HCLSoftware

HCL **DRYiCE**
MyCloud

User Guide

Version 10.8.1

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Document Revision History

This guide is updated with each release of the product or when necessary.

This table provides the revision history of this User Guide.

Version Date	Description
May, 2020	DRYiCE MyCloud v9.2 User Guide
August, 2020	DRYiCE MyCloud v10.0 User Guide
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February, 2021	DRYiCE MyCloud v10.2 User Guide
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April, 2024	HCL_DRYiCE_MyCloud_10.8_User_Guide
September, 2024	HCL_DRYiCE_MyCloud_10.8.1_User_Guide

1   Preface

This section provides information about the MyCloud User Guide and includes the following topics.

- – [Intended Audience](#)

- – [About This Guide](#)

- – [Related Documents](#)

- – [Conventions](#)

1.1   Intended Audience

This document is primarily for users like Operations Manager, Application Test Leads/ Test Leads, Delivery Heads etc. who provision infrastructure resources, request approvals and consume other MyCloud services.

1.2   About This Guide

This guide provides instructions to use and consume MyCloud services. This includes the post-configuration procedures for the product.

1.3   Related Documents

The following documents can be referenced in addition to this guide for further information on MyCloud.

- – [MyCloud Introduction Guide](#)

- – [MyCloud Installation Guide](#)

- – [MyCloud Configuration Guide – Admin Module](#)

- – [DRYiCE MyCloud Configuration Guide – Provider Module – Part 1](#)

- – [DRYiCE MyCloud Configuration Guide – Provider Module – Part 2](#)

- – [MyCloud Troubleshooting Guide](#)

- – [MyCloud Developer Guide](#)

- – [MyCloud API Guide](#)

- – [MyCloud V3 API Guide](#)

1.4   Conventions

The following typographic conventions are used in this document:

Table 1 – Conventions

Convention	Element
Boldface	Indicates graphical user interface elements associated with an action, or terms defined in text or the glossary
Underlined blue	Indicates a cross-reference and links
Courier New (Font)	Indicates commands within a paragraph, URLs, code in examples, and paths including on screen text and text input from users
Italic	Indicates document titles, occasional emphasis, or glossary terms
Numbered lists	Indicates steps in a procedure to be followed in a sequence
Bulleted lists	Indicates a list of items that is not necessarily meant to be followed in a sequence

2   MyCloud Overview

DRYiCE MyCloud is a hybrid cloud management product that empowers organizations to optimally govern, provision, monitor, and manage cloud infrastructure. It combines data exploration and data visualization in an easy-to-use product that enables effective analysis and generates actionable insights for IaaS, PaaS resources and multi-machine blueprints. DRYiCE MyCloud's data-driven recommendations and advisories ensure continuous optimization of enterprise cloud environments across areas, including cost, performance, security, and utilization.

2.1   MyCloud Roles

This below table highlights the various roles that are available in MyCloud.

Table 2 – MyCloud Roles and Responsibilities

Role	Description
MyCloud Admin	MyCloud admin has the rights to manage providers, admin level jobs and other component related configurations
Provider	A provider has the rights to manage Jobs, Organizations, Approval & Process workflows, master activities and integrate the subscriptions (vCenter, Hyper V, public cloud subscriptions).
Organization Admin	An organization admin has the rights to manage the users, roles, and groups assigned to them (organization-specific)
Requester	A requester has the rights to request for Infrastructure resources (IaaS & PaaS services) view or manage reports related to the resources.
Approver	An approver has the rights to approve the requests raised by the requesters.

> Refer to **MyCloud Configuration Guide** for more information about MyCloud Admin and Provider Admin.

2.2   MyCloud Features

– **Self Service Catalog based Provisioning and Auto-decommissioning**

Self Service Catalog based Provisioning & Auto-decommissioning– Provisioning of IaaS, PaaS, and multi-machine blueprints in a multi-cloud environment, through an intuitive self-service catalog and auto-decommissioning post a defined interval to avoid cost leakages.

– **Metering & Showback**

Track utilization of resources across BUs, enabling transparency and visibility

– **Advisory & Recommendation**

Proactive recommendations around Cost Optimization, Fault Tolerance, Performance and Security

- **Dynamic User Interface**

  Flexibility to customize the service request form templates to capture configuration parameters while placing provisioning requests.

- **Dynamic Process Workflows**

  Enables automation of generic & custom tasks like installing agents, machine cloning etc. with support for parallel execution.

- **Script Library**

  Create new or leverage out-of-the-box scripts in process workflows across environments.

- **Forecasting & RI Recommendation**

  Enables cost optimization and resource utilization by analyzing the past usage patterns & recommending the most optimal resource types on AWS and Azure.

- **Role Based Access Control**

  Manage user privileges based on their roles, eligibility and policies

- **Policy driven Orchestration**

  Be in control of your cloud orchestration ecosystem aligned to your organizational policies.

- **Rich Integration Ecosystem**

  Enables integration with industry leading third party tools through REST APIs and CLI

- **Enterprise-Grade Security**

  Ensure security of end-to-end cloud management and orchestration ecosystem through various mechanisms.

2.3   MyCloud Benefits

- **Reduce Costs**
  - Higher cost savings through Process standardization & Automation
  - Provide visibility of usage of virtual assets & cost obligations to key custodians
  - Optimize virtual asset utilization to avoid cost leakages

- **Mitigate Risks**
  - Improve Performance, Fault Tolerance and Compliance of systems and services through proactive advisories.
  - Transform the process from Human driven to Automation driven and eliminate human error from the equation.
  - Mitigate security related risks based on system driven suggestions

- **Drive Efficiency**
  - Reduce VM provisioning cycle by up to 85%
  - Achieve up to 50% faster deployment of services through automation

3   Consuming MyCloud Services

3.1   MyCloud Modules

This section highlights the different modules of MyCloud that serve unique and separate business operations like an end user initiating a service request, status reports of infrastructure resources, approving the service requests and many more.

Table 3 – MyCloud Modules

Module Name	Description	Access to this module
Organization Module	Organization admin manages users and view reports related to this module.	Organization Admin
Requester Module	For end-users who consume MyCloud services like provisioning/ decommissioning VMs, viewing reports and many more.	Requestor
Approver Module	Users who have the right to approve various service requests initiated by Requester users in MyCloud.	Business Approver Technical Approver
Cloud Advisory	This module highlights Advisory & recommendation reports of the Public Cloud environment (AWS and Azure) that are based on, Cost Optimization Fault Tolerance Security Advisory Performance Optimization	Technical Approver
My Reports	Different types of reports (Top Bottom Nodes, Request Tracking, My Bills and many more) are accessed in MyCloud through this module.	Organization Admin, Requester User, Technical Approver, and Business Approver

3.1.1   Organization Module

This module describes how an organization admin manages the users and view reports related to requests generated by users.

3.1.1.1   Accessing MyCloud

First, get the URL and user credentials for DRYiCE MyCloud.

Reach out to the person who has configured MyCloud or drop an email to MyCloud-Product-Supp@hcl.com

1. Launch the web browser (Chrome, Mozilla, or Edge) and use the **MyCloud URL** and user credentials to login.
2. Enter the **Email ID**.
3. Click **Next**.
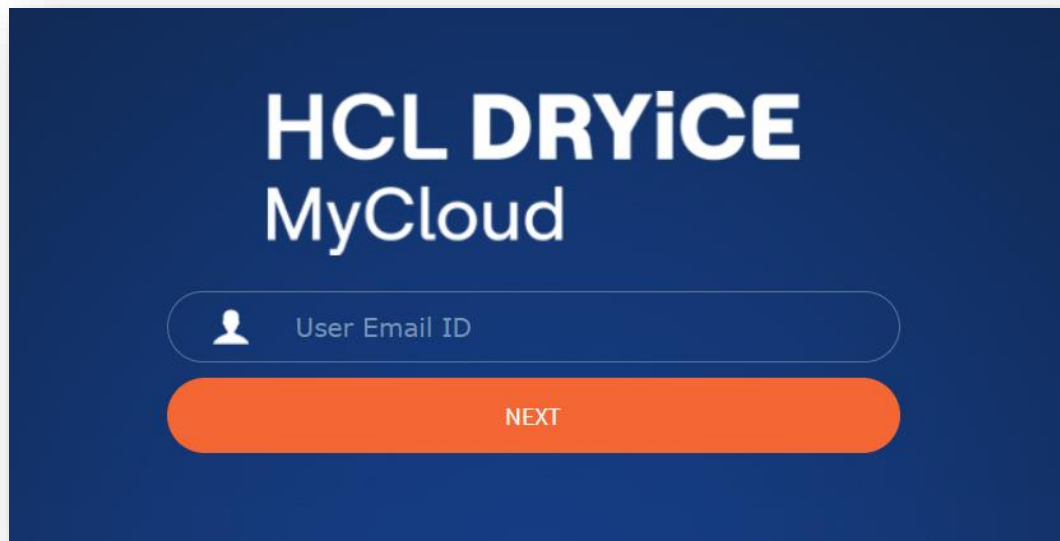
Figure 1 - MyCloud Login Page

4. Enter **Password.**

Change the password frequently, at least once a month, to keep hackers out of the system. When the application is not being used, then log off for security purposes.

5. Select the **Authentication Type**. The following authentication types are available for login:

Table 4 – Authentication Type

Authentication Type	Description
Form Based	Authenticates the user through the credentials which are stored in the database
LDAP	Authenticates the user through Active Directory (AD) credentials
SAML Based Authentication	Authenticate the user through the third- party Identity Access Management (IAM) which supports SAML based authentication

If there are no login credentials, then drop an email to MyCloud-Product-Supp@hcl.com.

If the login type is Form Based, no domain selection is required.

If the login type is **LDAP**, domain credentials need to be entered with domain selection.

If the login type is **SAML**, the user gets re-directed to the authentication page.

Figure 2 – MyCloud Login Page (Cont.)

6. Click **Login**.

7. On a successful login, MyCloud homepage appears as shown below.
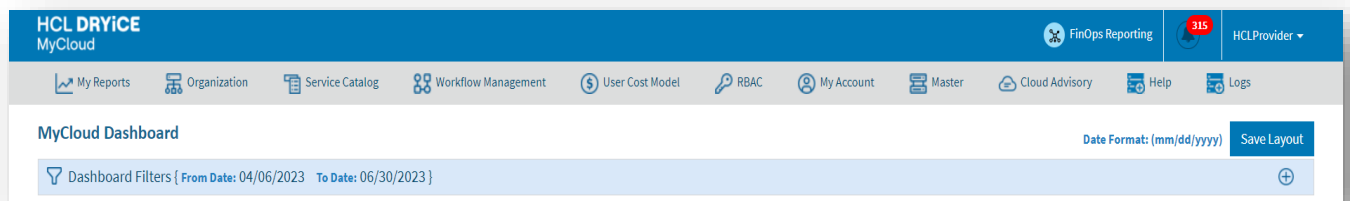
Figure 3 – MyCloud Homepage

Admin user can change the appearance of the MyCloud Web/Reports to meet Customer-specific branding by changing the logo.

For Forgot Password and changed password functionality please refer to provider Configuration guide –Provider Module Part-1.

The Organizational Module contains the following options:

- RBAC

- My Reports

- My Account

- Help

3.1.1.1.1   RBAC (Role Based Access Control)

Role-Based Access Control (RBAC) is an essential component of MyCloud. This module details the steps to manage the RBAC model within an environment to implement several critical securities such as least privilege, separation of duties, and data abstraction.

This module includes two kinds of Role Management: Manage Group and Manage User. Different users of this platform or with service providers, get permissions to access resources, and these permissions are given based on mapping of the users to system-based groups.

1. On the main menu bar, click **RBAC**.
2. The drop-down appears with the following options:
   - Manage Group
   - Manage User
   - Role Management
   - Transfer Object Ownership
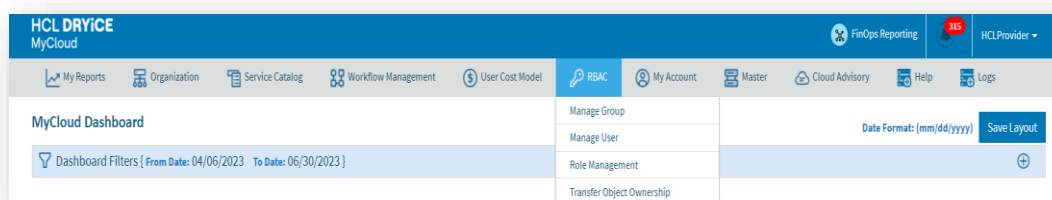
Figure 4 – RBAC

Provider gets to access both the **Manage user** and **Manage group** sections.

3.1.1.1.1.1   Manage User

Through this module, the organization admin manages (Add, Edit and Delete) other users in an organization. It has the following options:

- Add Users
- Upload Users
- View users

3.1.1.1.1.1.1   Add User

To add an end user in an organization, organization admin needs to follow the steps below:

1. Click on the **Manage User** screen and then click **Add User**.

Figure 5 – Add User

2. Refer the below table to understand the fields mentioned in the above figure.

Table 5 – Add User Fields

Fields	Description
API user	User for API integration with MyCloud
Organizational user	User for request and manage resources
Organization	Select the name of the organization (Business units/ divisions in organizations)
User Name	This field contains the UserName of the user
User Id	This field contains the User Id of the user
Email	This field contains the Email of the user
Active	This field is used to mark the user as Active (Checked)/Inactive (Unchecked)
Password	This field gets populated with MyCloud generated password
Generate password	The option that helps to generate a password in MyCloud
Role	Provider needs to provide a role to a user while adding it in MyCloud
Select widget	MyCloud dashboard widgets are listed. System defined widgets appear

3. Select Organization.

4. Select **User Type.** MyCloud supports two types of users:

    • API User – Has access to MyCloud APIs and used for integration with MyCloud.

    • Organizational user – Has access to MyCloud web portal and used to request services.

5. Enter the **UserName** and then enter the **User ID.**

6. Enter **Email ID.**

7. Click **Generate Password** to generate a new password.

8. Select **Role.**

9. Once the role is selected, the widgets appear in the **Widget** box.

10. Select **Widget.**

11. Provider selects the widgets according to the roles which are to be assigned to an end user.

12. Click **Save.**

Figure 6 – Add User (Cont.)

All the fields marked with an asterisk (*) are mandatory.

13. A success message box appears.

Figure 7 – Add User (Cont.)

3.1.1.1.1.1.2   View Users

This section lists all the provider users that have been created by an organization admin.
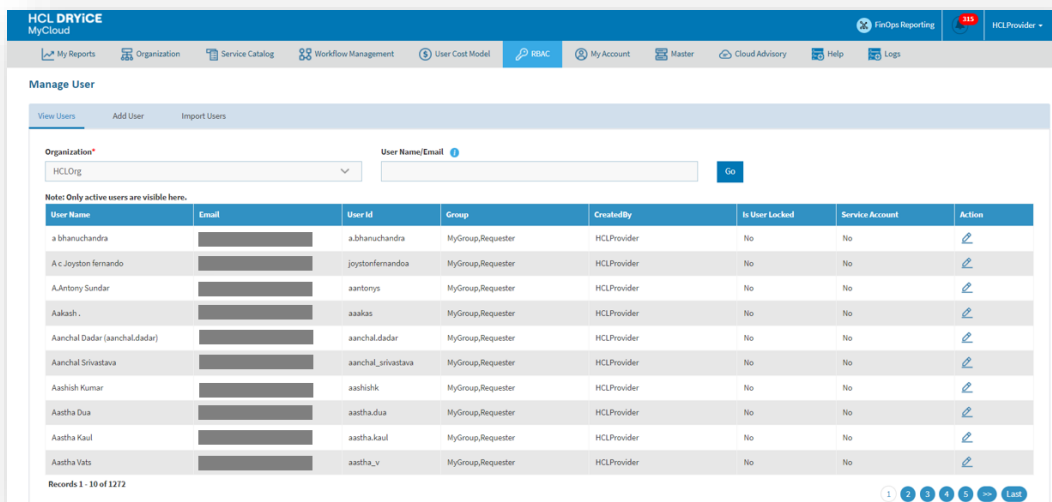
Figure 8 – View Users

Refer the below table to understand the fields mentioned in the above figure.

Table 6 – View Users Field

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
User Name/Email	Enter UserName or Email to filter the Gird Data
UserName	Displays the username of the user that has been added
Email	Displays the email of the user that has been added
User Id	Displays the user id of the user that has been added
Group	Displays the group name the user belongs to
Created By	Displays the name of the user, who has created the specific user.
Is User Locked	Displays whether the user has been locked by MyCloud, post multiple failed login attempts
APIUser	Displays whether user is API user who can access API's of MyCloud or other users who has access MyCloud Portal.
Action	User to take actions like Edit against the listed users

You can modify the details of existing providers by clicking on the Edit icon 📝 .

To edit/modify user details, organization admin needs to follow the steps below:

1.   On the **Manage User** screen, click **View Users**.
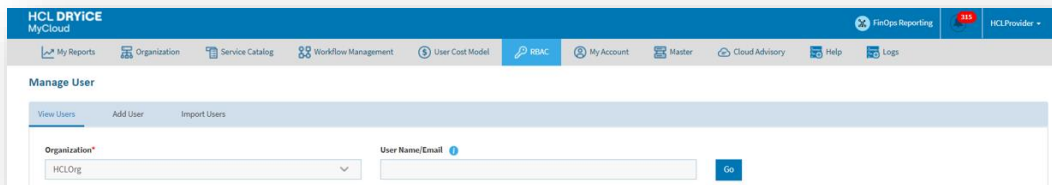
Figure 9 – Edit Users

2. Select an organization and then click **Go.**

3. Available users appear in a tabular view.

4. Click Edit (✎) icon.

5. Modify the details as desired and click **Update**.
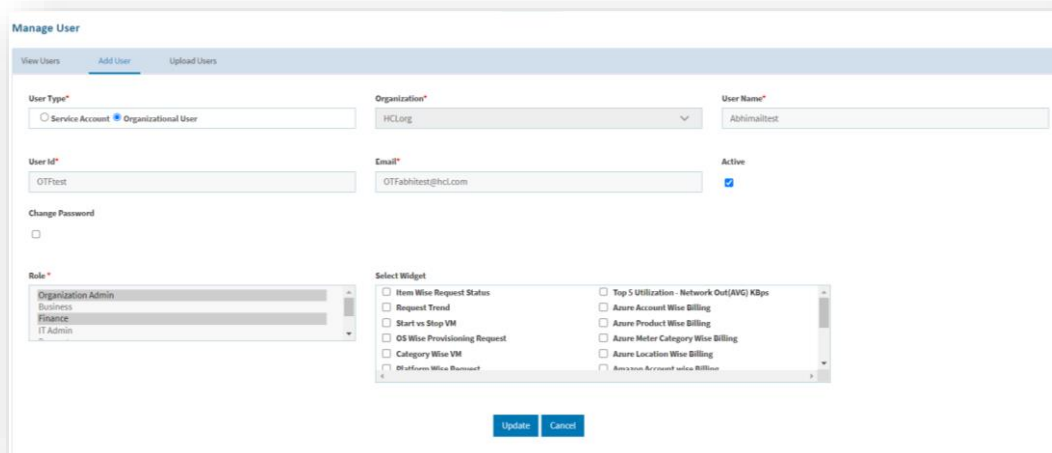
Figure 10 – Edit User (Cont.)

6. A success message box appears.
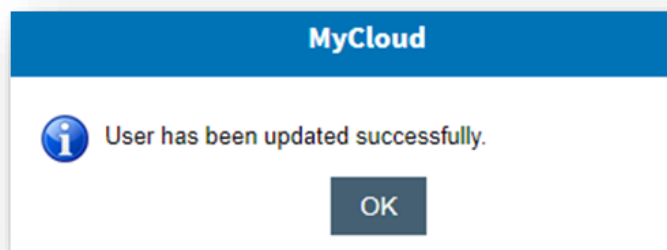
Figure 11 – User Updated Successfully

3.1.1.1.1.1.4   Upload Users

To upload end-users in an organization, organization admin needs to follow the steps below:

1. On the Upload Users tab, select the Organization Name.

2. Click **Choose File** to select the csv file that has the user details.

3. Click on Upload File.
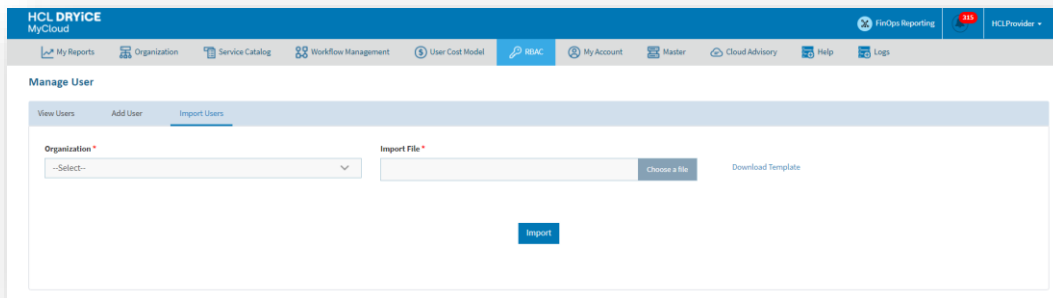
Figure 12 – Upload User

4. A success message box appears.
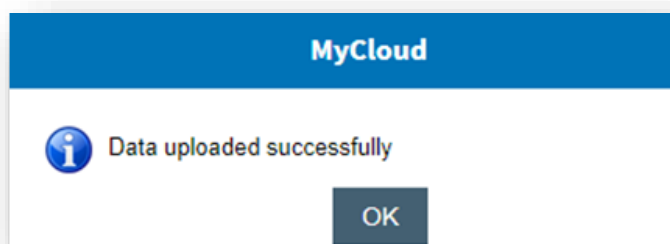
Figure 13 – Delete User Confirmation

To download the CSV template for users, click on **Download Template Hyperlink**.

3.1.1.1.1.2 Manage Group

To create a system group in an organization and map users to it, Organization Admin needs to follow the below steps:

1. On the main menu bar, click **RBAC,** and then click **Manage Group.**
2. The **Manage Group** screen appears, and it lists down the available groups in a tabular view that helps to see available groups and map users/ assign group user and assign actions to them.

Figure 14 – Group Management

3. Refer the below table to understand the fields mentioned in the above figure.

Table 7 – Group Management Fields

Fields	Description
Group ID	The ID that has been generated by MyCloud engine
Group Name	Displays the name of the group
Organization Name	Displays the name of the organization
Map Group To	Associated the Group with AD Groups or Add Users in the group
System Group	This field represents the group is System group or User created group
Action	User to take actions like Edit, Change Status (active or Inactive) ,Delete and Add tagging against the listed groups

3.1.1.1.1.2.1 Add Group

To add a group, organization admin needs to follow the below steps:

1. On the **Manage Group** screen, click **Add Group** tab.

Figure 15 – Add Group

2. Refer the below table to understand the fields mentioned in the above figure.

Fields	Description
Name	Unique Name of the group.
Organization Name	Select organization under which group needs to be created.

3. Click on Add Button.

4. A success message box appears.
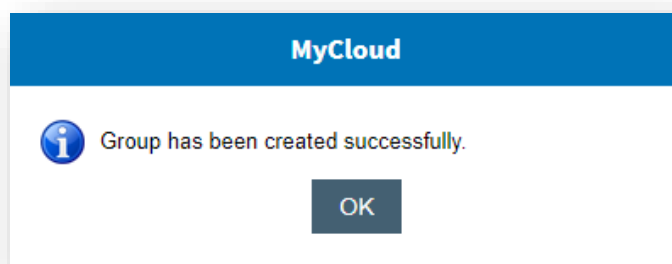
Figure 16 – Add Group (Cont.)

A new group is added and listed in the table.

Action like edit and delete can only be performed when the **MyCloud System Group** is **NO**.

3.1.1.1.1.2.2 RBAC/AD Group

To map a group, organization admin needs to follow the below steps:

1. On the **Manage Group** screen, click **RBAC/AD Group** link corresponding to the group to be mapped.

Figure 17 – View Groups

2. A pop-up window prompts to map the AD group to the selected RBAC group.

3. Enter **AD Group Name** or **AD Group Email ID** and then select the required **Role** i.e. Group to the RBAC group.

4. Click **Search** and available AD groups appear in the **Available Groups box**.

5. Select **AD groups** and then click (⏩)on to move selected AD groups to **Selected RBAC** groups box or vice versa, to unselect the AD groups from an RBAC group.
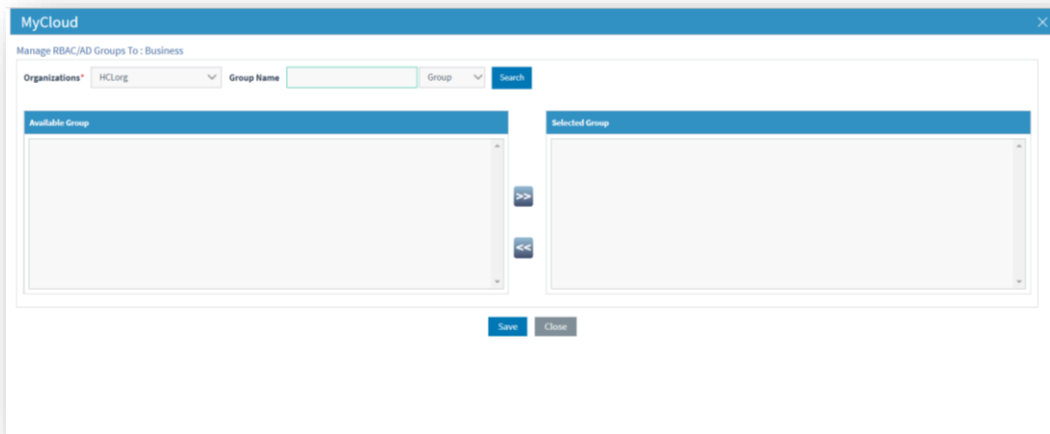
Figure 18 – Add Groups (Cont.)

All the fields marked with an asterisk (*) are mandatory.

6. Click **Save**.

7. A success message box appears.
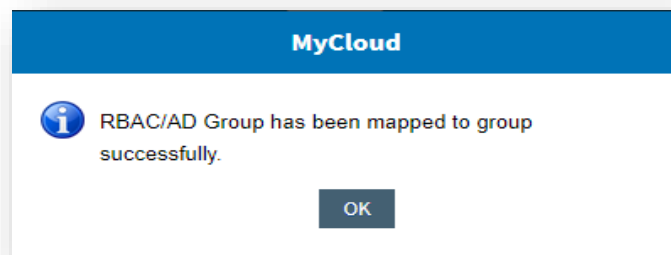
Figure 19 - Confirmation Message

3.1.1.1.1.2.3   Add User

To assign a user or multiple users to a group, organization admin needs to follow the steps below:

1. On the **Manage Group** screen, click **Add User** against the selected group.

Figure 20 – Map User

2. A pop-up window prompts to map a user to the selected group.

3. Select Organization.

4. Enter the **Email/Group Name.**

5. Click **Search** and available users appear in the **Available User** box.

6. Select **Users** and then click on [>>] to move selected users to **Selected Users** box or vice-versa, to unselect the users from a group.

7. Click **Save.**
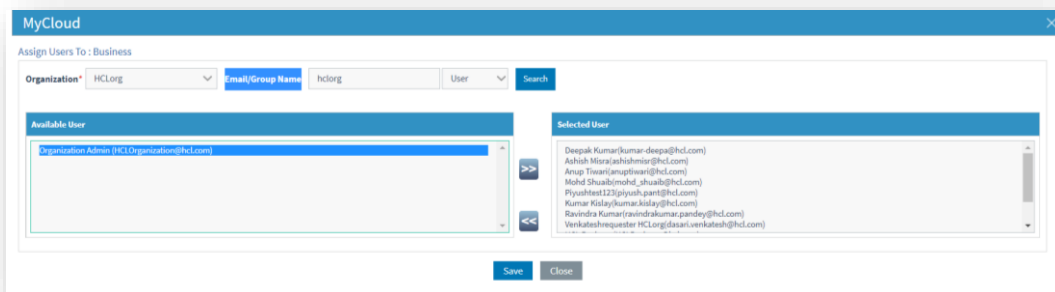
Figure 21 – Map User (Cont.)

All the fields marked with asterisk (*) are mandatory.

8. Click **Save.**

9. A success message box appears.
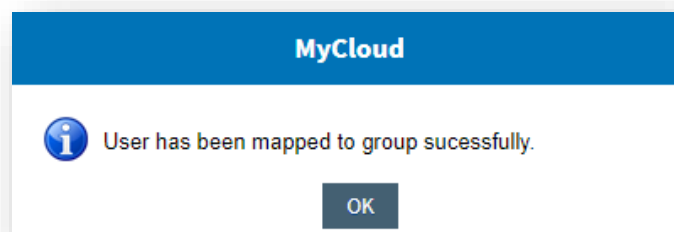
Figure 22 – Confirmation Message

3.1.1.1.1.2.4 Add Role

To assign a role or multiple roles to a group, organization admin needs to follow the steps below:

1. On the **Manage Group** screen, click **Add Role** link corresponding to the **System Group** with the value 'No'.

Figure 23 – Map Role

2. A pop-up window prompts to map a user to the selected group.

3. Select **Roles from Available Role** and then click on [>>] to move selected roles to **Selected Role** box or vice-versa, to unselect the users from a group.

4. Click **Save.**
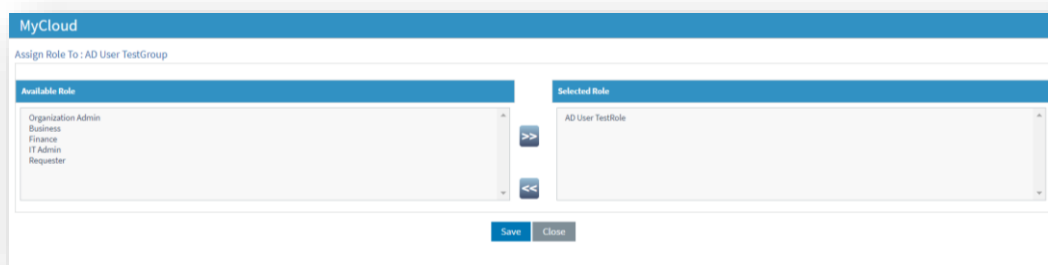
Figure 24 – Map Role (Cont.)

All the fields marked with asterisk (*) are mandatory.

5. Click **Save.**

6. A success message box appears.
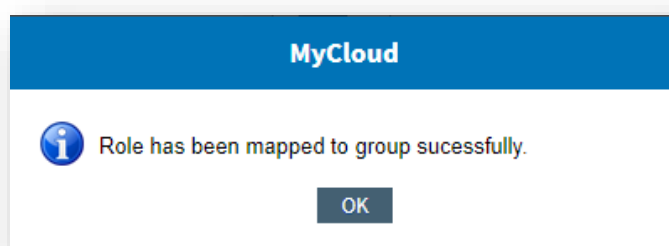
Figure 25 – Confirmation Message

3.1.1.1.1.2.5   Add Tags

Tags will be helpful to distinguish resources between Groups. To add tags on group, organization admin needs to follow the steps below:

1. On the **Manage Group** screen, click **on icon** [icon] against the selected group.
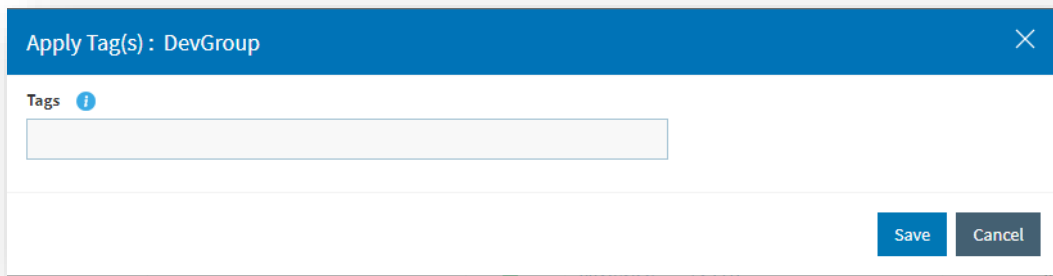
Figure 26-Add Tag

2. Enter **Tag**(s) with help of comma and enter key.

3. Click **Save.**

4. A success message box appears.
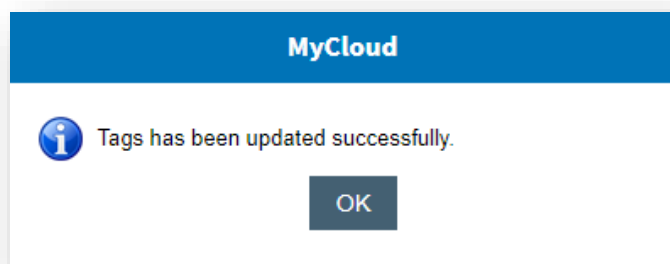
Figure 27 –Confirmation Message

3.1.1.1.1.3   Role Management

Through this module, Organization admin user can manage roles in an organization through below steps:

1. On the Main Menu bar, click **RBAC** and then click **Role Management**.

2. The **Role Management** screen appears, and it lists down the available roles in a tabular view that helps to see available roles and add new roles and assign actions to them.

Figure 28 – Role Management

3. Refer the below table to understand the fields mentioned in the above figure.

Table 9 – Role Management

Fields	Description
Role Name	This indicated the Name of the Role
Power User	This field indicates whether the Role is of Power users or not.
Parent Role	This field indicates the MyCloud System created Role that will act as a Parent Role for the Newly added User-Created role.
MyCloud System Role	This field represents the role is MyCloud System Role or User-Created role
Action	User to take actions like Edit, Delete, Configure Menu, Configure Widgets against the listed role.

Power User - Power users will be able to see request and object belongs to another user in same role.

It also consists of the following actions:

- Add Role: To add a role in organization

- Edit Role: To update an existing roles

- Delete Role: To delete an existing role

- Configure Widgets: To manage Dashboard widget assigned to role

- Configure Menu: To manage Menu assigned to role

3.1.1.1.1.3.1   Add Role

To add a role, organization admin needs to follow the below steps:

1. On the **Role Management** screen, click Add **Role** tab.

Figure 29 – Add Role Screen

2. Refer the below table to understand the fields mentioned in the above figure:

Table 10 – Add Role

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
Role Name	This field contains the Name of the new Role.
Parent Role	This field contains the MyCloud System Role.
Power User	This field indicates whether the Role is of Power users or not.

3. Select Organization.

4. Enter Role Name.

5. Select Parent Role and Power User.

6. Click on **Save**.

Figure 30 – Confirmation Message

A new role is added and listed in the table.

Action like edit and delete can only be performed when the **MyCloud System Role** is **NO**.

3.1.1.1.1.3.2   Edit Role

To Edit/ Modify the information of an existing Role, Organization user needs to follow the below steps:

1. On the Role Management screen, click **View Role**.

Figure 31 – Edit Role

2. Select Organization.

3. Click **Go.**

4. Available Role list is shown in a tabular view.

5. Click **Edit** ( ) corresponding to the Role to be edited.

6. Modify the details as required and click **Save**.

Figure 32 – Edit Role (Cont.)

7. A success message box appears.
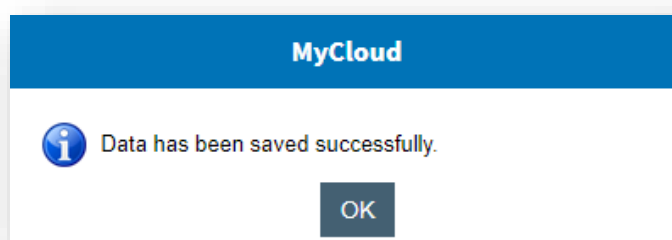
Figure 33 – Role Added Successfully

3.1.1.1.1.3.3 Delete Role

To delete an existing Role, Organization user needs to follow the below steps:

1. On the Role Management screen, click View Role.

Figure 34 – Delete Role

2. Select Organization.

3. Click **Go.**

4. Available Role list will be shown in a tabular view.

5. Click **Delete** (🗑) corresponding to the Role to be deleted.

6. A confirmation message appears.
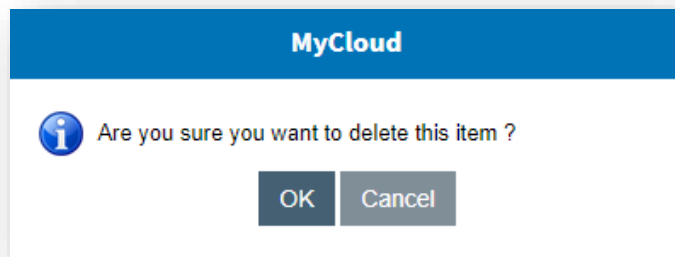
Figure 35 - Delete Role (Cont.)

7.   Click **OK** to confirm. A success message appears.
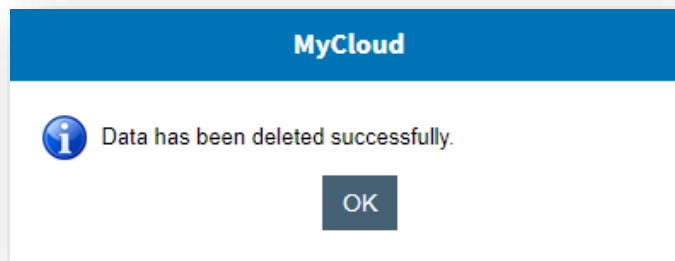
Figure 36 - Delete Role Successfully

Configure Widgets

To configure the widgets in existing Role, Organization user needs to follow the below steps:

1.   On the Role Management screen, click View Role.
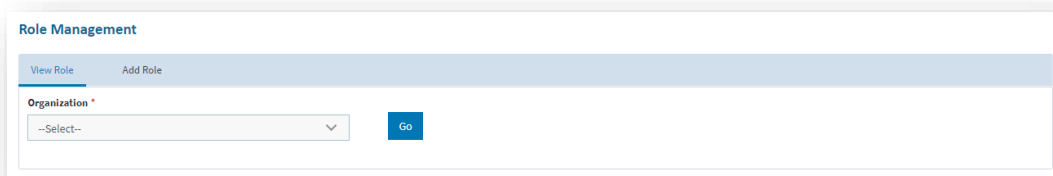
Figure 37 – Configure Widget

2.   Select Organization.

3.   Click **Go.**

4.   Available Role list will be shown in a tabular view.

5.   Click **Configure Widgets** ( ) against the Role.

6.   A popup window will appear.

7.   If configuration of widgets has been done earlier, then all the widgets associated with the Parent Role will be shown as checked.
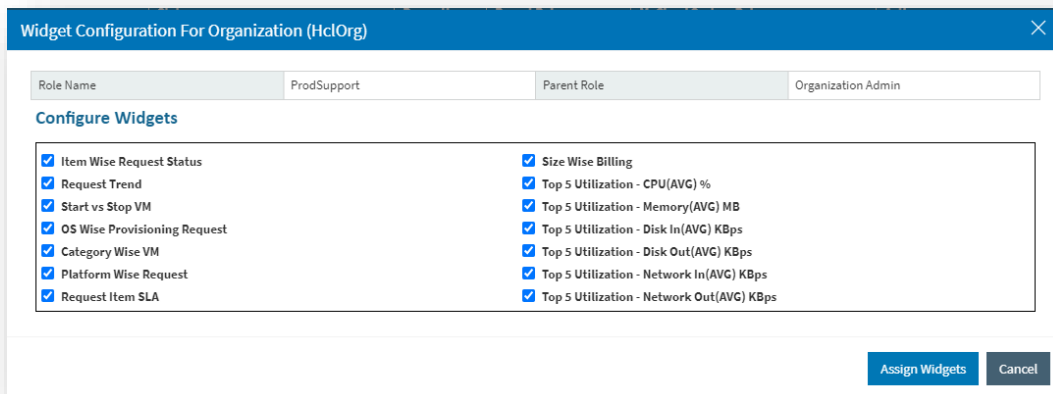
Figure 38 – Configure Widgets (Cont.)

