Using the Eucalyptus Dashboard

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Eucalyptus Dashboard Overview

The Eucalyptus Dashboard is web-based interface that allows you to manage your system, identities, and resources. The Dashboard is search-based. This means that any link that appears in the Dashboard is a standardized search query.

The Dashboard provides **Quick Links** for standard administrative actions and queries. These links, located on the left side of the screen, provide a convenient way to navigate through the Dashboard. For example, if you click **All Accounts**, the Dashboard displays the **Accounts** page, listing all accounts in your system. Any property of a link, e.g., an account ID, displays on the right side of the screen as a link.

For more experienced users, the Dashboard provides a robust search engine. You can search for information or tasks quickly by building your own search. Because the Dashboard is search-based, even the **Quick Links** and other returned URLs from searches are themselves searches. Because each link is search, any Dashboard link you bookmark is also a search.

So the Dashboard offers you two ways to get information: by search or by following links. To show the member users of an account, you can click **All Accounts** in quick links, select the account, and then click on the **Member users** link in the **Properties** section. Or, you use the Search box and type: `users:account=<account_name>`.

Signing in to the Eucalyptus Dashboard

This section describes how to sign in to the Eucalyptus Dashboard.

The Eucalyptus Dashboard is web-based interface that allows you to manage your system, identities, and resources.

To sign in to the Dashboard:

1. Open a browser window and go to https://<your_frontend_hostname_or_ipaddress>:8443
   Your browser displays a warning.
2. Ignore the warning for self-signed SSL certificate and continue.
   The Eucalyptus sign-in page displays.
3. Enter your account name in the **Account** field.
   - For system admins, the account name is **eucalyptus**.
4. Enter your user name in the **User** field.
5. Enter your password in the **Password** field.
6. Check the **Stay signed in** box if you want your browser to remember your identity after the browser closes.
7. Click the **Sign in** button.
   The Dashboard **Start Guide** page displays.

You can now use the Dashboard to manage your system, identities, and resources.

Understanding the Eucalyptus Dashboard

This section explains the components of the Dashboard screen.

The Dashboard screen has the following areas:

Header	This area includes the logo, the link to a user profile setting menu, and the big search box.
Footer	This area shows status information, a log button to show a popup log window and the current version of Eucalyptus.
User Profile	The current login user identity displays on the right side of the logo area. It shows the user name and

	the account name of the user identity, in the format of `<user_name>@<account_name>` Click the profile name to display the user profile menu. The menu provides the following functions: • **View/change profile**: Displays the search result of the current user. In the search result page, you can view or change your identity's profile. • **View access key**: Displays the search result of the current user's access key. • **Change password**: Displays a dialog to change password. • **Download new credentials**: Downloads the current user's credential package in `tar.gz`.
Quick Links	The left side of the Dashboard screen contains the **Quick Links** area. This area provides links to various contents of the Dashboard. The **Quick Links** area is organized into sections made up of two levels.The top level is a heading for that section. Under each heading is a second section that contains a list of links. Each link is a search query in the form of the URL. Click a link to return the associated search result. For example, **Your Keys** is a search query of all the access keys belonging to you. You can hide the **Quick Links** area by clicking the arrow of the vertical separator between **Quick Links** and the main content area.
Main Content	The center part of the main screen displays the main content, usually the search result list. In many content displays, the Dashboard displays a toolbar that contains action buttons. The search result list usually has multiple columns, some of which are sortable. Click the title in the column to sort the column display. If the list is too long, the Dashboard partitions the list into multiple pages. By default, each page displays a maximum of 25 rows, but you can configure this number . The bottom of the content area provides the page navigation controls. When you select an item in the main content area, the Dashboard highlights the entire row and displays the **Properties** area. To select multiple items, use the **Ctrl** key for individual items, or the **Shift** key for a continuous block of items.
Properties	The properties area displays the detailed information about a selected search result item.

The properties are displayed in two columns: the property name is on the left, and the property value is on the right.

Working with the **Properties** area:

- The Dashboard displays values of editable properties in a white input box. If you make any changes to value, the Dashboard displays the **Save** button at the bottom. Click this button to save any changed values.
- Some properties are of complex types. For example, the list of member users of an account. In these cases, the property names are displayed in hyperlinks with a magnifying glass icon. These hyperlinks invoke a search query.
- Other properties display an "action" icon. For example, **Password** displays a pencil icon. Click that icon to change the password.
- The Dashboard allows you to customize the displayed information in **Properties**. Click the plus icon to add a new property to the display. Click the minus icon to delete a property from the display.
- Click the **X** next to the **Properties** title to hide the area.

Status

The bar at the bottom of the main screen shows system status messages, log window toggle button and the software version (from left to right).

