency view of the costs generated by their service requests.

To view the expense report of **My cloud**, Expand the **My cloud** node and click **Usage report in specified period** on the navigation bar. Or, you can click the **User: Usage report in specified period** link on the **My cloud** business homepage.

Cloud chargeback and billing

My organization's cloud

Services

Organization: Services allocation cost detail list

Organization: Services consumption detail list

Organization: Users allocation cost detail list

My cloud

My services

User: Usage report in specified period

Finance management

Organization management

Business home page 'My organization's cloud'

Parameters

Group Tree

1 / 1

100%

主数据

Apply

Delete

Enter billing start date:

10/1/2012

Enter billing end date:

3/31/2013

Usage report in specified period

Organization	HP_API	Generated By	Xie, Eugene					
Billing Period	10/1/2012 to 3/31/2013	Currency	USD					
Total Billing Amount 264.00								
Service Name	Fixed Cost	Server Allocation		Storage Allocation		Network Allocation		Total Cost
		Hours	Cost	Hours	Cost	Hours	Cost	
Service2_Eugene	11.00	1.00	11.00	1.00	11.00	1.00	11.00	44.00
Service3_Eugene	11.00	1.00	11.00	1.00	11.00	1.00	11.00	44.00
Service4_Eugene	11.00	1.00	11.00	1.00	11.00	1.00	11.00	44.00
Service5_Eugene	11.00	1.00	11.00	1.00	11.00	1.00	11.00	44.00
Service6_Eugene	11.00	1.00	11.00	1.00	11.00	1.00	11.00	44.00
Service7_Eugene	11.00	1.00	11.00	1.00	11.00	1.00	11.00	44.00
Total Amount								264.00

## My organization's cloud

CSC leverages chargeback rules to re-allocate expenses from the source billing center to the target billing center that is really at the origin of the expense. The CSC **My organization's cloud** module analyzes the chargeback data and enables the organization managers and CSC administrators to have an overview of the status and charges by requesting the IT cloud services from the organization's perspective.

The **My organization's cloud** module is presented to the following user roles:

- Organization manager
- CSC administrator

If a CSC administrator logs on, he will see the data of all the organizations that he manages.

## Business homepage

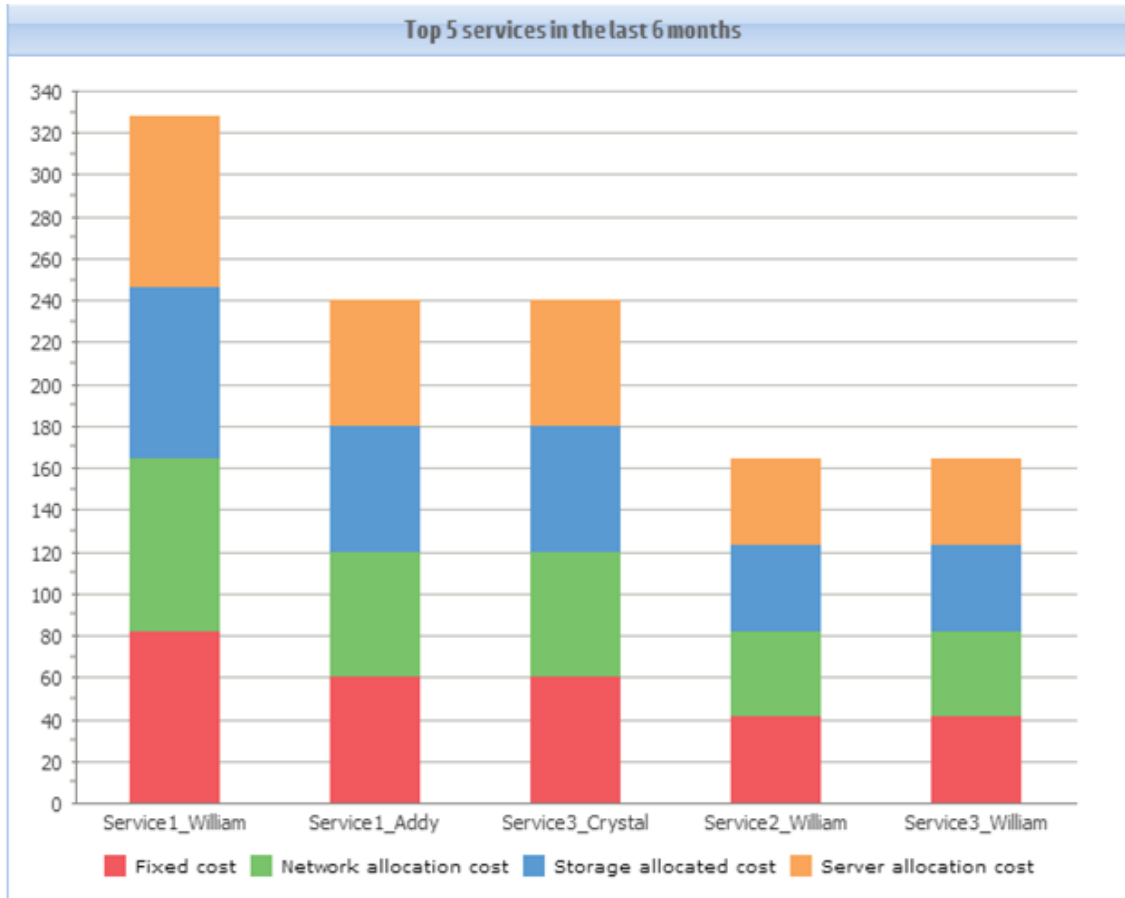
The business homepage of the **My organization's cloud** module provides the statistics that illustrate the budget, cost, and service conditions of an organization/organizations. You can also click the bars/slices/lines to drill down into the corresponding lists that detail the service data.

To view the business homepage of **My organization's cloud**, click the **My organization's cloud** node on the navigation bar.



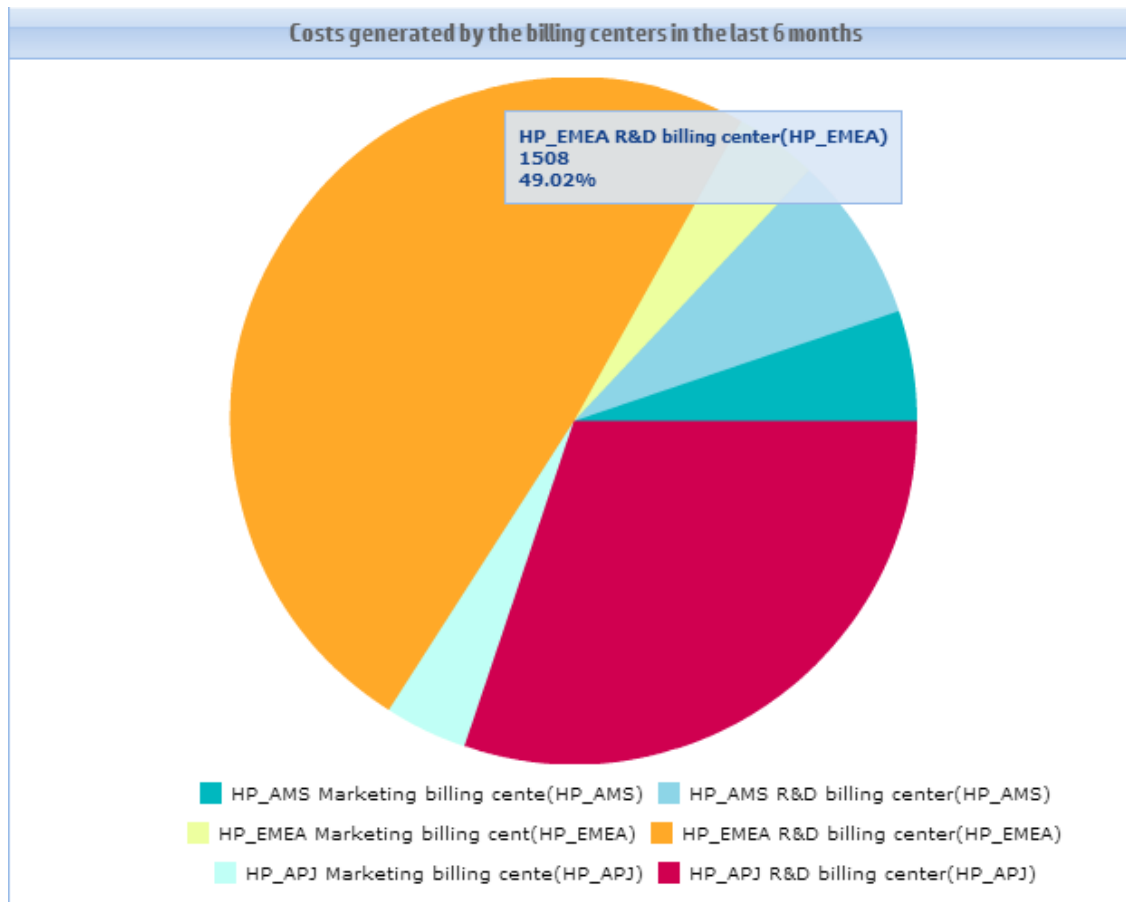
## ***Top 5 services in the last 6 months***

This chart illustrates the 5 most popular services requested by the organization users in the last 6 months.