8. Select/Unselect the Widgets as per widgets assignation. Click on **Assign Widgets.**
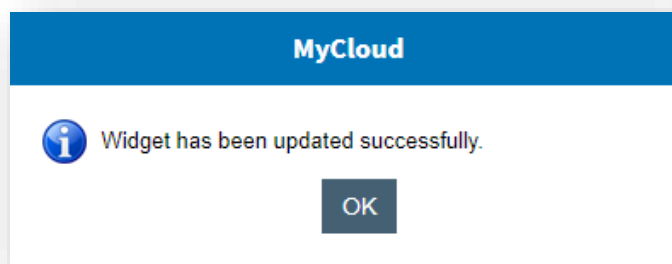
Figure 39 – Configure Widgets (Cont.)

3.1.1.1.1.3.5   Configure Menu

To configure the menus in existing Role, Organization user needs to follow the below steps:

1. On the Role Management screen, click View Role.
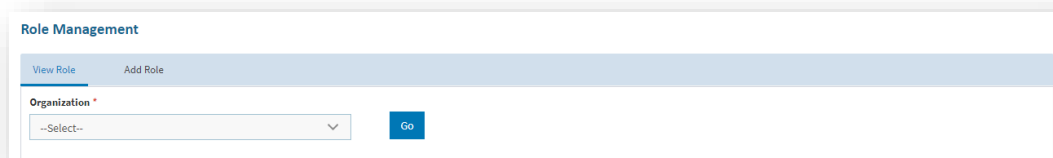
Figure 40 – Configure Menu

2. Select Organization.

3. Click **Go.**

4. Available Role list will be shown in a tabular view.

5. Click **Manage Menus** ( ) against the Role.

6. A popup window will appear.

7. If configuration of menu has been done earlier, then all the menus associated with the Parent Role will be shown as checked.

Figure 41 - Configure Menu (Cont.)

8. Select/Unselect the Menu Item as per menu assignation. Click on **Assign Menu.**
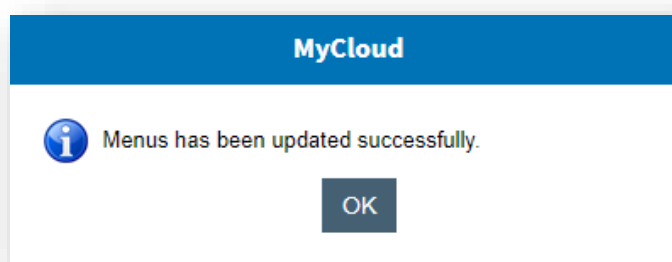
Figure 42 - Configure Menu (Cont.)

3.1.1.1.1.4   Transfer Object Ownership

To transfer the ownership of an Object from One requester to another, Organization Admin needs to follow the below steps:

1. On the main menu bar, click **RBAC,** and then click **Transfer Object Ownership.**
2. The Transfer Object Ownership screen appears.
3. Select filter parameters to see the list of available **Objects**.

Figure 43 – Transfer Object Ownership

4. Refer the below table to understand the fields mentioned in the above figure.

Table 11 – Transfer Object Ownership Field

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
Platform	The field lists down the cloud service provider.
Provisioning Endpoint	Displays the name of the environment (cloud endpoint)
Object Type	Name of the infrastructure resource.
Object ID	Object Id, Unique Id of the object
Requester Name	Name of the person who has created the request.
User Email	Email of the person who has created the request.
Lease Period	The lease period for which a resource is required.
Action	User to take actions like Transfer Object Ownership for Single Object

5. To transfer the ownership of an object, organization admin needs to select the objects by clicking the checkboxes (☐) corresponding to the **ObjectID** and then click on "**Transfer Object Ownership**" button or click (🖼) icon against an object. User can select multiple objects using the checkboxes.

6. A pop-up window will open. Enter the user in **Object Transferred To*** input field.

Select Owner to transfer Object ✕

Object Transferred To*

prodrequester@hcl.com

Save   Cancel
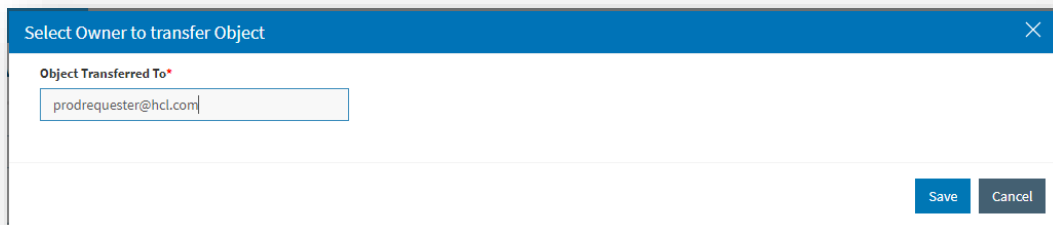
Figure 44 – Transfer Object Ownership (Cont.)

7. Click on **Save**. "Ownership changed successfully" message will appear.

8. Click **OK.**

9. The new requester will be updated in the Grid.
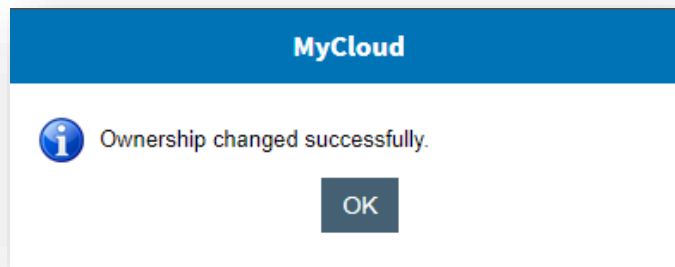
Figure 45 – Transfer Object Ownership (Cont.)

3.1.1.1.2   My Reports

This section highlights the reports that are accessed by Organization Admin.

- Metering

- Top Bottom Nodes

- Request Tracking

- Finance Report

3.1.1.1.3   My Account

This section explains the steps required to manage an account for a login user.

1. On the main menu bar, click **My Account**.
2. The drop-down appears with the following options:
   - My Schedules
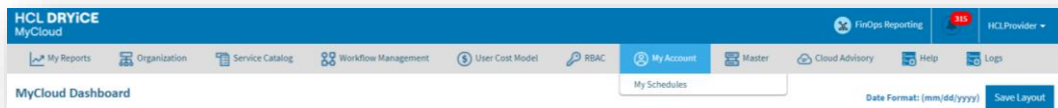
Figure 46 - My Account

3.1.1.1.3.1   My Schedules

Through this module, the user can schedule Action(s) on object(s) in an organization. Pre-requisites of using My Schedules:

- Organization should have "Action Scheduling Enabled" in the Organization Module.
- At least one Action should be active for respective object.
- UI associated with Action should not have Approval associated with it.
- Controls used in UI should be Textbox and Hidden Controls Only.

It has the following options:

- View Schedules
- Create Schedules
- Schedule History

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Figure 47 - My Schedules

3.1.1.1.3.2 Create Schedules

To create a schedule of an Action in an organization, login user needs to follow the steps below:

1. Click on **My Schedules** menu option and then click **Create Schedule**.

Figure 48 – Create Schedule

2. Refer the below table to understand the fields mentioned in the above figure.

Table 12 – Create Schedule Fields

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
Platform	The field lists down the cloud service provider.
Provisioning Endpoint	Displays the name of the environment (cloud endpoint)
Object Type	Name of the infrastructure resource.
Action	Displays the list of Action(s) associated to Object.
Name	This unique name of Schedule Action.
Description	Description of Schedule Action.
Time Zone	This field represents the Time Zone of Start Time.
Start Time	The field represents when to start/schedule the Action.
Frequency	Interval at which the Action can be schedules
Action Parameter(s)	List of Parameters depends on selected Action

3. Select Organization.

4. Select Platform and Provisioning Endpoint.

5. Select Object Type.

6. Select **Action**.

7. Enter the **Name** and **Description** of Schedule.

8. Select Time Zone and Start Time.

9. Select **Frequency**.

10. Now **Map the Parameters of Action.** Parameter Data Type supports two types:

    - Static – User can provide the Static value of a control.

    - SQL Function – SQL function can be used to find the dynamic value of a control.

11. Click **Save**.

Figure 49 – Create Schedule (Cont.)

All the fields marked with an asterisk (*) are mandatory.

12. A success message box appears.
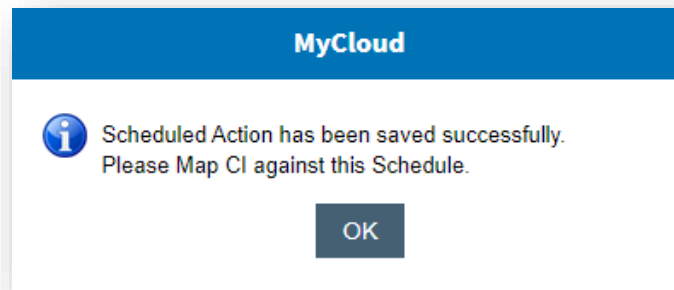
Figure 50- Create Schedule (Cont.)

13. Now click **Ok**. A Popup will open containing the relevant Object(s).

14. You can select the appropriate Object(s), on which Action needs to be scheduled.
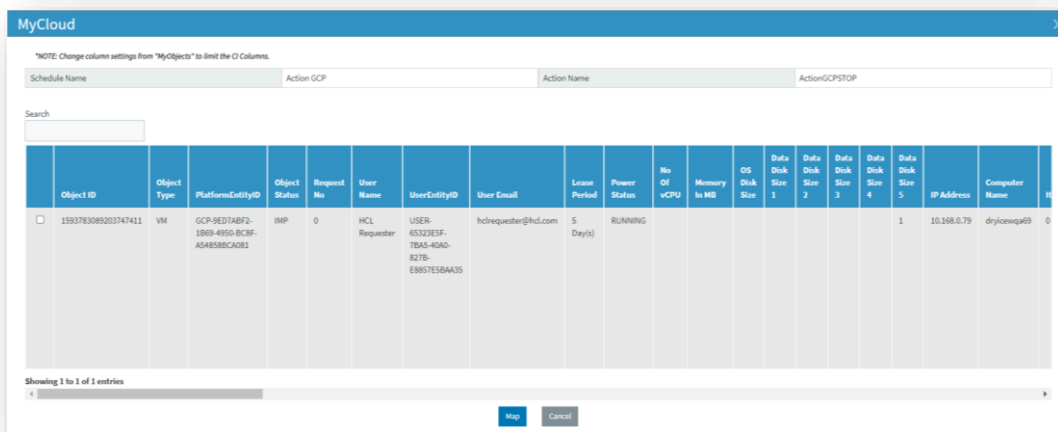
Figure 51 - Create Schedule (Cont.)

15. Now click on **Map** button.

16. A success message box appears.
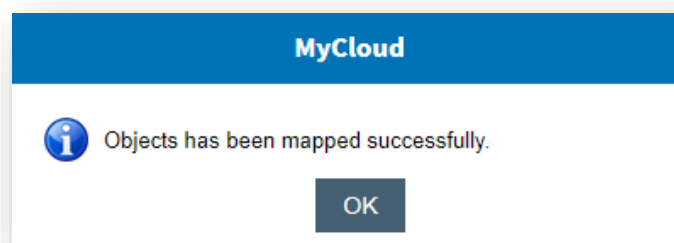
Figure 52 - Create Schedule (Cont.)

The Action Scheduled Successfully.

This section lists all the Schedules that have been created by an organization admin.
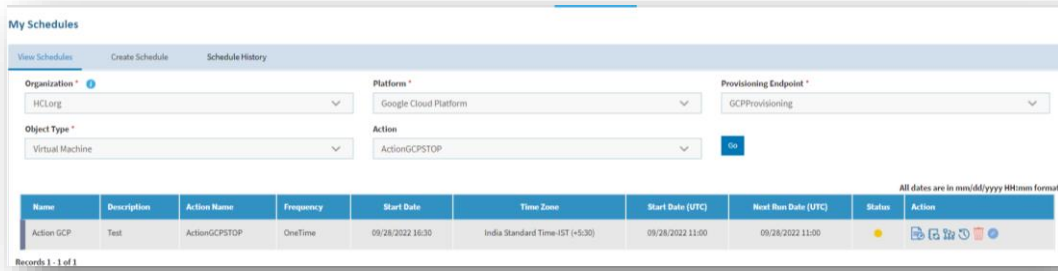
Figure 53 – View Schedules

Refer the below table to understand the fields mentioned in the above figure.

Table 13 – View Users field

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
Platform	The field lists down the cloud service provider.
Provisioning Endpoint	Displays the name of the environment (cloud endpoint)
Object Type	Name of the infrastructure resource.
Action	Displays the list of Action(s) associated to Object.
Name	This unique name of Schedule Action.
Description	Description of Schedule Action.
Action Name	Name of Action for which Schedule has been created
Frequency	Interval at which the Action can be schedules
Start Date	The field represents when to start/schedule the Action.
Time Zone	This field represents the Time Zone of Start Time.
Start Date (UTC)	The field represents when to start/schedule the Action in UTC time zone
Next Run Date	The field represents next schedule time of the Action
Status	The status of the Schedule
Action	User to take actions like Edit, Change Status, Map Objects, history, Delete against the listed schedules

It also comprises the following actions:

- Edit (⊞): To modify the details of Schedule.

- Change Status (⊞): To change the status of Schedule.

- Map Objects (⊠): To map objects to Schedule.

- History ( ): To check the history of Schedule.

- Delete ( ): To delete the Schedule.

- Execute Now ( ): To execute the schedule immediately.

Schedule History

This section lists all the History of Schedules Actions.

To view the schedule history, follow the below steps:

1. Click on ( ) icon in the grid records on **View Schedule** tab.
2. On clicking this icon, **Schedule History** tab will open.

Figure 54 – Schedule History

Refer the below table to understand the fields mentioned in the above figure.

Table 14 – Schedule History Field

Fields	Description
Schedule Name	This unique name of Schedule Action.
Action Name	Name of Action for which Schedule has been created
Frequency	Interval at which the Action can be schedules
Start Date	Start Time, to filter the history of Schedules from this time
End Date	End Time, to filter the history of Schedules till this time
Status	InProgress, Completed, Failed filter status
Schedule Request Id	Unique GUID for the schedule instance.
Status	Status if the scheduled instance
Schedule Run Date	Run date of the scheduled instance
Request No	Request Tracking Request Number created by Schedule Request Id.
Object Id	Object Id, Unique Id of the object on which Action is performed.
Schedule Run Date	Run date of the scheduled instance
Execution Status	Status of the Request Execution

3.1.1.1.4 Help

This section explains the details to understand more about MyCloud

1. On the main menu bar, click **Help**.

2. The drop-down appears with the following options:

   - Generic Task details

   - Download Reference Guide
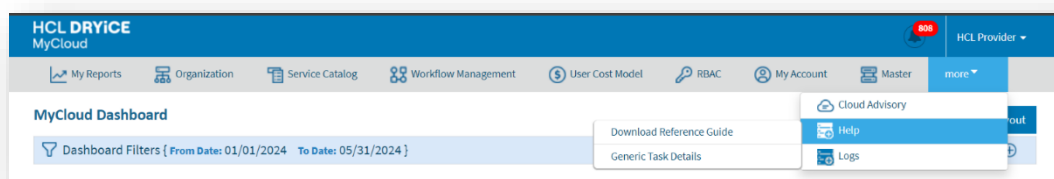
Figure 55 – Help

3.1.1.1.4.1 Generic Task Details

Through this module, the login user can view the generic MyCloud Out of Box methods and their parameter details.

Figure 56 – Help – Generic Task Details

To view the details:

1. Select **Platform.**

2. Select **Generic Task.**

3. Select **Type.**

4. Click **Go.**

The following screen appears.

Figure 57 – Help – Generic Task Details (Cont.)

3.1.1.1.4.2   Download Reference Guide

Through this module, the login user can view the MyCloud Product Document(s) based on their Roles.

- Click on the Download link corresponding to the document to be downloaded (PDF).
- Click on the View link corresponding to the document to open the PDF in new Tab.

Figure 58 – Download Reference Guide

3.1.2 Requester Module

This module describes how a service requester requests different types of services including IaaS and PaaS.

A Requester is a business end user who is consuming services of MyCloud. The following actions are performed through this module:

- Request service catalog items that are entitled to the user.
- Manage their provisioned resources.
- View reports

3.1.2.1 Accessing MyCloud

1. Obtain the URL and user credentials for DRYiCE MyCloud.

Contact the person who has configured MyCloud or drop an email to MyCloud-Product-Supp@hcl.com

2. Launch a web browser (Chrome, Mozilla, and Edge) and use the **MyCloud URL** and **user credentials** to login to the system.
3. Enter the **Email ID**.
4. Click **Next**.
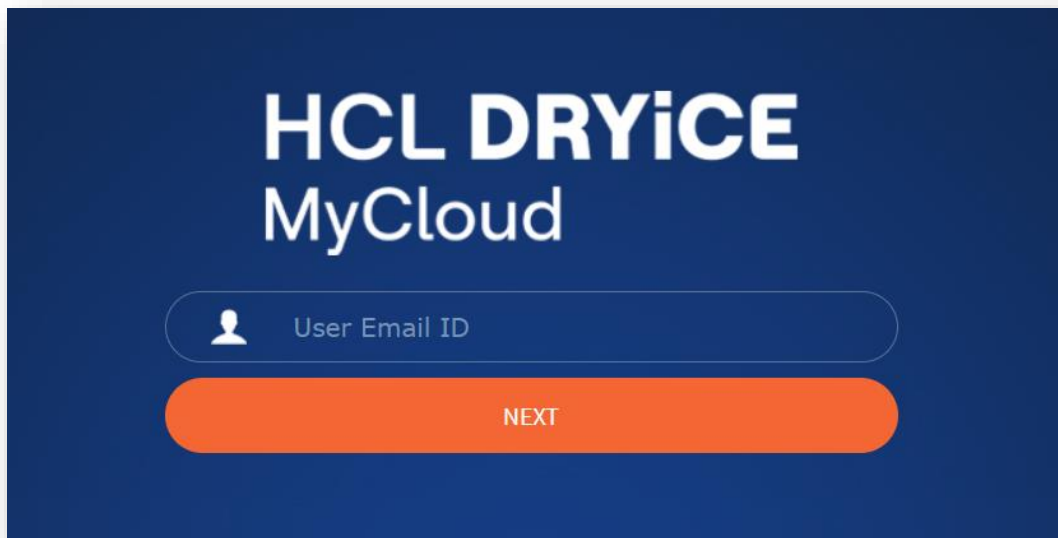
Figure 59 - MyCloud Login Page

5. Enter Password.

For security purposes, it is advised to change the password frequently and log out when you are not using the application.

6. Select the **Authentication Type**. The following authentication types are available for login:

Table 15 – Authentication Type

Authentication Type	Description
Form Based	Authenticates the user through the credentials which are stored in the database
LDAP	Authenticates the user through Active Directory (AD) credentials
SAML Based Authentication	Authenticate the user through the third- party Identity Access Management (IAM) which supports SAML based authentication

If there are no login credentials, then drop an email to MyCloud-Product-Supp@hcl.com.

If the login type is **Form Based**, no domain selection is required.

If the login type is **LDAP**, domain credentials need to be entered with domain selection.

If the login type is **SAML**, user gets re-directed to the authentication page.

Figure 60 - MyCloud Login Page (Cont.)

7. Click Login.

8. On a successful login, MyCloud homepage appears as shown below:
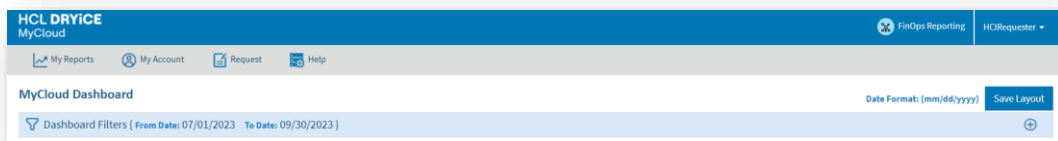
Figure 61 – MyCloud Dashboard

Admin user can change the appearance of the MyCloud Web/Reports to meet Customer-specific branding by changing the logo.

9. The **Requester Module** has the following options:

- Request
- My Account
- My Reports

3.1.2.1.1   Request

This section describes the steps required to request a service catalog. A service catalog serves as a framework to improve service offerings by bringing all the offered services to one place and then redefining them in the context of a dynamic business environment.

1. On the main menu bar, click **Request.**

2. The drop-down appears with the following option:

- <u>Request Service Catalog</u>
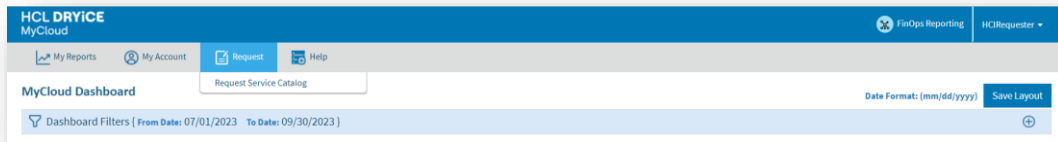
Figure 62 - Request

Request Service Catalog

To request a service in the catalog, the end user needs to follow the steps mention under **Generic Request Flow**. The Generic Request Flow provides the general steps to be followed for all the available catalog(s). By following the generic Request Flow, user will be able to place a request successfully:

3.1.2.1.1.1.1   Generic Request Flow

1. On the main menu bar, click **Request**, and then click **Request Service Catalog.**
2. If Provider has setup the **Questionnaire**, then the **Fill Questionnaire** screen will be displayed, and requester needs to fill the answer for the question and click on **Proceed.**
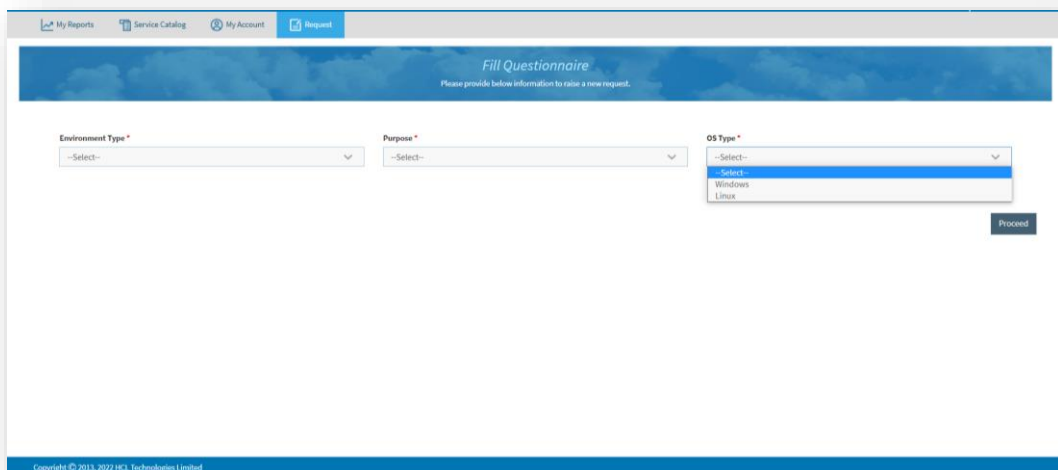
Figure 63 – Questionnaire Screen

3. The **Request Service Catalog** screen appears and displays the available cloud provider(s).
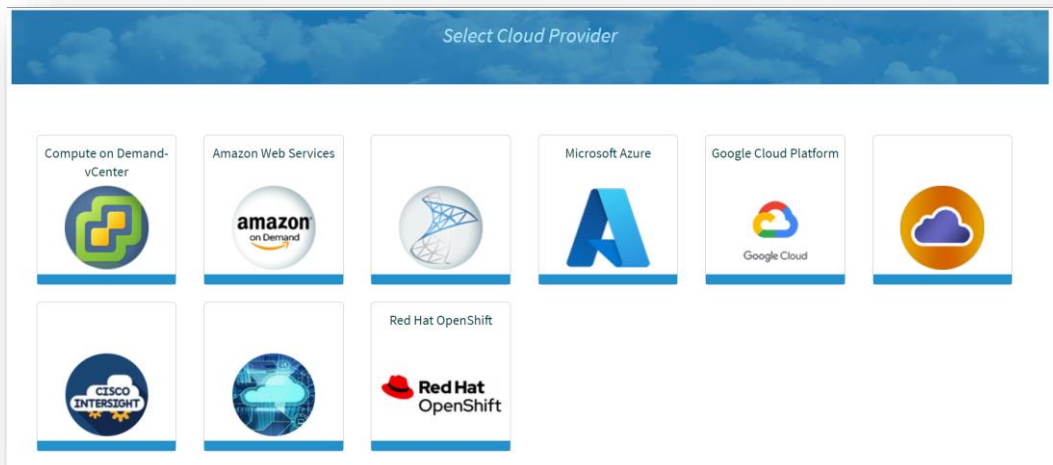
Figure 64 - Request Service Catalog

4. Select a **Cloud Service Provider** and click on **Proceed** to place a request.
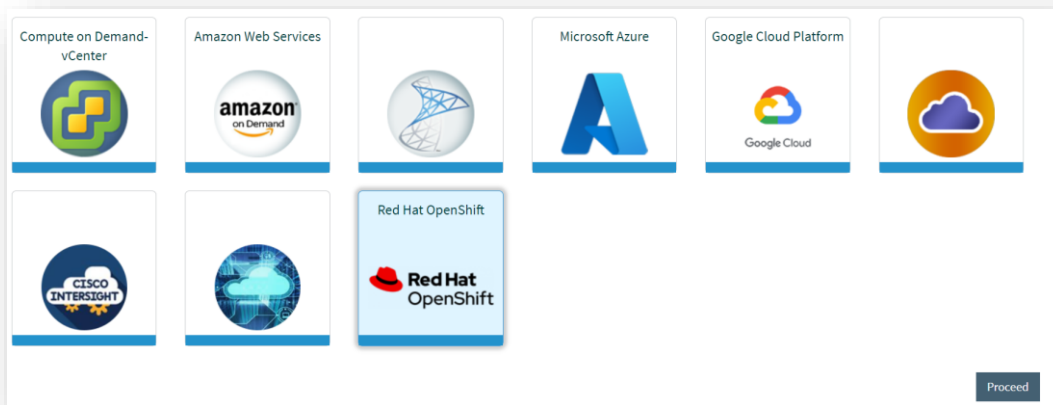
Figure 65 – Cloud Provider Selection

5. On **Service Catalogs** page, Select the following fields:

a. Select **Service** from the options being displayed, i.e. **All Service** (it includes all the services given in the catalog), **Service Type** created by provider and mapped with service catalog.

b. Select **Provisioning Endpoint**. Provisioning Endpoint will be filtered as per below criteria:

o   User logged in with Requester Role: Only Those Endpoints will be listed, which are allocated to user's Organization by the Provider admin user.

o   User logged with Custom Role having parent role as Requester: Then the tag of the user group should match the tag with Provisioning Endpoint configured by Provider admin.

c. Select **Region.**

o   Private Cloud: Region at which Private DCs would be located, and resources would be getting consumed.

o   Public Cloud: Region selected by the Provider admin at the time of creating the Provisioning EndPoint.

6. Based on the filter parameters selected in the above points, Service Catalogs will be listed. Now user can select the catalog and click on **Request** button.
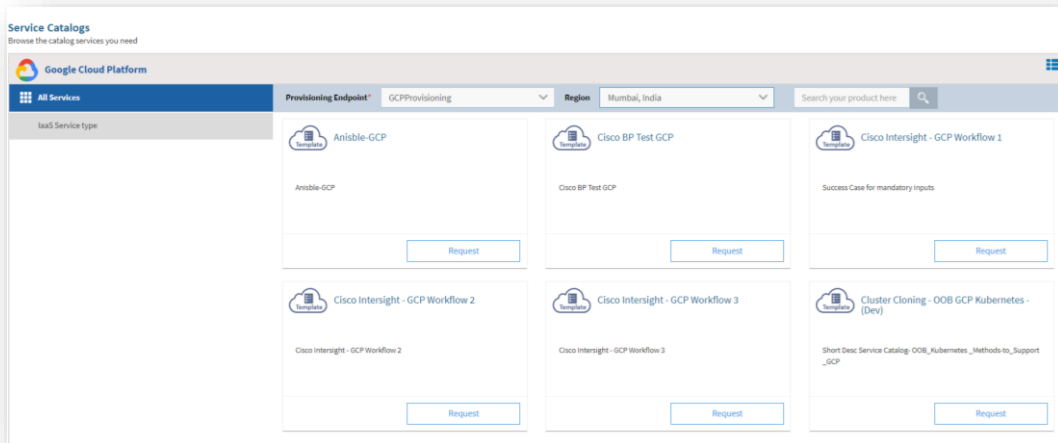
Figure 66 – Cloud Provider Selection (Cont.)

7. If Provider has setup the "Maximum number of Instances" greater than 1, then the below popup will appear, and the requester needs to select the number of instances and click on **Proceed**.
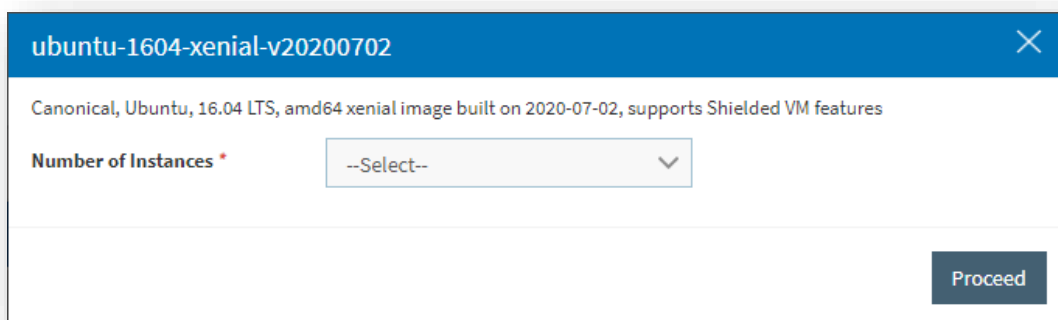
Figure 67 – Request Service Catalog (Cont.)

If provider enabled "Request For" option in service catalog, then "Request For (Email)" option will visible to requester user to place request on the behalf of other user in same organization.
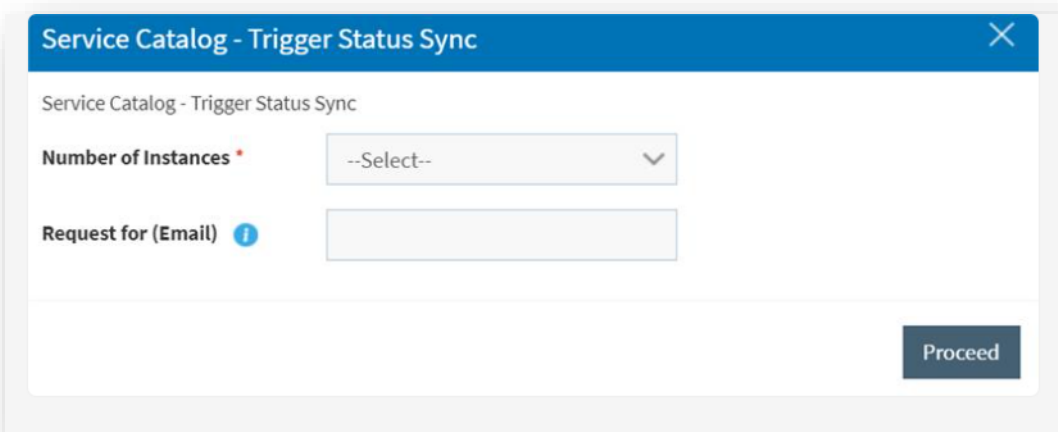
Figure 68 – Request Service Catalog (Cont.)

8. The request service catalog form appears.

This is a sample request form for Machine Provisioning. The form, tabs, UI fields may vary depending on the Catalog selection and as per configuration done by provider admin.

9. The form is categorized into four categories:
- UI tabs created using form designer
- Additional Storage
- Attachment
- Architecture Diagram
- Tags

3.1.2.1.1.1.1.1 UI Tabs Created Using Form Designer

This tab allows the user to manage the general configuration required for requesting cloud services.

1. Select **Machine Name, Zone, Size, Network Interface**, and **SubNetwork Interface** for which the user requires the services.

Figure 69 – Request Service Catalog (Cont.)

2. Refer the below table to understand the fields mentioned in the above figure.

Table 16 – Request Service Catalog: GCP General Fields

Fields	Description
Machine Name	The name which is used to provision the machine
Zone	The zone where machine is to be provisioned
Description	Description of the resource.
Size	It is a set of virtualized hardware resources available to a virtual machine.
IpForward	Allows this instance to send and receive packets with non-matching destination or source IPs
HostName	The hostname of the instance
Deletion Protection	The resource should be protected against deletion
Network Interface	The network configurations for the instance
SubNetwork Interface	The Subnetwork configurations for the instance
Network Tier	The networking tier used for configuring this access configuration. It is used to provide an external IP address to the instance
NatIP	The external IP address associated with this instance

3. Enter **Machine Name.**

4. Select **Zone.**

5. Enter **Description.**

6. Select **Size.**

7. Select IpForward.

8. Enter HostName.

9. Select DeleteProtection.

10. Select **Network, SubNetwork, NetworkTier** and **NatIP** and then click on ( ) to add selected values fields. We can add multiple values by clicking on ( ).

11. Copy From – Copy To

12. User needs to provide the details for another Item in the form or a user may copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

   - Select Copy From (Item No.).
   - Select Copy To (Item No.).
   - Click Go ( ).

13. Once the form is filled, then click Additional Storage.

All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configure by provider admin from UI creation section.

3.1.2.1.1.1.1.2　　　　　Additional Storage

To add Additional Storage, user needs to follow the below steps:

1. Select the **DiskType**.

2. Provide the **DiskSize**.

3. Select AutoDelete.

4. Click ( ) to add storage details.

5. Multiple storage details can be added.
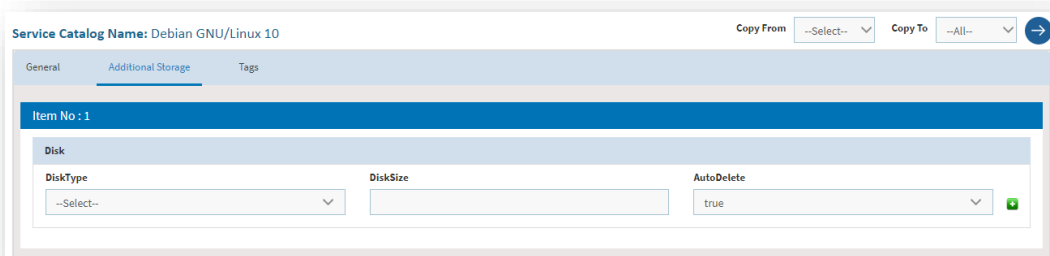
Figure 70 – Request Service Catalog (Cont.)

3.1.2.1.1.1.1.3　　　　　Attachment

This tab will be displayed, if Document Upload is enabled for service catalog by selecting "**Allow Document Upload**" setting to true on publish service catalog screen.
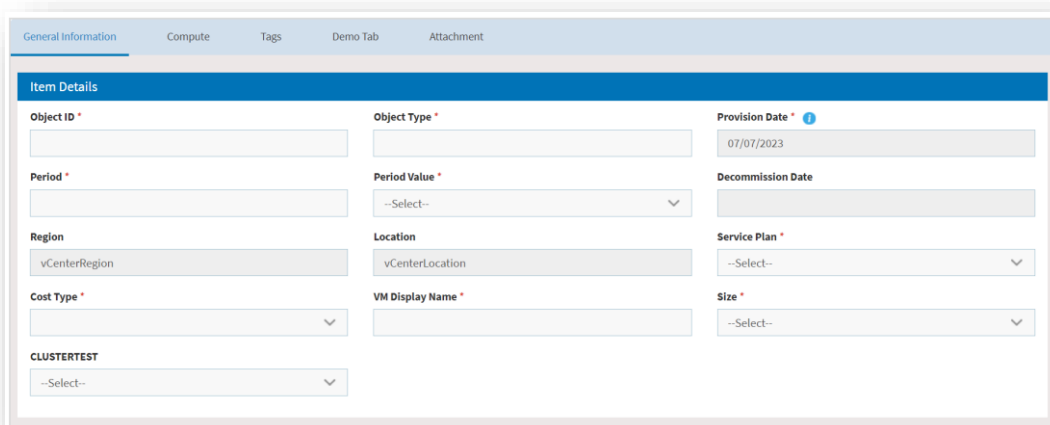
Figure 71 – Item Details

Figure 72 – Attachment

As mentioned in note section, requester can upload only predefined file extensions and file size should not exceed defined size. Also, requester cannot upload more then allowed files for each request.