Logs

Click the **LOG** button on the status bar to pop up the log window. The log window records important dashboard events, especially any operations that modify system states, e.g. adding a new account, etc. The log windows records the latest 1024 log messages.

Using Search

This section details the **Search** function in the Eucalyptus Dashboard.

Experienced users can use search box to get any information provided by the dashboard. The basic syntax of a search is as follows:

```
<type>: <field1>=<value1>,<value2>,...
<field2>=<value1>,<value2>,...
```

The <type> specifies the information type provided by the Dashboard. Currently Eucalyptus supports the following types:

Type Name	Description	Fields
start	Start page	None
config	Service components configuration	None

Type Name	Description	Fields
account	Accounts	**name**, id
group	User groups	**account**, **name**, id, **path**, user
user	Users	**account**, **name**, id, **path**, enabled, registration, group, [custom keys...] • User’s custom keys can be used as fields. • `group` field means the user has membership in that group.
policy	EIAM policies	**account**, **user**, **group**, *name*, id, **version**, **text**
key	Access keys	**account**, **user**, id, active, user
cert	X509 certificates	**account**, **user**, id, revoked, active
image	VM images	None
vmtype	VM types	None
report	Report page	None

Note: In the table, the field names in bold font means that for that field, the query evaluator does a partial match for the value.

The minimal search query contains the type name and a colon. For example, to display the **Start Guide** page, you would enter:

```
start:
```

After the colon, you enter a list of conditions, if any are accepted by the type name. Each condition has a field name and a list of values. The field name and values are separated by an equal sign. There is no space between the field name and value. Separate values with a comma, and don't include a space. Separate multiple conditions with a space.

To evaluate the search query, all conditions must be satisfied. For each condition, only one of the value for the field needs to be matched.For example, to find all users in the accounts whose names contain "testaccount", and whose user names contain "user1" or "user2", and who are enabled, enter the following:

```
user:account=testaccount name=user1,user2 enabled=true
```

After entering a search query in the search box in the header area of the main screen, press the **Enter** key. The search result displays in the content area. The browser URL will also change to reflect the search. Actually, the search query itself is part of the URL (after the pound sign). For example:

```
https://localhost:8443/#account:name=test
```

In fact, you can type a search directly in the URL box of the browser. But remember that the URL itself is URL encoded. This also enables Eucalyptus to construct a search URL and add to any web page.

Managing your System

This section describes the tasks asscociated with managing your system using the Eucalyptus Dashboard.

The **System Management** section of the **Quick Links** area allows you to go to the **Start Guide** or the **Service Components** page.

Managing Identities

Eucalyptus Identity Authorization and Management (EIAM) is an authentication, authorization, and accounting system that manages user identities, enforces access controls over resources, and provides reporting on resource usage as a basis for auditing and managing cloud activities. The user identity organizational model and the scheme of authorizations used to access resources are based on and compatible with the AWS Identity and Access Management (IAM) system, with some Eucalyptus extensions provided that support ease-of-use in a private cloud environment.

EIAM Concepts

This section describes the basic concepts involved with EIAM.

Accounts	Accounts are the primary unit for resource usage accounting. Each account is a separate name space and is identified by its UUID (Universal Unique Identifier).
Account Entities	Account entities are the various elements associated with EIAM accounts on which specific actions are performed — this includes the account itself, users, groups, and resources. Each type of account entity has a unique identifier.
Groups	Groups are used to share resource access authorizations among a set of users within an account. Users can belong to multiple groups.
Permissions	Permissions refer to the allowing or not allowing of access by a user or group to a particular resource.
Policy	Policy refers to a formal statement with respect to the issuing of permissions. Policies can be assigned to either users or groups. Once a policy is assigned, the named entities receive the associated permissions to interact with the resources specified. Eucalyptus uses a JSON policy language.
Resource	A resource is an entity with which AWS/Eucalyptus users interact (e.g., VM images, instances, volumes, etc.). Resources have friendly names (such as TestMachine or TestVolume) as well as an ARN/ERN used to identify resources within the AWS/Eucalyptus policy language.
Users	Users are subsets of accounts and are added to accounts by an appropriately credentialed administrator. While the term ‘user’ typically refers to a specific person, in EIAM, a ‘user’ is defined by a specific set of credentials generated to enable access to a given account. Each set of user credentials is valid for accessing only the account for which they were created. Thus a user only has access to one account within a Eucalyptus system. If an individual person wishes to have access to

more than one account within a Eucalyptus system, a separate set of credentials must be generated (in effect a new ‘user’) for each account (though the same username and password can be used for different accounts).

EIAM Tasks

Details the tasks you can do with the EIAM.

This section provides details about the tasks you perform using EIAM.

Adding an Account

How to add an account.

To add a new account:

1. Click **All Accounts** in the Quick Links section.
   The **Accounts** page displays.
2. Click **New account** in the **Accounts** page.
   The **Create a new account** popup displays.
3. Enter an account name in the **Account name** field and click **OK**.