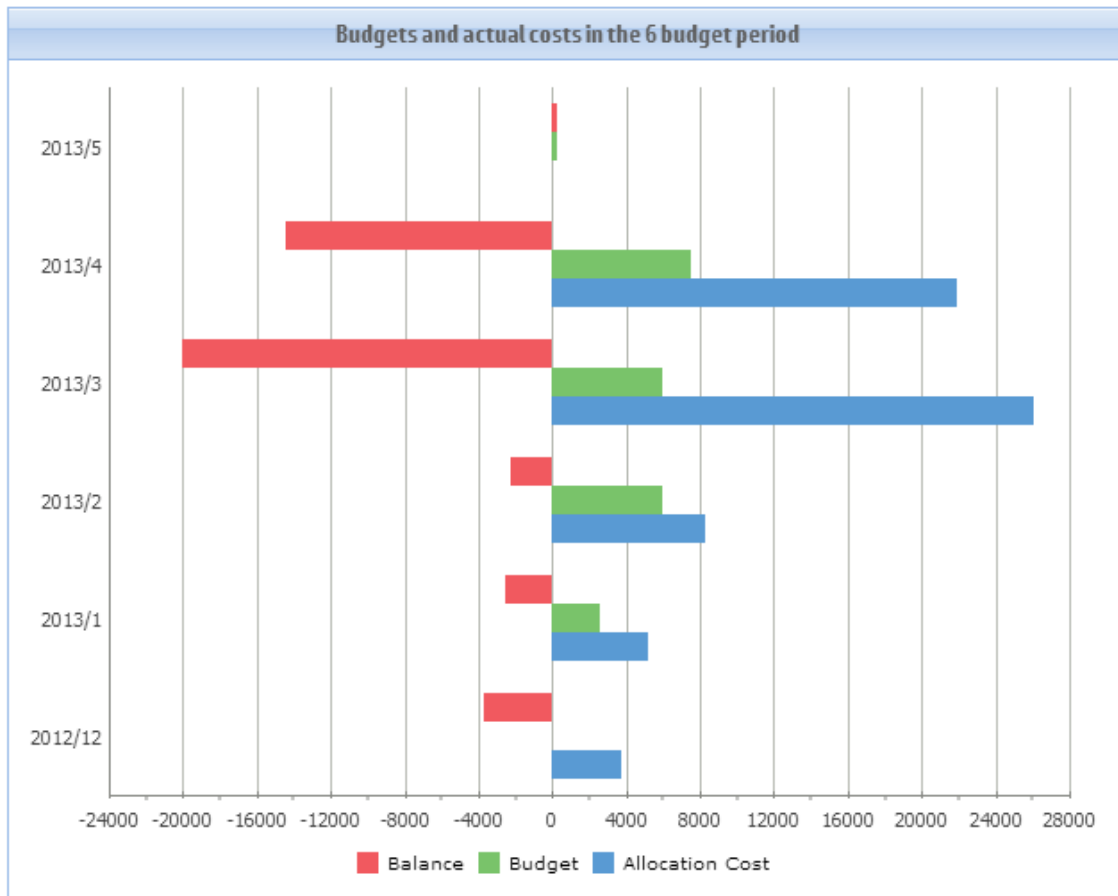
## ***Costs generated by the billing centers in the last 6 months***

This chart illustrates the expenses generated by your organization's billing centers in the last 6 months.



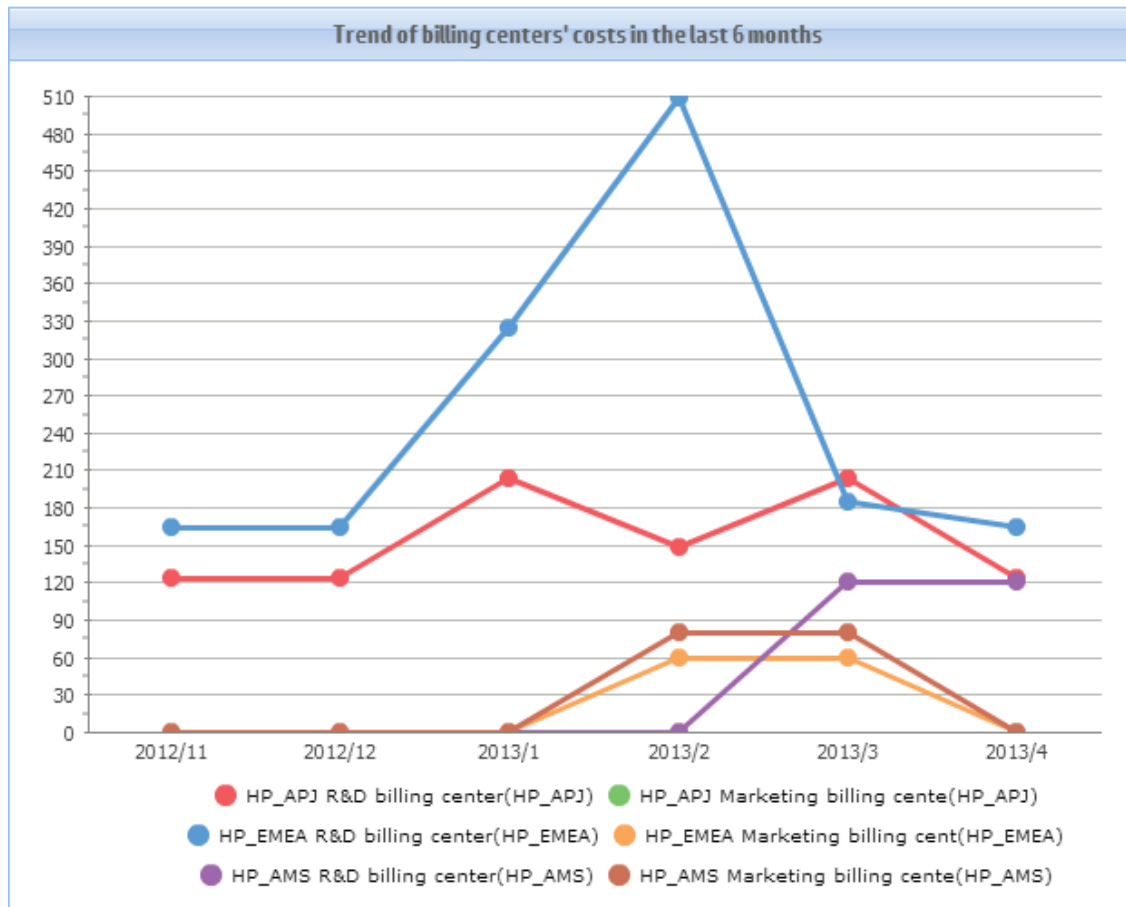
### ***Budgets and actual costs in the 6 budget periods***

This chart illustrates the condition of the services, expenses, and budgets of the organization in the last 6 budget periods.