3.1.2.1.1.1.1.4 Architecture Diagram

This tab will be displayed, if Architecture Diagram is enabled for service catalog by uploading image for architecture diagram in publish service catalog screen.

So while placing request user can see the any diagram under "Architecture Diagram" tab.

Figure 73 – Item Details (Architecture Diagram)

3.1.2.1.1.1.1.5 Tags

To add Tags, user needs to follow the below steps:

Figure 74 – Request Service Catalog (Cont.)

1. Enter **Key** Name for the tag being created.

2. Enter **Value**, to determine whether the machine belongs to test, QA or production environment.

3. Click **Add** ( ).

4. Click **Submit**.

5. The **Request summary** screen appears.

6. Click **Confirm.**

Figure 75 – Request Service Catalog (Cont.)

7. The order confirmation pop-up window appears.

8. User can request for a new service request by clicking **New Request.**

9. Click **Close** to close the pop-up window.

Figure 76 – Request Service Catalog (Cont.)

10. Refer the below table to understand the Approval History mentioned in the above figure.

Table 17 – Approval History

Field	Description
Request ID	ID generated after submitting the request
Date	Approval date gets displayed post approver's action.
Status	Current status of the request placed

All the fields marked with an asterisk (*) are mandatory.

Request is placed successfully.

The next section of this document explains the steps to process the requests for respective cloud providers.

3.1.2.1.1.1.2 Virtual Machine Requests

This section explains the steps to process the request for respective cloud providers.

3.1.2.1.1.1.2.1 VMware

To proceed with service requests that have VMware as a cloud provider, end-user needs to follow the steps below:

1. Select Provisioning EndPoint.
2. Only the endpoints which are tagged in RBAC group of User configuration are enable to Provider admin.
3. Select **Region.**
4. Region at which **Private DCs** would be located, and resources would be getting consumed.

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5. Select **Service** from the options being displayed, i.e. **All Service** (it includes all the services given in the catalog), **Service Type** created by provider and mapped with service catalog.

6. Click **Request.**
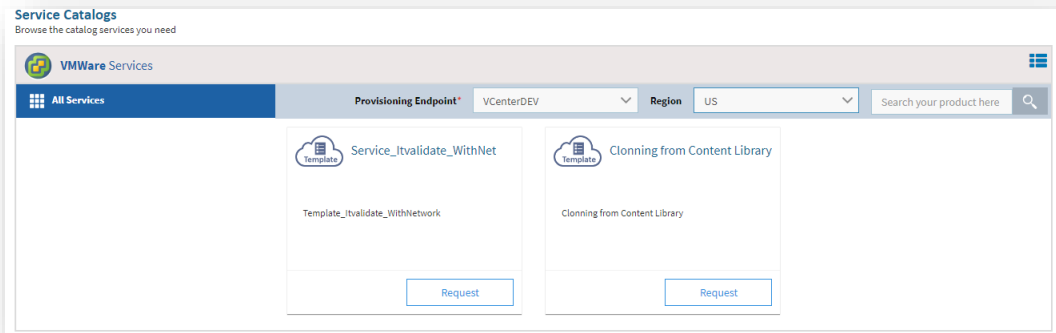
<p align="center">Figure 77 – Request Service Catalog (Cont.)</p>

7. Select the Number of Instances and click Proceed.
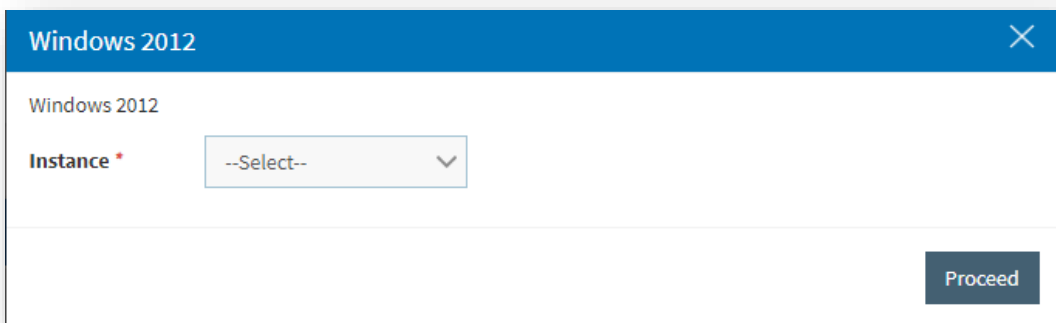
<p align="center">Figure 78 – Request Service Catalog (Cont.)</p>

8. This displays the **Request Form** associated with the service catalog to fill in the Information.

9. The request service catalog form appears. The form is categorized into two categories:

- General Information
- Compute

These categories vary from one Service Catalog to other. Fields are totally dependent on UI created by Provider and associated with Service Catalog.

3.1.2.1.1.1.2.1.1 General Information

This tab allows the user to manage the general configuration.

Figure 79 - Request Service Catalog (Cont.)

Refer to the below table to understand the fields mentioned in the above figure.

Table 18 – Request Service Catalog Fields

Fields	Description
Provision Date	The date on which a resource is required
Period	The lease period for which a resource is required
Period Value	Time period for the selected resource i.e., months, days, weeks or years
Region	The Region is Geographical Region at which Private DCs are located
Location	The locations at which Private DCs are located, and resources are getting consumed
Service Plan	Selecting the resource category created by the provider i.e. platinum, gold or bronze
Cost Type	Cost model as Pay as you go, or allocation based
VM Display Name	Name to be displayed against the Resource being created
Remarks	Provide additional requests, if any
Size	Need to mention the size
Network IP	It is the IP address of the server

1. Select **Provision Date** and **Period.**

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2. Select **Period Value**.

3. Enter **Region**.

4. Enter **Location**.

5. Select **Service Plan** and **Cost Type**.

6. Enter **VM Display Name**.

7. Enter **Remarks** and select **Size.**

8. Enter **Network IP**.

Figure 80 – Request Service Catalog (Cont.)

9. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number (s).

10. User needs to provide the details for another Item in another form or a user may simply copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

- Select Copy From (Item No.).

- Select Copy To (Item No.).

- Click Go (➜)

All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configured by provider admin from UI creation section.

Figure 81 – Request Service Catalog (Cont.)

11. Once the form is filled, go to **Compute** tab.

3.1.2.1.1.1.2.1.2   Compute

This tab allows the requester to configure the hardware required. It is an optional tab.

Fill the following details in the **Compute** form:

1. Enter Additional Storage.
2. Click **Add**

Figure 82 – Request Service Catalog (Cont.)

3. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number(s)
4. User needs to provide the details for another Item in another form or a user may copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.
    - Select Copy From (Item No.).
    - Select Copy To (Item No.).
    - Click Go ( ).
5. Once the form is filled, click **Submit.**
6. The **Order Summary** screen appears as shown in Figure 83 – Request Service Catalog (Cont.).
7. Scroll down and click **Confirm.**

Figure 83 – Request Service Catalog (Cont.)

8. The order confirmation window appears with **MyCloud Request Number**.
9. User requests for a new service request by clicking **New Request**.
10. Click **Close** to close the pop-up window.

Figure 84 – Request Service Catalog (Cont.)

3.1.2.1.1.1.2.2   Amazon Web Services (AWS)

To proceed with Amazon Service Request (AWS), a user needs to follow the steps below:

1. Select **Provisioning EndPoint**. Only the endpoints which are tagged in RBAC group of User configuration are enabled to Provider admin.

2. Select **Region,** (Lists the geographical presence of native cloud providers).

3. Select **Service** from **All Service** option.

4. Click **Request.**

Figure 85 – Request Service Catalog (Cont.)

5. Select **number of Instance** required.

6. Click **Proceed.**

Figure 86 – Request Service Catalog (Cont.)

7. The **Request Service Catalog** form appears. The form is categorized into four categories:

- General Information

- VPC (Virtual Private Cloud)

- General Details

- Tags

3.1.2.1.1.1.2.2.1 General Information

This tab allows the user to manage the general configuration required for requesting cloud services.

Figure 87 – Request Service Catalog (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 19 – Request Service Catalog Fields

Fields	Description
Provision Date	The date on which resource gets provisioned
Period	The time period of a resource that is required to get consumed by an organization
Period Value	Time period of a resource expressed in months, days, weeks or years
Region	It is the geographical region of Native Cloud Provider
Availability Zone	Each region consists of multiple independent locations known as availability zones
Instance type	Each instance type offers different compute, memory and storage
VM Display Name	Name to be displayed against the Resource that has been created
Service Plan	Select the category of plans that have been created by provider, i.e. platinum, gold or bronze
Cost Type	Select the Cost model as Pay as you go, or allocation based
Remarks	The additional comments/ descriptions/ information, if any

Region and **Location** pre-populates based on the selection made on the previous screen as shown in Figure 87 – Request Service Catalog (Cont.).

Figure 88 – Request Service Catalog (Cont.)

1. Enter **Provision Date** and **Period.**

2. Select Period Value.

3. Select Availability Zone.

4. Select Instance Type.

5. Enter **VM Display Name.**

6. Select Service Plan and Cost Type.

7. Enter the additional information in **Remarks.**

8. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number(s).

9. User needs to provide the details for another Item in another form or a user may copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

- Select Copy From (Item No.).
- Select Copy To (Item No.).
- Click Go (➡).

10. Once the form is filled, click on VPC.

All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configure by provider admin from UI creation section.

3.1.2.1.1.1.2.2.2   VPC

This tab allows the user to configure the Virtual Private Cloud (VPC) by provisioning a logically isolated section in Amazon Web Services cloud.

Figure 89 – Request Service Catalog (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 20 – Request Service Catalog – VPN Fields

Fields	Description
Subnet ID	Network range within an availability zone
Tenancy	Default tenancy leverages shared resources whereas dedicated tenancy leverages dedicated resources
Assign New NIC	Number of network interface cards
Security Group	Provides security at Protocol and Port Access level

1. Select the **Subnet ID**.
2. Select the **Tenancy**.
3. Select **Security Group** from the list.

Security Group appear based on the Subnet ID selected.

4. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number(s).

5. User needs to provide the details for another Item in another form or a user may copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

- Select Copy From (Item No.).

- Select Copy To (Item No.).

- Click Go (➡).

5. Once the form is filled, then click General Details.

All the fields marked with an asterisk (*) are mandatory.

3.1.2.1.1.1.2.2.3   General Details

This tab allows the user to manage the general configuration required. It is an optional tab.

Figure 90 – Request Service Catalog (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 21 – Request Service Catalog: General Information fields

Fields	Description
EBS Volume	Block level storage volumes to be associated with instances
Existing Key Pairs	Authenticate users associated with instance
Volume Type	Type of EBS Supported by AWS. This can be Standard, IOPS, General Purpose 2
IOPS	In case of IOPS Type EBS Number of IO per second requested
Elastic IP	If public IP needs to attach with instance
Enable Detailed Monitoring	In case of detailed monitoring needs to be enabled

1. Enter EBS Volume.

2. Select Existing Key Pairs.

3. Select Volume Type.

4. Enter **IOPS.**

5. Select Elastic IP.

6. Select Enable Detailed Monitoring.

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7. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number(s)

8. User needs to provide the details for another Item in another form or a user may copy the Details from one Item form to another Item by using **Copy from** and **Copy To** menu.

- Select Copy From (Item No.).
- Select Copy To (Item No.).
- Click Go ( ).

Tags are the name-value pair; they are used to organize resources in AWS portal. A user applies tags for individual resource.

Figure 91 - Request Service Catalog (Cont.)

1. Enter **Key**, and name for the tag being created.

2. Enter **Value** to determine whether the machine belongs to test, QA or production environment.

3. Click **Add** ( )

4. Click **Submit**.

5. The Request Summary pop-up window appears as shown in Figure 92 - Request Service Catalog (Cont.).

All the fields marked with an asterisk (*) are mandatory.

6. Click **Confirm**.

Figure 92 – Request Service Catalog (Cont.)

7. The order confirmation window appears as shown in Figure 93 – Request Service Catalog (Cont.).

8. User can request for a new service request by clicking **New Request**.

9. Click **Close** to close the pop-up window.

Figure 93 – Request Service Catalog (Cont.)

Refer the below table to understand the Approval History mentioned in the above figure.

Table 22 – New Request

Fields	Description
Activity	Displays the activity performed by the user
Request ID	ID generated after submitting the request
Date	Approval date gets displayed post approver's action.
Status	Current status of the request placed

Click **Expand** (+) to expand the fields and all the fields marked with asterisk (*) are mandatory.

3.1.2.1.1.1.2.3   Azure

1. Select **Provisioning EndPoint**. Only those endpoints will show which are tagged in rbac group of User configuration are enable to Provider admin.
2. Select **Region.**
3. Select **Service** from All Services option on the left pane.
4. (All Services option includes all the services given in the other catalog).
5. Click **Request.**
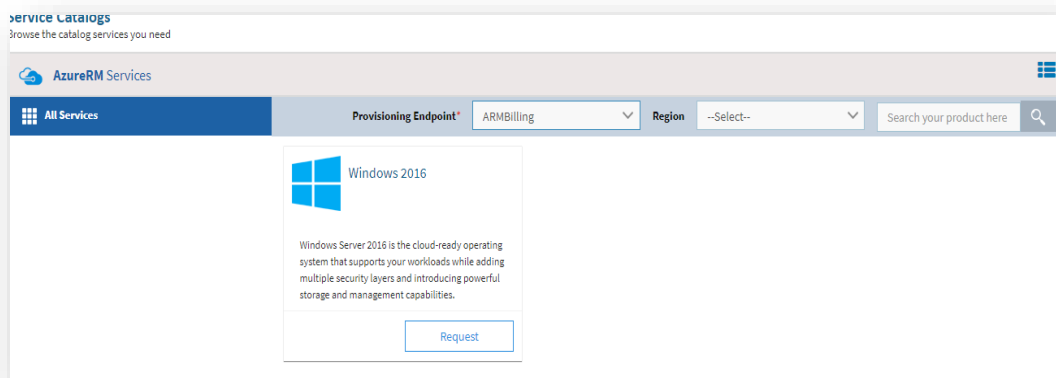
Figure 94 – Request Service Catalog (Cont.)

6. Select Number of Instances, and then click Proceed.
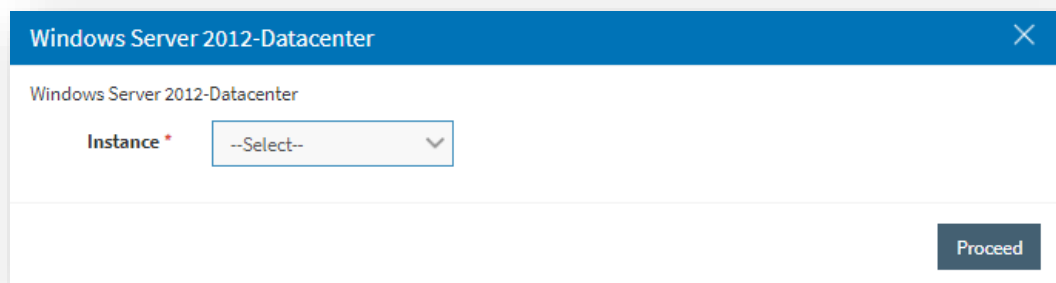
Figure 95 – Request Service Catalog (Cont.)

7. The Request Service Catalog form appears. The form is categorized into four categories:
   - General Information
   - Instance Details

- Additional Storage
- Tags

This tab allows the user to manage the general configuration required for requesting cloud services.

1. Select **Provision Date** and **Period** for which the user requires the services.

Figure 96 – Request Service Catalog (Cont.)

2. Refer the below table to understand the fields mentioned in the above figure.

Table 23 – Request Service Catalog: Azure General Information Fields

Fields	Description
Provision Date	The date on which a resource gets provisioned
Period	The time period of a resource that is required to get consumed by an organization
Period Value	Time period of a resource expressed in months, days, weeks or years
Location	The locations at which Public Cloud services are getting consumed
Service Plan	Select the category of plans that have been created by provider; i.e. platinum, gold or bronze
Cost Type	Select the Cost model as Pay as you Go
VM Display Name	Name of the Resource that has been created
Remarks	Provide any additional comments/ descriptions/ information
Server Name	Name to be displayed on the server and to be used as a hostname

3. Select Period Value.

4. Enter **Location**.

5. Select Service Plan and Cost Type.

6. Enter **VM Display Name**.

7. Enter the additional information in **Remarks** box.

8. Enter Server Name.

9. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number(s).

10. User needs to provide the details for another Item in another form or a user may copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

   - Select Copy From (Item No.).
   - Select Copy To (Item No.).
   - Click Go (→).

11. Once the form is filled, then click Instance Details.

> All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configure by provider admin from UI creation section.

3.1.2.1.1.1.2.3.2   Instance Details

This tab allows the user to configure the Instance required. It is an optional tab.

Figure 97 – Request Service Catalog (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 24 – Instance Details: Request Service Catalog (Cont.)

Fields	Description
Tier	Select the Tier Type
Size	Signifies compute, memory and storage associated with instances
Resource Group	Logical grouping of cloud resources
Virtual Networks	Choose a network to communicate between virtual machines
Subnets	Network range within a VNET
Disk Type	Type of disk required for operations could be standard or premium.
Is Availability Set	Whether availability set is required or not
Availability Set	Logical grouping capability for isolating VM resources from each other when they're deployed
Load Balancer	Distributes the traffic across multiple VMs
Is Backup	Backing up of instance is required or not
Recovery Vault	Native backup services provided by Azure
Backup Policy	Multiple backup policies can be defined and selected for a recovery vault
Enable Monitoring	Choose if monitoring of the instance is to be enabled or not

1. Select **Tier** and **Size**.

2. Select Resource Group and Virtual Network.

3. Select Subnets and Disk Type.

4. Select Is Availability Set.

5. Select Availability Set and Load Balancer.

6. If required, select Is Back Up required.

7. Select Recovery Vault and Back Up Policy.

8. If user wishes to enable monitoring on the VM, select Enable Monitoring.

9. Once the form is filled, click **Additional Storage**.

3.1.2.1.1.1.2.3.3   Additional Storage

To add Additional Storage, user needs to follow the below steps:

1. Enter required **Disk Space.**

2. Click **ADD** to add storage details.

3. If a user wants to delete the added details, click **Delete** (🗑).

Figure 98 - Request Service Catalog (Cont.)

4. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number(s).

5. User needs to provide the details for another Item in another form or a user may copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

   - Select Copy From (Item No.)

   - Select Copy To (Item No.)

   - Click Go (➡)

6. If required, click **Submit** to submit the request.

7. Once the form has been filled, click **Tags**.

All the fields marked with an asterisk (*) are mandatory. User can submit the request as tags are not compulsory.

3.1.2.1.1.1.2.3.4 Tags

To add Tags, user needs to follow the below steps:

Figure 99 - Request Service Catalog (Cont.)

3.1.2.1.1.1.2.4 GCP

To proceed with service requests that have GCP as a cloud provider, end-user needs to follow the steps below:

1. Select **Provisioning Endpoint**. Only those endpoints will show which are tagged in RBAC group of User configuration are enable to Provider admin.

2. Select **Region.**

3. Click **Request.**

Figure 100 – Request Service Catalog (Cont.)

4. Select Number of Instances, and then click **Proceed**.
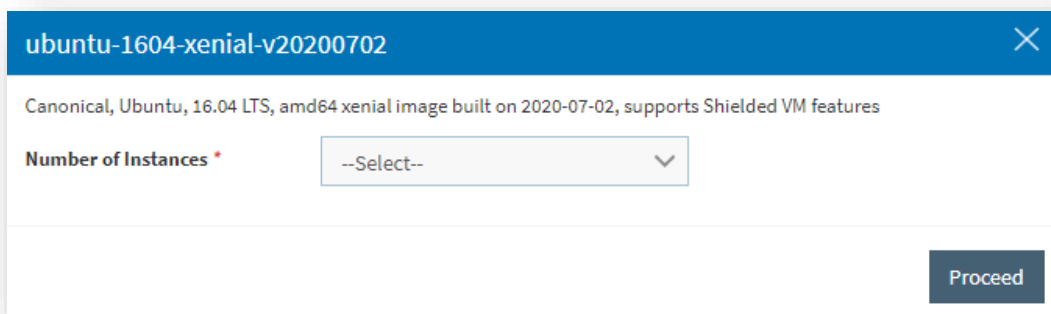
Figure 101 – Request Service Catalog (Cont.)

5. The request service catalog form appears. The form is categorized into three categories:

- General

- Additional Storage

- Tags

General Information

This tab allows the user to manage the general configuration required for requesting cloud services.

1. Select **Machine Name**, **Zone**, **Size**, **Network Interface**, and **SubNetworkInterface** for which the user requires the services.

Figure 102 – Request Service Catalog (Cont.)

2. Refer the below table to understand the fields mentioned in the above figure.

Table 25 – Request Service Catalog: GCP General Fields

Fields	Description
Machine Name	The name which is used to provision the machine
Zone	The zone where machine is to be provisioned
Description	Description of the resource.
Size	It is a set of virtualized hardware resources available to a virtual machine.
IpForward	Allows this instance to send and receive packets with non-matching destination or source IPs
HostName	The hostname of the instance
Deletion Protection	The resource should be protected against deletion
Network Interface	The network configurations for the instance
SubNetwork Interface	The Subnetwork configurations for the instance
Network Tier	The networking tier used for configuring this access configuration. It is used to provide an external IP address to the instance
NatIP	The external IP address associated with this instance

1. Enter Machine Name.

2. Select **Zone**

3. Enter Description.

4. Select **Size**.

5. Select IpForward.

6. Enter HostName.

7. Select DeletionProtection.

8. Select **Network**, **SubNetwork**, **NetworkTier** and **NatIP** and then click on ( ) to add selected values fields. We can add multiple values by clicking on ( ).

9. User needs to provide the details for another Item in another form or a user may copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

10. Select **Copy From** (Item No.).

   - Select Copy To (Item No.).

   - Click Go ( ).

11. Once the form is filled, then click Additional Storage.

> All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configure by provider admin from UI creation section.

3.1.2.1.1.1.2.4.2   Additional Storage

To add Additional Storage, user needs to follow the below steps:

1. Select the **DiskType**.

2. Provide the **DiskSize**

3. Select AutoDelete.

4. Click ( ) to add storage details.

> The user has the option to add Multiple storage details.

Figure 103 – Request Service Catalog (Cont.)

3.1.2.1.1.1.2.4.3   Tags

To add Tags, user needs to follow the below steps:

Figure 104 – Request Service Catalog (Cont.)

1. Enter **Key** name for the tag being created.

2. Enter **Value**, to determine whether the machine belongs to test, QA, or production environment.

3. Click **Add** ( ).

4. Click **Submit**.

5. The **Request summary** screen appears.

6. Click **Confirm**.

Figure 105 – Request Service Catalog (Cont.)

7. The order confirmation pop-up window appears.

8. User can request for a new service request by clicking **New Request**.

9. Click **Close** to close the pop-up window.

Figure 106 – Request Service Catalog (Cont.)

10. Refer to the below table to understand the Approval History mentioned in the above figure.

Table 26 – Approval History

Fields	Description
Request ID	ID generated after submitting the request
Date	Approval date gets displayed post approver's action.
Status	Status of the request placed

All the fields marked with an asterisk (*) are mandatory.

3.1.2.1.1.1.2.5   HyperV 2012

To proceed with service requests that have HyperV 2012 as a cloud provider, end-user needs to follow the steps below:

1. Select **Provisioning Endpoint**. Only those endpoints are tagged in RBAC group of User and configuration are enabled to Provider admin.
2. Select **Region.**
3. Click **Request.**
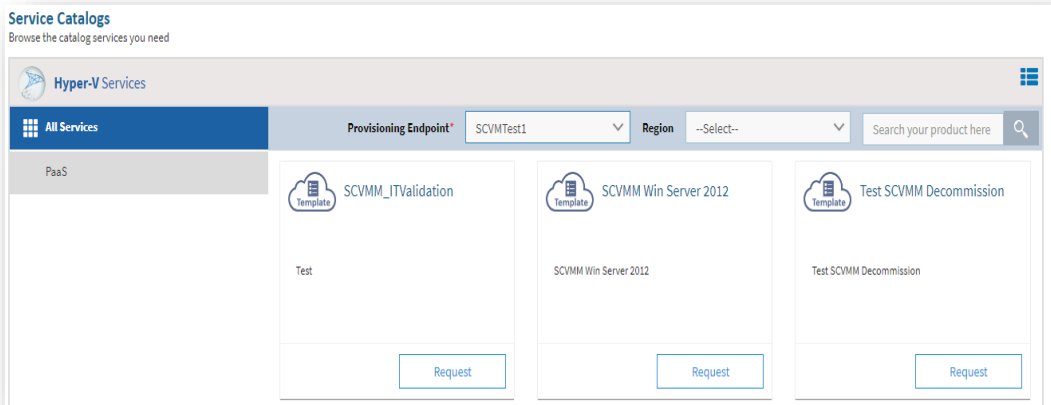
Figure 107 –Request Service Catalog (Cont.)

4. Select number of Instances and click **Proceed**.
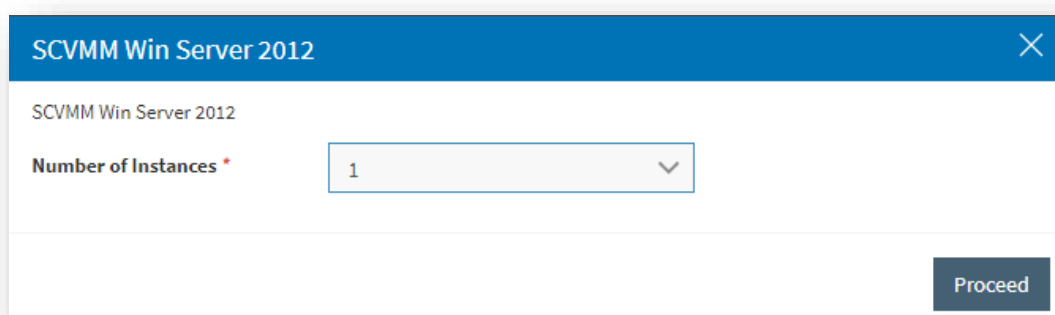
Figure 108– Request Service Catalog (Cont.)

3.1.2.1.1.1.2.5.1 General Information

This tab allows the user to manage the general configuration.

Figure 109 – Request Service Catalog (Cont.)

5. Select all the fields visible in UI and click on **Submit**.

All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configure by provider admin from UI creation section.

3.1.2.1.1.1.2.6 Cisco Intersight

To proceed with service requests that have Cisco Intersight as a cloud provider, end-user needs to follow the steps below:

1. Select **Provisioning Endpoint**. Only the Provisioning Endpoints are tagged in RBAC group of users and configuration are enabled to Provider admin.
2. Select Region.
3. Click Request.
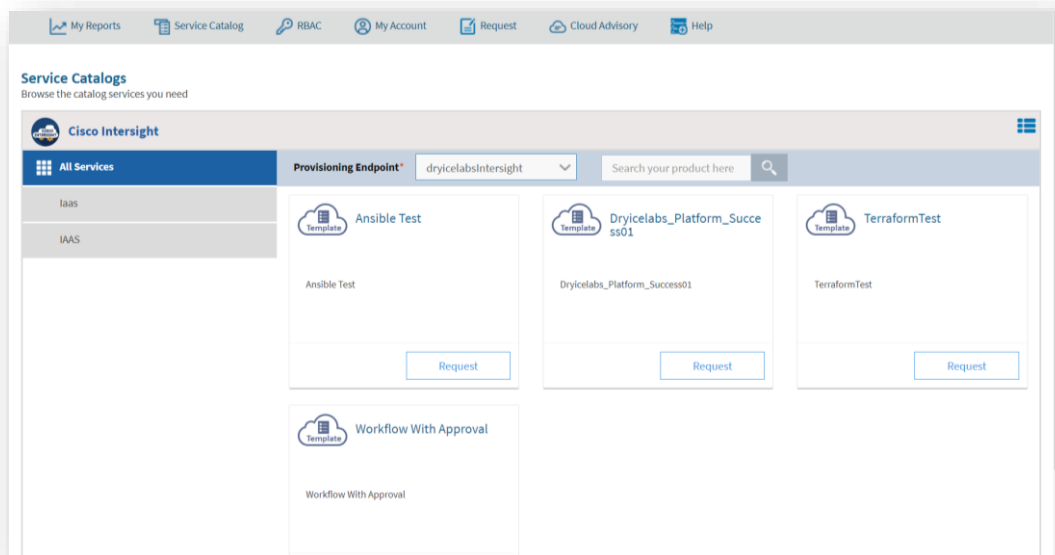
Figure 110 – Cloud Provider Selection (Cont.)

4. Select Number of Instances, and then click Proceed.

Figure 111 – Request Service Catalog (Cont.)

5. The request service catalog form appears. The form contains the following tab:

- General Info

3.1.2.1.1.1.2.6.1   General Information

This tab allows the user to manage the general configuration required for requesting cloud services.

Figure 112 - Request Service Catalog (Cont.)

Select all the fields visible in UI and click on **Submit**.

All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configure by provider admin from UI creation section.

3.1.2.1.1.1.2.7 MultiHyper-Visor

To proceed with service requests that have Multi-Hypervisor as a cloud provider, end-user needs to follow the steps below:

1. Select **Provisioning Endpoint**. Only the Provisioning Endpoints are tagged in RBAC group of users and configuration are enabled to Provider admin.

2. Click **Request**.

Figure 113 – Cloud Provider Selection (Cont.)

3. Select **Number of Instances**, and then click **Proceed**.

Figure 114 – Request Service Catalog (Cont.)

4. The request service catalog form appears. The form contains the following tab:

- General Info

3.1.2.1.1.1.2.7.1 General Information

This tab allows the user to manage the general configuration required for requesting cloud services.

Figure 115 – Request Service Catalog (Cont.)

Select all the fields visible in UI and click on **Submit**.

All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configure by provider admin from UI creation section.

3.1.2.1.1.1.2.8 Red Hat OpenShift

To proceed with service requests that have Red Hat OpenShift as a cloud provider, end-user needs to follow the steps below:

1. Select Provisioning Endpoint.
2. Only the endpoints which are tagged in RBAC group of User configuration are enable to Provider admin.
3. Select **Region.**
4. Select **Service** from the options being displayed, i.e. **All Service** (it includes all the services given in the catalog), **Service Type** created by provider and mapped with service catalog.
5. Click **Request.**

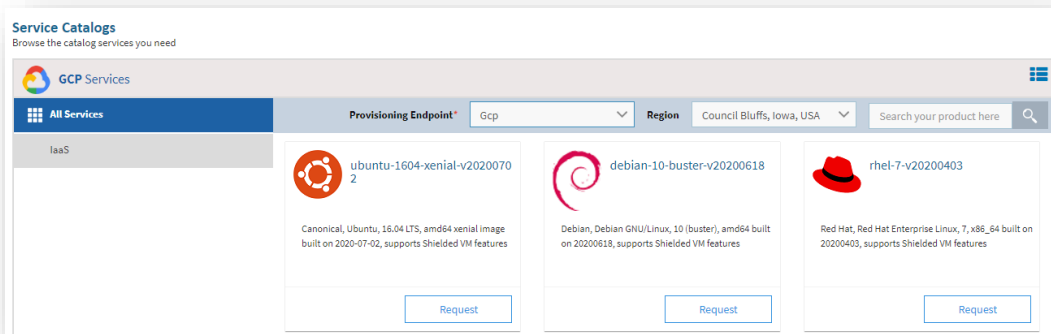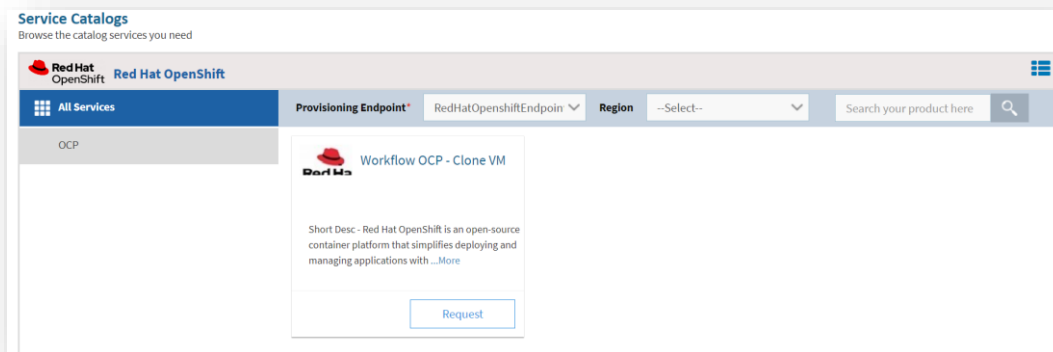**Figure 116 – Request Service Catalog (Cont.)**

6. Select the Number of Instances and click Proceed.

Figure 117 – Request Service Catalog (Cont.)

7. This displays the **Request Form** associated with the service catalog to fill in the Information.

8. The request service catalog form appears. The form is categorized into two categories:

    - General Information
    - Attachment

These categories vary from one Service Catalog to other. Fields are totally dependent on UI created by Provider and associated with Service Catalog.

3.1.2.1.1.1.2.8.1 General Information

This tab allows the user to manage the general configuration.

Figure 118 – Request Service Catalog (Cont.)

Refer to the below table to understand the fields mentioned in the above figure.

Table 27 – Request Service Catalog Fields

Fields	Description
Provision Date	The date on which a resource is required
Period	The lease period for which a resource is required
Period Value	Time period for the selected resource i.e., months, days, weeks or years
Region	The Region is Geographical Region at which Private DCs are located
Location	The locations at which Private DCs are located, and resources are getting consumed
Service Plan	Selecting the resource category created by the provider i.e. platinum, gold or bronze
Cost Type	Cost model as Pay as you go, or allocation based
VM Display Name	Name to be displayed against the Resource being created
Remarks	Provide additional requests, if any
Size	Need to mention the size
Network IP	It is the IP address of the server

1. Select **Provision Date** and **Period.**

2. Select **Period Value**.

3. Enter **Region.**

4. Enter **Location**.

5. Select **Service Plan** and **Cost Type.**

6. Enter **VM Display Name.**

7. Enter **Remarks** and select **Size.**

8. Enter **Network IP**.

Figure 119 – Request Service Catalog (Cont.)

9. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number (s).

10. User needs to provide the details for another Item in another form or a user may simply copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

- Select Copy From (Item No.).
- Select Copy To (Item No.).
- Click Go (→)

All the fields marked with an asterisk (*) are mandatory and UI fields are varying as per configured by provider admin from UI creation section.

Figure 120 - Request Service Catalog (Cont.)

11. Once the form is filled, go to **Compute** tab.

3.1.2.1.1.1.2.8.2 **Attachment**

This tab will be displayed, if Document Upload is enabled for service catalog by selecting "Allow Document Upload" setting to true on publish service catalog screen.

Figure 121 - Request Service Catalog (Cont.)

1. If a user has selected <<n>> no. of instances, then the same no. of item information appears on the screen in the form of Item number(s)

2. User needs to provide the details for another Item in another form or a user may copy the Details from one Item form to another Item by using **Copy From** and **Copy To** menu.

- Select Copy From (Item No.).
- Select Copy To (Item No.).
- Click Go (→).

3. Once the form is filled, click **Submit**.

4. The **Order Summary** screen appears as shown in Figure 83 - Request Service Catalog (Cont.).

5. Scroll down and click **Confirm**.

6. The order confirmation window appears with **MyCloud Request Number**.

7. User requests for a new service request by clicking **New Request**.

8. Click **Close** to close the pop-up window.

3.1.2.1.1.2   Request Service Catalog with Generic Endpoint

A Generic Endpoint is used for provisioning or platform agonistics service catalogs. Any type of service can be onboarded into a generic endpoint.

Like other provisioning endpoints, Generic endpoints has following features/workflow

- Admin can enable Generic Endpoint for Provider.
- Provider can create Generic Endpoint using "Manage Provisioning Platform" screen.
- Creation of Self-Service catalog for Generic Endpoint.