The new account displays in the list on the **Accounts** page.

Deleting an Account

How to delete an account.

To delete an account:

1. Click **All Accounts** in the Quick Links section.
   The **Accounts** page displays.
2. Click the **ID** of the account you want to delete.
   The account, name, and Registration status are highlighted.
3. Click **Delete accounts**.
   The **Delete selected accounts** popup displays.
4. Verify that the displayed account is the one you want, and click **OK**.

The account no longer displays in the list on the **Accounts** page.

Approving an Account

How to delete an account.

To approve an account:

1. Click **All Accounts** in the Quick Links section.
   The **Accounts** page displays.
2. Click the **ID** of the account you want to delete.
   The account, name, and Registration status are highlighted.
3. Click **Approve**.
   The **Approve selected accounts** popup displays.
4. Verify that the displayed account is the one you want, and click **OK**.

The account's registration status displays as **CONFIRMED** on the **Accounts** page.

Rejecting an Account

How to reject an account.

To reject an account:

1. Click **All Accounts** in the Quick Links section.
   The **Accounts** page displays.
2. Click the **ID** of the account you want to delete.
   The account, name, and Registration status are highlighted.
3. Click **Reject**.
   The **Reject selected accounts** popup displays.
4. Verify that the displayed account is the one you want, and click **OK**.

The account's registration status displays as **???** on the **Accounts** page.

Adding a Policy

How to add a policy.

To add a policy:

1. Click **All Accounts** in the Quick Links section.
   The **Accounts** page displays.
2. Click the **ID** of the account you want to add a policy to.
   The account, name, and Registration status are highlighted.
3. Click **Add policy**.
   The **Add new policy** popup displays.
4. Enter the policy name in the **Policy name** field.
5. Enter the policy content in the **Policy content** field.
6. Click **OK**.

???Result???

Adding a Group

How to add a group.

To add a new group:

1. Click **All Accounts** in the Quick Links section.
   The **Accounts** page displays.
2. Click the **ID** of the account you want to add a group to.
   The account, name, and Registration status are highlighted.
3. Click **New groups** in the **Accounts** page.
   The **Create new groups** popup displays.
4. Enter the group name in the **Group name** field.
5. Enter the group path in the **Group path** field.
6. Click **OK**.

The group is associated with the account you chose. You can see the information if you select the account in the **Accounts** page and click the **Member groups** link, located in the **Properties** section of the screen.

Managing Resources

This section describes the Eucalyptus resources available and how to manage them.

Images	Show list of images current login user can access.
VM Types	View/change the VM type definitions.

Generating Reports

Eucalyptus tracks resource usage and generates reports based on criteria you choose:

- Instance number
- Instance types
- Instance running times
- Network IO usage per instance
- Disk IO usage per instance
- S3 Storage (maximum amount and GB-Hours)
- EBS storage (maximum amount and GB-Hours)

Reports are broken down by any criterion you choose. For example, you could generate a report of S3 Storage, broken down by user, or by availability zone, or by any criterion you choose. As follows:

Additionally, you can generate nested reports. Nested reports have two criteria selected, whereby usage is broken down by one criterion, then broken down further by a second criterion. The result is a nested report. For example, you could generate a report of EBS storage usage, broken down by Availability Zone, and further broken down by user. As follows:

Eucalyptus is constantly sampling resource usage of instances, S3, and EBS, and storing this historical information for subsequent report generation. Eucalyptus...

Because Eucalyptus uses statistical sampling to generate its results, usage times are not always exact. For example, you could start an instance in between sampling periods, then let the instance run for exactly one sampling period (20 minutes by default), then destroy that instance. In this case, Eucalyptus can’t determine how much of the resource usage occurred in each of the two periods, and so assigns usage to specific periods based upon a rule. The total usage will be correct but the times can be off slightly.

Generating Usage Reports

This section shows you how to generate usage reports using the Eucalyptus Dashboard.

Context for the current task

1. In the Dashboard, click **Usage Report** in the **Quick Links** section.
   The **Usage Report** page displays.
2. In the **Start date** field, select the date to start
3. Click the **Generate** button.

The usage report displays, reflecting your choices in the report.

Customizing the Dashboard

This section describes how to change the logo image and logo text.

There are two Dashboard customization mechanisms:

- You can replace the default logo image with your own image by changing the `$EUCALYPTUS/var/run/eucalyptus/webapp/themes/eucalyptus/logo.png`.
- You replace the logo title and other text values by opening the `$EUCALYPTUS/etc/eucalyptus/cloud.d/eucalyptus-web.properties`.
  - logo-title: the logo title.
  - logo-subtitle: the logo subtitle
  - search-result-page-size: page size for search results