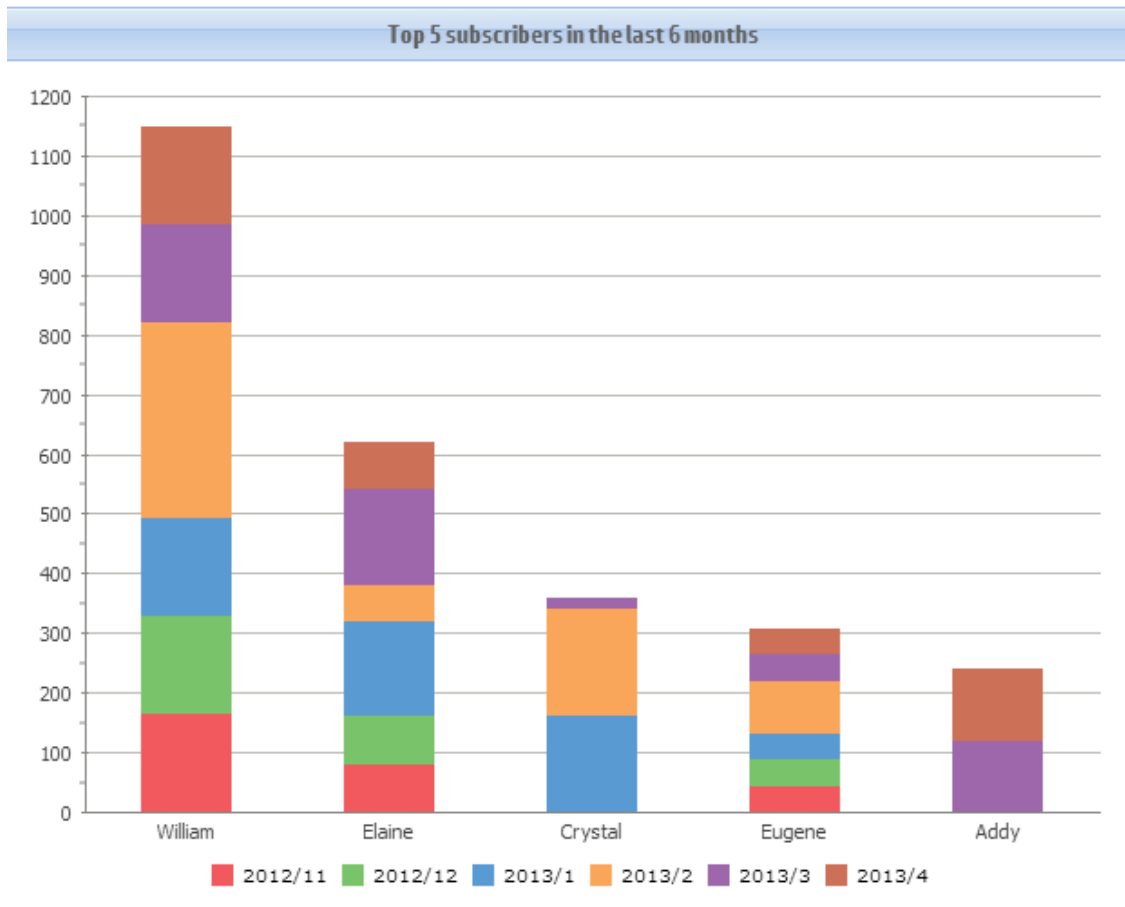
### ***Trend of billing centers' costs in the last 6 months***

This chart outlines the trend of the costs generated by the billing centers in the last 6 months.



### ***Top 5 subscribers in the last 6 months***

This chart shows the 5 organization users who requested the most resources in the last six months.



## My organization's reports

CSC leverages the SAP Crystal Reports integrating with the chargeback data to provide organization managers with a transparency view of the costs generated by their service requests.

To view the expense report of **My organization's cloud**, expand the **My organization's cloud** node and click one of the following reports on the navigation bar:

- Organization: Services allocation cost detail list
- Organization: Services consumption detail list
- Organization: Users allocation cost detail list

You can also click the links to the reports on the business homepage of the **My organization's cloud**.

### Organization: Services allocation cost detail list

This report shows the allocation costs for the IT services requested by the organization.

Business home page 'My organization's cloud'

Cloud chargeback and billing

- My organization's cloud
  - Services
    - Organization: Services allocation cost detail list
    - Organization: Services consumption detail list
    - Organization: Users allocation cost detail list
  - My cloud
    - My services
      - User: Usage report in specified period
    - Finance management
    - Organization management

Parameters Group Tree 1 / 59 100%

主报表

Apply Delete

Enter billing start date: 10/1/2012

Enter billing end date: 3/31/2013

Enter billing codes (Use com): ALL

### Services allocation cost detail list

Organization	HP_API, HP_EMEA, HP_AMS	Generated By	Xie, Eugene
Billing Period	10/1/2012 to 3/31/2013	Currency	USD
Total Billing Amount	52,274.00		

Service Name	Subscribed User	Fixed Cost	Server Allocation		Storage Allocation		Network Allocation		Total Cost
			Hours	Cost	Hours	Cost	Hours	Cost	
<b>Billing Code: Billingcenter1</b>									
AD Service	Andresen, Gary	44.00	1.00	44.00	1.00	44.00	1.00	44.00	176.00
AD Service subscribed by AlvesV	Alves, Vinicius	15.00	1.00	15.00	1.00	15.00	1.00	15.00	60.00
AD Service subscribed by Bomu	Bomze, Jay	15.00	1.00	15.00	1.00	15.00	1.00	15.00	60.00
AD Service subscribed by BuxoA	Buxo, Alfons	10.00	1.00	10.00	1.00	10.00	1.00	10.00	40.00
AD Service subscribed by ChagasE	Chagas, Eduardo	10.00	1.00	10.00	1.00	10.00	1.00	10.00	40.00
AD Service subscribed by CookeS	Cooke, Steve	11.00	1.00	11.00	1.00	11.00	1.00	11.00	44.00

## Organization: Services consumption detail list

This report shows the utilization information of the IT services requested by the organization. For example, it shows the utilization information of the CPU, memory, network bandwidth, and so on.

Business home page 'My organization's cloud'

Cloud chargeback and billing

- My organization's cloud
  - Services
    - Organization: Services allocation cost detail list
    - Organization: Services consumption detail list
    - Organization: Users allocation cost detail list
  - My cloud
    - My services
      - User: Usage report in specified period
    - Finance management
    - Organization management

Parameters Group Tree 1 / 1 100%

主报表 Hide Parameter Panel

Apply Delete

Enter billing start date: 10/1/2012

Enter billing end date: 3/31/2013

Enter billing codes (Use com): ALL

### Service consumption detail list

Organization	HP_API, HP_EMEA, HP_AMS	Generated By	Xie, Eugene
Billing Period	10/1/2012 to 3/31/2013		

Service Name	Subscribed User	CPU			Memory			Network Bandwidth Util (Mb/s)	Disk Bandwidth Util (Mb/s)
		Allocation	Utilization	Peak	Allocation	Utilization	Peak		
<b>Billing code:</b>									
Host:									

## Organization: Users allocation cost detail list

This report shows the allocation costs generated for the users.

Business home page 'My organization's cloud'

Cloud chargeback and billing

- My organization's cloud
  - Services
    - Organization: Services allocation cost detail list
    - Organization: Services consumption detail list
    - Organization: Users allocation cost detail list
  - My cloud
    - My services
      - User: Usage report in specified period
    - Finance management
    - Organization management

Parameters Group Tree 1 / 20 100%

主报表

Apply Delete

Enter billing start date: 10/1/2012

Enter billing end date: 3/31/2013

Enter billing codes (Use com): ALL

### Users allocation cost detail list

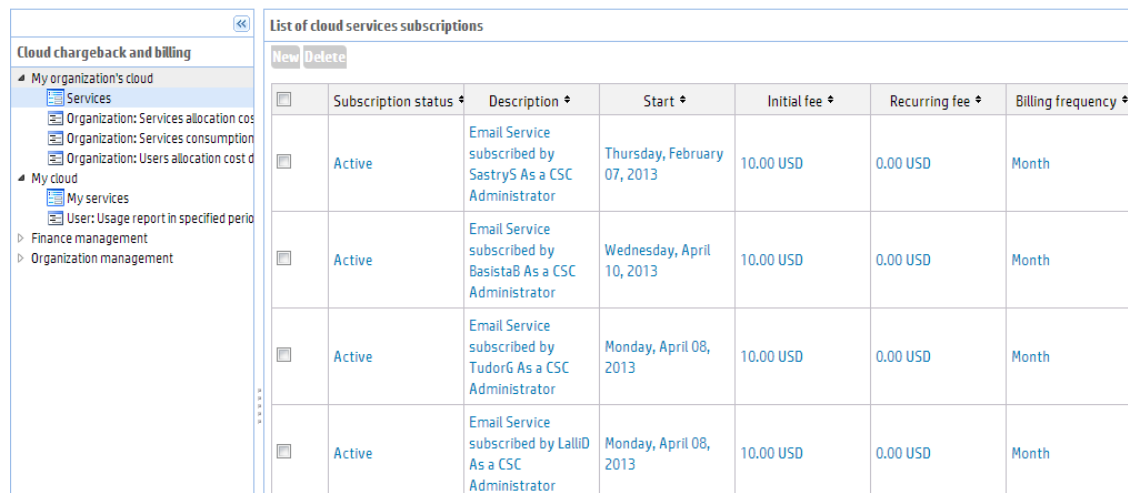
Organization	HP_API, HP_EMEA, HP_AMS	Generated By	Xie, Eugene
Billing Period	10/1/2012 to 3/31/2013	Currency	USD
Total Billing Amount	52,274.00		

Subscribed User	Fixed Cost	Allocation Cost	Total Cost
<b>Billing Code: Billingcenter1</b>			
Tudor, Geoff	0.00	60.00	60.00
Buxo, Alfons	10.00	30.00	40.00
Goh, Soon Heng	10.00	30.00	40.00
Gaspar, Rui	15.00	45.00	60.00
Kurka, Christopher	15.00	45.00	60.00
Jolly, Christopher	15.00	45.00	60.00
Tilston, Paul	15.00	45.00	60.00

## My organization's services

The **Services** page of **My organization's cloud** shows a table that lists the details of all your organization's cloud services. The data in this table cannot be modified.