Manage Provider Screen

Admin user has the option to assign "Generic Endpoint" endpoint to provider. Below are the steps:

1. In the Provider menu, click on **Manage Provider**.
2. Enter Provider Name.
3. Enter **Provider** Description.
4. Select Applicable Cloud Platform.
5. Click on **Save**.
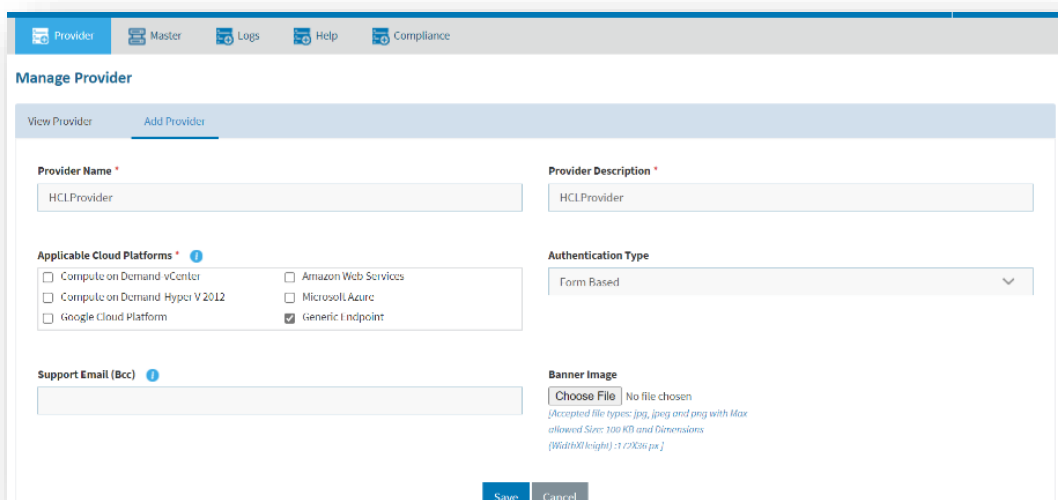
Figure 124 – Manage Provider

All the fields marked with an asterisk (*) are mandatory.
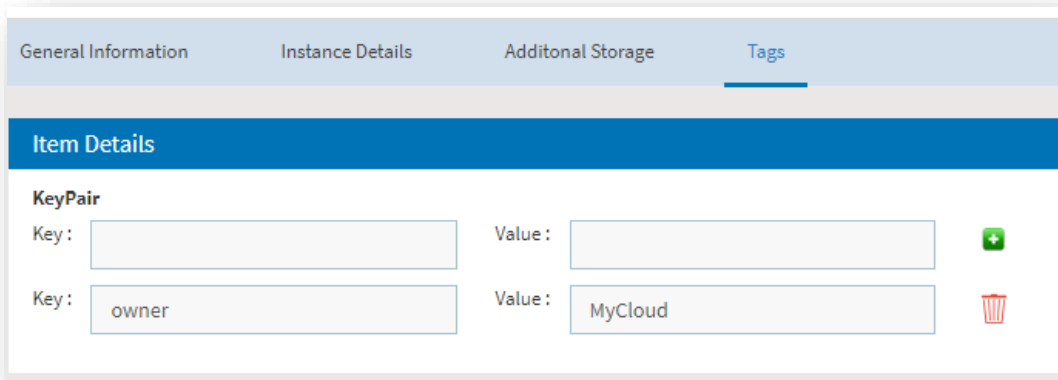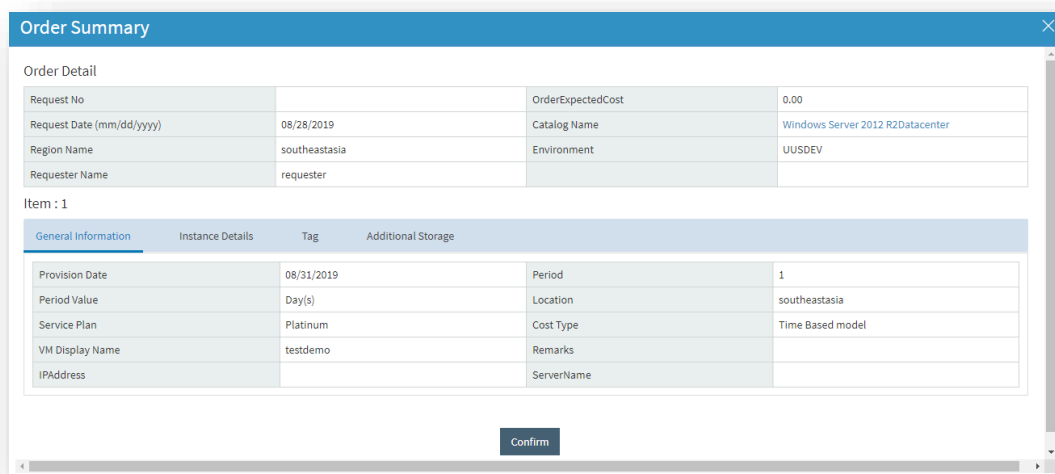
Figure 125 – Request Service Catalog (Cont.)

6. Enter Key, Name for the tag being created.
7. Enter Value, to determine whether the machine belongs to test, QA or production environment.

8. Click Add ( ).

9. Click Submit.

10. The Order summary screen appears.

11. Click Confirm.
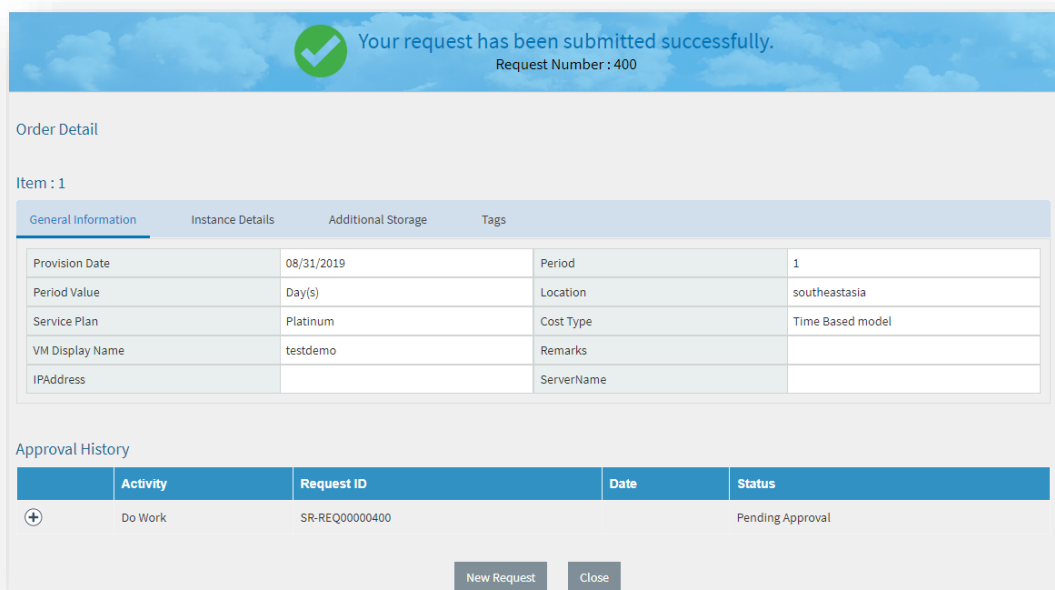
12. The order confirmation pop-up window appears.

13. User can request for a new service request by clicking **New Request**.

14. Click **Close** to close the pop-up window.

15. Refer to the below table to understand the Approval History mentioned in the above figure.

Table 28 – Approval History

Fields	Description
Activity	Displays the activity performed by the user
Request ID	ID generated after submitting the request
Date	Approval date gets displayed post approver's action.
Status	Current status of the request placed

All the fields marked with an asterisk (*) are mandatory.

Generic Endpoint Management

If Admin user has configured "**Generic Endpoint**" for provider, then provider user can create Generic endpoint.

1. In Master menu, click on Manage Provisioning Platform.
2. Select Generic Endpoint.
3. Click on the **Go** button.
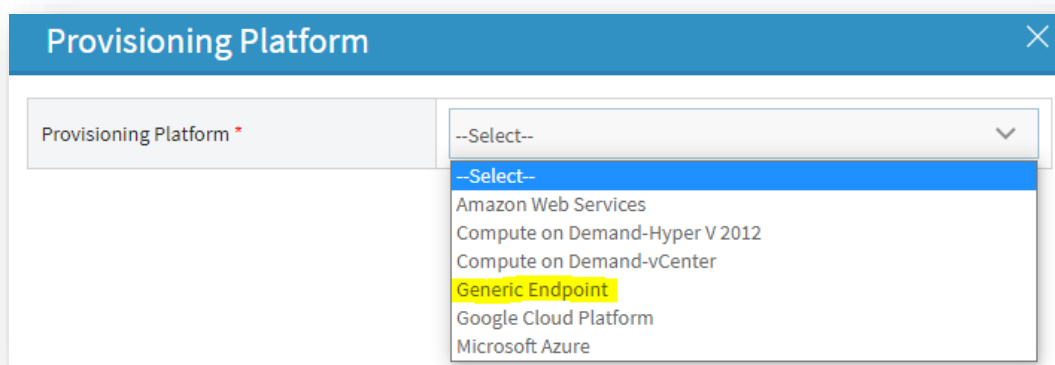
Figure 128 – Provisioning Platform

Add Configuration

The Add Configuration option allows the provider user to specify an endpoint for the Generic Endpoint. At one endpoint, the provider can define details of multiple cloud endpoints, which could be of any cloud provider.

Figure 129 – Manage Provisioning Platform – Generic Endpoint

1. To add configuration details, click on **Add Configuration** tab.

Figure 130 – Manage Provisioning Platform – Generic Endpoint (Cont.)

2. Refer to the below table to understand the fields mentioned in the above figure.

Table 29 – Managing Provisioning Platform

Fields	Description
Generic Endpoint	User for API integration with MyCloud
Display Name	User for request and manage resources
Tags	Select the name of the organization (Business units/ divisions in organizations)
Description	This field contains the Username of the user
Configuration Type	This field contains the User Id of the user

3. Enter Configuration Name.

4. Enter Tennant ID.

5. Enter Native Client ID.

6. Enter Client Secret Key.

7. Enter Subscription Id.

All the fields marked with an asterisk (*) are mandatory.

8. Click on **Submit**.

9. A Success message appears.
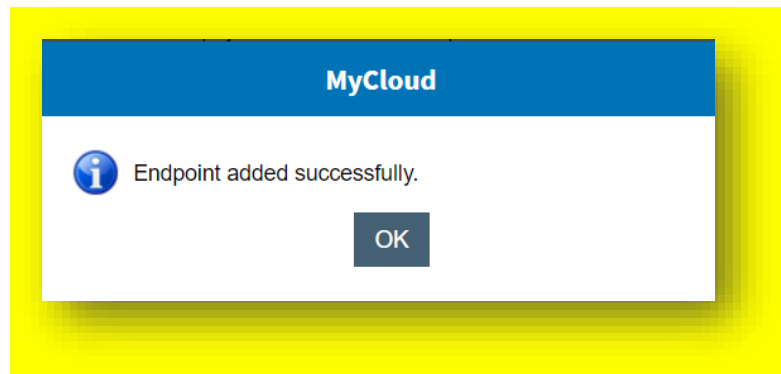
Figure 131 – Success Message

View Configuration

This section lists all the Generic Endpoints. The following actions can be performed from this screen:

- Edit

- Tag

- Delete

Figure 132 – Manage Provisioning Platform – View Generic Endpoint

To edit or update any generic endpoint detail, click on the **Edit** icon ✏. The following screen appears:

Figure 133 – Manage Provisioning Platform - Generic Endpoint- Edit

1. To update the **Client Secret Key,** select the "**Change Encrypted Keys**" checkbox. The following screen appears where the client secret key is selected/entered.

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Figure 134 – Manage Provisioning Platform - Generic Endpoint- Edit (Cont.)

2. Click on the search button where the pop up appears and select the input type from the drop-down.

3. Click **Submit** to map the value with the **Client Secret Key**.

4. Click **Update** to update the configuration.

5. A Success Message appears:
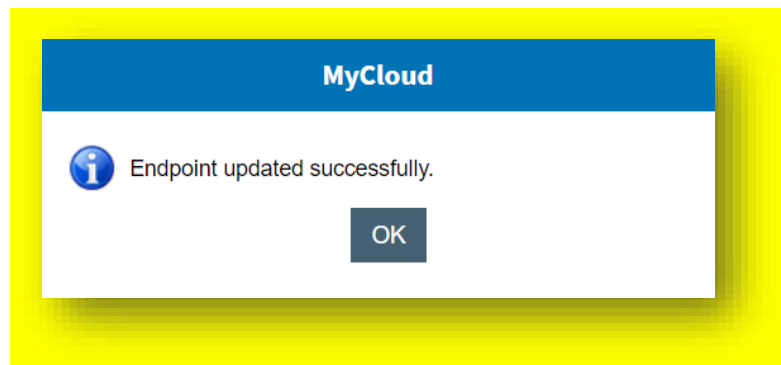
Figure 135 – Success Message

6. To add tag(s) against any configuration just click on button. The following screen appears:

Figure 136 – Apply Tag(s)

7. Click **Save**. All the entered tags are mapped against the configuration.

–   **Allocating Organization:**

Once an endpoint is created, the provider needs to allocate the generic endpoint to the organization for further processing.

a. In the Organization menu, click on Allocate Resource to Organization.

b. Select Organization.

c. Select 'Generic Endpoint' as **Platform**.

d. Click on **Go**.

e. Click on Allocate New Resource.

f. The following Screen appears:

Figure 137 – Allocate Resource to Organization

g. Now click on any **Cloud Landing Zone** provisioning endpoint under the **Resources** section.

Figure 138 – Allocate Resource to Organization (Cont.)

h. Click **Save** to save the mapping.

i. The following Message box appears.
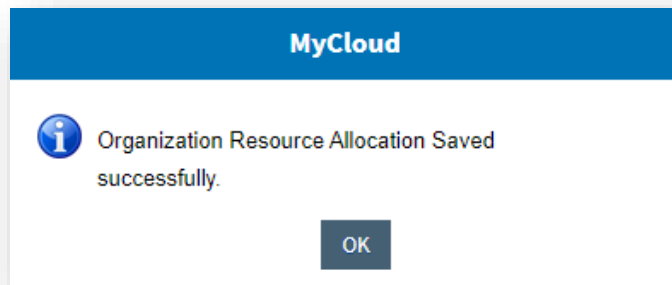
Figure 139 – Success Message

3.1.2.1.1.2.3   Manage Cloud Template

However, Cloud Template creation is not required for Generic Endpoint, but to fit into the existing MyCloud process, the provider user must define a Cloud Template.

By default, MyCloud has a new region called "Global" which is applicable only for Generic Endpoint.

For generic endpoint, the Image Type is always "None".

To Add Cloud Template:

1. In the Workflow Template menu, click on Manage Cloud Template.

2. The Manage Cloud Template appears.

Figure 140 – Manage Cloud Template

3. Click on Create Template.

4. Select 'Generic Endpoint' as **Platform**.

5. Select Provisioning Endpoint.

6. Select Image Type.

7. Enter Template Name.

8. Select **Region**.

9. Click **Save** to save the mapping.

10. A Success Message appears:

Figure 141 – Success Message

11. To view the Cloud Template, select **Platform.**

12. Select Provisioning Endpoint.

13. Click **Go.**
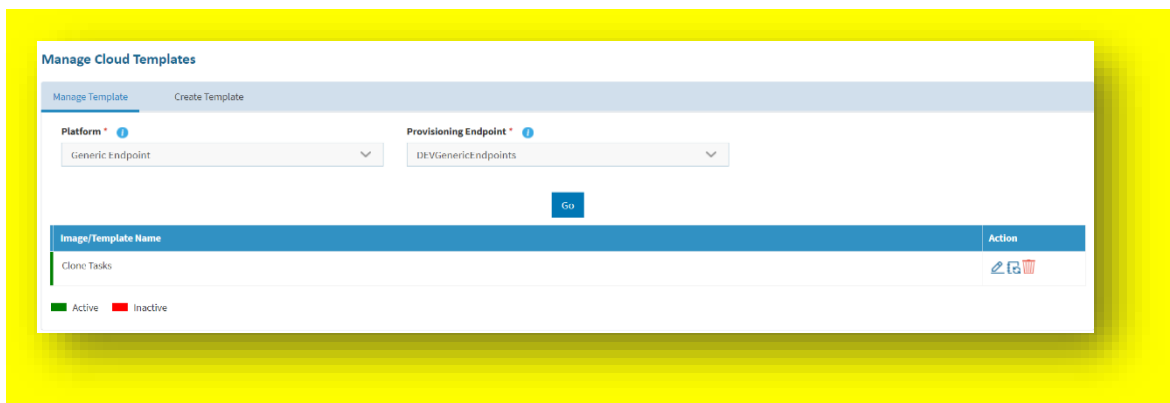
Figure 142 – Manage Cloud Template – View Cloud Templates

3.1.2.1.1.2.4   Manage UI Template

Dynamic UI Creation screen also has a new platform option as "Generic Endpoint".

Custom controls are not applicable for Generic Endpoint.

To Create UI Template:

1. In the Workflow Management menu, click on Manage UI Template.

2. The **Manage UI Template** appears. Click Create UI Template.
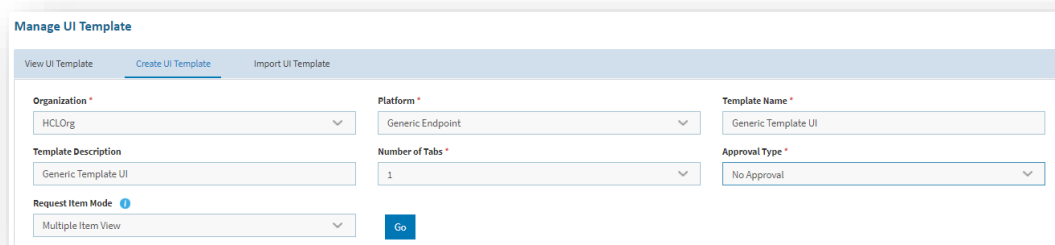
Figure 143 – Manage UI Template

3. Select Organization.

4. Select Platform.

5. Enter Template Name.

6. Enter Template Description.

7. Select Number of Tabs.

8. Select Approval Type.

9. Click **Go**. The following screen appears with the Drag and Drop controls:
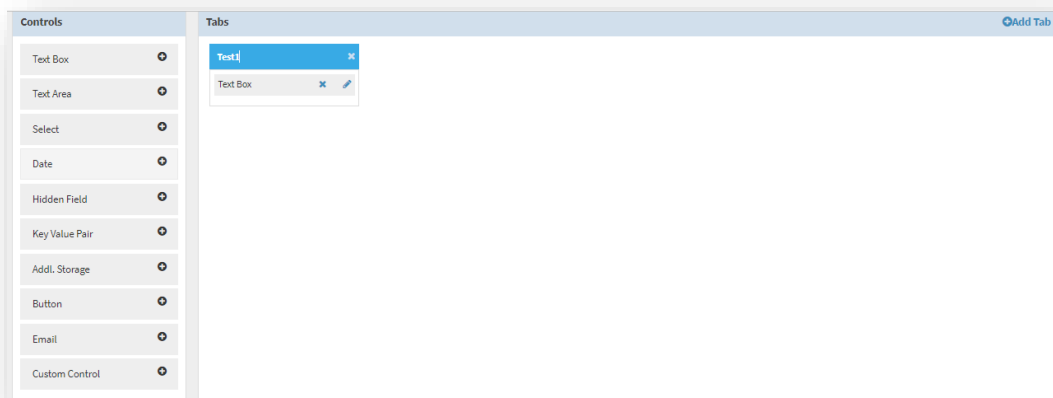
Figure 144 – Manage UI Template (Cont.)

10. Fill control's property.

11. Click **Save**. A Success Message appears:

Figure 145 – Success Message

3.1.2.1.1.2.5   Process Workflow

Process workflow also has a new platform called "Generic Endpoint". This new platform has various tasks to provision Landing Zone. Each task may provision resources to a specific cloud provider. i.e., Task list may have task like VPC creation, Vnet creation etc. VPC creation is specific to AWS whereas Vnet is specific to Azure.

To Create Process Template for Generic Endpoint:

1. In the Workflow Management menu, click on Manage Process Template.

2. The Manage Process Template page appears:

Figure 146 – Manage Process Template

3. Click on **Add Template** tab.

4. Select Organization.

5. Select Platform.

6. Select UI Template.

7. Enter Template Name.

8. Enter Template Description.

9. Click on **Add Template**. This creates a New Process template.

3.1.2.1.1.2.6 Manage Catalog

Manage Catalog screen also has a new platform option called "Generic Endpoint".

To Create Catalog for Generic Endpoint:

1. In the Service Catalog menu, click on Manage Catalog.

2. The **Manage Catalog** page appears:

Figure 147 – Manage Catalog

3. Click on **Create Catalog** tab.

Figure 148 – Manage Catalog

4. Select **Platform**.

5. Select **Provisioning Endpoint**.

6. Select **Template**.

7. Select **Region**.

For Generic Endpoint, The **Region** is always 'Global'.

8. Enter Catalog Name.

9. Enter Catalog Description.

10. Click **Save**. This saves the catalog.

11. A Success Message appears:

Figure 149 – Success Message

3.1.2.1.1.2.7   Publish Service Catalog

The Publish Service Catalog will also have a new platform option as "Generic Endpoint".

To Create Publish Service Catalog:

1. In Service Catalog menu, click on Publish Service Catalog.

2. The Publish Service Catalog page appears.
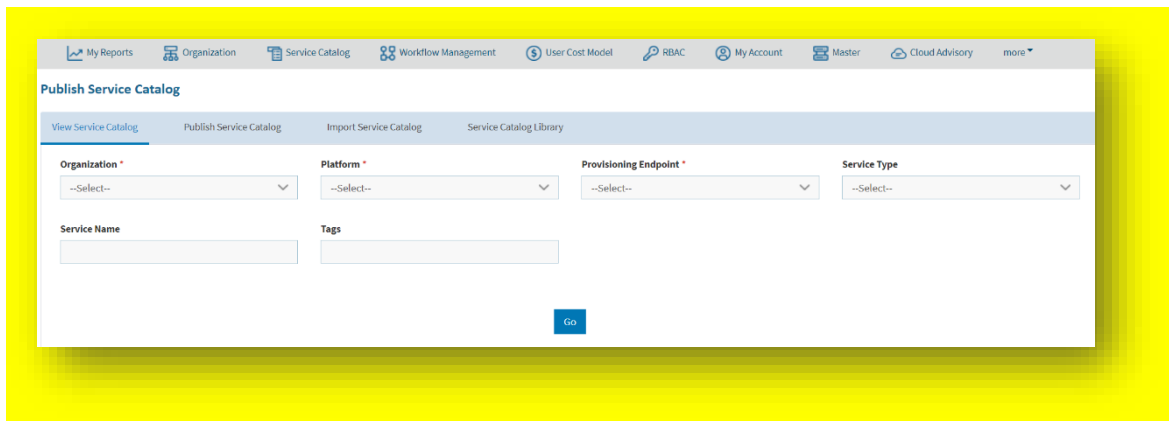
Figure 150 – Publish Service Catalog

3. Select the Publish Service Catalog tab.

Figure 151 – Publish Service Catalog (Cont.)

4. Select Organization.

5. Select Platform.

6. Select Provisioning Endpoint.

7. Select Catalog.

8. Select Service Type.

9. Enter Service Name.

10. Select Object Type.

11. Enter Short Description.

12. Enter Description.

13. Select Process Template Workflow.

14. Select Maximum Number of Instances.

15. Click **Create**. This publishes the catalog and displays a success message.
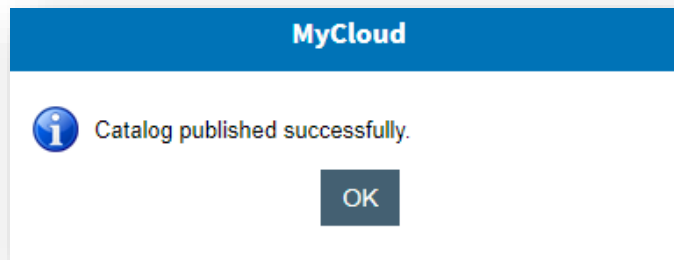
Figure 152 – Success Message

Provisioning Generic Endpoint

Requester module has "Generic Endpoint" as new cloud provider. This contains all the service catalog configured for "Generic Endpoint".

To Generate Request:

1. Login as **Requester.**

2. In the Request menu, click on Request Service Catalog.

3. Click on Generic Endpoint.
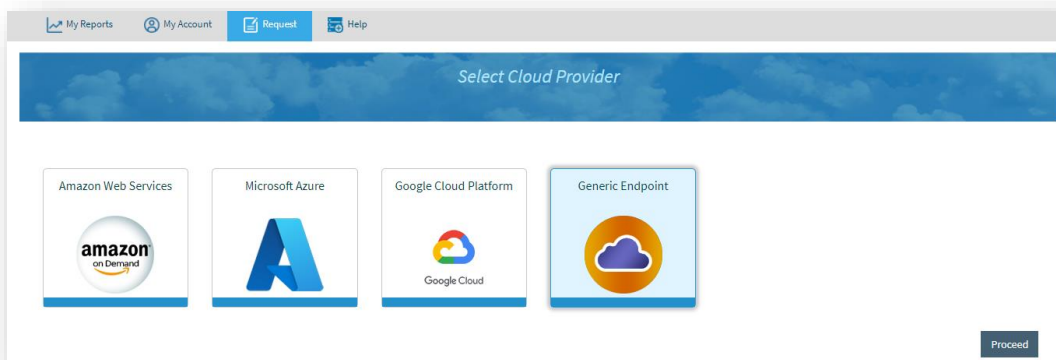
Figure 153 – Request Service Catalog

4. Click on **Proceed.**
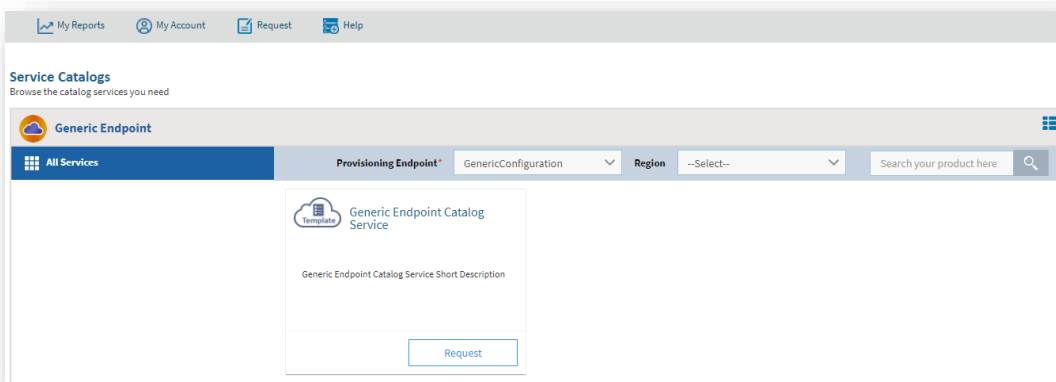
Figure 154 – Service Catalogs

5. Click on **Request.**

Figure 155 – Service Catalog Service

6. Click on Submit.

7. A Confirmation popup appears.

Figure 156 – Request Detail

8. Click on **Confirm.**

9. The following screen appears and displays the new Request.

Figure 157 – Request Details

3.1.2.1.1.3   My Account

This section explains the steps required to manage an account for a service requester. A service requester is a consumer of cloud services.

1. On the main menu bar, click **My Account**.
2. The drop-down appears with the following options:
   - **My Objects**
   - My Schedules
   - My Reports

Through this module, the user can schedule action(s) on object(s) in an organization. Pre-requisites of using my schedules:

- Organization should have "action scheduling enabled" in the organization module.
- At least one action should be active for respective object.
- UI associated with action should not have approval associated with it.
- Controls used in UI should be textbox and hidden controls only.

It has the following options:

- View Schedules
- Create Schedules
- Schedule History

Figure 158 – My Schedules

3.1.2.1.1.3.1   Create Schedule

To create a schedule of an action in an organization, login user needs to follow the steps below:

1. Click on my schedules menu option and then click create schedule.

Figure 159 – Create Schedule

2. Refer the below table to understand the fields mentioned in the above figure:

Table 30 – Create Schedule Fields

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
Platform	The field lists down the cloud service provider.
Provisioning Endpoint	Displays the name of the environment (cloud endpoint)
Object Type	Name of the infrastructure resource.
Action	Displays the list of Action(s) associated to Object.
Name	This unique name of Schedule Action.
Description	Description of Schedule Action.
Time Zone	This field represents the Time Zone of Start Time.
Start Time	The field represents when to start/schedule the Action.
Frequency	Interval at which the Action can be schedules
Action Parameter(s)	List of Parameters depends on selected Action

3. Select Organization.

4. Select Platform and Provisioning Endpoint.

5. Select Object Type.

6. Select Action.

7. Enter the Name and Description of Schedule.

8. Select Time Zone and Start Time.

9. Select Frequency.

10. Now Map the Parameters of Action. Parameter Data Type supports two types:

    - Static – User can provide the Static value of a control.

    - SQL Function – SQL function can be used to find the dynamic value of a control.

11. Click Save.

Figure 160 – Create Schedule (Cont.)

All the fields marked with an asterisk (*) are mandatory.

A success message box appears.
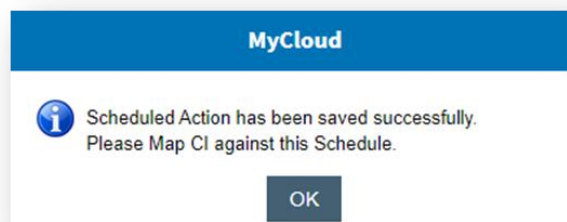
Figure 161 – Create Schedule (Cont.)

12. Now click Ok. A Popup will open containing the relevant Object(s).

13. You can select the appropriate Object(s), on which Action needs to be scheduled.

Figure 162 – Create Schedule (Cont.)

14. Now click on the Map button.

A success message box appears.
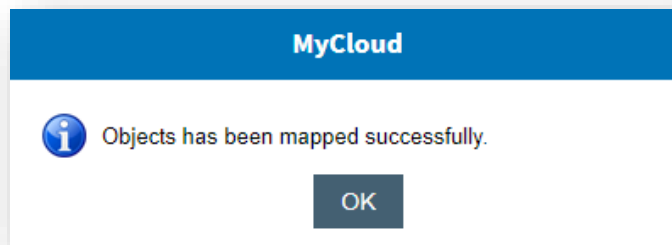
Figure 163 – Create Schedule (Cont.)

The Action Scheduled Successfully.

View Schedules

This section lists all the Schedules that have been created by an organization admin.
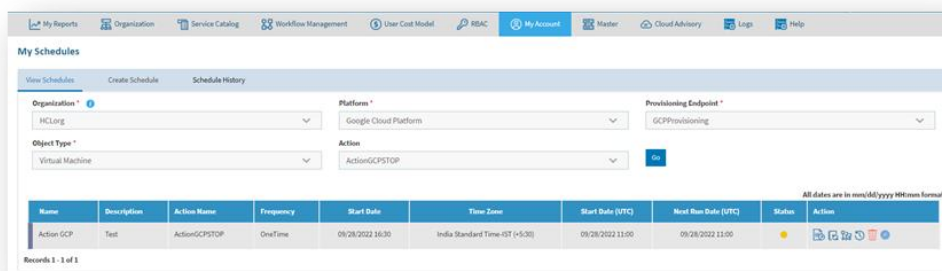
Figure 164 – View Schedules

Refer to the below table to understand the fields mentioned in the above figure.

Table 31 – View Users Field

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
Platform	The field lists down the cloud service provider.
Provisioning Endpoint	Displays the name of the environment (cloud endpoint)
Object Type	Name of the infrastructure resource.
Action	Displays the list of Action(s) associated to Object.
Name	This unique name of Schedule Action.
Description	Description of Schedule Action.
Action Name	Name of Action for which Schedule has been created
Frequency	Interval at which the Action can be schedules

Start Date	The field represents when to start/schedule the Action.
Time Zone	This field represents the Time Zone of Start Time.
Start Date (UTC)	The field represents when to start/schedule the Action in UTC time zone
Next Run Date	The field represents next schedule time of the Action
Status	The status of the Schedule
Action	User to take actions like Edit, Change Status, Map Objects, history, Delete against the listed schedules

It also comprises the following actions:

- Edit (⊞): to modify the details of schedule.

- Change status (⊘): to change the status of schedule.

- Map objects (⚛): to map objects to schedule.

- History (⊘): to check the history of schedule.

- Delete (🗑): to delete the schedule.

- Execute now (🗑): to execute the schedule immediately.

3.1.2.1.1.3.3   Schedule History

This section lists all the History of Schedules Actions.

To view the schedule history, follow the below steps:

1. Click on (⊘) icon in the grid records on View Schedule tab.
2. On clicking this icon, Schedule History tab will open.

Figure 165 – Schedule History

Refer the below table to understand the fields mentioned in the above figure.

Table 32 – Schedule History Field

Fields	Description
Schedule Name	This unique name of Schedule Action.
Action Name	Name of Action for which Schedule has been created
Frequency	Interval at which the Action can be schedules
Start Date	Start Time, to filter the history of Schedules from this time
End Date	End Time, to filter the history of Schedules till this time
Status	InProgress, Completed, Failed filter status
Schedule Request Id	Unique GUID for the schedule instance.
Status	Status if the scheduled instance
Schedule Run Date	Run date of the scheduled instance
Request No	Request Tracking Request Number created by Schedule Request Id.
Object Id	Object Id, Unique Id of the object on which Action is performed.
Schedule Run Date	Run date of the scheduled instance
Execution Status	Status of the Request Execution

Through this module, the user can schedule Action(s) on object(s) in an organization. Pre-requisites of using My Schedules:

- Organization should have "Action Scheduling Enabled" in the Organization Module.
- At least one Action should be active for respective object.
- UI associated with Action should not have Approval associated with it.
- Controls used in UI should be Textbox and Hidden Controls Only.

It has the following options:

- **View Schedules**
- **Create Schedules**
- **Schedule History**

Figure 166 - My Schedules

3.1.2.1.1.4.1   Create Schedules

To create a schedule of an Action in an organization, login user needs to follow the steps below:

1. Click on **My Schedules** menu option and then click **Create Schedule**.
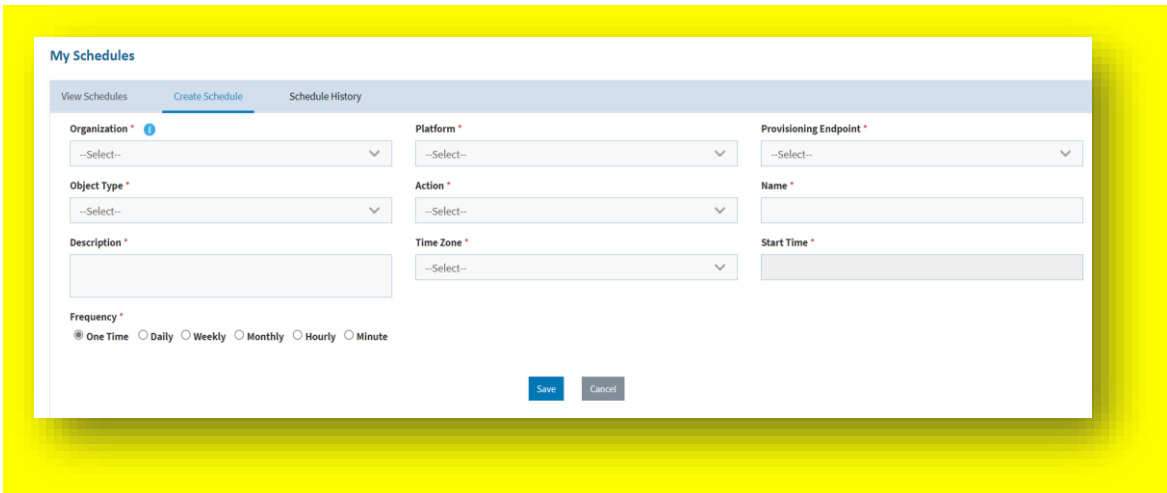
Figure 167 – Create Schedule

2. Refer to the below table to understand the fields mentioned in the above figure.

Table 33 – Create Schedule Fields

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
Platform	The field lists down the cloud service provider.
Provisioning Endpoint	Displays the name of the environment (cloud endpoint)
Object Type	Name of the infrastructure resource.
Action	Displays the list of Action(s) associated to Object.
Name	This unique name of Schedule Action.
Description	Description of Schedule Action.
Time Zone	This field represents the Time Zone of Start Time.
Start Time	The field represents when to start/schedule the Action.
Frequency	Interval at which the Action can be schedules
Action Parameter(s)	List of Parameters depends on selected Action

3. Select Organization.

4. Select Platform and Provisioning Endpoint.

5. Select Object Type.

6. Select **Action.**

7. Enter the Name and Description of Schedule.

8. Select Time Zone and Start Time.

9. Select **Frequency.**

10. Now map the Parameters of Action. Parameter Data Type supports two types:

   - Static – User can provide the Static value of a control.

   - SQL Function – SQL function can be used to find the dynamic value of a control.

11. Click **Save.**

Figure 168 – Create Schedule (Cont.)

All the fields marked with an asterisk (*) are mandatory.

12. A success message box appears.

Figure 169– Create Schedule (Cont.)

13. Now click **Ok**. A Popup will open containing the relevant Object(s).

14. You can select the appropriate Object(s), on which Action needs to be scheduled.

Figure 170 – Create Schedule (Cont.)

15. Now click on the **Map** button.

16. A success message box appears.

Figure 171 – Create Schedule (Cont.)

The action scheduled successfully.

View Schedules

This section lists all the Schedules that have been created by an organization admin.
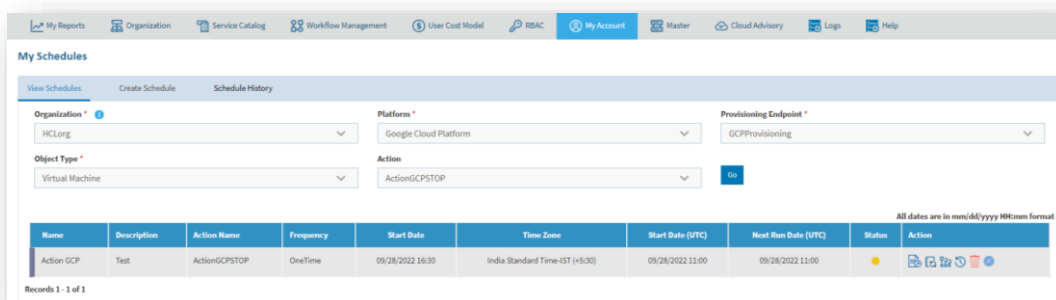
Figure 172 – View Schedules

Refer to the below table to understand the fields mentioned in the above figure.

Table 34 – View Users Field

Fields	Description
Organization	Select the name of the organization (Business units/ divisions in organizations)
Platform	The field lists down the cloud service provider.
Provisioning Endpoint	Displays the name of the environment (cloud endpoint)
Object Type	Name of the infrastructure resource.
Action	Displays the list of Action(s) associated to Object.
Name	This unique name of Schedule Action.
Description	Description of Schedule Action.
Action Name	Name of Action for which Schedule has been created
Frequency	Interval at which the Action can be schedules
Start Date	The field represents when to start/schedule the Action.
Time Zone	This field represents the Time Zone of Start Time.
Start Date (UTC)	The field represents when to start/schedule the Action in UTC time zone
Next Run Date	The field represents next schedule time of the Action
Status	The status of the Schedule
Action	User to take actions like Edit, Change Status, Map Objects, history, Delete against the listed schedules

It also comprises the following actions:

- Edit ( ): To modify the details of Schedule.

- Change Status ( ): To change the status of Schedule.

- Map Objects ( ): To map objects to Schedule.

- History ( ): To check the history of Schedule.

- Delete ( ): To delete the Schedule.

- Execute Now ( ): To execute the schedule immediately.

This section lists all the History of Schedules Actions.

To view the schedule history, follow the below steps:

1. Click on ( ) icon in the grid records on View Schedule tab.
2. On clicking this icon, Schedule History tab will open.

Figure 173 – Schedule History

Refer the below table to understand the fields mentioned in the above figure.

Table 35 – Schedule History Field

Fields	Description
Schedule Name	This unique name of Schedule Action.
Action Name	Name of Action for which Schedule has been created
Frequency	Interval at which the Action can be schedules
Start Date	Start Time, to filter the history of Schedules from this time
End Date	End Time, to filter the history of Schedules till this time
Status	InProgress, Completed, Failed filter status
Schedule Request Id	Unique GUID for the schedule instance.
Status	Status if the scheduled instance
Schedule Run Date	Run date of the scheduled instance
Request No	Request Tracking Request Number created by Schedule Request Id.
Object Id	Object Id, Unique Id of the object on which Action is performed.
Schedule Run Date	Run date of the scheduled instance
Execution Status	Status of the Request Execution

3.1.2.1.1.5   My Object

To create and manage objects within object type on a platform, Requester needs to follow the below steps:

1.   Select **Platform** from the list of cloud service providers.

2.   Select the **Object Type** from the list of infrastructure resource.

3. Click **Go.**

Figure 174 – My Objects

It lists down the available Object Types in a tabular view which enables the requester to perform various actions as listed below on the object types.

- About My Objects
- Bulk Delegation
- Remove Delegation
- Grid Column Arrangement
- Actions
- Object and Health Details
- Object Order Details

Figure 175 – My Objects (Cont.)

About My Objects

This section will provide the details of fields on My Objects Page.
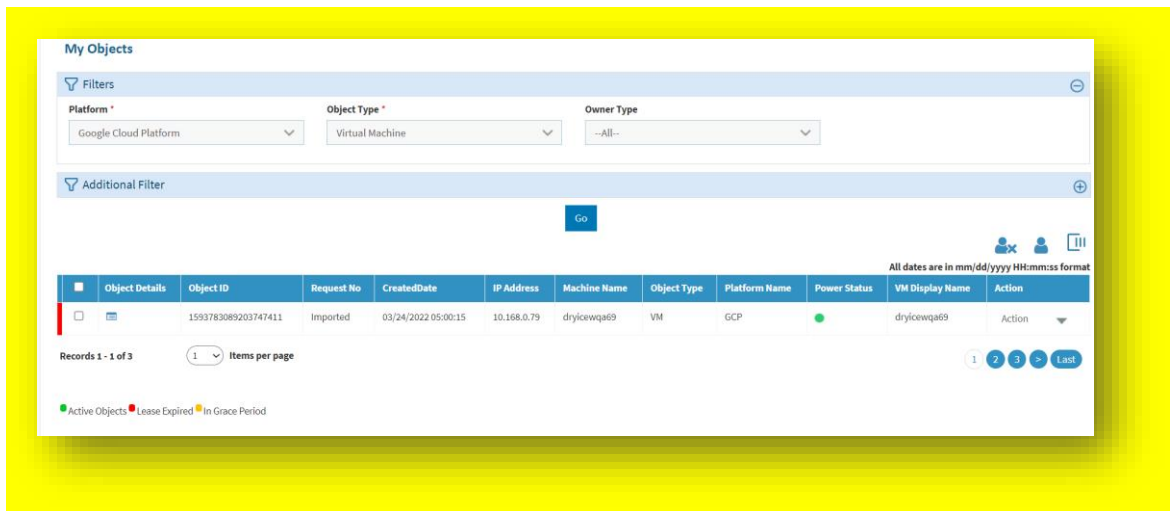
Figure 176 – My Objects (Cont.)

Refer to the below table to understand the fields mentioned in the above figure.

Table 36 – My Objects

Fields	Description
Platform	The name of Cloud service providers
Object Types	Infrastructure resource
Owner Type	Resource owner includes Delegate or Self
☐	Checkbox to select a specific or multiple Object Type(s).
▣	Object and Health Details.
👤✗	Remove Delegation
👤	Delegate object(s) to another user.
⚙	Grid Column Settings
Action ▼	List of all the actions available on specific object.

▣ (Object and Health Details) – This column will only be shown for Object Type is Virtual Machine

To transfer/ delegate the object(s) to another user, follow the steps below:

1. Select the Objects by clicking on the checkbox ☐ corresponding to the objects that need to be transferred to another user.

2. Click on **Add Delegate** user button 👤 on pane.

3. A pop up appears.

Figure 177 – My Objects – Add Delegate User

4. Enter the **User/RBAC Group** name in the text box and click on ( ). Click **Save.**

5. A Success Message appears:

Figure 178 – My Objects – Add Delegate User

Remove Delegation

To remove the object(s) delegates/transferred to another user, follow the steps below:

1. Click on **Remove Delegation** button ( ) on pane.

2. A pop up appears. Enter the **User/RBAC Group** name in the text box and click on the **GO** button.

3. A grid populates with all the delegated objects to this user.

Figure 179 – My Objects – Remove Delegation

4. Select the object by clicking on the checkbox.

5. Click **Remove.**

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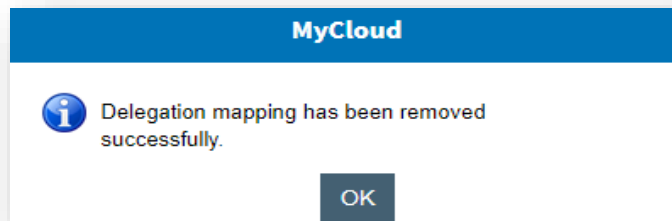
Figure 180 – My Objects – Remove Delegation

3.1.2.1.1.5.4 Grid Column Arrangement

To arrange (show/hide) the columns related to selected object type. Then following the steps below:

1. Click on **Colum Settings** button on the pane.
2. A screen will appear where requester can configure the columns which will be visible/hidden on **My objects** page. This popup contains 2 sections:
   - Available Columns – List of columns which are not shown on the screens.
   - Selected Columns – Already selected columns.
3. User can move the column from **Available** to **Selected** column section which needs to be visible on the page. And vice versa i.e., **Selected** to **Available** to hide the columns.
4. To update the settings, click **Save**.
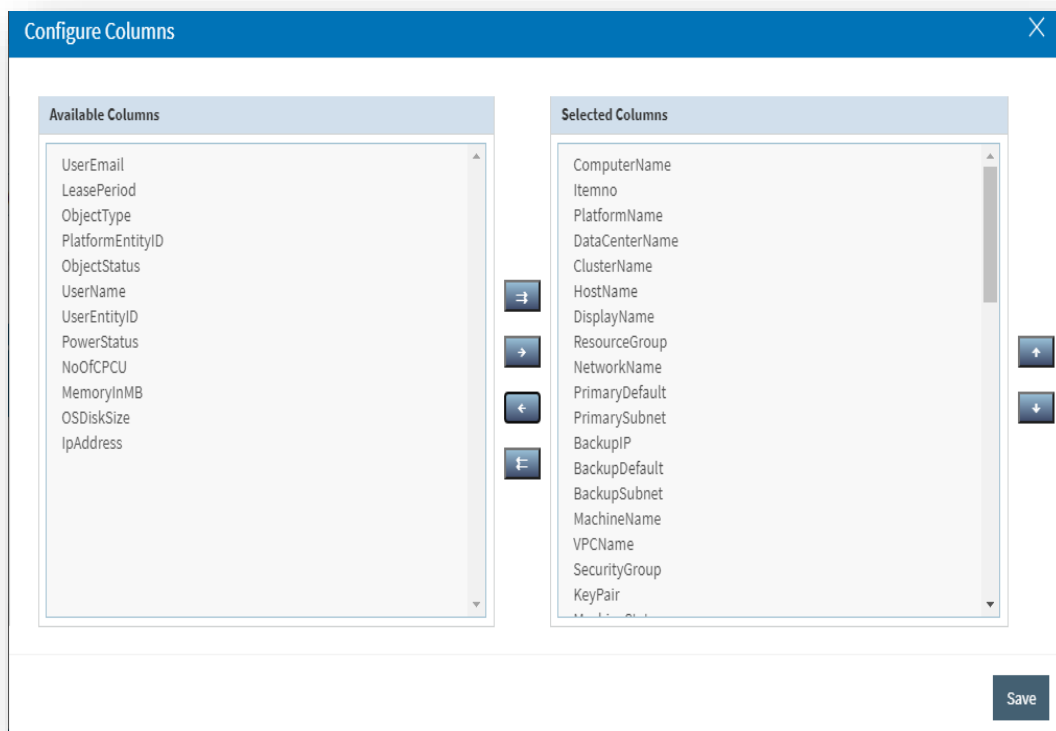
Figure 181 – My Objects – Grid Column Arrangement

3.1.2.1.1.5.5 Actions

This section provides the details on how to access the actions available for the respective object.

1. Scroll to the last column in the grid ("Action").

2. Hover the mouse over the **Action** link.

3. The drop-down appears with the following options:
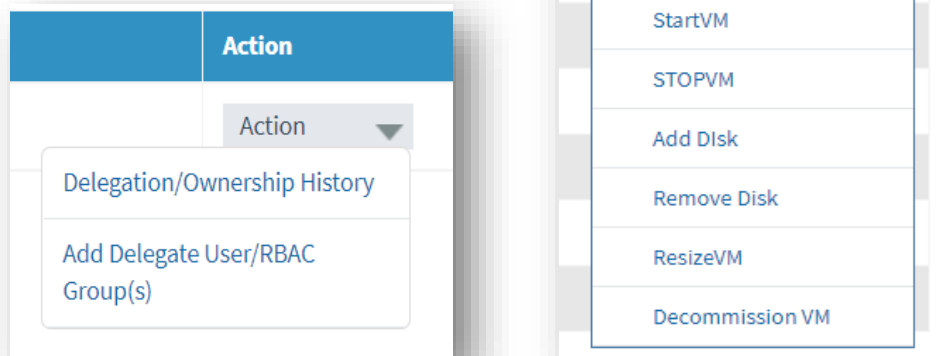
Figure 182 - My Objects - Actions

Refer to the below table to understand the Approval History mentioned in the above figure.

Table 37 – My Objects – Actions

Fields	Description
Delegation/Ownership History	Requests to get delegation and ownership history details
Add Delegate User/RBAC Group(s)	Add Delegate User/RBAC Group(s)
Start VM	Requests to start a VM
Stop VM	Requests to stop a VM
Add disk	Requests to add disk
Remove disk	Requests to remove disk
Resize VM	Requests to resize VM
Decommission VM	Requests to decommission/ stop using the resource

4. Click on the action "**StartVM**". This opens the Start VM Request form.

Figure 183 – My Objects – Actions

The form and UI fields may vary as per configuration done by provider admin.

5. Fill in all required fields and Click **Submit**.

Figure 184 – My Objects – Actions

For more Actions and Actions related to other Object Type, kindly contact the Provider admin user, or refer the DRYiCE MyCloud Configuration Guide – Provider Module

6. Click on the action "**Delegation/Ownership History**". The below form opens.

Figure 185 – My Objects – Actions (Delegation/Ownership History)

Using this form, the requester user can see the Delegation History and Ownership history with respect to Object id. Delegation history can be filtered by Status filter (i.e., Active/Inactive).

7. Click on the action "**Add Delegate User/RBAC Group(s)**". The below form opens:

Using this form, the requester user can add the User or RBAC group with respect to a particular object.

3.1.2.1.1.5.6   Object and Health Details

This section will provide details about Object and Health. To view the Object and Health Details follow the steps below:

The view Object and Health Details is only applicable when Object Type is "VM".

1. Click **Object Details** ( ) on the navigation column of the grid.

2. The **Cloud Control** pop-up appears with the following types of object details:

   a. The Basic Details tab includes the Object ID, Request No., Object Type, and Power Status.

   b. The **Health** tab includes the Machine Utilizations Graph information.

   c. Click **Close** ( ) to close the pop-up window.
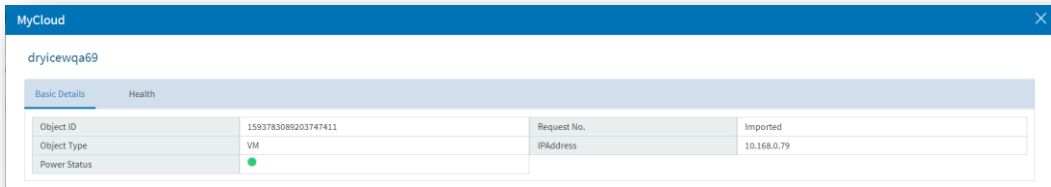
Figure 188 – My Object – Object and Health Details (Cont.)

By default, the **Basic Details** tab appears.

If the **Health** tab is not visible, kindly contact the Provider admin user to configure the performance job.

3. Click on **Object ID** that generates the summary of object type.
4. Click Close (☒) to close the pop-up window.
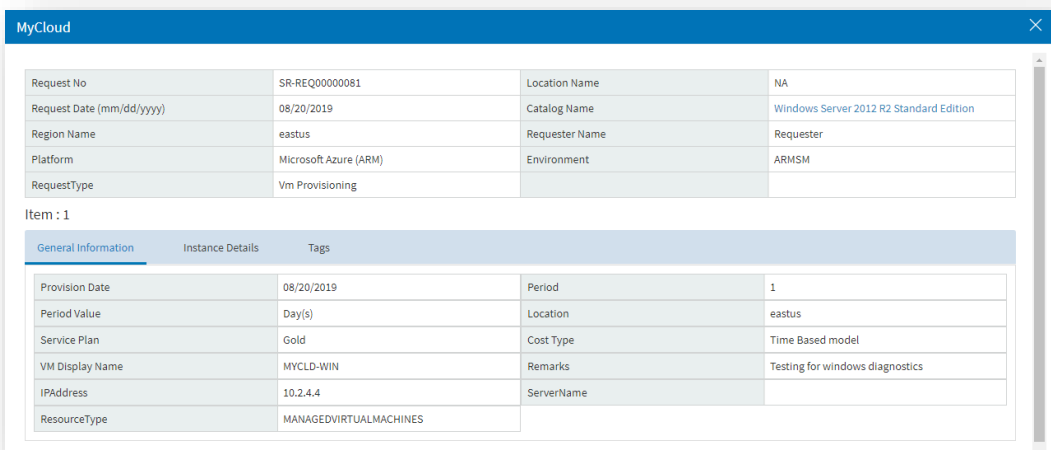
Figure 189 – My Objects – Object and Health Details (Cont.)

3.1.2.1.1.5.7   Object Order Details

This section will provide details about the Object Oder Details. To view the Object Order Details, follow the steps below:

The Object Order Details is only applicable for the resource for which request has been given using MyCloud Portal. Imported Resource are not applicable.

1. Click **Object ID** (**MCLD-1674-1**) in the **Object ID** column of the grid.

Figure 190 - My Objects – Object Order Details

2. The Cloud Control pop-up appears with the summary of object and Approval history.

3. Click **Close** (⊠) to close the pop-up window.

Figure 191 - My Objects – Object Order Details (Cont.)

3.1.2.1.1.5.8   Object Actions

This section provides the details of Virtual Machine Actions.

3.1.2.1.1.5.8.1   Start VM

To start a VM, requester needs to follow the below steps:

1. Enter **Server Name** against which user needs to perform the action.

2. Enter **Resource Group Name**, against which user needs to perform the action.

3. Click **Submit** to start a VM.

4. Click **Generate API JSON** to get JSON file.

Figure 192 – Start VM

3.1.2.1.1.5.8.2 Stop a VM

To stop a VM, requester needs to follow the below steps:

1. Enter **Server Name,** the name of server to be displayed.
2. Enter **Resource Group Name,** group name of resource against which user needs to perform the action.
3. Click **Submit** to stop a VM.
4. Click **Generate API JSON** to get JSON file.

Figure 193 – Stop VM

3.1.2.1.1.5.8.3 Add Disk

To add disk, a requester needs to follow the below steps:

1. Enter **Server Name,** the name of server to be displayed.
2. Enter **Resource Group Name,** group name of resource against which user needs to perform action.
3. Select **Storage Account Type** from the list.
4. Enter Disk requirement (in GB) under Add Disk.

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5. Click **Submit** to add disk.

6. Click **Generate API JSON** to get JSON file.

Figure 194 – Add Disk

Remove Disk

To remove disk, a requester needs to follow the below steps:

1. Enter **Server Name.**

2. Enter **Resource Group Name.**

3. Select **Disks**.

4. Click **Submit** to remove disk.

5. Click **Generate API JSON** to get JSON file.

Figure 195 – Remove Disk

Resize VM

To resize a VM, requester needs to follow the below steps:

1. Enter **Server Name**, the name of server to be displayed.

2. Enter **Resource Group Name**, the group name of resource against which user needs to perform action.

3. Select **New Instance Size**, size of the required instance.
4. Click **Submit** to resize VM.
5. Click **Generate API JSON** to get JSON file.

Figure 196 – Resize VM

3.1.2.1.1.5.8.6 Decommission VM

To decommission a VM, requester needs to follow the below steps:

1. Enter **Server Name,** the name of server to be displayed.
2. Enter **Resource Group Name,** the group name of resource against which user needs to perform action.
3. Click **Submit** to decommission VM.
4. Click **Generate API JSON** to get JSON file.
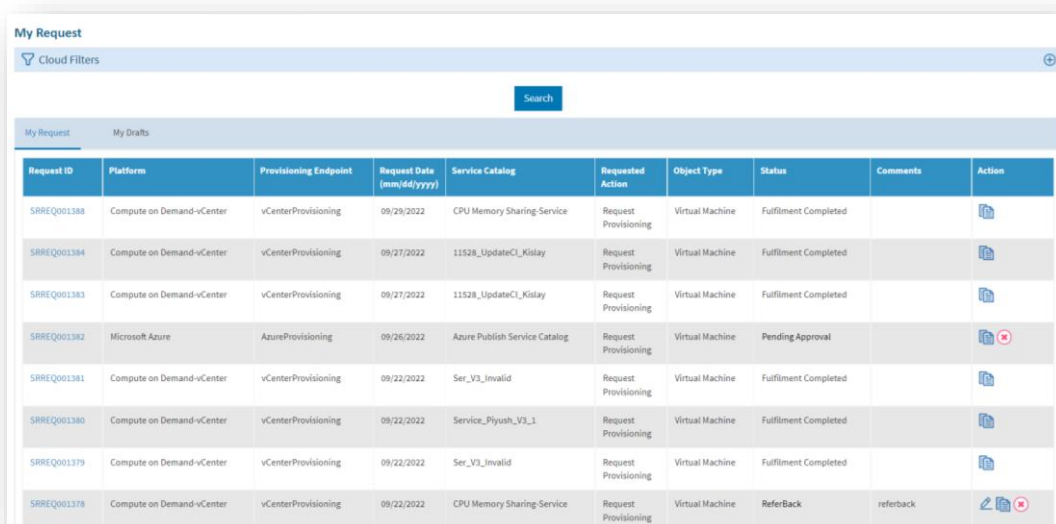
Figure 197 – My Object (Cont.)

3.1.2.1.1.6 My Request

This section explains the steps to view and manage service requests. It allows the user to Edit/Cancel request if it is not yet approved/rejected.

1. On the main menu bar, click **My Account**, and then click **My Request**.

2. Upon clicking, following options appear:

    -   My Request

    -   My Drafts

Figure 198 – Managing My Request

Refer to the below table to understand the fields mentioned in the above figure.

Table 38 – Managing My Request

Fields	Description
Request ID	Displays the ID-number of the request created
Platform	The name of Cloud service providers
Provisioning Endpoint	Displays the name of environment (cloud endpoint)
Request Date	Displays the date of the request created
Service Catalog	The interface for IT service consumers that is used to request or manage the services
Requested Action	The type of request against an infrastructure resource
Object Type	Name of the object against which the request was raised
Status	Displays the current status of the request
Comments	Displays the comments/inputs shared by the approver
Action	It allows the user to take actions like Edit, Cancel the request and Clone Request

Submitted request can be edited only if it is **Referred back** by the Approver.

To place a new request, like existing request, requester needs to follow the below steps:

Figure 199 – Clone Request

1. Click **Clone** Request icon ( ).

Figure 200 – Clone Request (Cont.)

2. Popup will open with filled in details of existing request, User can change any details as desired and click **Save Draft.**

3. Click **Cancel** to discard all changes.

4. To submit the request, click **Submit.**

Figure 201 – Clone Request (Cont.)

5. A success message appears.

Figure 202 – Clone Request (Cont.)

The new request is saved and appears in a tabular view as shown in Figure 198 – Managing My Request.

If Clone Request Button is not visible for Service Catalog/Action(s) then either Clone Request Enabled option is not checked for the Organization or Service Catalog has been disabled or deleted.

3.1.2.1.1.6.2 Managing My Drafts

To save the service request without submitting them, Requester needs to follow the below steps:

1. On the **My Request** screen, click **My Drafts.**

Figure 203 – Managing My Drafts

Refer to the below table to understand the fields mentioned in the above figure.

Table 39 – Managing My Drafts

Fields	Description
Request ID	ID-number of the request created
Platform	Name of Cloud service providers
Provisioning Endpoint	Name of environment (cloud endpoint).
Request Date	Date of the request created
Service Catalog	The interface for IT service consumers that is used to request or manage the services
Object Type	Object against which the request was raised
Comments	Comments/inputs related to a service request
Action	It allows the user to take actions like Edit or Delete the request

3.1.2.1.1.6.2.1   Edit Drafts

To edit/modify the saved service request, requester needs to follow the below steps.

Figure 204 – Edit Drafts

1. Click **Edit** (✏️).

Figure 205 – Edit Drafts (Cont.)

2. Modify the details as desired and click **Save Draft**.

3. Click **Cancel** to discard all the changes.

4. To submit the request, click **Submit**.

5. A success message box appears.
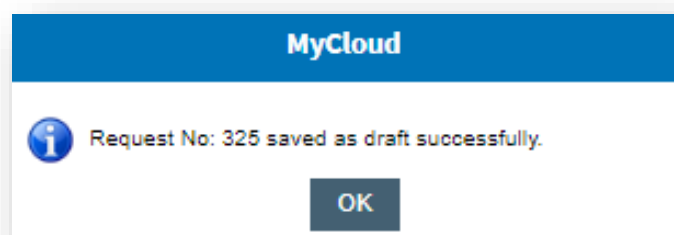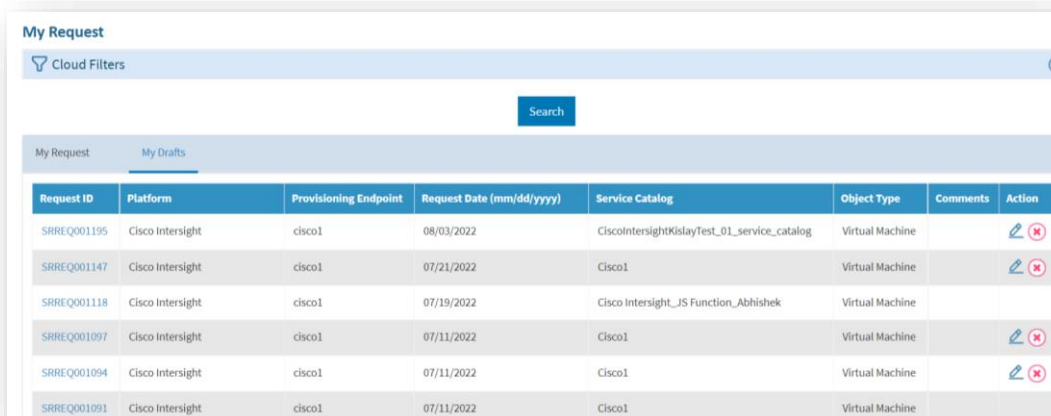
Figure 206 – Edit Drafts (Cont.)

The new draft is saved and appears in a tabular view as shown in Figure 204 – Edit Drafts.

To delete a service request, Requester needs to follow the below steps.

1.   On the **My Drafts** pane, click **Cancel** (⊗).

Figure 207 – Delete Drafts

2.   To delete the request, click **OK**.
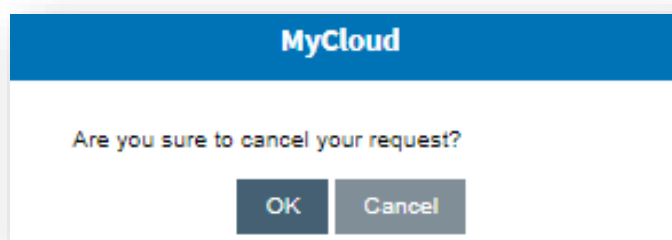
Figure 208 – Delete Drafts (Cont.)

3.   A success message box appears.
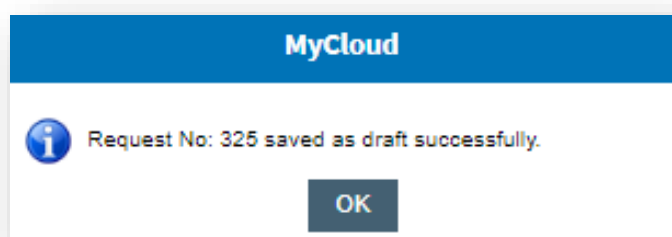
Figure 209 – Delete Drafts (Cont.)

3.1.2.1.2   My Reports

This section highlights the reports that are accessed by Requester.

- **Metering**
- **My Dashboard Requester**
- **Top Bottom Nodes**

- **My Bills**

- **Request Analytical Report**

- **Request Trend Compare**

- **SLA Report**

- **Request Tracking**

3.1.3   Approver Module

Approver is responsible to approve, reject & refer back the service requests (e.g. Order Requests, Decommission Requests, Extension Requests or Customization Requests) raised by requester to consume cloud services via MyCloud.

The approval workflow includes two types of approvers:

- Business Approver

- Technical Approver

On successful Logging to business approver module, the user gets redirected to MyCloud Requester Dashboard.
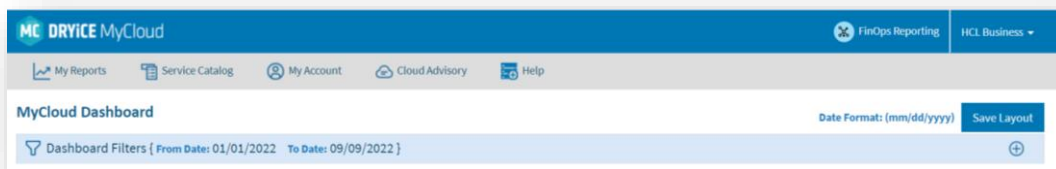
Figure 210 – Approver Module

Admin users can change the appearance of the MyCloud Web/Reports to meet Customer-specific branding by changing the logo.

3.1.3.1   Business Approver

3.1.3.1.1   Accessing MyCloud

Get the URL and user credentials for DRYiCE MyCloud.

Reach out to the person who has configured MyCloud or drop an email to MyCloud-Product-Supp@hcl.com

1. Launch a web browser (Chrome, Mozilla, or Edge) and use the MyCloud URL and user credentials to login to the system.
2. Enter the **Email ID**.
3. Click **Next**
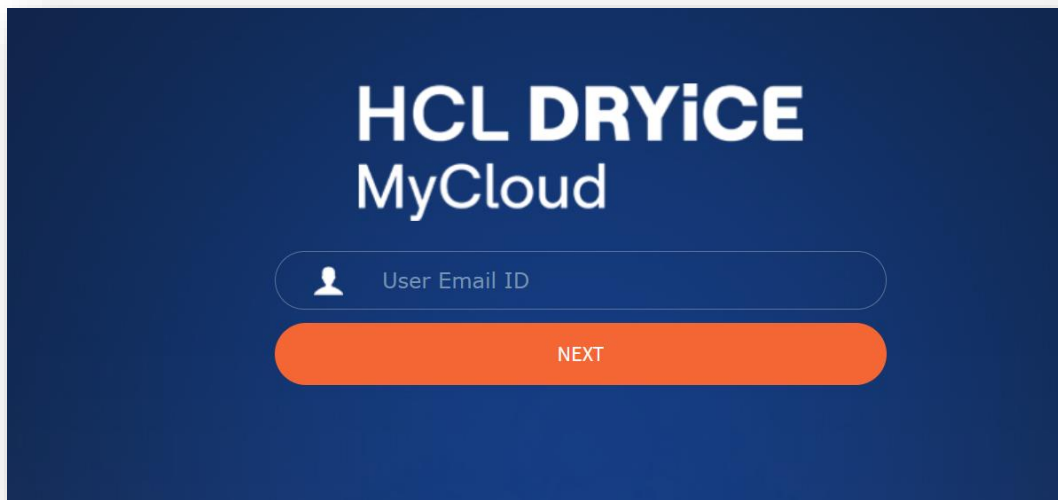
Figure 211 – MyCloud Login Page

4. Enter Password.

For security purposes, it is advised to change the password frequently, at least once a month, to keep the hackers out of the system and to log off when the application is not being used.

5. Select the **Authentication Type**. The following authentication types are available for login:

Table 40 – Approver Module Authentication Type

Authentication Type	Description
Form Based	It provides a mechanism to authenticate the user through the credentials which are stored in the database
LDAP	It provides a mechanism to authenticate the user to login through Active Directory (AD) credentials
SAML Based Authentication	It provides a mechanism to authenticate user through the third -party Identity Access Management (IAM) which supports SAML based authentication

If there are no login credentials, then drop an email to MyCloud-Product-Supp@hcl.com.

If the login type is **Form Based**, no domain selection is required.

If the login type is **LDAP**, domain credentials need to be entered with domain selection.

If the login type is **SAML**, user gets re-directed to the authentication page.

6. Click **Login**.

7. On successful login, MyCloud homepage for Business Approver appears, as shown below.

8. Following are the options that are available for Business Approver:

    - My Reports

    - Service Catalog

    - My Account

    - Cloud Advisory

    - Help
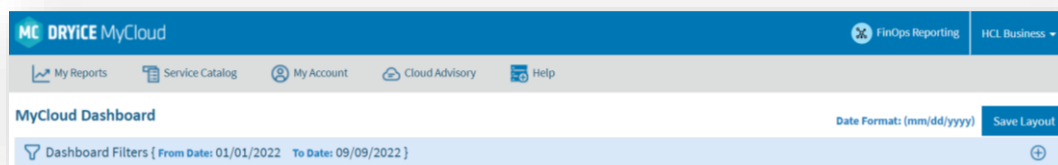
Figure 213 – My Approval

3.1.3.1.1.1 My Account

This section details the steps required to manage the service requests that are submitted by a requester.

On the main menu bar, click on My Account and the drop-down appears with the following options:

- **My Objects**

- **My Approval**
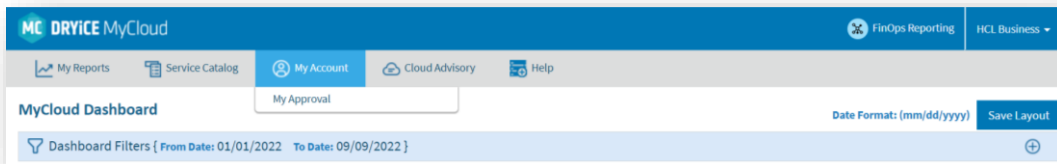
Figure 214 – My Account

My Approval

My Approval screen appears with following options:

- **My Pending Approvals**

- **My Approval History**

Figure 215 – My Approval

Refer to the below table to understand the fields mentioned in the above figure.

Table 41 – My Approval Fields

Fields	Description
Platform	Select the cloud service provider from the list.
Request Number	ID of the Service request
Request ID	ID of the Service request
Provisioning Endpoint	Name of environment (cloud endpoint).
Platform	Name of Cloud service providers
Requested Action	Task to be performed
Object Type	Name of the object against which service request has been raised
Request Date	Date on which the request has been created
Requester Name	Name of the person who has created the request
Status	Current status of the request
Action	It allows the Approver to take actions like Approve, reject or refer back the request

My Pending Approval

This section explains the steps to approve the pending requests or necessary actions that need to be taken by the business approver.

1. On the My Approval screen, click My Pending Approvals.
2. Select the **Platform or Request Number** and click **Go.**
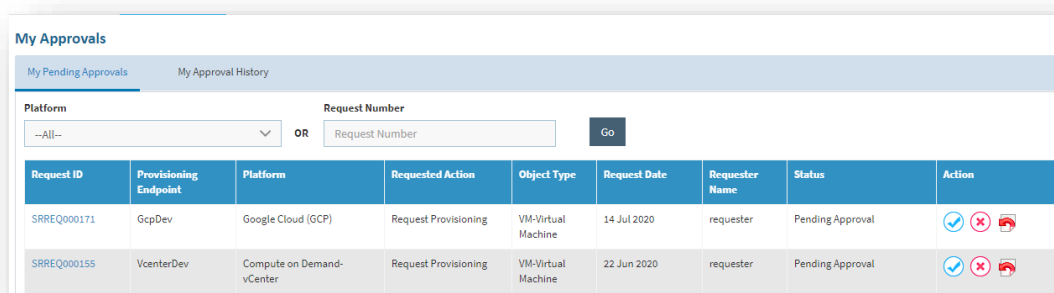
Figure 216 – My Pending Approval

A Business Approver performs the following actions on the pending request:

– **Approve Requests:** To approve a request, user needs to follow the steps:

   a. Click **Approve** (☑) against the request ID that needs to be approved.

   A window pops-up with a summarized view.

   b. If required, enter **Remarks** in remarks box and click **Approve**.

Figure 217 – My Pending Approval (Cont.)

c. Selected Request Id has been approved and moved from **My Pending Approval** to **Approval History**.

d. A success message box appears.

Figure 218 – My Pending Approval (Cont.)

− **Reject Requests:** To reject a request, perform the below steps:

a. Click **Reject** (⊗) against the request ID.

A window pops-up with a summarized view.

b. If required, enter **Remarks** in remarks box and click **Reject.**

Selected Request ID gets rejected.

Figure 219 - My Pending Approval (Cont.)

A success message box appears.
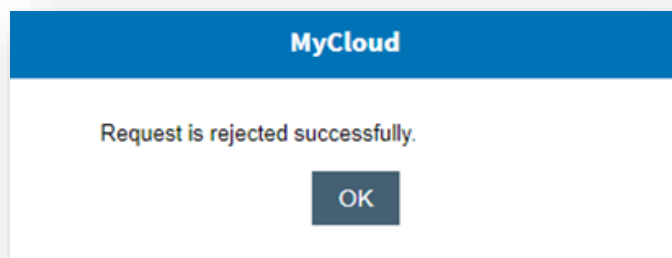
Figure 220 - My Pending Approval (Cont.)

- **Refer back Requests: To refer back a request, perform the below steps:**

  a. Click **Refer back** ( ) against the request ID.

     A window pops-up with request details.

  b. If required, enter **Remarks** in remarks box and click **Refer back**.

Figure 221 - My Pending Approval (Cont.)

c. Selected request Id has been referred back and the requester gets a notification with the remarks for further actions to be taken on it.

d. A success message box appears.
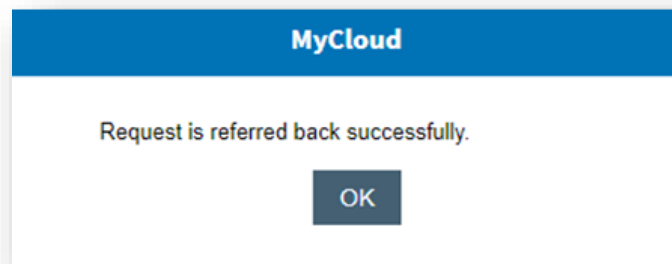
Figure 222 – My Pending Approval (Cont.)

All the fields marked with an asterisk (*) are mandatory.

3.1.3.1.1.1.1.2   My Approval History

This section details out the steps to view the actions that have been taken by Business Approver against service requests.

1. On the **My Approval** screen, click **My Approval History**.

2. Select the **Platform** or **Request Number** and click **Go.**

3. Click on **Request ID**.

Figure 223 – My Approval History

Refer to the below table to understand the fields mentioned in the above figure.

Table 42 – My Approval History

Fields	Description
Request ID	ID of the request created
Provisioning Endpoint	Name of environment (cloud endpoint).
Platform	Name of Cloud service providers
Requested Action	Task to be performed
Object Type	Name of the object against which service request has been raised
Request Date	Date on which the request has been created
Requester Name	Name of the person who has created the request
Approval Stage	Describe the name of the Approval Stage on which Approval is provided
Approval Date	Date on which Approval is provided
Status	Displays the status of the request

The Order History window appears.

Figure 224 – My Approval History (Cont.)

Refer the below table to understand the fields mentioned in the following table in the above figure.

Table 43 – My Approval History

Fields	Description
Request ID	Unique request ID
Date	Approval date (appears post approval)
Status	Current status of the request

3.1.3.1.1.2   My Reports

- [Request Analytical Report](#)
- [Request Trend Compare](#)

3.1.3.2   Technical Approver

Technical approver is the user who is responsible for validating and approving the requests submitted by end-users. Technical Approver has the visibility of underlying infrastructure and validates the actual resources being consumed for request fulfilment.

3.1.3.2.1   Accessing MyCloud

Get the URL and user credentials for DRYiCE MyCloud.