To view this page, expand the **My organization's cloud** node on the navigation bar, and then click **Services**.



List of cloud services subscriptions						
	Subscription status	Description	Start	Initial fee	Recurring fee	Billing frequency
	Active	Email Service subscribed by SastryS As a CSC Administrator	Thursday, February 07, 2013	10.00 USD	0.00 USD	Month
	Active	Email Service subscribed by BasistaB As a CSC Administrator	Wednesday, April 10, 2013	10.00 USD	0.00 USD	Month
	Active	Email Service subscribed by TudorG As a CSC Administrator	Monday, April 08, 2013	10.00 USD	0.00 USD	Month
	Active	Email Service subscribed by Lallid As a CSC Administrator	Monday, April 08, 2013	10.00 USD	0.00 USD	Month

## Finance management

The **Finance management** module enables CSC administrators and organization managers to monitor and configure financial settings.

### Billing centers

The **Billing centers** page lists the billing centers of the organization.

MOE does not have the concept of billing centers. Users enter the billing code in MOE, and CSC creates a billing center for each billing code when importing data from MOE.

To access this page, expand the **Finance management** node on the navigation bar, and then click **Billing centers**.

**Note:** By default, the **CSC credited billing center** is created by the built-in chargeback rule as the credited billing center. You must not modify this record.

<div> <div>Cloud chargeback and billing</div> <ul style="list-style-type: none"> <li>My organization's cloud</li> <li>My cloud</li> <li>Finance management <ul style="list-style-type: none"> <li><b>Billing centers</b></li> <li>Budget centers</li> <li>Budget lines</li> <li>Budgets</li> <li>Chargeback rules</li> <li>Currencies</li> <li>Financial years</li> <li>Unresolved chargeback events</li> </ul> </li> <li>Organization management <ul style="list-style-type: none"> <li>Organizations</li> <li>User/Organization unit</li> </ul> </li> </ul> </div>																																			
<div> <div>List of billing centers</div> <div>New Delete</div> <table> <tr> <th></th><th>Title</th><th>Budget center</th><th>Organization</th></tr> <tr> <td><input type="checkbox"/></td><td>CSC credited billing center</td><td></td><td></td></tr> <tr> <td><input type="checkbox"/></td><td>HP_APJ R&amp;D billing center</td><td>HP_APJ budget center</td><td>HP_APJ</td></tr> <tr> <td><input type="checkbox"/></td><td>HP_APJ Marketing billing cente</td><td>HP_APJ budget center</td><td>HP_APJ</td></tr> <tr> <td><input type="checkbox"/></td><td>HP_EMEA R&amp;D billing center</td><td>HP_EMEA budget center</td><td>HP_EMEA</td></tr> <tr> <td><input type="checkbox"/></td><td>HP_EMEA Marketing billing cent</td><td>HP_EMEA budget center</td><td>HP_EMEA</td></tr> <tr> <td><input type="checkbox"/></td><td>HP_AMS R&amp;D billing center</td><td>HP_AMS budget center</td><td>HP_AMS</td></tr> <tr> <td><input type="checkbox"/></td><td>HP_AMS Marketing billing cente</td><td>HP_AMS budget center</td><td>HP_AMS</td></tr> </table> </div>					Title	Budget center	Organization	<input type="checkbox"/>	CSC credited billing center			<input type="checkbox"/>	HP_APJ R&D billing center	HP_APJ budget center	HP_APJ	<input type="checkbox"/>	HP_APJ Marketing billing cente	HP_APJ budget center	HP_APJ	<input type="checkbox"/>	HP_EMEA R&D billing center	HP_EMEA budget center	HP_EMEA	<input type="checkbox"/>	HP_EMEA Marketing billing cent	HP_EMEA budget center	HP_EMEA	<input type="checkbox"/>	HP_AMS R&D billing center	HP_AMS budget center	HP_AMS	<input type="checkbox"/>	HP_AMS Marketing billing cente	HP_AMS budget center	HP_AMS
	Title	Budget center	Organization																																
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<input type="checkbox"/>	HP_EMEA Marketing billing cent	HP_EMEA budget center	HP_EMEA																																
<input type="checkbox"/>	HP_AMS R&D billing center	HP_AMS budget center	HP_AMS																																
<input type="checkbox"/>	HP_AMS Marketing billing cente	HP_AMS budget center	HP_AMS																																

## Create a billing center

1. Expand **Finance Management**, and then click **Billing centers**.
2. Click **New** on the **Billing centers** page, the following page appears.

Welcome to HP Asset Manager > List of billing centers > Detail of billing center "

Modify

New

Duplicate

Delete

Save

Cancel

\* Title:

Billing code:

C000002

Budget center:

Organization:

HP\_APJ

Modify

New

Duplicate

Delete

Save

Cancel

3. On the **Detail of billing center** page, enter or select the values according to the following table:

Field	Description
Title	The name of the billing center. For example: APJ Marketing billing center.
Billing code	The ID of the billing center. For example: Billingcenter2



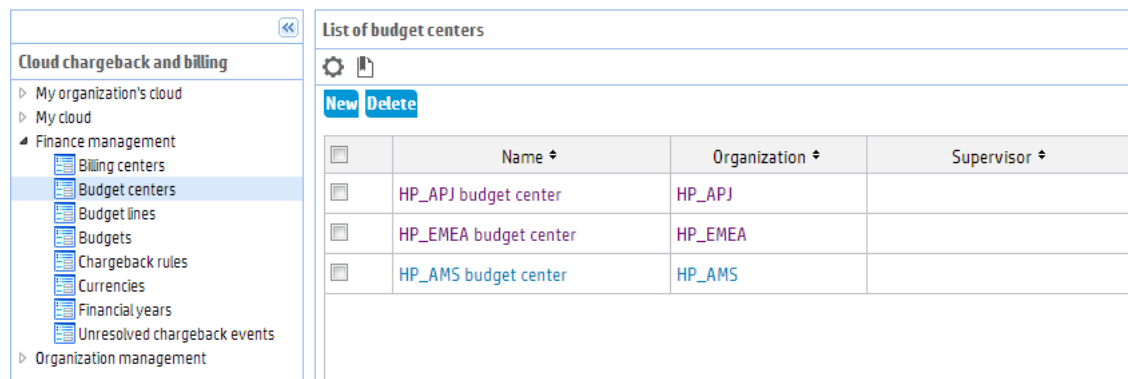
Budget center	<p>The budget center that this billing center belongs to. For example: APJ budget center.</p> <p><b>Note:</b> You can only select a budget center that is already created.</p>
Organization	<p>The organization that the billing center belongs to. For example, HP_APJ.</p> <p><b>Note:</b> The <b>Organization</b> field is populated automatically and cannot be modified. An organization manager can only create billing centers for his organization. A CSC administrator can only create billing centers for his primary organization. To change the primary organization for a CSC administrator, refer to "<a href="#">Primary organization</a>" on page 15.</p>

4. Click **Save**.

## Budget centers

An organization may consist of one or more budget centers. When integrating MOE with CSC, a budget center is automatically created for an organization. Afterwards, the organization manager or CSC administrator can choose to create or modify the budget centers for the organization.

To access the **Budget centers** page, expand the Finance management node, and then click the **Budget centers** node.



**List of budget centers**


**New** **Delete**

	Name ↕	Organization ↕	Supervisor ↕
	HP_APJ budget center	HP_APJ	
	HP_EMEA budget center	HP_EMEA	
	HP_AMS budget center	HP_AMS	


## Create a budget center

1. Expand **Finance Management**, and then click **Budget centers**.
2. Click **New** on the **Budget centers** page, the following page appears.