> Reach out to the person who has configured MyCloud or drop an email to MyCloud-Product-Supp@hcl.com

1. Launch a web browser (Chrome, Mozilla, or Edge) and use the MyCloud URL and User credentials to login to the system.
2. Enter the **Email ID.**
3. Click **Next.**
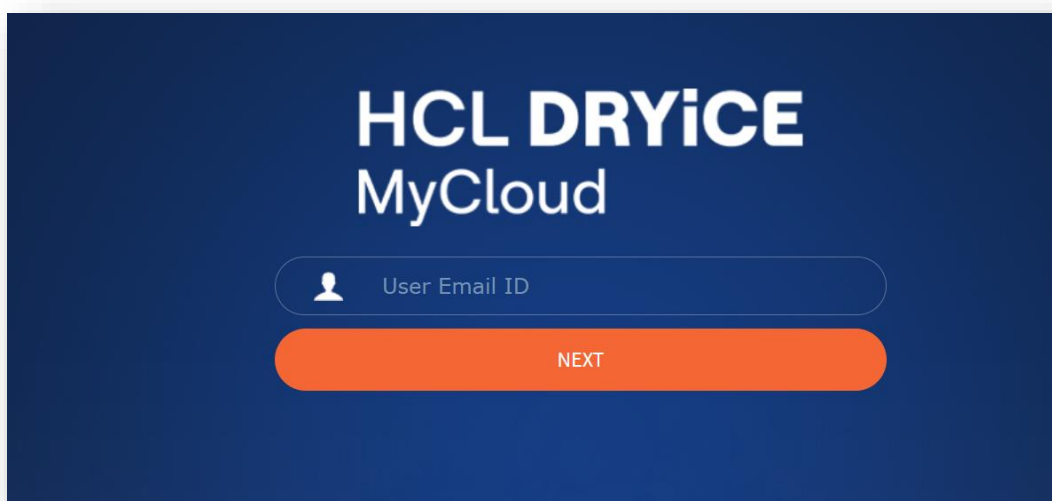
Figure 225 – MyCloud Login Page

4. Enter Password.

> Change the password frequently, at least once a month, to keep hackers out of the system. When the application is not being used then log out.

5. Select the **Authentication Type**. The following authentication types are available for login:

Table 44 – Technical Approver: Authentication Type

Authentication Type	Description
Form Based	It provides a mechanism to authenticate the user through the credentials which are stored in the database
LDAP	It provides a mechanism to authenticate the user to login through Active Directory (AD) credentials
SAML Based Authentication	It provides a mechanism to authenticate user through the third -party Identity Access Management (IAM) which supports SAML based authentication

If there are no login credentials, then drop an email to MyCloud-Product-Supp@hcl.com.

If the login type is **LDAP**, domain credentials need to be entered with domain selection.

If the login type is **SAML**, the user gets re-directed to the authentication page.

If the login type is **Form Based**, no domain selection is required.
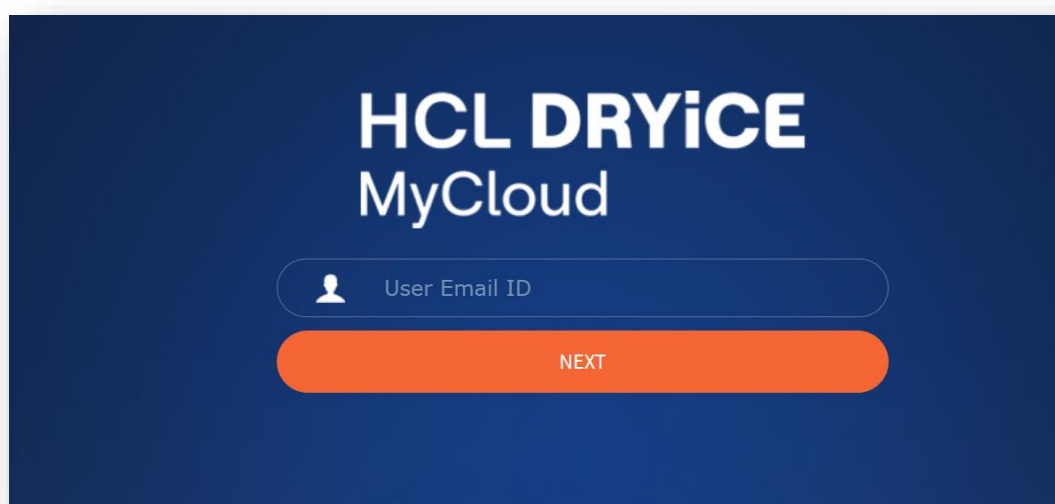
Figure 226 – MyCloud Login Page (Cont.)

6. Click **Login.**

7. On successful login, MyCloud homepage for technical approver appears, as shown below.
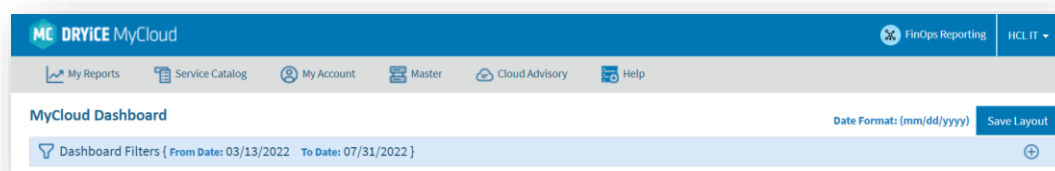
Figure 227 – Technical Approver

8. Following options are available for **Technical Approver**:

- **My Account**

- Cloud Advisory
- My Reports
- **Help**

3.1.3.2.1.1 My Account

This section details out the steps required to manage the service requests that were submitted by Requester.
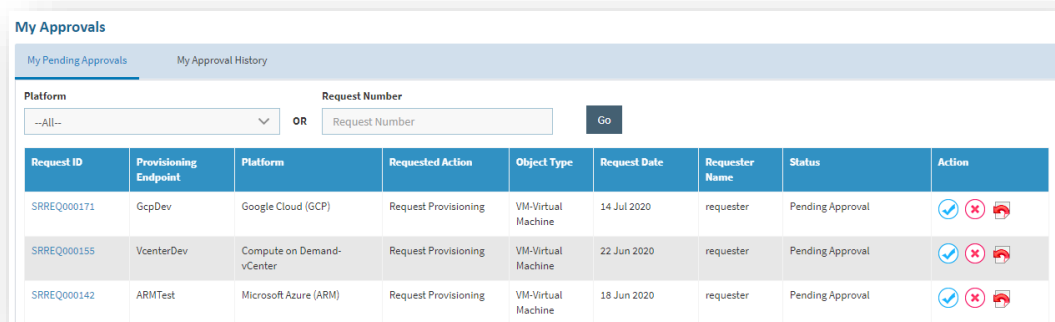
3.1.3.2.1.1.1 My Approvals

On the main menu bar, click My Account and then click My Approvals.

The My Approvals screen appears with the following options:

- My Pending Approvals
- My Approval History

> Button like Edit/Approve is not visible then check the Organization configuration.

Figure 228 – My Approval

Refer to the below table to understand the fields mentioned in the above figure.
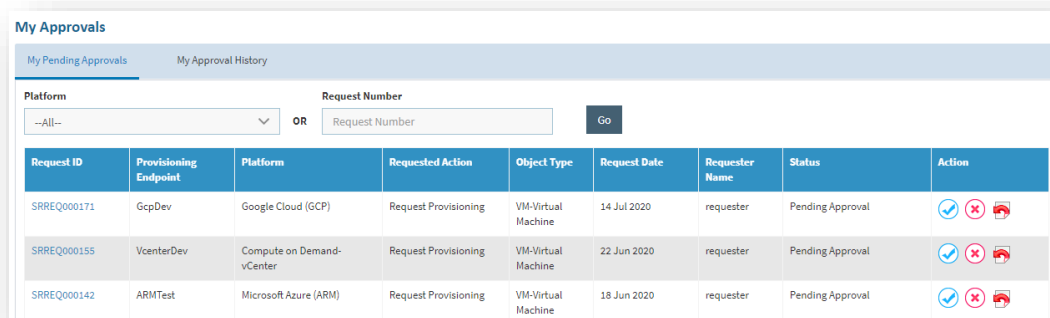
Table 45 – My Approval

Fields	Description
Request ID	Displays the ID-number of the request created
Request Number	ID of the Service request
Request ID	ID of the Service request
Provisioning Endpoint	Name of environment (cloud endpoint).
Platform	Name of Cloud service providers
Requested Action	Displays the action requested by requester
Object Type	Displays the type of the infrastructure resource
Request Date	Date on which the request has been created
Requester Name	Name of the person who has created the request
Status	Displays the current status of the request placed
Action	It allows the user to take actions like mark as Complete, reject or refer back the request.

My Pending Approval

This section explains the steps required to manage pending requests and necessary actions that need to be taken against the requests.

1.   On the My Approval screen, click My Pending Approvals.

Figure 229 - My Pending Approval

A Technical Approver performs the following actions on the pending request:

−   **Approve Requests:** To approve a request, user needs to follow the steps:

a.   Click **Approve** (☑) against the request ID.

A window pops-up with a summarized view.

b.   If required, enter **Remarks** in remarks box.

c.   Click **Approve**.

Figure 230 – Requester Approver Comments

Refer to the below table to understand the fields mentioned in the above figure.

Table 46 – My Pending Approval

Fields	Description
Provision Date	Date on which resource has been requested
Period	The lease period for which a resource is required
Period Value	Time period for the selected resource i.e., months, days, weeks, or years
Region	Lists the Geographical presence of native cloud providers
Location	Data center location associated with request
Service Plan	Resource category created by the provider i.e., platinum, gold, or bronze
Cost Type	Cost model as Pay as you go, or allocation based
VM Display Name	Name to be displayed against the Resource being created
Remarks	Additional information provided by the requester
Size	Compute size of requested resource
Cluster	List the vCenter cluster
Storage	List the data stores associated with clusters
Network	Lists the network associated with cluster
Remarks	Provide the additional requests if any

2. Selected request ID has been approved and moved from **My Pending Approval** to **Approval History**.

3. A success message box appears.

Figure 231 – My Pending Approval

- **Reject Request:** To reject a request, perform the following steps:

  a. Click **Reject** (⊗) against the request ID.

     A window pops-up with a summarized view.

  b. If required, enter **Remarks** in remarks box and click **Reject**.

     Selected request ID gets rejected.

Figure 232 - My Pending Approval (Cont.)

A success message box appears.
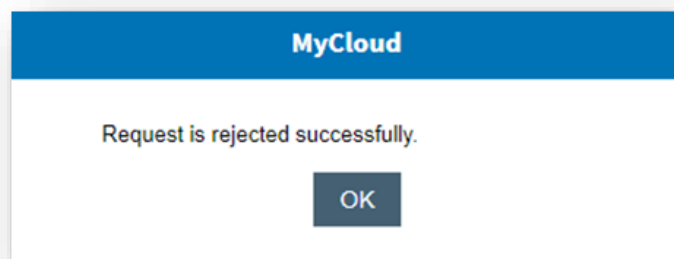
Figure 233 - My Pending Approval (Cont.)

- **Refer back Requests:** To refer back a request, follow the below steps:

c. Click **Refer back** ( ) against the request ID.

A window pop-up with request details.

d. If required, enter **Remarks** in remarks box and click **Refer back**.

Figure 234 - My Pending Approval (Cont.)

4. Selected request Id has been referred back and the requester gets a notification with the remarks for further actions to be taken on it.

5. A success message box appears.
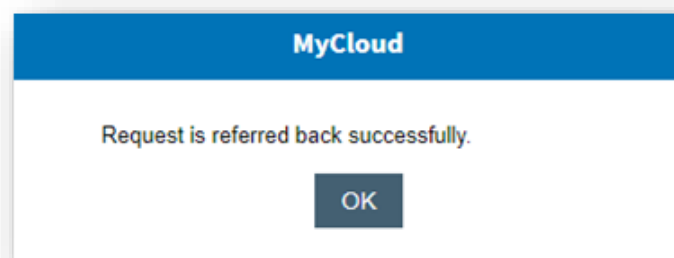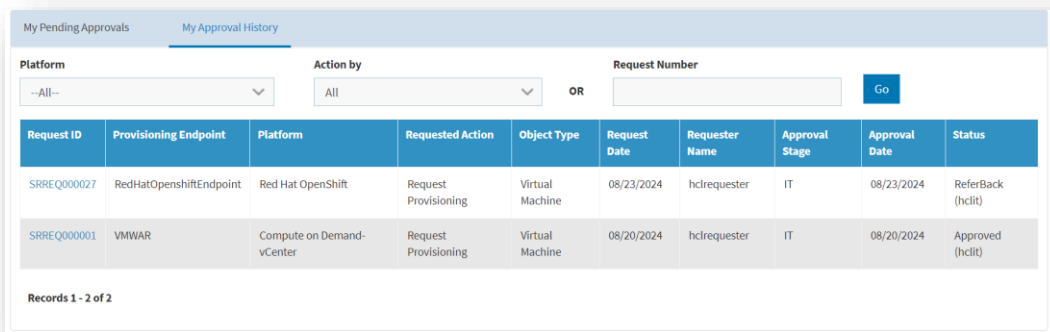
Figure 235 - My Pending Approval (Cont.)

All the fields marked with asterisk (*) are mandatory. Above process is for VMware, Fields may vary in case of other cloud providers.

3.1.3.2.1.1.1.2 My Approval History

This section details out the steps required to view the actions that have been taken by technical Approver on the service requests.

1. On the My Approval screen, click My Approval History.

Figure 236 – My Approval History

2. It lists down all the approved request approved by self or others.

3. Refer to the below table to understand the fields mentioned in the above figure.

Table 47 – My Approval History

Fields	Description
Request ID	ID of the request created
Provisioning Endpoint	Name of environment (cloud endpoint).
Platform	Name of Cloud service providers
Requested Action	Action requested by requester
Object Type	Type of the infrastructure resource
Request Date	Date on which the request has been created
Requester Name	Name of the person who has created the request
Approval Stage	Describe the name of the Approval Stage on which Approval is provided
Approval Date	Date on which Approval is provided
Status	Status of the request (user name of approval)

4. Click on **Request ID**.

5. The **Order History** window appears.

Figure 237 – My Approval History (Cont.)

Refer to the below table to understand the fields mentioned in the above figure.

Table 48 – My Approval History

Fields	Description
Activity	Activity type for the request
Request ID	Unique request ID
Date	Approval date; appears post approval
Status	Current status of the request

IT Verification

This section provides the IT Admin to verify, approve, request action(s) to the resources, once all the Task(s) in the request has successfully completed.

Only those requests will be sent to IT Verification where Provider Admin has configured the Organization with IT Verification Enabled.

1. On the main menu bar, click **My Account** and then click **IT Verification**.
2. The **IT Verification** screen appears with the following options:
    *   My Pending Approvals
    *   My Approval History
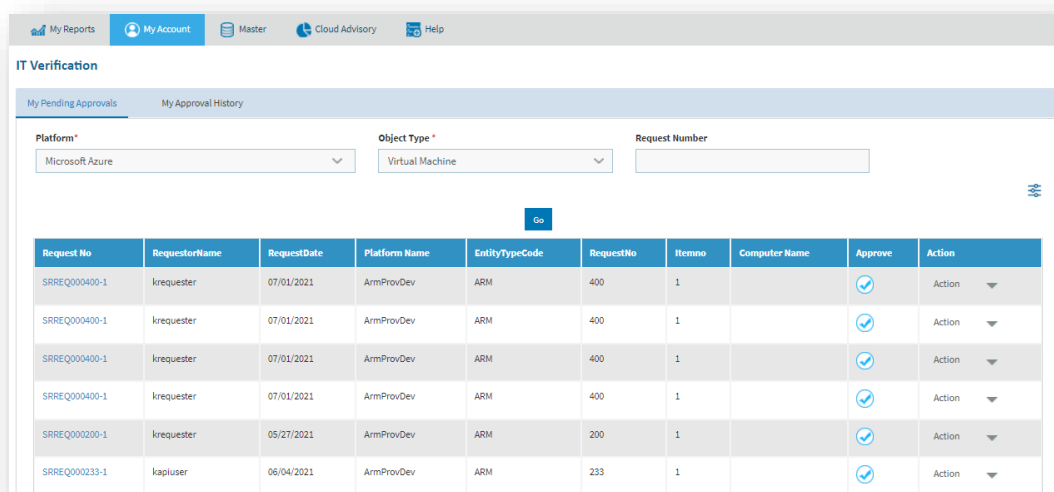
Figure 238 – IT Approval

Refer to the below table to understand the fields mentioned in the above figure.

Table 49 – IT Approval

Fields	Description
Platform	Name of Cloud service providers
Object Type	Displays the type of the infrastructure resource
Request Number	ID of the Service request
Requester Name	Name of the person who has created the request
Request Date	Date on which the request has been created
Platform	Name of Cloud service providers
Entity Type Code	Code of the Cloud service providers
Item No	Item number of the request
Computer Name	Name of the computer
Approve	Action Button – To approve the Resource Provisioning
Action	It allows the user to take actions. Only those actions will be listed on this screen for which Provider admin has marked "IT Verification Enabled"
⚙	Grid Column Setting

3.1.3.2.1.1.2.1 My Pending Approval

This section explains the steps required to approve the pending requests and necessary actions that need to be taken against the requests.

1. On the IT Approval screen, click My Pending Approvals.

Figure 239 – IT Verification - My Pending Approval

A Technical Approver performs the following actions on the pending request:

   – To approve a request, user needs to follow the steps:

     a. Click **Approve** (☑) against the request ID.

       A window pops-up with a summarized view.

     b. If required, enter **Remarks** in remarks box.

     c. Click **Save**.

Figure 240 – IT Verification – Approval Popup

Refer to the below table to understand the fields mentioned in the above figure.

Table 50 – My Pending Approval

Fields	Description
Request No	ID of the Service request
Object Id	Object Id, Unique Id of the object on which Action is performed.
Create Date	Date on which resource has been requested
Requester Name	Name of the person who has created the request
Remarks	Additional information provided by the IT Admin
Save	Button to complete the Approval process
Cancel	Button to terminate the Approval process.

2. Selected request ID has been approved and moved from **My Pending Approval** to **Approval History**.

3. A success message box appears.
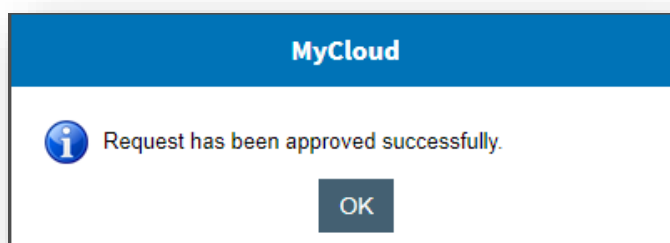
Figure 241 – My Pending Approval

– **Raise Action Requests:** To raise an Action Request on the requested Resource kindly refer Virtual Machines Actions.

3.1.3.2.1.1.2.2 My Approval History

This section details out the requests that have been approved by technical Approver on the IT Approval My Pending Approvals

1. On the IT Approval screen, click My Approval History.

Figure 242 – IT Approval - My Approval History

2. It lists down all the approved requests.

3. Refer to the below table to understand the fields mentioned in the above figure.

Table 51 – My Approval History

Fields	Description
Request No	ID of the request created
Requester Name	Name of the requester who has placed the request.
Request Date	Date on which the request has been created
Approval Date	Date on which the request has been approved.
Approved By	IT Admin who has approved the request
Comments	Comments added by IT Admin while approving the request.
Platform Name	Name of Cloud service providers
Computer Name	Name of the VM

4. Click on **Request NO**.

5. The **Order History** window appears.

Figure 243 – IT Approval – Order History

3.1.3.2.1.2 Cloud Advisory

This section explains how MyCloud optimizes the cost and recommends advisories to meet business goals.

The module helps to create a strong foundation to achieve the benefits of cloud adoption and virtualization.

1. On the main menu bar, click **Cloud Advisory**.

2. The drop-down appears with the following option:

- Azure Advisory

- Google (GCP) Advisory

- Amazon Advisory
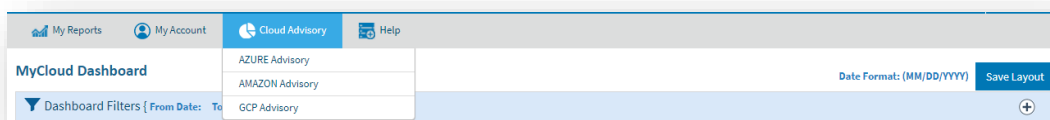
Figure 244 – Cloud Advisory

> Only technical approver can access cloud advisory.

3.1.3.2.1.2.1   Azure Advisory

In this advisory module, technical approver comes to know the health of its Azure environment.

1. On the main menu bar, click **Cloud Advisory**, and then click **Azure Advisory**.

2. The **Azure Advisory** screen appears.
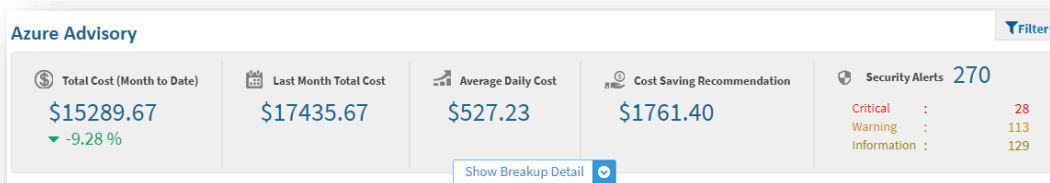
Figure 245 – Azure Advisory

Table 52 – Azure Advisory

Fields	Description
Total Cost	Current incurred cost
Last month total cost	Previous month cost
Average Daily Cost	Average daily consumption cost
Cost Saving Recommendation	Cost saving recommendation
Security Alerts	Number of securities alerts as per the degree of threats/ risks

3. Click Show Break Up Detail.

4. A pane appears with the breakup of each subscription

Figure 246 – Azure Advisory (Cont.)

5. A section below the cost pane displays the services that are used for business purposes.

- Cost – This parameter has many heads, and each head shows those services that are not fully utilized. If necessary, user may take actions against these VMs to save cost.

- High Availability – To protect the application from a single point of failure and shows the services which are under fault tolerance.

- Performance– This parameter shows many heads and data with poor performance.

- Security– Based on the security risk level and security impact level, it advises the security center recommendation.
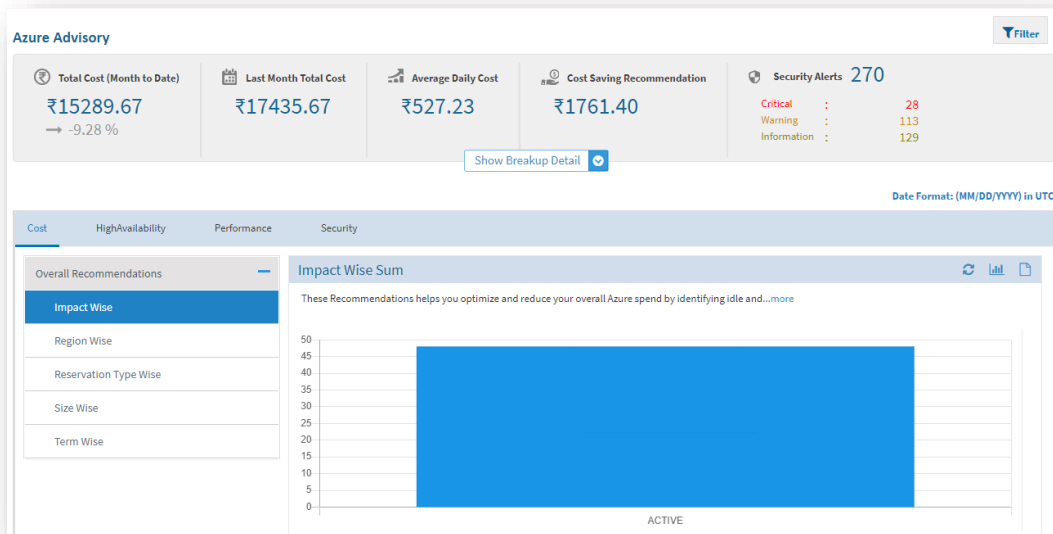
Figure 247 – Azure Advisory (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 53 – Azure Advisory

Fields	Description
Impact Wise	These Recommendations helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. Low resource utilization results in unwanted expenditure that you can fix without significant performance impact. Impact can be High, Medium, Low.
Region Wise	These Recommendations helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. Low resource utilization results in unwanted expenditure that you can fix without significant performance impact. Below chart depict cost recommendations based on azure regions.
Reservation Type Wise	These Recommendations helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. Low resource utilization results in unwanted expenditure that you can fix without significant performance impact. This shows you the regions and sizes where the potential for savings is highest and the estimated savings from purchasing reservations.
Size Wise	These Recommendations help you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. Low resource utilization results in unwanted expenditure that you can fix without significant performance impact. This shows you the sizes where the potential for savings is highest and the estimated savings from purchasing reservations.
Term Wise	These Recommendations help you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. Low resource utilization results in unwanted expenditure that you can fix without significant performance impact. This shows you the sizes where the potential for savings is highest and the estimated savings from purchasing reservations.

3.1.3.2.1.2.2   Amazon Advisory

Through this module, technical approver comes to know the ways to optimize the cost of resources, increase their performance and security.

1. On the main menu bar, click **Cloud Advisory**, and then click **Amazon Advisory**.
2. The **Amazon Advisory** screen appears.
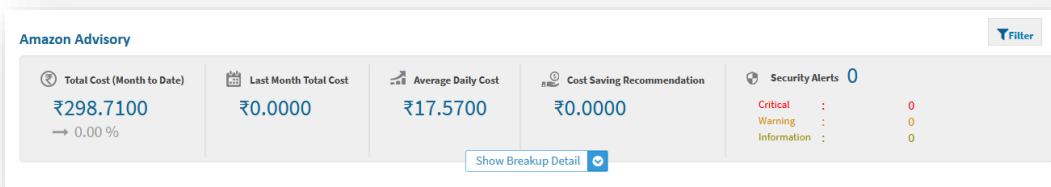
Figure 248 – Amazon Advisory

Table 54 – Amazon Advisory

Fields	Description
Total Cost	Current incurred cost
Last Month Total Cost	Previous month cost
Average Daily Cost	Average daily consumption cost
Cost Saving Recommendation	Cost saving recommendation
Security Alerts	Number of securities alerts as per the degree of threats/ risks

3. Click Show Breakup Detail.

4. A pane appears with the breakup of each subscription.

Figure 249 – Amazon Advisory (Cont.)

5. A section below the cost pane displays the services that are used for business purposes.

- **Cost Optimization-** This parameter has many heads, and each head shows those services that are not fully utilized. If necessary, user may take actions against these VMs to save cost.

- **Fault Tolerance-** To protect the application from a single point of failure and shows the services which are under fault tolerance.

- **Performance-** This parameter shows many heads and data with poor performance.

- **Security-** Shows many heads and data with their securities at risk.
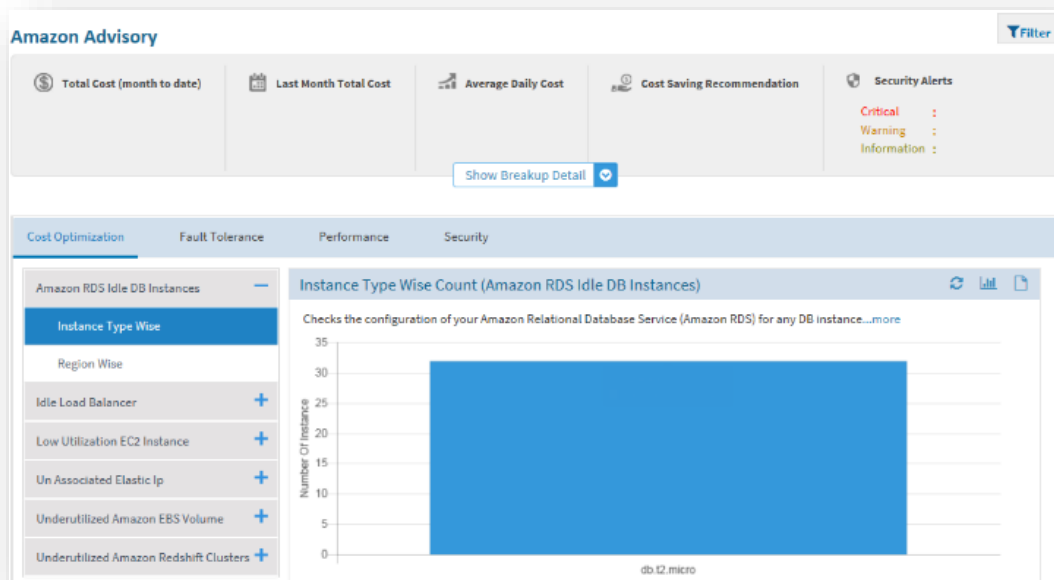
Figure 250 – Amazon Advisory (Cont.)

Refer to the below table to understand the fields mentioned in the above figure.

Table 55 – Amazon Advisory

Fields	Description
Amazon RDS idle DB instance	number of AWS RDS Instances that are ideal/ not being used in an environment.
Instance Type Wise	Data grouped by instance types.
Idle Load Balancer	This section lists out the LBs which are not being utilized efficiently in an organization
Low utilization EC2 Instance	This section lists out the instances which are not being utilized efficiently in an organization
Unassociated Elastic IP	This section lists out the EIPs which are not being utilized in an organization
Underutilized Amazon Redshift Cluster	This section lists out the RDS clusters which are not being utilized efficiently in an organization

Through this module, technical approver comes to know the ways to optimize the cost of resources, increase their performance and security.

1. On the main menu bar, click **Cloud Advisory**, and then click **GCP Advisory**.
2. The **Google (GCP) Advisory** screen appears.

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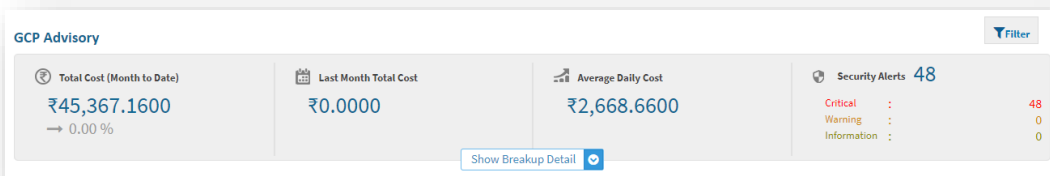
Figure 251 – GCP Advisory

Table 56 – GCP Advisory

Fields	Description
Total Cost	Current incurred cost
Last month total cost	Previous month cost
Average Daily Cost	Average daily consumption cost
Security Alerts	Number of securities alerts as per the degree of threats/ risks

3. Click Show Breakup Detail.

4. A pane appears with the breakup of all Google Cloud Platforms that are configured in Platform Provisioning master.
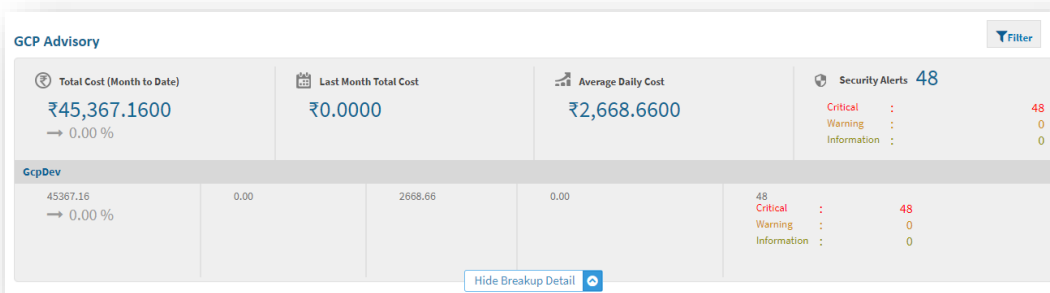
Figure 252 – GCP Advisory (Cont.)

A section below the cost pane displays the services that are used for business purpose.

- Cost – This parameter has many heads, and each head shows those services that are not fully utilized. If necessary, user may take actions against these VMs to save cost.
- Performance– This parameter shows many heads and data with poor performance.
- Security– Shows many heads and data with their securities at risk.
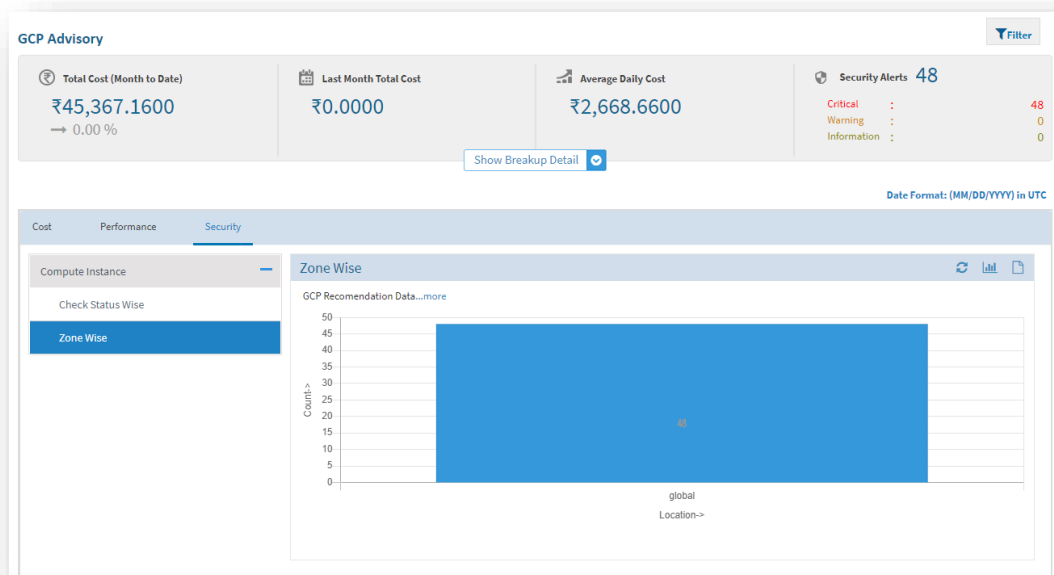
Figure 253 – GCP Advisory (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 57 – GCP Advisory

Fields	Description
Check Status Wise	Data grouped by Status wise.
Zone Wise	Data grouped by Zone wise.

3.1.3.2.1.3   My Reports

- Request Analytical Report
- Request Trend Compare
- My Dashboard Requester
- Metering
- Top Bottom Nodes

3.1.4   Blueprint Module

A blueprint is a package of deployable, reusable configuration and policies that implements and documents a specific solution. Blueprints enable users to design infrastructure, platforms, and application services by composing and connecting cloud resources with declarative configuration. Blueprints are designed to capture best practices for specific use cases, including appropriate resource groupings and policies. Once best practices are packaged into a blueprint, they can be shared internally within your organization or distributed among certain groups to evangelize them more broadly. Because blueprints package multiple resources together to target specific use cases, they can provide sensible, contextual default configurations, which reduces the need to tune every option on each resource. This makes onboarding faster and reduces costs. This module describes how to create, edit, and deploy blueprints in DRYiCE MyCloud. It is a drag and

drop blueprint designer to support provisioning and post provisioning and has the following features covered.

- Support for GCP, Azure, AWS
- Support Ansible and Cisco Intersight for post provisioning task
- Ability to create infrastructure blueprint using blueprint designer
- Blueprint deployment and status tracking
- Out of box (OOB) method to deploy blueprints in MyCloud Orchestrator
- View execution history and rerun functionality
- Downloads terraform files for blueprint
- History and drift view among multiple versions of blueprint
- Import/Export functionality of blueprints

3.1.4.1 Manage Blueprint

3.1.4.1.1 Accessing Blueprint

The Blueprint module is managed by the Provider user. To access the blueprint, the user needs to login as a provider user and follow the below steps.