Welcome to HP Asset Manager > List of budget centers > Detail of budget center "




**Modify** **New** **Duplicate** **Delete** **Save** **Cancel**

 \* **Name:**

**Code:**

**Supervisor:**

**Budgets** | Billing centers



Budgets	Financial year(FYDivision)

**Modify** **New** **Duplicate** **Delete** **Save** **Cancel**

- On the **Detail of budget center** page, enter or select the values according to the following table.

Field	Description
Name	The name of the budget center. For example, HP_APJ budget center.
Code	The ID of the budget center. For example, BudgCenter2.
Supervisor	The supervisor of the budget center can receive budget alarms when the actual cost crosses the specified threshold. For example, User 1.

**Note:** The fields on the **Budgets** tab and the **Billing center** tab can only be populated after you create the budget center.

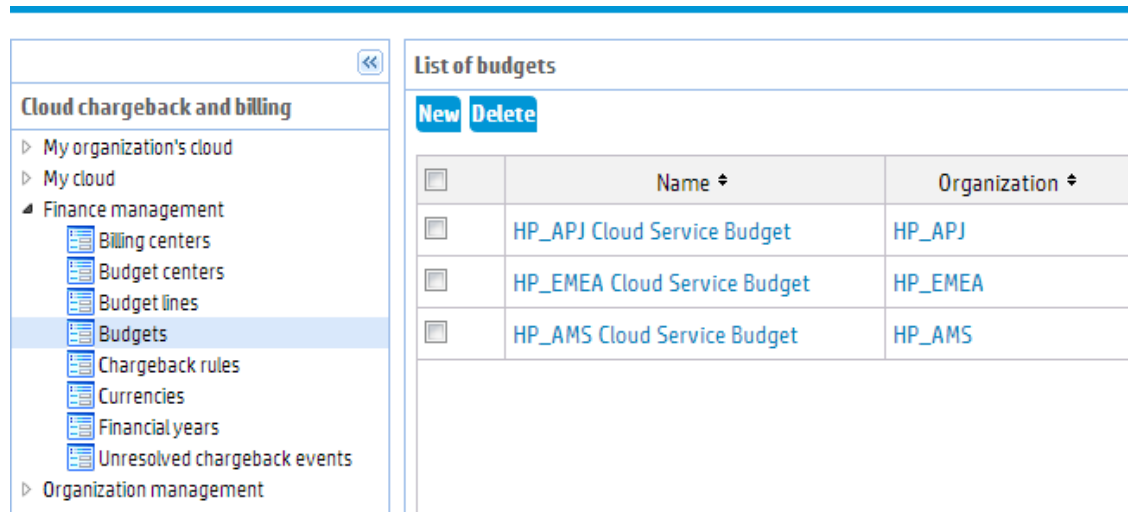
- Click **Save**.
- Click the budget center you just created on the **List of budget center** page.
- On the **Billing centers** tab, click **Add**, and then select the billing center(s) to be added to this budget center.
- On the **Budgets** tab, click **Add** to create a budget associated to this budget center. Alternatively, you can select **Budget** in the **Actions** drop-down list to launch the **Create a**

**budget** wizard to create a budget. For more information about how to create a budget, refer to ["Create a budget"](#) below

## Budgets

To utilize the budget related functionalities, the CSC administrator or the organization manager needs to create budgets for the budget centers.

To access the **Budgets** page, expand the **Finance management** node, and then click **Budgets**.



The screenshot displays the HP CloudSystem Chargeback for MOE interface. On the left, a navigation sidebar is visible under the heading 'Cloud chargeback and billing'. It includes a back button and a list of items: 'My organization's cloud', 'My cloud', 'Finance management' (expanded), 'Billing centers', 'Budget centers', 'Budget lines', 'Budgets' (selected), 'Chargeback rules', 'Currencies', 'Financial years', 'Unresolved chargeback events', and 'Organization management'. The main content area is titled 'List of budgets' and features 'New' and 'Delete' buttons. Below these buttons is a table with three columns: a checkbox, 'Name', and 'Organization'. The table contains three rows of budget data.

<input type="checkbox"/>	Name	Organization
<input type="checkbox"/>	HP_APJ Cloud Service Budget	HP_APJ
<input type="checkbox"/>	HP_EMEA Cloud Service Budget	HP_EMEA
<input type="checkbox"/>	HP_AMS Cloud Service Budget	HP_AMS

## Create a budget

To create a budget for an organization, follow these steps:

1. Expand **Finance Management**, and then click **Budgets**.
2. Click **New** on the **Budgets** page, the following page appears.

Welcome to HP Asset Manager > List of budgets > Detail of budget '-'

⚙️

Modify New Duplicate Delete Save Cancel

🔍 \* Name:

**General** | Lines

\* Budget center:

Code: 000009

\* Division:

Status: In preparation ▼

Comment:

Modify New Duplicate Delete Save Cancel

3. On the **Detail of budget** page, enter or select the values according to the following table:

Field	Description
Name	The name of the budget. For example, HP_APJ Cloud Service Budget.
Budget center	The budget center that the budget belongs to. For example, HP_APJ budget center.
Code	The ID of the budget. For example, 000011.
Division	The time division of the budget. For example, 2013: Monthly.
Status	The status of the budget. For example, In preparation.

4. Click **Save**.
5. On the **List of budgets** page, click the budget you just created.
6. On the **Lines** tab, click **Add** to create budget lines for the budget. For more information about how to create budget lines, refer to ["Create a budget line" on the facing page](#)

## Budget lines

To utilize the budget related functionalities, the CSC administrator or the organization manager needs to create budget lines for budgets.

To access the **Budget lines** page, expand the **Finance management** node, and then click **Budget lines**.

<div> <div>Cloud chargeback and billing</div> <div> <div>My organization's cloud</div> <div>My cloud</div> <div> <div>Finance management</div> <div> <div>Billing centers</div> <div>Budget centers</div> <div>Budget lines</div> <div>Budgets</div> <div>Chargeback rules</div> <div>Currencies</div> <div>Financial years</div> <div>Unresolved chargeback events</div> </div> <div>Organization management</div> <div> <div>Organizations</div> <div>User/Organization unit</div> </div> </div> </div> </div>																																																											
List of budget lines																																																											
<div>New Delete</div> <table> <tr> <th></th><th>Name</th><th>Name(Budget)</th><th>Allowance</th><th>Threshold</th><th>Organization</th></tr> <tr> <td></td><td>2013/01 budget</td><td>HP_APJ Cloud Service Budget</td><td>2,000.00 USD</td><td>80%</td><td>HP_APJ</td></tr> <tr> <td></td><td>2013/02 budget</td><td>HP_APJ Cloud Service Budget</td><td>2,000.00 USD</td><td>80%</td><td>HP_APJ</td></tr> <tr> <td></td><td>2013/03 budget</td><td>HP_APJ Cloud Service Budget</td><td>2,000.00 USD</td><td>80%</td><td>HP_APJ</td></tr> <tr> <td></td><td>2013/04 budget</td><td>HP_APJ Cloud Service Budget</td><td>2,500.00 USD</td><td>80%</td><td>HP_APJ</td></tr> <tr> <td></td><td>2013/05 budget</td><td>HP_APJ Cloud Service Budget</td><td>100.00 USD</td><td>80%</td><td>HP_APJ</td></tr> <tr> <td></td><td>2013/06 budget</td><td>HP_APJ Cloud Service Budget</td><td>100.00 USD</td><td>80%</td><td>HP_APJ</td></tr> <tr> <td></td><td>2013/07 budget</td><td>HP_APJ Cloud Service Budget</td><td>100.00 USD</td><td>80%</td><td>HP_APJ</td></tr> <tr> <td></td><td>2013/08 budget</td><td>HP_APJ Cloud Service Budget</td><td>100.00 USD</td><td>80%</td><td>HP_APJ</td></tr> </table>							Name	Name(Budget)	Allowance	Threshold	Organization		2013/01 budget	HP_APJ Cloud Service Budget	2,000.00 USD	80%	HP_APJ		2013/02 budget	HP_APJ Cloud Service Budget	2,000.00 USD	80%	HP_APJ		2013/03 budget	HP_APJ Cloud Service Budget	2,000.00 USD	80%	HP_APJ		2013/04 budget	HP_APJ Cloud Service Budget	2,500.00 USD	80%	HP_APJ		2013/05 budget	HP_APJ Cloud Service Budget	100.00 USD	80%	HP_APJ		2013/06 budget	HP_APJ Cloud Service Budget	100.00 USD	80%	HP_APJ		2013/07 budget	HP_APJ Cloud Service Budget	100.00 USD	80%	HP_APJ		2013/08 budget	HP_APJ Cloud Service Budget	100.00 USD	80%	HP_APJ
	Name	Name(Budget)	Allowance	Threshold	Organization																																																						
	2013/01 budget	HP_APJ Cloud Service Budget	2,000.00 USD	80%	HP_APJ																																																						
	2013/02 budget	HP_APJ Cloud Service Budget	2,000.00 USD	80%	HP_APJ																																																						
	2013/03 budget	HP_APJ Cloud Service Budget	2,000.00 USD	80%	HP_APJ																																																						
	2013/04 budget	HP_APJ Cloud Service Budget	2,500.00 USD	80%	HP_APJ																																																						
	2013/05 budget	HP_APJ Cloud Service Budget	100.00 USD	80%	HP_APJ																																																						
	2013/06 budget	HP_APJ Cloud Service Budget	100.00 USD	80%	HP_APJ																																																						
	2013/07 budget	HP_APJ Cloud Service Budget	100.00 USD	80%	HP_APJ																																																						
	2013/08 budget	HP_APJ Cloud Service Budget	100.00 USD	80%	HP_APJ																																																						

## Create a budget line

1. Expand **Finance Management**, and then click **Budget lines**.
2. Click **New** on the **List of budget lines** page. The following page appears.