1. Login into MyCloud with provider user credentials.
2. On the main menu bar, click **Service Catalog** tab.
3. Select **Manage Blueprint** from the available options.
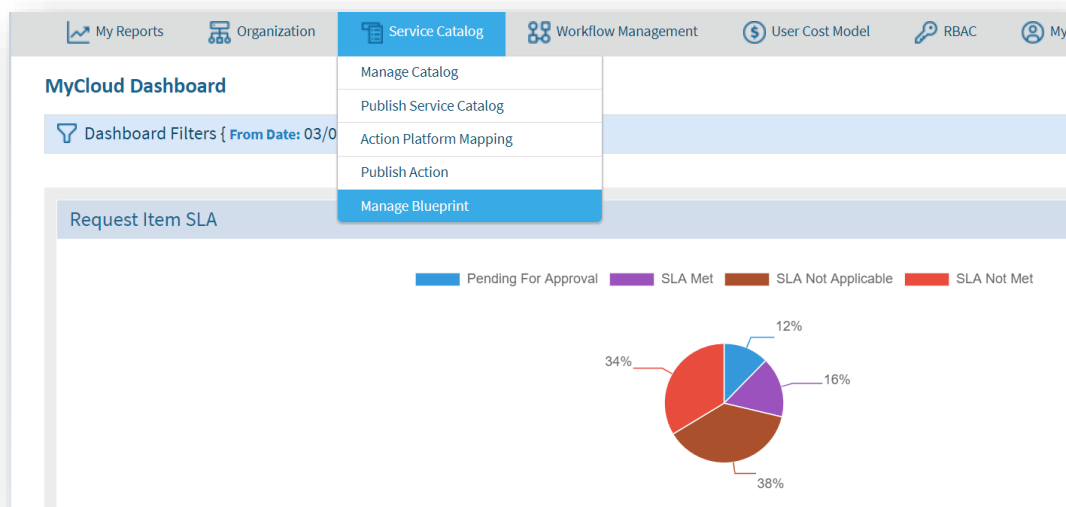
Figure 254 – Manage Blueprint menu

4. The **Manage Blueprint** page appears:
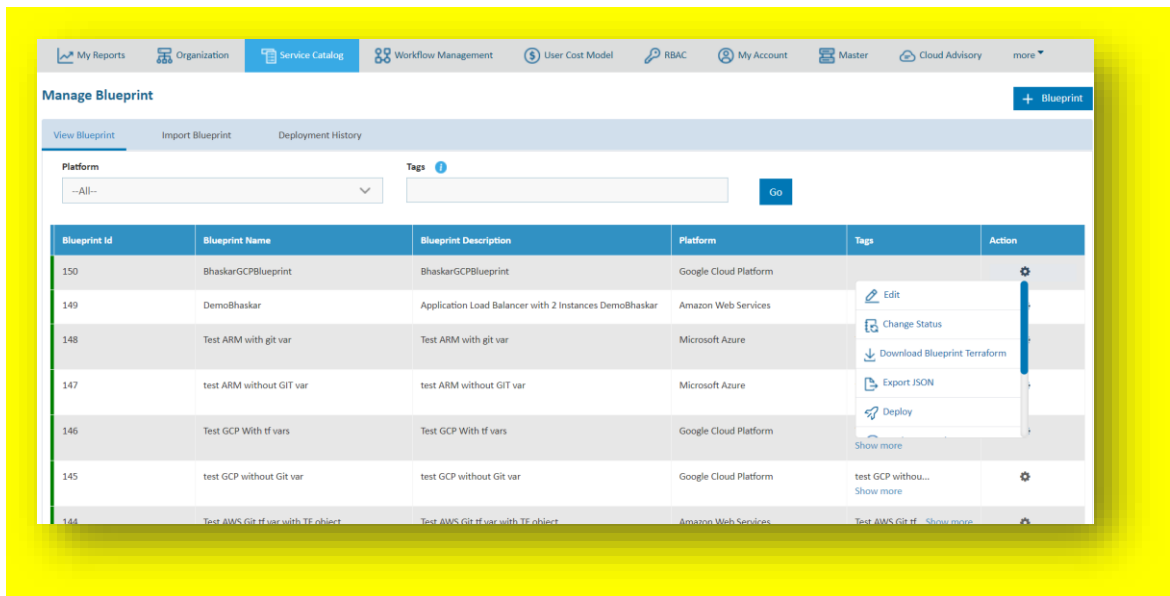
Figure 255 – Manage Blueprint Page

5. The Manage Blueprint page is the landing page for the blueprint module. This page has the options to create and list the blueprint. Under the list section, users have the options to import the blueprint and to view the deployment history, along with other actions. The Manage Blueprint page covers the following two areas of the blueprint module.
   - Create New Blueprint
   - Manage Existing Blueprints

3.1.4.1.2 Create New Blueprint

To create a new blueprint, click on the icon on Manage Blueprint page. The user is directed to the Design Blueprint page.
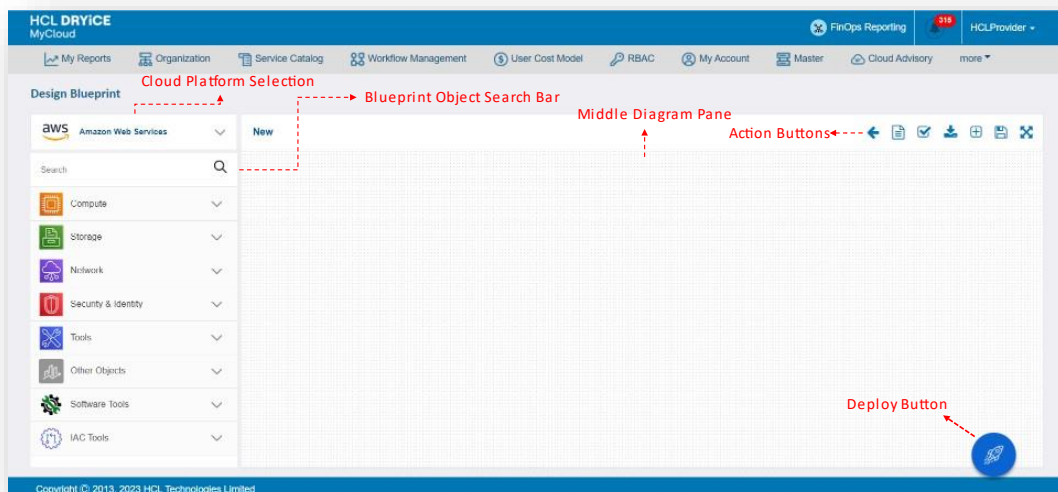
Figure 256 – Design Blueprint

The Design Blueprint page has the following functionalities:
- Cloud platform selection
- Blueprint object search bar
- Left object menu

- Middle diagram pane

- Right attribute window

- Deploy Blueprint (Icon)

- Action Buttons

The Design Blueprint page has a platform selection dropdown where users can select the different configured cloud platforms supported by the Blueprint module.
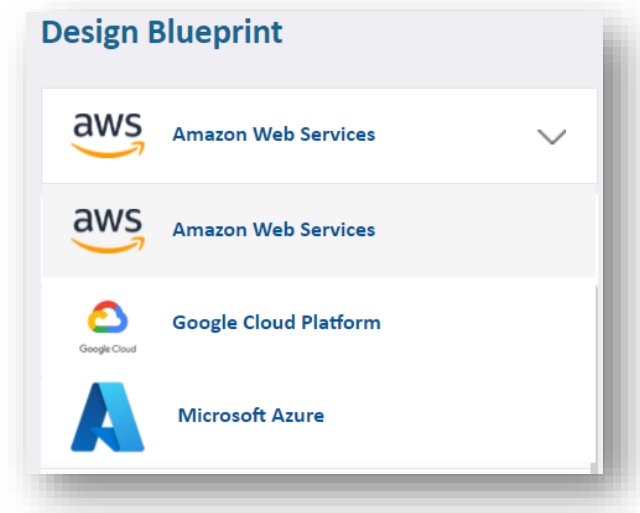
Figure 257 – Cloud Platform Selection

The Design Blueprint page has the option to search for blueprint objects in the left menu. The left menu is filtered based on the input text in the search box. To search, enter any filter value in the search box and click the search icon (🔍).
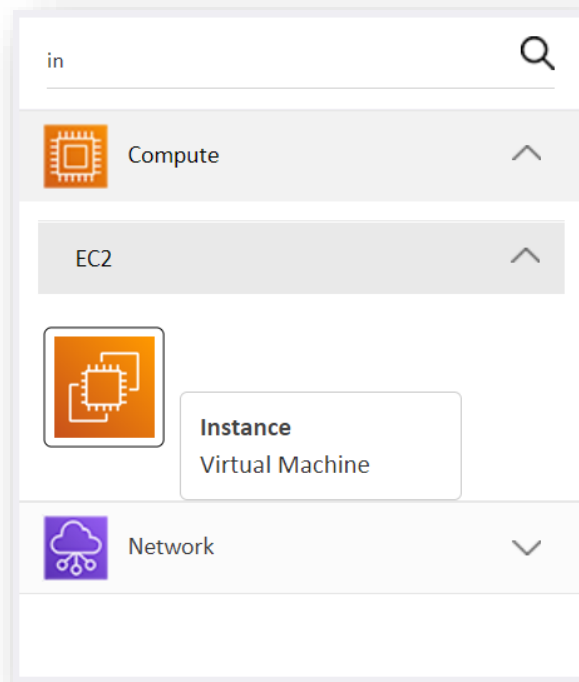
Figure 258 – Blueprint Object Search Bar

3.1.4.1.2.3   Left Object Menu

All the configured cloud resources (or objects) of the selected platform appear in the left menu on the Design Blueprint page. Cloud objects are arranged category-wise.
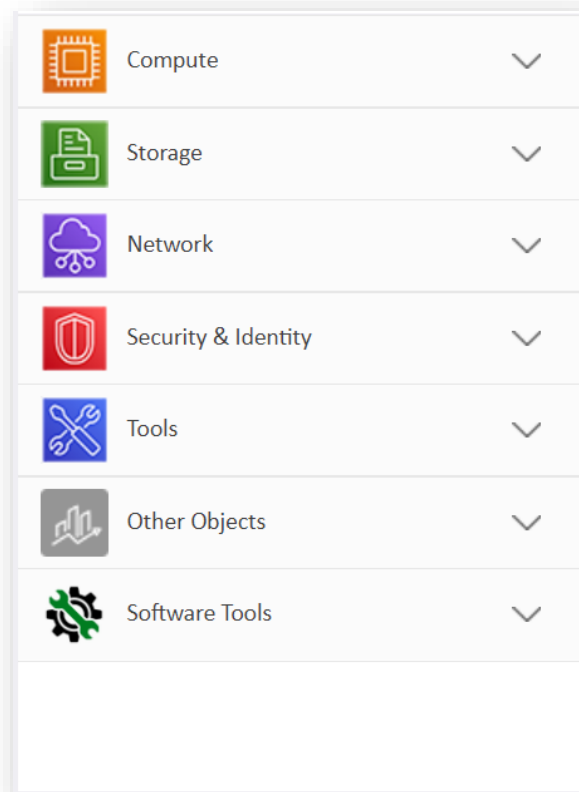
Figure 259 – Left Object Menu

To use the configured cloud objects, the user needs to take the following steps:

1. Click on desired category.

2. Click on desired subcategory.

3. Drag the object to the Middle Diagram Pane.
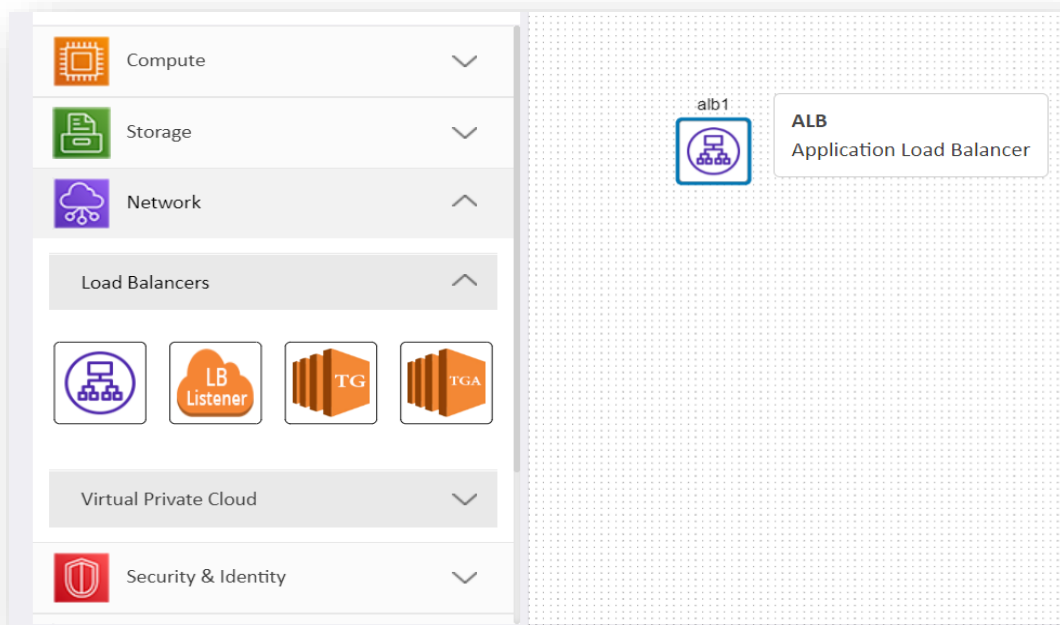
Figure 260 – Left Object Menu (Cont.)

3.1.4.1.2.4   Middle Diagram Pane

The middle diagram pane in the Design Blueprint page is the area where all the objects are dragged, and the blueprints are designed. It is a designer pane where a user can drag objects and map them to other objects.
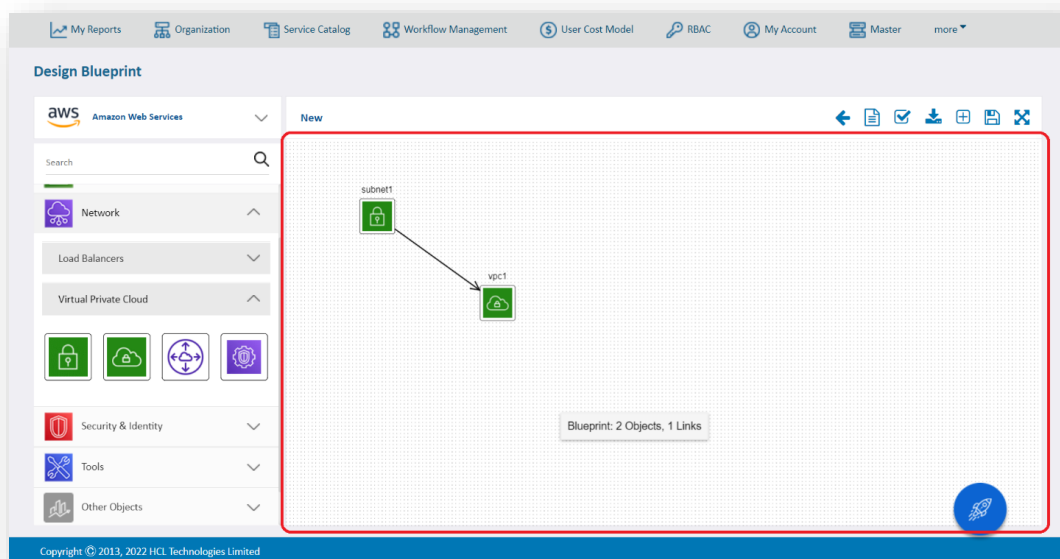
Figure 261 – Middle Diagram Pane

The right attribute pane appears on clicking any object in the diagram pane. It has an attribute list of the selected object. The cloud object attribute can be configured here for the selected object.
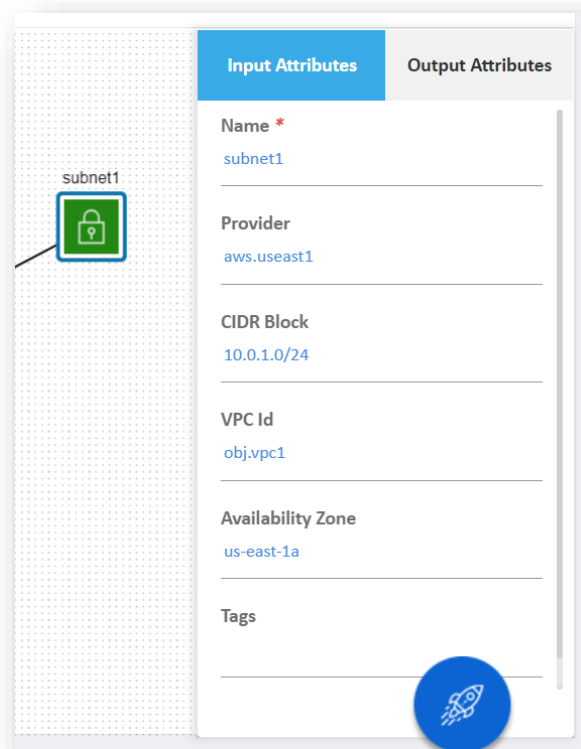
Figure 262 – Right Attribute Window

The right attribute window has two types of attributes. The user can configure both types of attributes by selecting the desired tab.

- Input attributes: This tab displays the input attributes for the selected object.

Figure 263 – Input Attributes

- Output attributes: This tab displays the output attributes for the selected object. There is a checkbox for the attribute name. If this is unchecked, the output property will not be used to capture the output of blueprint execution.

By default, the output property is output_subnet_id1 which is changeable. Ensure that the value is unique throughout the blueprint.

The attribute window has the following options for user input.

- Variable Mapping
- Provider Mapping
- Zone mapping
- Object Mapping/Multiple Object Mapping

3.1.4.1.2.5.1   Variable Mapping

The user has the option to map the variable to the object attribute which is configured to map variables. Variables can be created using Variables window from top menu. The list of variables shown for that attribute can be filtered by configuring mapping restrictions.

1. Click on the attribute textbox and type "var."
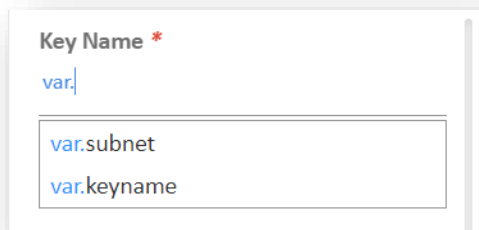
Figure 265 – Variable Mapping

2. Select the variables from the list.
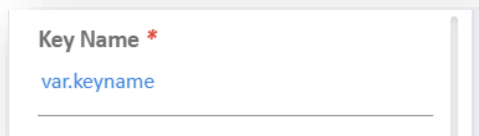
Figure 266 – Variable Mapping (Cont.)

3.1.4.1.2.5.2 Provider Mapping

The user has the option to map the provider to the object attribute which is configured to map providers. List of providers will be available based on the Cloud platform selected.

1. Click on the attribute textbox and type "AWS." for Amazon, and "google." for the GCP platform.

2. Select the provider from list.
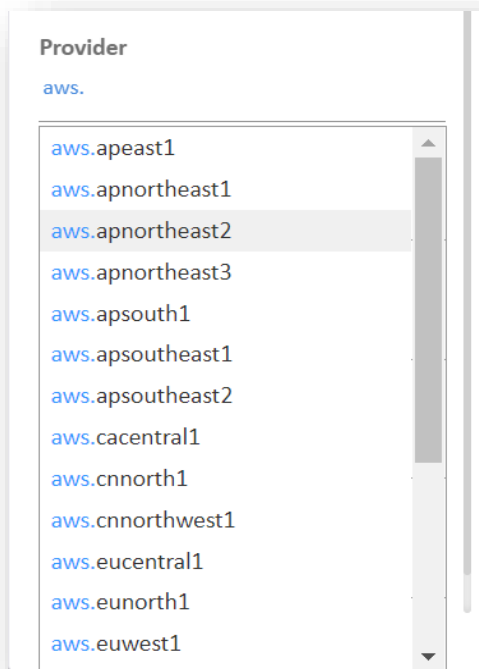
Figure 267 – Provider Mapping

3.1.4.1.2.5.3   Zone Mapping

The user has the option to map the zone (in case of AWS and GCP). The zone attribute is used to map the object. A list of zones is available based on the cloud platform selected.

1. Click on the attribute textbox and start typing the name of any zone. A list appears.
2. Select the desired zone from the list.
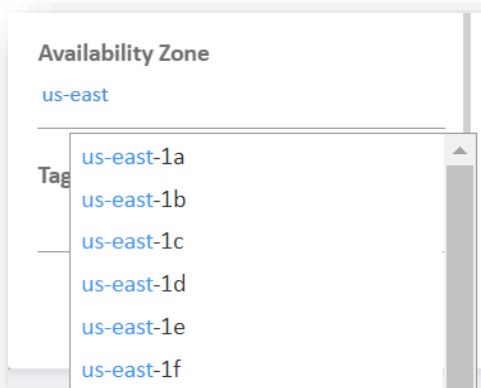
Figure 268 – Zone Mapping

3.1.4.1.2.5.4   Object Mapping/ Multiple Object mapping

The Object Mapping option allows users to map either single object or collection of objects to the object attribute which is configured to map objects.

Single Object Mapping:

1. Click on the attribute textbox and type "obj."
2. Select the object from the list.
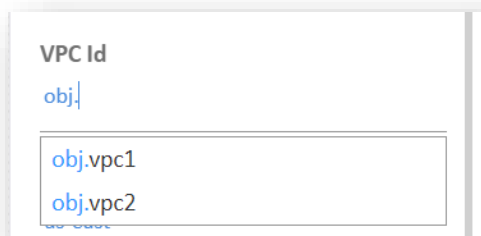
Figure 269 – Object Mapping

Multiple Object Mapping:

The Multiple Object Mapping option is used to map multiple objects to the object attribute which is configured to map multiple objects to it. There are three options available in multiple object mapping.

3. **Input object ID as text**: the user can input an existing object ID into the attribute field.

Figure 270 – Input object ID as text

4. Select the object from list.

Figure 271 – Select the Object from list

5. Map variables to the attributes for providing the objects' name at a later stage:

6. For mapping variables, the user needs to click on the bind variables checkbox next to the attributes.

Figure 272 – Object Mapping Using Variables

3.1.4.1.2.6 Action Buttons

The icons on the top of the Design Blueprint page are the action buttons and are the short cuts for taking the following actions:

- Expand/Collapse
- Save Blueprint
- Variables
- Download TF (Terraform) File
- Validate Blueprint
- New Blueprint
- Back to Manage Blueprint
- Blueprint Name textbox (Title)

3.1.4.1.2.6.1   Expand/Collapse

Clicking on the Expand/collapse icon ⤬ expands the Diagram Pane to cover the entire page. Clicking the icon again resizes the pane to its original position.
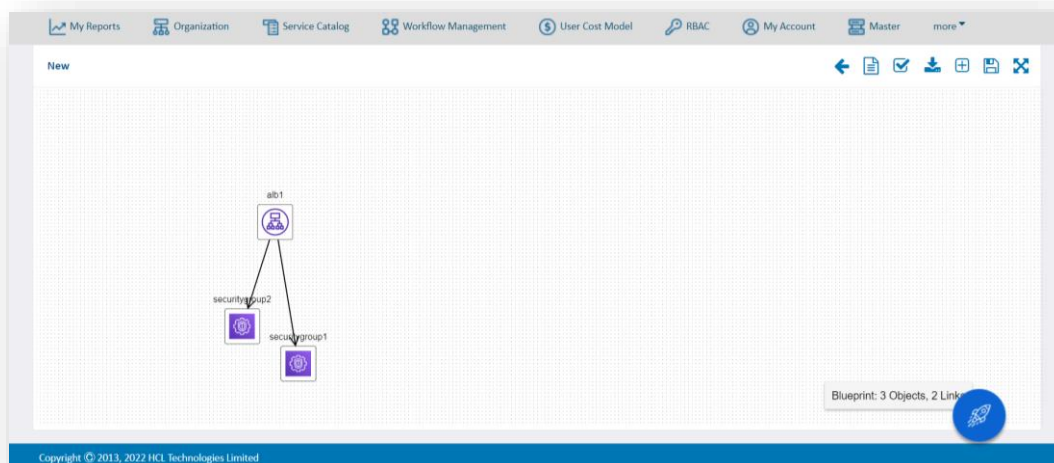
3.1.4.1.2.6.2   Save Blueprint

Clicking the Save Blueprint icon 💾 saves the newly created blueprint.

1. Click the Save Blueprint icon 💾, the **Save Blueprint** dialog box appears.
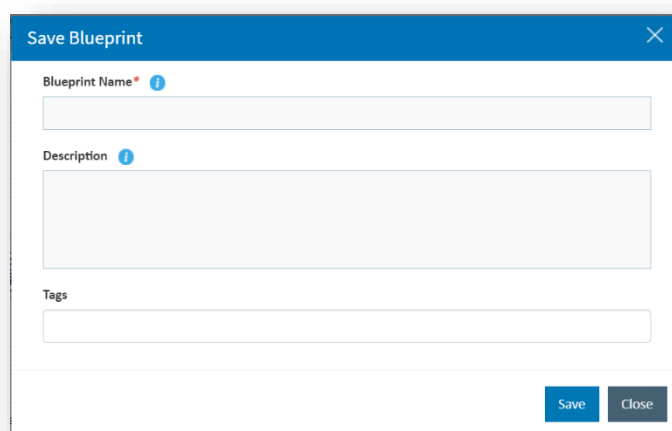
2. The dialog box has the following fields that need to be populated:

- Blueprint Name
- Description
- Tags

3. Click **Save**. A success message appears:

Figure 275 – Success Message

The '**Tags**' field in the Save Blueprint dialog box is to attach tags while saving the blueprint. These tags help users to search for an existing blueprint.

3.1.4.1.2.6.3   Variables

Create Variable:

To create a variable, take the following steps:

1. Click on **Variables** (⊞) icon.
2. Click on **Add variable** tab.
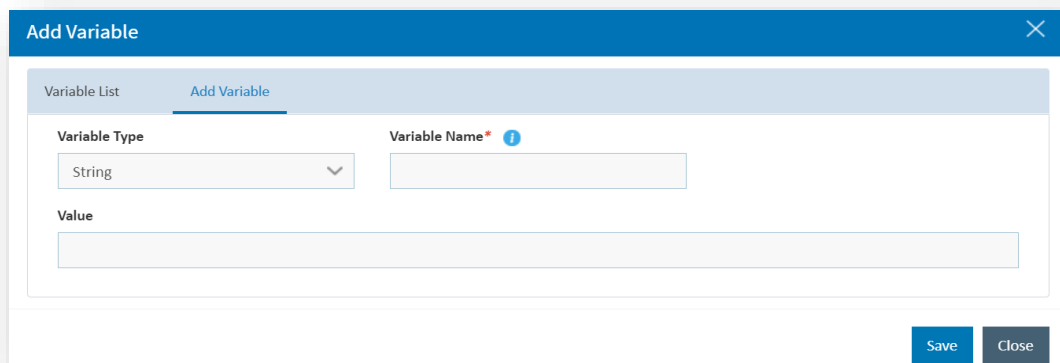
Figure 276 – Add Variable

3. Select the **Variable Type** from the dropdown.
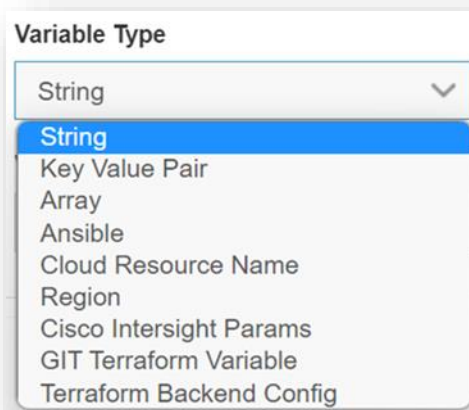
Figure 277 – Variable Type

4. Nine types of variables are available:

- String: This variable is used to map plain text values like Ids or any other input value to attributes.

- Key Value Pair: This variable is used to map the Tags type of input to any attributes. The value of this variable type is passed in "key=Value" format.

Figure 278 – Add Variable - Key Value Pair Variable

- Array: This variable is used to map array type of values to attributes.

Figure 279 –Add Variable - Array Variable

- Ansible: This variable is used to map Ansible Extra Vars types of values to attributes.

Figure 280 – Add Variable – Ansible Variable

Figure 281 – Add Variable - Ansible Variable (Cont.)

Figure 282 – Add Variable – Ansible Variable (Cont.)

- Cloud Resource Name: This variable is used to map the Cloud Resource (Object) Name attribute of an object. In other words, this type of variable is specially used for the name attribute of an object.
- Region: This variable is used to map default provider in case of AWS and GCP.

Figure 283 – Add Variable - Region Variable

- Cisco Intersight Params: This variable is used to map Cisco Intersight Params types of values to attributes.

Figure 284 – Add Variable – Cisco Intersight Params Variable

Figure 285 – Add Variable – Cisco Intersight Params Variable (Cont.)

Figure 286 – Add Variable – Cisco Intersight Params Variable (Cont.)

- Git Terraform Variable: This variable is used to map Git Terraform Variable types of values to "TF Variables" attribute of ExecuteTFGit object.

Figure 287 – Add Variable – Git Terraform Variable

Figure 288 – Add Variable – Git Terraform Variable (Cont.)

Figure 289 – Add Variable – Git Terraform Variable (Cont.)

- Terraform Backend Config: This variable is used to map Terraform Backend Config types of values to attributes.

Figure 290 – Add Variable – Terraform Backend Config Variable

Figure 291 – Add Variable – Terraform Backend Config Variable (Cont.)

Figure 292 – Add Variable – Terraform Backend Config Variable (Cont.)
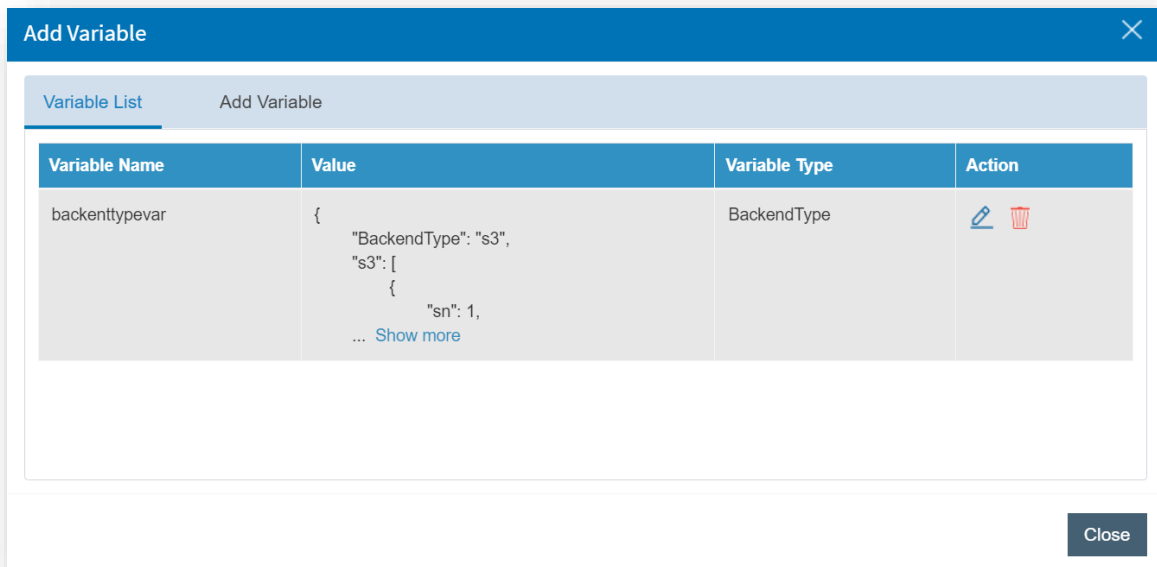
Figure 293 – Add Variable – Terraform Backend Config Variable (Cont.)

5. Once the Variable type is selected, enter the **Variable Name** and **Value**.

6. Click on **Save** button. A success message appears:
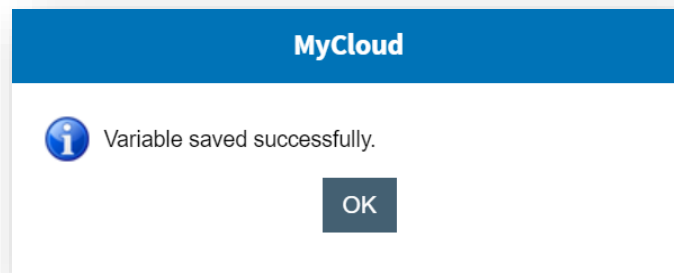
Figure 294 – Success Message

Edit Variable:

The Edit Variables option is available only for the unmapped variables. If the variables are mapped to the attributes the edit option does not appear. To edit a variable, perform the following steps:

1. Click on the Variables ⊞ icon.

2. Select the **Variable List** tab.

3. Click on the Edit ✎ icon corresponding to the variable to be edited.
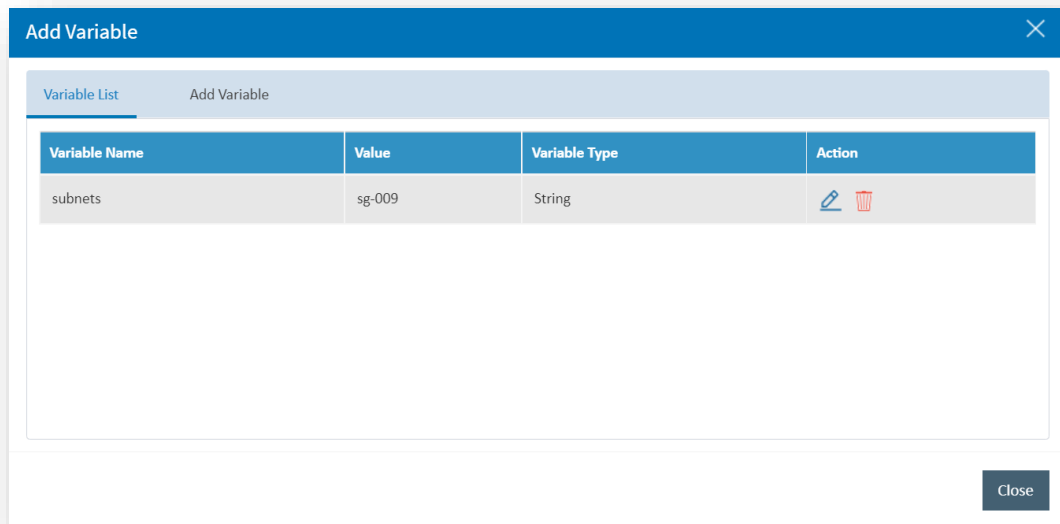
Figure 295 – Edit Variable

4. Change the **Value** and Click on **Update** button.

The Variable **Type** and **Name** are not editable.

Delete Variables:

The Delete Variables option is available only for the unmapped variables. If the variables are mapped to the attributes the delete option does not appear. To delete a variable, perform the following steps:

1. Click on the **Variables**⊞ icon.
2. Select the Variable List tab.
3. Click on the Delete🗑 icon corresponding to the variable to be deleted.
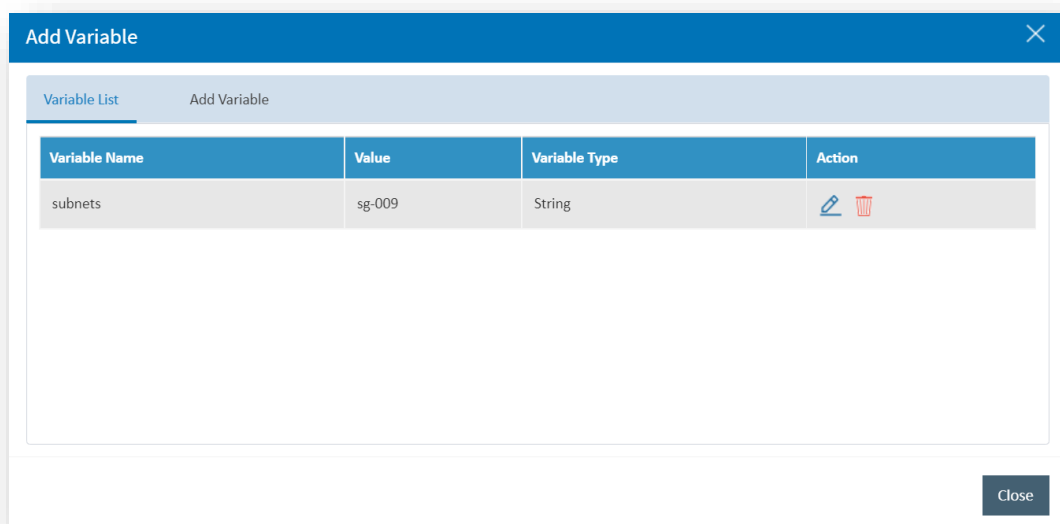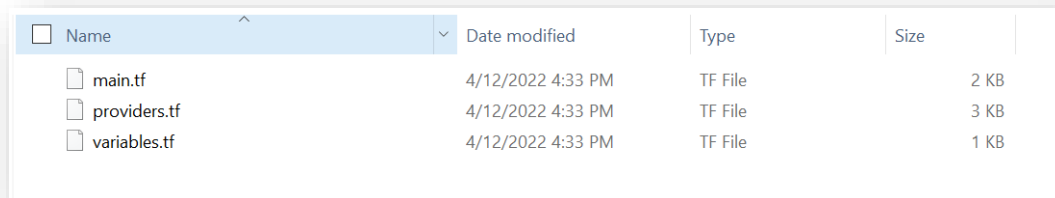
Figure 296 – Delete Variable

3.1.4.1.2.6.4 Download TF File

1. Click on **Download TF File** (⬇) icon.

2. A zip file with the blueprint name is downloaded. The file contains the main.tf, variable.tf, and provider.tf files inside it.

Figure 297 – Download TF File

3.1.4.1.2.6.5   Validate Blueprint

This option is used to validate the attribute data entered for each object on the blueprint diagram against the configured validation data for each attribute.

1. Click on Validate attributes ☑ icon.
2. A Validation Summery dialog box appears.
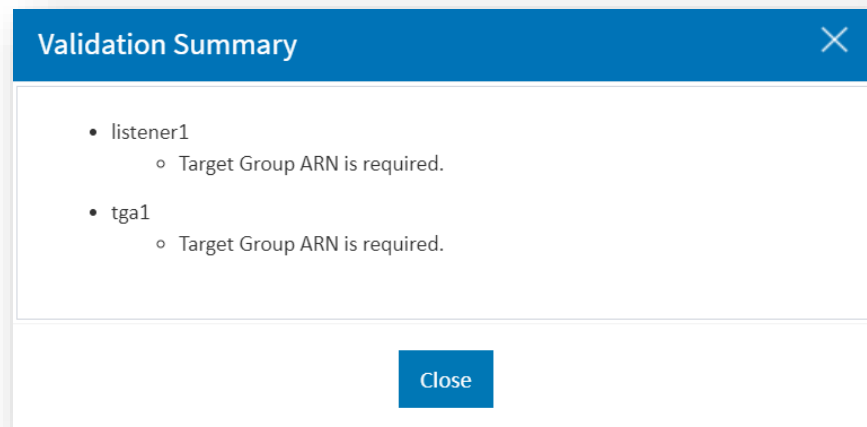
Figure 298 – Validation Summery

3. On successful validation, the following success message appears:
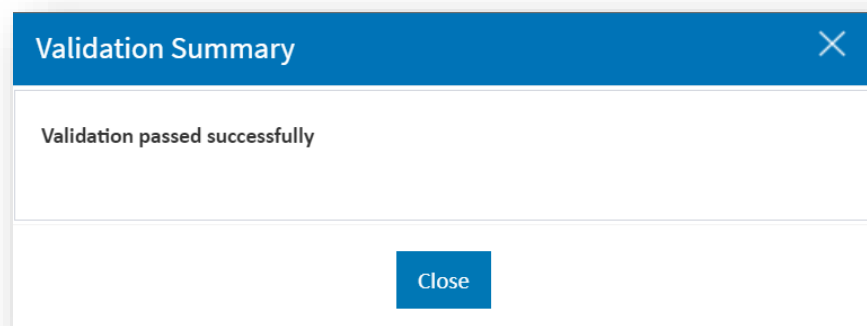
Figure 299 – Validation Success Message

Clicking the New Blueprint icon 📄 opens a new blank blueprint window to create a new blueprint.
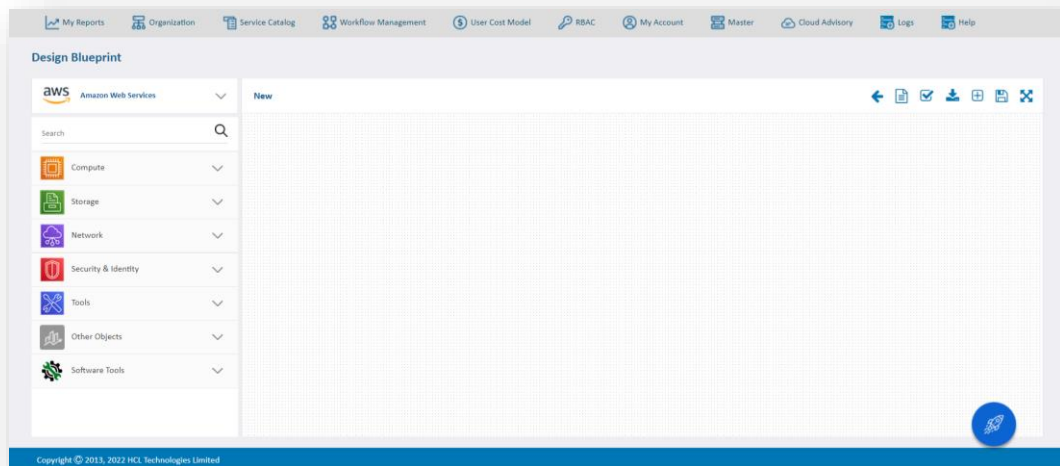
Figure 300 – New Blueprint

For a new blueprint, the default name is "**New**". Once the blueprint is saved with a name, that name appears as the blueprint title.
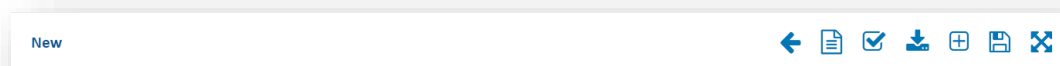
Figure 301 – Blueprint Title

3.1.4.1.2.6.7 Back to Manage Blueprint

Clicking on the Back to Manage Blueprint ← icon redirects users to the Manage Blueprint page.