Welcome to HP Asset Manager > List of budget lines > Detail of budget ': Cloudusage/'

\* Name:

Cloudusage/

Number:

000016

\* Budget:

Allowance:

USD 0.00

\* Period:

Threshold:

80%

Comment:

3. On the **Detail of budget lines** page, enter or select the values according to the following table:

Field	Description
Name	The name of the budget line. For example, 2013/03 budget.
Allowance	The allowance of the budget line. For example, US\$100.00.
Budget	The budget that the budget line belongs to. For example, HP_APJ Cloud Service Budget.
Period	The period of the budget line. For example, 2013 / Monthly: M3.
Threshold	The threshold that defines when a supervisor or an organization manager receives an budget alarm.

4. Click **Save**.

## Currencies

By default, CSC creates the currencies that are supported by MOE. A CSC administrator can view the currency details on the **Currencies** page. To access this page, expand the **Finance management** node, and then click the **Currencies** node.

Cloud chargeback and billing

My organization's cloud

My cloud

Finance management









- Billing centers
- Budget centers
- Budget lines
- Budgets
- Chargeback rules
- Currencies
- Financial years
- Unresolved chargeback events

Organization management

List of currencies

New

Delete

	Name ▾	Description ▾	Symbol ▾	Default currency ▾
	ATS	Austrian Schilling	oS	No
	BEF	Belgian Franc	BF	No
	BRL	Brazilian Real	R\$	No
	CAD	Canadian Dollar	CAS	No
	CHF	Swiss Franc	SFr.	No
	CNY	Chinese Renminbi	RMB¥	No
	DEM	Deutsche Mark	DM	No
	DKK	Danish Kroner	kr	No

## Create a currency

1. Expand **Finance Management**, and then click **Currencies**.
2. Click **New** on the **Currencies** page. The following page appears.

3. On the **Detail of currency** page, enter or select the values according to the following table:

Field	Description
Description	The description of the currency. For example: US Dollar.
Name	The name of the currency. For example: USD.
Symbol	The symbol of the currency. For example: US\$.
Precision	<b>Before the figure or After the figure.</b>
Default currency	<p>The default currency is applied to all monetary fields for which the user does not associate a currency. It is unique and can be selected by enabling the <b>Default currency</b> check box in the detail of a currency.</p> <div> <p><b>Note:</b> After the installation of CSC is completed, the CSC administrator must specify a default currency that is identical to the currency that is used in MOE.</p> </div>

4. Click **Save**.

## Financial years

After CSC is installed and implemented, the next 4 financial years and the corresponding time divisions (monthly) are created automatically. A CSC administrator needs to manually create the next upcoming financial years for all the organizations on the **Financial years** page. A CSC administrator can also create new time divisions for the financial years. To access this page, expand the **Finance management** node, and then click **Financial years**.

Before you create a financial year and time divisions, we recommend that you change the primary organization of the CSC administrator to **Shared data**. Therefore, the organization can manage the budgets based on the financial years. For more information about the primary organization, refer to ["Primary organization" on page 15](#).

If the out-of-the-box time divisions and periods do not match your requirement, for example, you want to use **Quarterly** instead of **Monthly**. The CSC administrator should remove the existing time divisions and periods first, and then create new ones.

**Note:** If the organizations need to use different time divisions and periods, CSC administrator should create them for each organization (change the primary organization to create time divisions and periods for each organization), and use different names to identify the time divisions and periods.

<<

Cloud chargeback and billing

My organization's cloud

My cloud

Finance management

- Billing centers
- Budget centers
- Budget lines
- Budgets
- Chargeback rules
- Currencies
- Financial years
- Unresolved chargeback events

Organization management

List of financial years

NewDelete

<input type="checkbox"/>	Name ▾	Start ▾	End ▾
<input type="checkbox"/>	2012	Sunday, January 01, 2012	Monday, December 31, 2012
<input type="checkbox"/>	2013	Tuesday, January 01, 2013	Tuesday, December 31, 2013
<input type="checkbox"/>	2014	Wednesday, January 01, 2014	Wednesday, December 31, 2014
<input type="checkbox"/>	2015	Thursday, January 01, 2015	Thursday, December 31, 2015

## Create a financial year

1. Expand **Finance Management**, and then click **Financial years**.
2. Click **New** on the **Financial years** page. The following page appears.



Welcome to HP Asset Manager > List of financial years > Detail of financial year "

⚙

Modify New Duplicate Delete Save Cancel

\* Name:

Code:

**General** | Divisions

\* Start:

\* End:

Comment:

Modify New Duplicate Delete Save Cancel

- On the **Detail of financial year** page, enter or select the values according to the following table:

Field	Description
Name	The name of the financial year. For example, 2016.
Code	The code of the financial year. For example, FYPREV.
Start date	The start date of the financial year. For example, Friday, January 01, 2016
End date	The end date of the financial year. For example, Saturday, December 31, 2016

- Click **Save**.
- Select the financial, on the **Divisions** tab, click **Add**.
- On the **Detail of time division** page, enter or select the values according to the following table, and then click **Add**.

Field	Description
Name	The name of the time division. For example, monthly, bi-monthly, or quarterly.
Code	The code of the time division. For example, 000001.
Financial year	The financial year this time division belongs to. This field cannot be modified.

7. Select the time division, on the **Periods** tab, click **Add**.
8. On the **Detail of period** page, enter or select the values according to the following table, and then click **Add**.

Field	Description
Name	The name of the period. For example, January, February, or March.
Division	The time division this period belongs to. This field cannot be modified.
Code	The Code the period. For example, Jan, Feb, or Mar.
Start	The start date of the period.
End	The end data of the period.

9. Repeat step 7 and step 8 to create all the periods for the time division.

You can also use the **Create budget periods for an existing financial year** wizard in the **Actions** drop-down list to create time divisions automatically. After you create a financial year, you can use this wizard to simply create **Monthly**, **Bimonthly**, **Quarterly**, or **Semiannually** time divisions for the financial year. For example, if you select **Monthly** for the **Periodicity** property in the wizard, 12 financial months will be created automatically.

General | Divisions

\* Start: Sunday, January 01, 2017

\* End: Sunday, December 31, 2017

Comment:

Modify New Duplicate Delete Save Cancel

Create budget periods for an existing financial year

Actions...

Create budget periods for an existing financial year

## Unresolved chargeback events

When the chargeback rules are running, some unresolved chargeback events may be generated (for example, missing billing center). To view and resolve these chargeback events, expand the **Finance management** node, and then click **Unresolved chargeback events**.

#### List of chargeback events

Delete				
	Table ▾	Event ▾	Record label ▾	Chargeback rule ▾
<input type="checkbox"/>	amCntrEmpl	E1	Elaine, - Test Contract9 (CSA Demo Contract)	Cloud Service Chargeback system / Insert subscriptions
<input type="checkbox"/>	amCntrEmpl	E2	Maggie, - Test Contract10 (Test Contract1)	Cloud Service Chargeback system / Insert subscriptions
<input type="checkbox"/>	amCntrEmpl	E3	Arnold, - Test Contract10 (Test Contract1)	Cloud Service Chargeback system / Insert subscriptions
<input type="checkbox"/>	amCntrEmpl	E4	Tom, - Test Contract10 (Test Contract1)	Cloud Service Chargeback system / Insert subscriptions
<input type="checkbox"/>	amCntrEmpl	E5	Jing, - Test Contract9 (CSA Demo Contract)	Cloud Service Chargeback system / Insert subscriptions

The CSC administrator or the organization manager needs to manually resolve these events. To do this, click the record, select **View the record that caused the event**, analyze the record, and then make necessary changes.

For example, if a user did not fill in the billing code in MOE, after data is ported to CSC, his billing center will be missing, and therefore an unsolved record will be generated.

To resolve this event, click the record, select **View the record that caused the event** in the actions drop-down list, you will find that the billing center field is empty. Click **Modify**, specify the billing center, and save. Go back to the record details, select **Reapply the rule that caused the event**.

The CSC administrator or the organization manager needs to look after this every month.

## Organization management

The CSC **Organization management** module enables the organization managers and CSC administrators to perform user and organization management.

The **Organization management** module is presented to the following user roles:

- Organization manager
- CSC administrator

If a CSC administrator logs on, he will see the information of all the organizations that he manages.

## Organizations

Only the CSC administrator can view the organization information on the **Organization** page. To access this page, expand the **Organization management** node, and then click **Organization**.

<div>Cloud chargeback and billing</div> <div>My organization's cloud</div> <div>My cloud</div> <div>Finance management</div> <div>Organization management</div> <div>Organizations</div> <div>User/Organization unit</div>	List of Organizations			
	New Delete			
	<input type="checkbox"/>	Code ▾	Name ▾	
	<input type="checkbox"/>	HP_APJ	HP_APJ	
	<input type="checkbox"/>	HP_EMEA	HP_EMEA	

<input type="checkbox"/>	HP_AMS	HP_AMS	
--------------------------	--------	--------	--

You cannot create or modify the organization information, which is generated automatically when CSC imports data from MOE.

## User/Organization unit

The CSC administrator or the organization manager can manage user accounts on the **User/Organization unit** page. To access this page, expand the **Organization management** node, and then click **User/Organization unit**.

<div>Cloud chargeback and billing</div> <div>My organization's cloud</div> <div>My cloud</div> <div>Finance management</div> <div>Organization management</div> <div>Organizations</div> <div>User/Organization unit</div>	List of users and organization units				
	New Delete				
	<input type="checkbox"/>	Name ▾	First ▾	Billing center ▾	Organization ▾
	<input type="checkbox"/>	Zhang	Elaine	HP_APJ R&D billing center	HP_APJ
	<input type="checkbox"/>	Cao	Oliver	HP_APJ Marketing billing center	HP_APJ

<input type="checkbox"/>	Xie	Eugene	HP_APJ R&D billing center	HP_APJ
<input type="checkbox"/>	Hong	Crystal	HP_EMEA R&D billing center	HP_EMEA

## To modify user information

**Note:** An organization manager can modify the information of the users in his organization. A CSC administrator can modify the information of the users in his primary organization. To change the primary organization for a CSC administrator, refer to ["Primary organization" on page 15](#).

To modify the user information, follow these steps:

1. Expand the **Organization management** node on the navigation bar, and then click **User/Organization unit**.
2. On the **List of users and organization units** page, click a user of your organization/primary

organization.

**Note:** If you select a user who is not in your organization or in your primary organization, you cannot modify his information.

3. Make the changes according to the following descriptions. For example, you can assign a billing center to a user by specifying the **Billing center** field.
4. Click **Save**.

### General information

The **General** tab includes the basic information of a user such as name, telephone, and e-mail address.

### Profile information

The **Profile** tab enables you to modify the user profile of a user in your organization/primary organization.

Field	Description
Can create or modify shared data	Specify if the user can modify the data that is shared by the organizations.
Access type	Named, floating, or guest user. An organization manager or a CSC administrator must not be a guest user.
Status of the user account	Active, locked, or disabled. If the user needs to log on to CSC, the status must be active.
Role used at connection	An organization manager can assign the organization manager or organization user role to a user. A CSC administrator can assign any user roles to a user.  If the user role is not in the <b>Description</b> box, click <b>Add</b> , select the user roles, and then click <b>Add</b> .

### Organization information

You can select the primary organization for a CSC administrator on this tab.

**Note:** The **Primary organization** field only takes effect for CSC administrators.

## Budget alert

An organization manager can set the budget allowance of the organization.

A CSC administrator or an organization manager can define a user as the supervisor of a budget center. A supervisor can be an organization user, organization manager, or a CSC administrator. Only the organization managers and supervisors will receive budget alert messages.

If the supervisor of the budget center is set, the supervisor and the organization manager can receive budget alerts when the actual cost crosses the specified threshold.

If the supervisor of the budget center is not set, the organization manager can receive budget alerts.

The budget alert will be triggered in one of the following three conditions:

- The budget allowance is not set.  
Alarm message: Warning: Year: 2013 / Quarter: Q1  
The budget of <Budget center name> is not set.
- The actual expense exceeds the budget allowance.  
Alarm message:  
Critical: Year: 2013 / Quarter: Q1  
The total expense has exceeded the budget of <Budget center name>. The allowance is 1713 USD, while the total expense is 3381996.09 USD.
- The actual expense exceeds 80% of the budget allowance.  
Alarm message:  
Warning: Year: 2013 / Quarter: Q1  
Over 80% of the budget of <Budget center name> has been used. The allowance is 4223713 USD, while the total expense is 3378971.09 USD.

These messages will appear at the top of every page.

By default, only one message is displayed, if there are multiple messages, you can click the + button to view all the messages.

# Chapter 5

## Integration

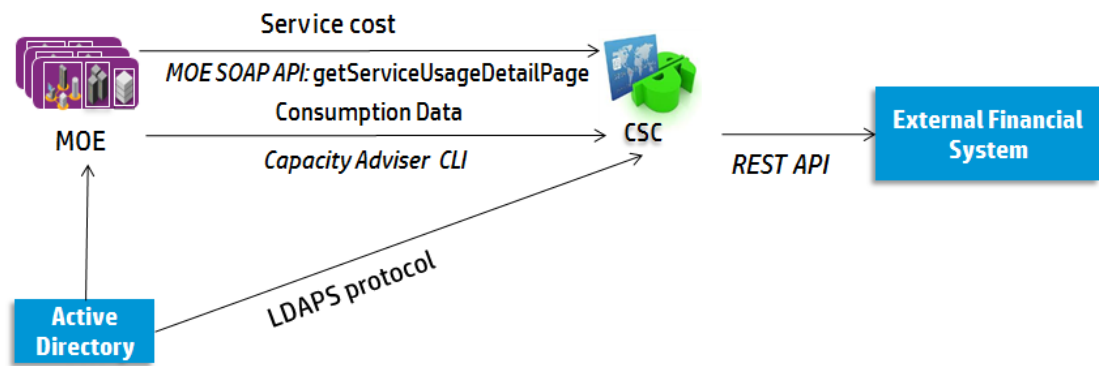
This chapter describes how CSC integrates with third-party financial systems.

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## Integrating with external finance system with REST APIs

This section illustrates the Representational State Transfer (REST) APIs that can be used for integration with external finance systems, in addition to exposed APIs.



The following REST APIs expose financial information through Web Services. They are provided to integrate with external finance system to export expense line and cost related data.

REST API Name	Description
tenants	It gets the organization information.
costCenters	It gets the billing center information.
costTypes	It gets the cost type information.
expenseLines	It gets the expense line information.

## How to use REST APIs

The REST APIs can be utilized by the third-party products with the built-in **Admin** user account who has full access to CSC or the CSC administrator. For more information about the **Admin** user

account, refer to **Installation and Configuration** guide, chapter **Configuring CSC**, section **The built-in Admin user account**.

To use a REST API to retrieve data from CSC, attach the API name along with the parameters to the end of the CSC Web Service URL. For example,  
http://<Server>:<Port>/AssetManagerWebService/rs/csc/tenants returns the organization information of CSC. By default, the port used by REST APIs is 30201.

**Note:** The REST APIs are case sensitive.

## *The tenants API*

The **tenants** API retrieves all organization information from CSC.

### Parameters

None

**Return value:** The organization information. The attributes include:

- **code:** String type, the identifier of the organization.
- **name:** String type, the name of the organization.

### Syntax

<WebServiceURL>/tenants

### Return value example

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
- <Row>
    <Code>HP_APJ</Code>
    <Name>HP_APJ</Name>
  </Row>
+ <Row>
- <Row>
    <Code>HP_AMS</Code>
    <Name>HP_AMS</Name>
  </Row>
</Result>
```

## *The costCenters API*

The **costCenters** API retrieves all billing center information from CSC.

### Parameters

- **tenantCode:** Optional, String type, the organization code of the billing centers.



- **startDate**: Optional, String type, billing centers whose start date are later than the specified value are selected, the format is "YYYY/MM/DD". If you do not set this parameter, the REST API will use the current time.
- **endDate**: Optional, String type, billing centers whose end date are earlier than the specified value are selected, the format is "YYYY/MM/DD". If you do not set this parameter, the REST API will use the current time.
- **lastSync**: Optional, String type, when it is specified, the query will filter out billing centers whose the lastSync is greater than or equal to amCostCenter.dtLastModif, the format is "YYYY/MM/DD HH:MM:SS".

**Return value**: The billing center information. The attributes include:

- **code**: String type, the billing code of the billing center.
- **name**: String type, the name of the billing center.
- **startDate**: String type, the start date of the billing center.
- **endDate**: String type, the end date of the billing center.

### Syntax

<WebServiceURL>/costCenters?<parameter1>=<value1>&<parameter2>=<value2>

### Return value example

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
- <Row>
  <Code>Billingcenter1</Code>
  <Name>HP_APJ R&D billing center</Name>
  <endDate>2013-04-09</endDate>
  <startDate>2013-04-07</startDate>
  <tenantCode>HP_APJ</tenantCode>
</Row>
</Result>
```

## The costTypes API

The **costTypes** API retrieves cost type information from CSC.

### Parameters

- **tenantCode**: Optional, String type, the organization code.
- **lastSync**: Optional, String type, when it is specified, the query will filter out cost centers whose the lastSync is greater than or equal to amCostCategory.dtLastModif, the format is "YYYY/MM/DD HH:MM:SS".

**Return value:** The cost type information. The attributes include:

- **code:** String type, the cost category code.
- **name:** String type, the name of the cost category.
- **expenseType:** String type, the expense type.
- **tenantCode:** String type, the organization code.

#### Syntax

<WebServiceURL>/costTypes?<parameter1>=<value1>&<parameter2>=<value2>

#### Return value example

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
- <Row>
    <Code>IT_CLOUD_BILLING</Code>
    <Name>IT cloud billing</Name>
    <Tenant.Code />
    <cf_seExpenseType>Operational expenditures (OPEX)</cf_seExpenseType>
  </Row>
</Result>
```

## The expenseLines API

The **expenseLines** API retrieves expense line information from CSC.

#### Parameters

- **tenantCode:** Optional, String type, the organization code of the billing centers.
- **costCenterCode:** Optional, String type, the code of the billing center.
- **startDate:** Optional, String type, expense lines whose start date are later than the specified value are selected, the format is "YYYY/MM/DD".
- **endDate:** Optional, String type, expense lines whose end date are earlier than the specified value are selected, the format is "YYYY/MM/DD".
- **lastSync:** Optional, String type, when it is specified, the query will filter out cost centers whose the lastSync is greater than or equal to amExpenseLine.dtLastModif., the format is "YYYY/MM/DD HH:MM:SS".

**Return value:** The expense line information. The attributes include:

- **title:** String type, the title of the expense line.

- **purpose**: String type, the purpose of the expense line.
- **createDate**: String type, the start date of the expense line.
- **billingDate**: String type, the billing date of the expense line.
- **credit**: The credit of the expense line.
- **creditCurrency**: The currency of the credit.
- **taxCredit**: The tax of the credit.
- **taxCreditCurrency**: The currency of credit's tax.
- **debit**: The debit of the expense line.
- **debitCurrency**: The currency of the debit.
- **taxDebit**: The tax of the debit.
- **taxDebitCurrency**: The currency of the debit's tax.
- **costTypeCode**: The cost type code.
- **costCenterCode**: The billing code.
- **expenseType**: The type of the expense line.
- **userId**: The user ID of the expense line.
- **tenantCode**: The organization code.

#### Syntax

<WebServiceURL>/expenseLines?<parameter1>=<value1>&<parameter2>=<value2>

### Return value example

```
▼ <Result>
  ▼ <Row>
    <CostCategory.Code>IT_CLOUD_BILLING</CostCategory.Code>
    <CostCategory.cf_seExpenseType>Operational expenditures (OPEX)</CostCategory.cf_seExpenseType>
    <CostCenter.Code>Billingcenter1</CostCenter.Code>
    <CreditCur>USD</CreditCur>
    <DebitCur>USD</DebitCur>
    <EmplDept.IDNo>U000048</EmplDept.IDNo>
    <TaxCreditCur>USD</TaxCreditCur>
    <TaxDebitCur>USD</TaxDebitCur>
    <Tenant.Code>HP_APJ</Tenant.Code>
    <Title>CSC cost last month per user :</Title>
    <cf_sePurpose>Free</cf_sePurpose>
    <dBilling>2013-04-30</dBilling>
    <dCreation>2013-05-09</dCreation>
    <mCredit>0</mCredit>
    <mDebit>164</mDebit>
    <mTaxCredit>0</mTaxCredit>
    <mTaxDebit>0</mTaxDebit>
  </Row>
```

# Customizing chargeback rules

**Caution:** In common cases, the chargeback rule has been created and optimized by CSC, you do not need to modify the chargeback rule. If you want to customize the chargeback rule, you must also have strong knowledge of the financial module of Asset Manager.

A CSC administrator can create or modify a chargeback rule to suffice the needs of his own organization(s). You can only customize chargeback rules by using the CSC Windows client.

## Prerequisite

Before you run chargeback rules, make sure that you perform the following tasks so that the expenses are calculated correctly:

- Populate the billing center for each subscriber (amEmplDept.CostCenter) correctly.
- Populate the credited billing center correctly. By default, the "CSC credited billing center" is used.

## How chargeback rules work

When the triggering condition for a chargeback rule is satisfied, it goes through and identifies all the records in the filtered context table.

## Built-in chargeback rule for MOE

This section describes the mechanism of the built-in chargeback rule for MOE.

For each employee who has usage detail record last month, the chargeback rule will create two expense lines allocated to the credited billing center and debited billing center specified in the chargeback rule, respectively. Thus, the subscription cost is reallocated from the billing center where the cost is initially deducted to the billing center of the user who is actually using the resource.

- If the debited billing center has an empty value, no expense line will be created.
- If the credited billing center has an empty value, one expense line will be created for the debited billing center.

**Note:** It is mandatory that CSC Automated Process Manager runs constantly against the database so that the expense lines are accurately generated for their generation date.

The chargeback rules use timer to determine the charging period for the subscription. The rules use monthly as the baseline.

## Creating or modifying a chargeback rule

To create or modify a chargeback rule, follow these steps:

1. Start the CSC Windows client. To do this, click **Start**, click **All Programs**, click **HP**, click **Asset Manager 9.40 en**, click **Client**.
2. Connect to the **HPCloudChargeBackSystem** database with a CSC administrator.
3. On the navigation bar, expand **Finance management**, and then click **Chargeback rules**.
4. Click **Add** to create a new chargeback rule. Or, click **Modify** to make changes to an existing chargeback rule.
5. On the **General** tab, populate in particular the following fields and links:

Field or link	Value
General tab	General information
Fields and links in the Amount calculation frame	Define how expense line credits and debits are calculated
Fields and links in the Debited cost center frame	Define how the billing center to which the debit expense line is allocated is selected
Fields and links in the Credited cost center frame	Define how the billing center to which the credit expense line is allocated is selected

6. On the **Timer** tab, specify the information used to schedule the chargeback rule. For more information about the schedule of the chargeback rule, refer to the **Installation and configuration** guide, Chapter **Configuring CSC**, section **Automated Process Manager**, section **Automated Process Manager verification schedules**.

**Tip:** You can fill in the fields by following the instructions provided by the **Help on this field**. To open the **Help on this field**, right-click the field, and then click **Help on this field**. For the general chargeback concepts, refer to ["Chargeback" on page 10](#).

**Description:** Generate costs by month ✓ Rule enabled

**General** **Timer**

Start:  End:

**Event**

☐ Insert

☐ Deletion

☐ Update

☒ Timer

**Amount calculation**

Base amount: Script

**Script (amount):** sysCB4SubPricebyMon

Charged object: Contract

**Debited billing center**

Calculation rule: Select from database

**Help on this field**

- Switch to vertical mode
- List only
- Detail only
- ✓ List and detail
- Navigate to ▶

# We appreciate your feedback!

If you have comments about this document, you can [contact the documentation team](#) by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

**Feedback on CloudSystem Chargeback for MOE, 9.40 User Guide**

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to [ovdoc-itsm@hp.com](mailto:ovdoc-itsm@hp.com).