3.1.4.1.2.7 Deploy Blueprint

The Deploy Blueprint icon 🚀 on the bottom right allows users to deploy the blueprints through the Design Blueprint page.

For detailed information about the deployment process of blueprints, refer to Deployment from the Design Blueprint page.

3.1.4.1.3 Manage Existing Blueprints

All the existing blueprints are listed on the Manage Blueprint page and are managed using the following options available on the page itself:

- View Blueprint
- Import Blueprint
- Deployment History
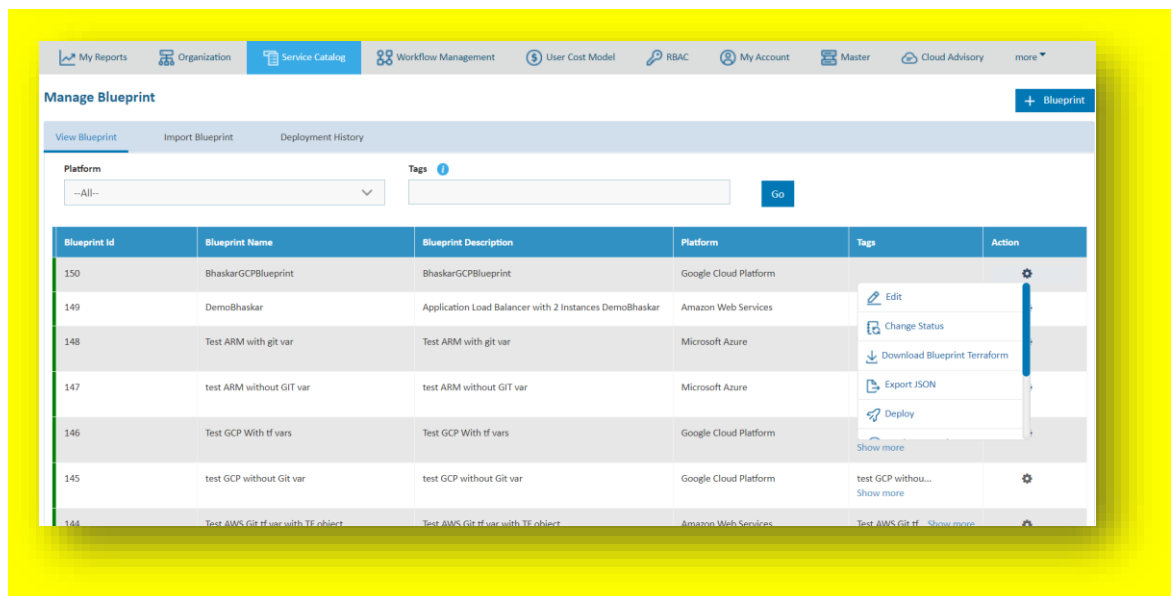
Figure 302 – Manage Blueprint Page

3.1.4.1.3.1 View Blueprint

The View Blueprint tab lists all the existing blueprints and displays various options associated with each blueprint. The user can search for specific blueprints by using the filter option.
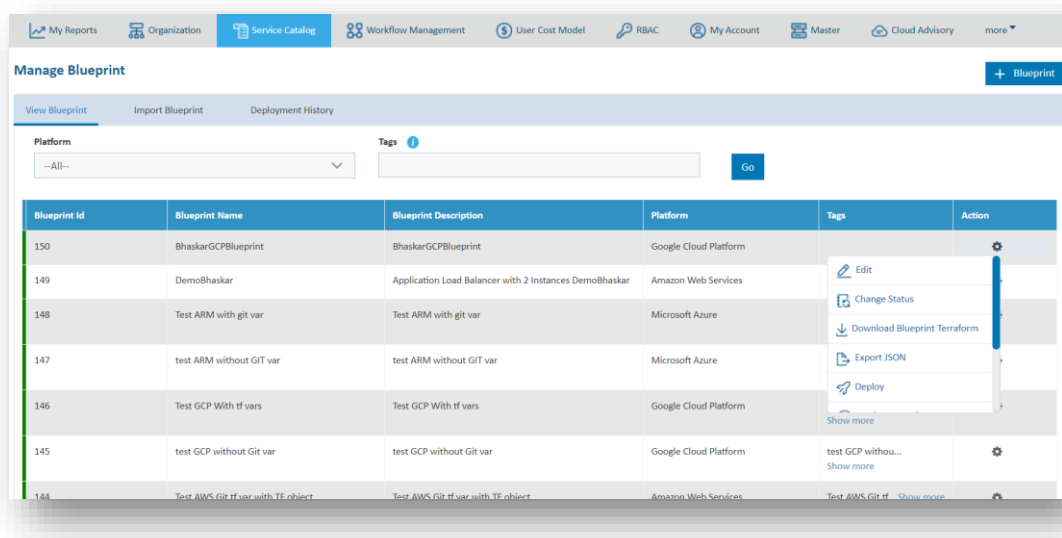
Figure 303 – View Blueprint

Refer the below table to understand the columns in the above figure:

Table 58 – View Blueprint Table Columns

Fields	Description
Blueprint Id	Displays the Id of the listed blueprint. This is used in process template for the execution of the Blueprint.
Blueprint Name	Displays the Name of the listed blueprint.
Blueprint Description	Displays the Description of the listed blueprint.
Platform	Displays the Platform of the listed blueprint.
Tags	Displays the tags associated with the listed blueprint.
Status	Displays the Active/Inactive status of the listed blueprint.
Action	Displays the actions that can be performed on the listed blueprints.

The search can be filtered by selecting the Platform and by providing Tags associated with the blueprints. By default, the page displays data for all the platforms.
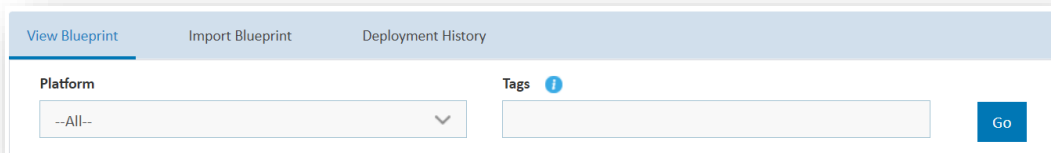
Figure 304 – View Blueprint Filter Option

The Action column displays the actions that can be performed on each blueprint.
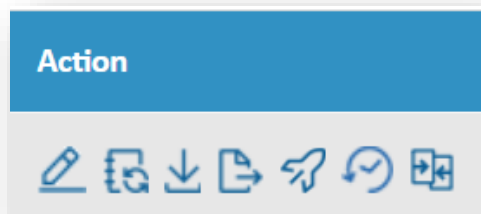
Figure 305 – Options in the Action Column

Below actions can be performed to manage an existing blueprint:

- Edit
- Change Status
- Download Blueprint Terraform
- Export JSON
- Deploy
- Deployment History
- Compare Blueprint Files

3.1.4.1.3.1.1   Edit

To edit a blueprint, follow the below steps:

1. From the list of the existing blueprints under the **View Blueprint** tab, click on the edit icon ✎ corresponding to the blueprint to be edited.

2. It opens the **Design Blueprint** page in edit mode loaded with the selected blueprint in the diagram pane along with all the attributes and variables.
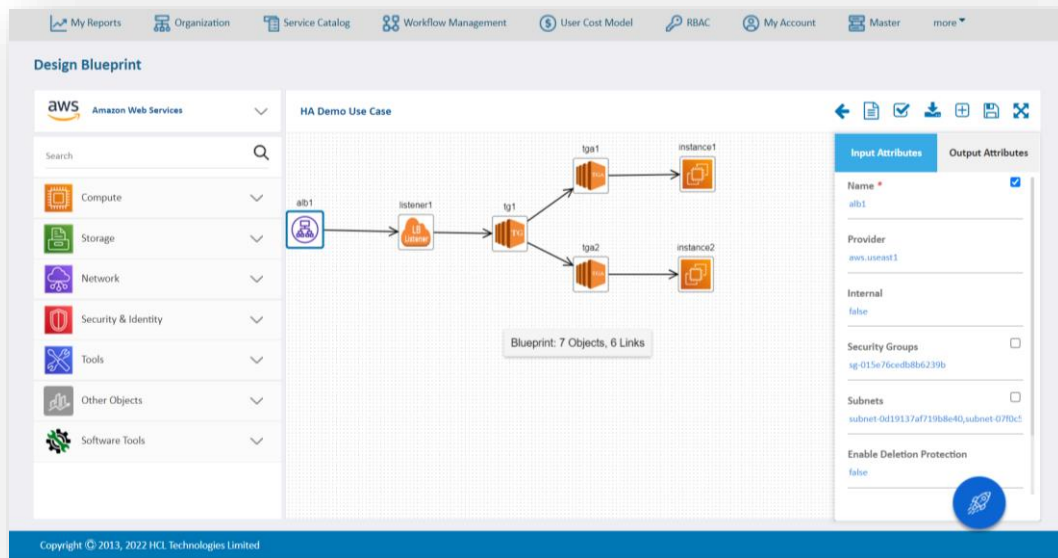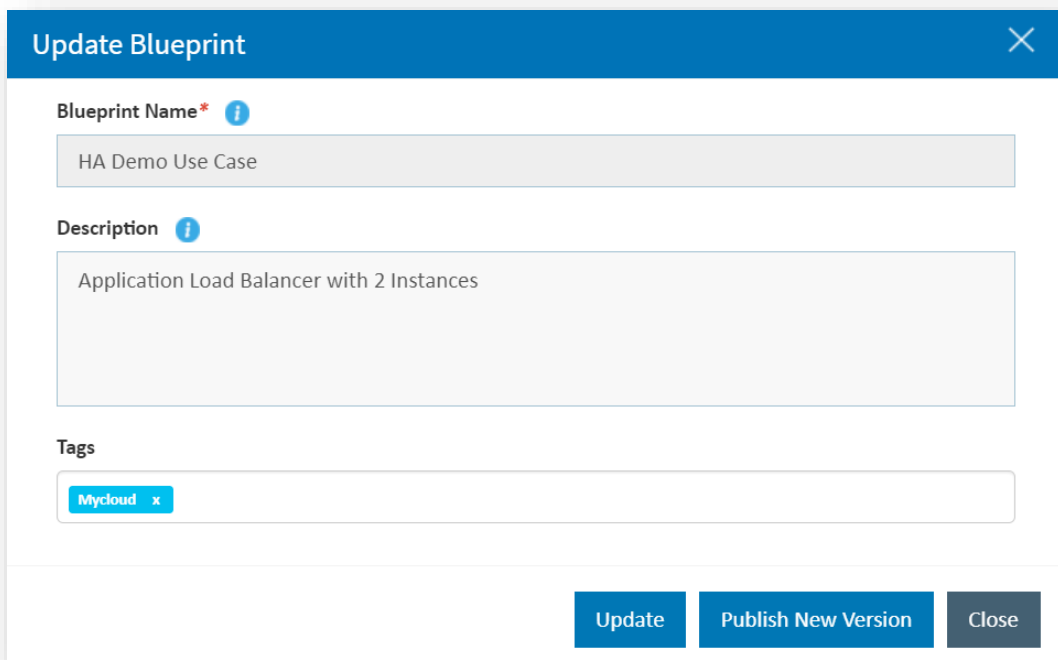
Figure 306 – Edit Blueprint

3. Make the required changes and click on the Save 💾 action button.

4. The **Update Blueprint** dialog box appears.

Figure 307 – Update Blueprint

5. On the Update Blueprint screen, users can add or remove tags while updating the blueprint. This can be used to search for the created blueprint with the help of tags attached to it under the **View blueprint** tab.

> Only Blueprint **Description** and **Tags** fields are editable here.

6. This dialog has two options for updating the blueprint.
   - Update: Clicking on Update button updates the selected blueprint and displays the following success message:
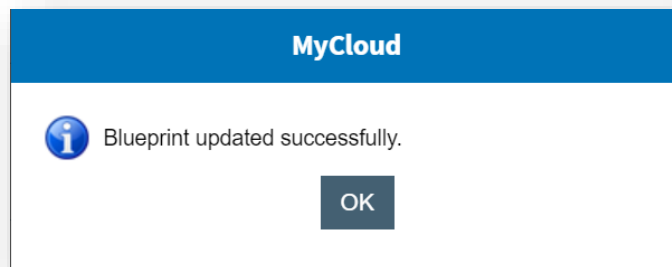
Figure 308 – Success Message for Update

   - Publish New Version: Selecting this option creates a new version of the blueprint along with all the changes and saves it in the table with the new version number with column 'IsPublished' as 'Y'. The old copy of the blueprint is marked 'IsPublished' as 'N' in the table.
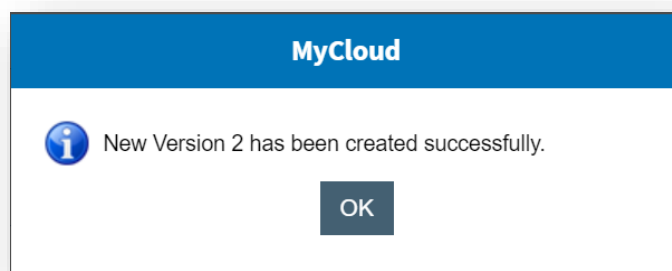
Figure 309 – Success Message for a New Version Update

3.1.4.1.3.1.2 Change Status

The option is to mark the listed blueprint status as Active/Inactive.

1. Click on the **Change Status** icon corresponding to the desired blueprint.
2. A confirmation dialog appears to confirm the action.
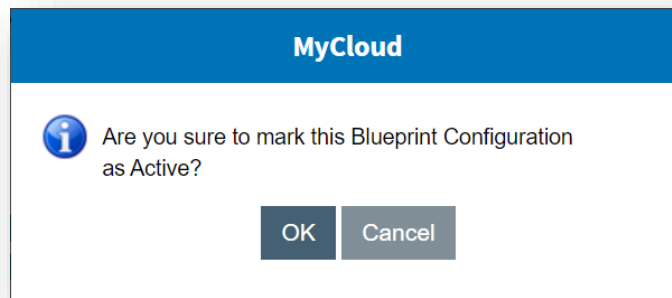
Figure 310 – Change Status Confirmation

3. On clicking **OK**, the status of the blueprint is changed to Active or Inactive and a success message appears as follows:
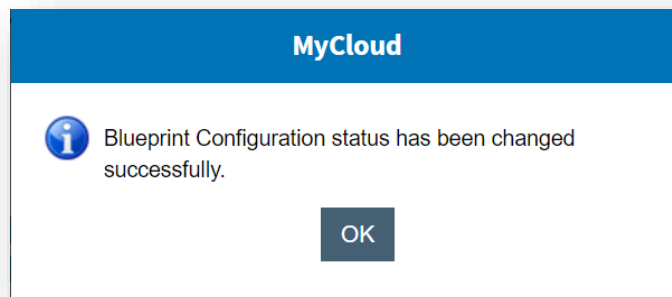
Figure 311 – Success Message for Status Change

- If the status is changed to "Active," it is marked with a green dot in the table.

Figure 312 – Status changed to 'Active'

- If the status is changed to "Inactive," it is marked with a red dot in the table.

Figure 313 – Status changed to 'Inactive'

For an Inactive Blueprint, the **Edit**, **Deploy** and **Deployment History** options are not available under the Action tab.

3.1.4.1.3.1.3 Download Blueprint Terraform

This option is used to download the blueprint TF file.

1. Click on the **Download Blueprint Terraform** icon ⬇ corresponding to the desired blueprint.
2. This downloads a zip file with the blueprint name.

3. For further steps to download Blueprint Terraform, please refer to Download TF File.

3.1.4.1.3.1.4 Export JSON

This option is used to export the blueprint JSON that can be imported later to any other environment.

1. To export the blueprint JSON, click on the ![icon] icon corresponding to the blueprint.
2. A single JSON file with the blueprint name is downloaded. It has the blueprint data in JSON format.
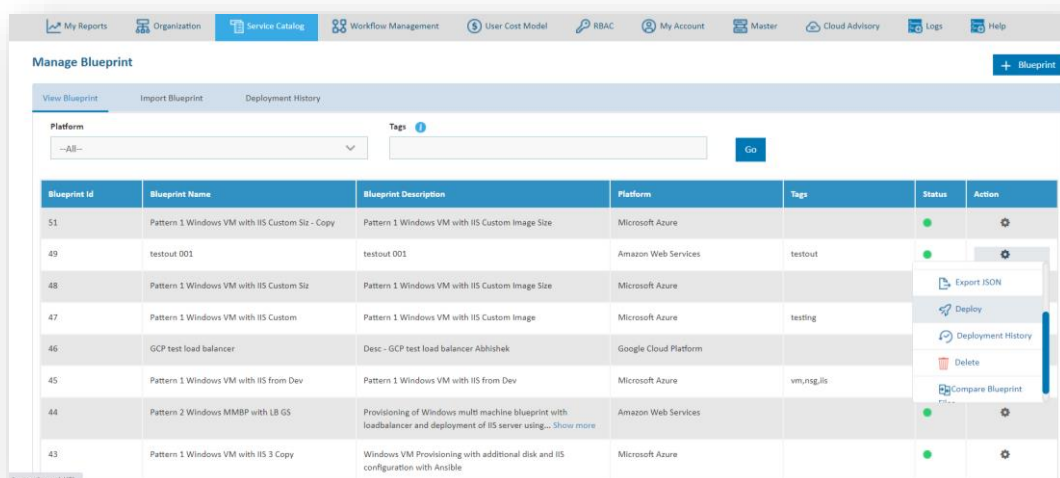
Figure 314 – Exported JSON File

3.1.4.1.3.1.5 Deploy

Another way of deploying a blueprint is by clicking the Deploy icon under the Action column on the View Blueprint page.

For detailed information about the deployment process of blueprints, refer to Deployment from the View Blueprint tab.

Figure 315 – Deploy Blueprint from View Blueprint Page

3.1.4.1.3.1.6 Deployment History

This option is used to view the deployment history of the listed blueprints. This option enables the user to view the Deployment History tab of the Manage Blueprint Page. The Deployment History tab cannot be directly accessed. It can be accessed through this action item of listed blueprints.

1. Click on Deployment History icon ![icon].
2. This takes the user to the to the **Deployment History** tab where he/she can view the deployment history of the blueprint.
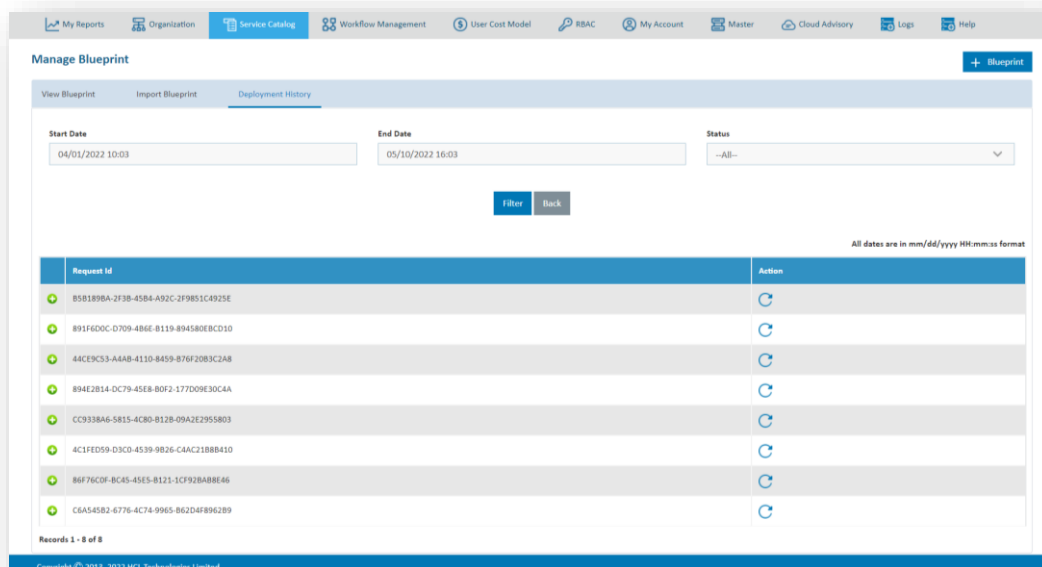
Figure 316 – Deployment History

3. The Deployment History can be filtered by specifying the **Start Date**, **End Date**, and **Status**, then clicking the **Filter** button.

4. Refer the below table to understand the columns in the above figure.

Table 59 – Deployment History Table Columns

Fields	Description
Request Id	Displays the Request Id of the blueprint deployment. On deployment of the blueprint, a request id is generated.
Action	Displays the actions that can be taken against the listed deployment request id. e.g.: Rerun.

5. On expanding the listed request Id by clicking on the plus icon, a drill down table opens. This table displays the deployment request data. All the tasks created for Blueprint Deployment are listed under the given Request Id created for deployment. Tasks are grouped and listed under the Request Id created for deployment.

Figure 317 – Deployment History Drill Down

6. Refer the below table to understand the columns in the above figure:

Table 60 – Deployment History Drill Down Table Field

Fields	Description
Request Id	Displays the Request Id of the blueprint deployment. On deployment of the blueprint, a request id is generated.
Status	Displays the status (Completed/InProgress/Error) of the blueprint deployment request.
Date Executed	Displays the Execution Date of the blueprint deployment request.
Result	Displays the Result of the blueprint deployment request.
Action	Displays the actions that can be taken against the listed deployment request id. e.g.: **Rerun**.

7. Further expanding the listed Request Id by clicking again on the plus icon opens the complete execution log of the blueprint deployment task.

Figure 318 –Deployment Execution Log

8. One request can have multiple tasks that are listed in the drill down logs page as shown below:

Figure 319 – Multiple Tasks Listed under Deployment History Drill Down

9. The **Re-Run** functionality allows users to re-run a deployment request multiple time. To re-run the deployment request, click on the **Re-Run** icon located under the **Action** column in the **Deployment History** table.

10. To learn more about the Re-Run Blueprint functionality, please refer to the section Re-Run Blueprint.

3.1.4.1.3.1.7   Delete Blueprint

The Delete icon under the Action column in the View Blueprint tab allows users to delete the listed blueprint.

1. Click on the Delete icon 🗑 corresponding to the blueprint to be deleted.

2. A confirmation message appears as follows:
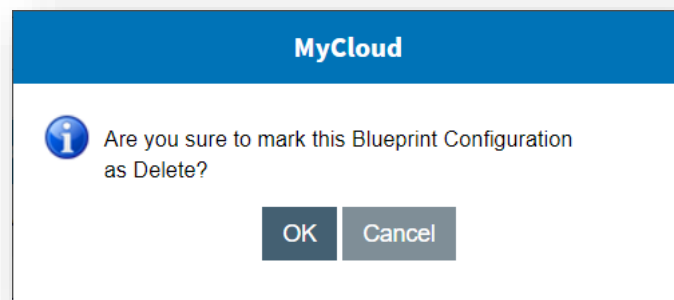
Figure 320 – Confirmation Message

3. Click **OK** to confirm. A success message appears as follows:
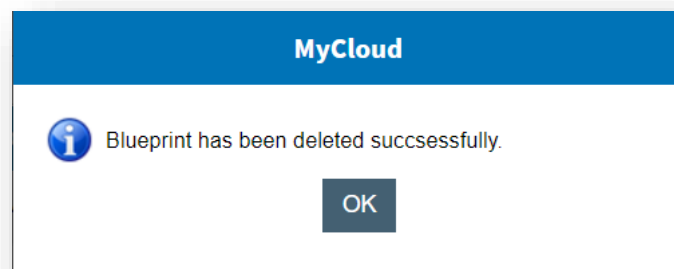
Figure 321 – Success Message

3.1.4.1.3.2   Import Blueprint

This tab allows the user to import the exported blueprint JSON. It is useful to migrate the created blueprint from one environment to another.

1. On the **Mange Blueprint** page, click on the **Import Blueprint** tab.

2. Browse for the exported blueprint JSON file by clicking on **Choose a file** button.
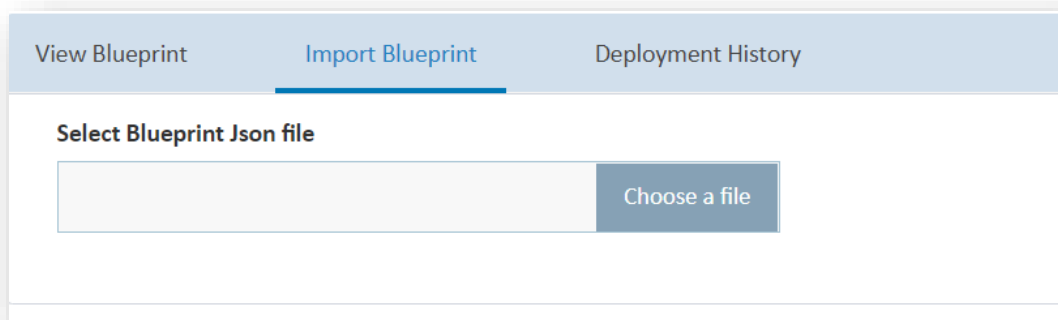
Figure 322 – Import Blueprint

3. The following dialog box appears and allows the user to choose the file:
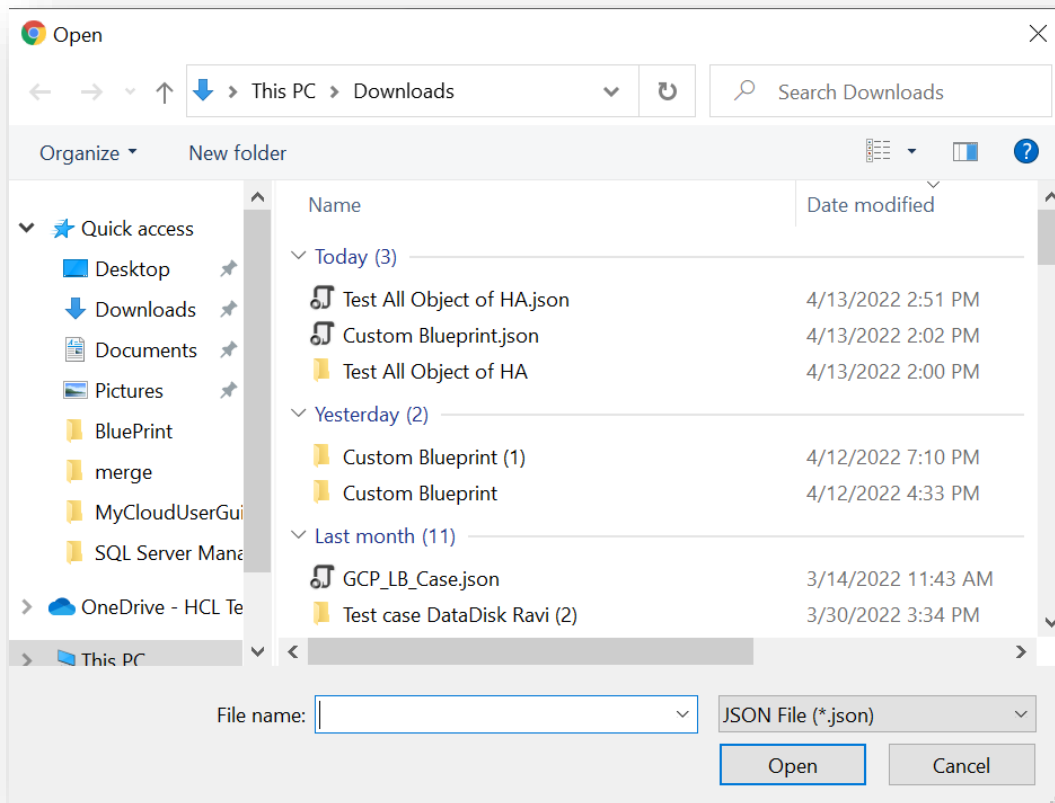
Figure 323 – Import Blueprint Choose File

4. Select the Blueprint JSON file.

5. The file gets uploaded for confirmation with the blueprint JSON data, **Blueprint Name**, **Blueprint Description**, and **Platform**.

For some files, the Platform field is disabled. This signifies that the platform for the imported document cannot be changed while importing the blueprint. It automatically detects and imports the blueprint of the listed platform.

6. Once the user clicks on the Import button, the blueprint gets imported successfully and starts appearing in the blueprint list on the **View Blueprint** page.

Figure 324 – Imported Blueprint listed in View Blueprint

3.1.4.1.3.3 Deployment History

The Deployment History tab is not directly accessible; however, it can be accessed via the Deployment History action item of listed blueprints in the View Blueprint section of the Manage Blueprint page.

For details, please refer to the Deployment History section.

The Ansible objects are enabled in Blueprint using the Software Tools option in the Left Object Menu. This software tool is independent of Amazon, Azure, GCP, or VMware and holds the Ansible objects in the blueprint.
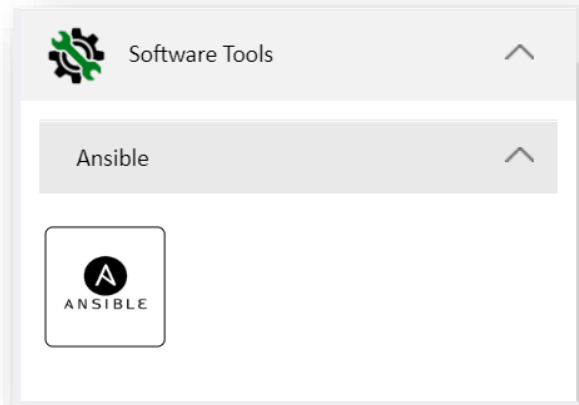
Figure 325 – Ansible Object

1. Drag Ansible object to **Diagram Pane** and create the use case.
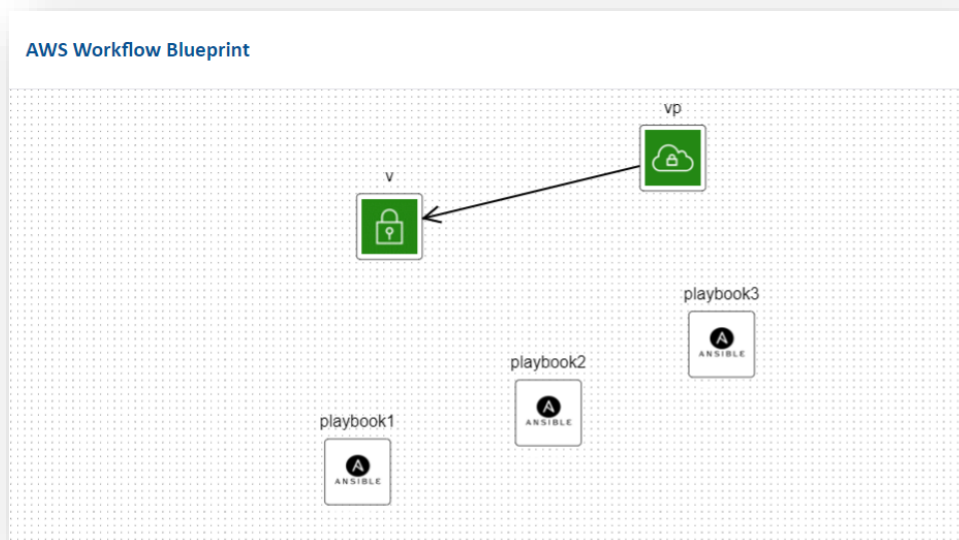
Figure 326 – Ansible Object on Blueprint Diagram

2. In the Right Attribute Panel, select the Input Attribute tab and populate the fields:

- Name: The name of the object/resource to identify the purpose of the runbook.

- Execution Order: The execution order attribute is used to refer to the execution order of the tasks executed during the deployment process explained under Point no. 3 of section Deployment History.

- Runbook Id: It is the id of the runbook provided by the user for post provisioning or day two task.

- Extra Vars: A new type of variable (Ansible) can be created from variables window. For the details about Ansible variables, please refer to the section Variables.
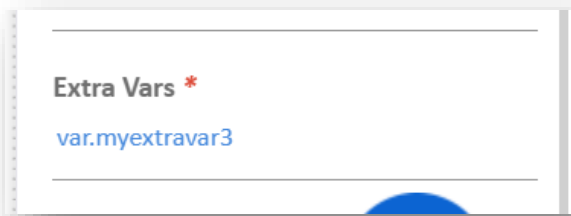
Figure 327 – Extra Vars in Ansible Object

3. Click on the deploy blueprint icon. For details on how to deploy the Ansible type object from the Design Blueprint page, please refer to the section Deployment from the Design Blueprint page.

3.1.4.1.5 Enabling Cisco Intersight in Blueprint

The Cisco Intersight objects are enabled in Blueprint using the **Software Tools** option in the Left Object Menu. This software tool is independent of Amazon, Azure, GCP, or VMware and holds the Cisco Intersight objects in the blueprint.
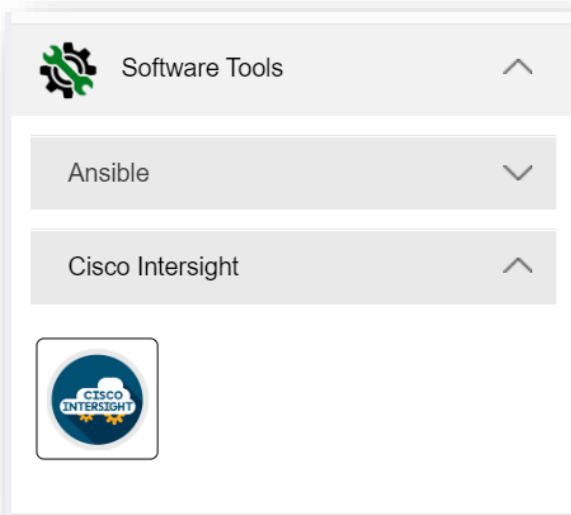
Figure 328 – Cisco Intersight Object

1. Drag **Cisco Intersight** object to **Diagram Pane** and create the use case.
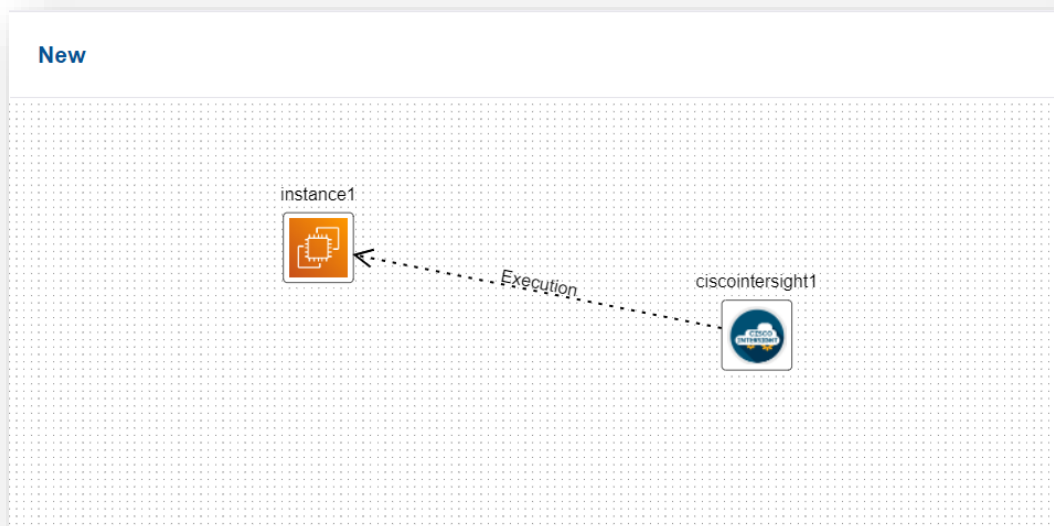
Figure 329 – Cisco Intersight Object on Blueprint Diagram

2. In the Right Attribute Panel, select the **Input Attribute** tab and populate the following fields:

- Name: The name of the object/resource to identify the purpose of the Cisco Intersight object.

- Virtual Machine: The Virtual Machine attribute is used to map the Instance.

- Execution Name: It is the Execution name for Cisco Intersight provided by the user for post provisioning or day two task.

- Organization Moid: It is the Organization Moid for Cisco Intersight provided by the user for post provisioning or day two task.

- Workflow Moid: It is the Workflow Moid for Cisco Intersight provided by the user for post provisioning or day two task.

- Execution Order: The execution order attribute is used to refer to the execution order of the tasks executed during the deployment process explained under Point no. 3 of section Deployment History.

- Workflow Parameters: A new type of variable (Ansible) can be created from variables window. For the details about Ansible variables, please refer to the section Variables.
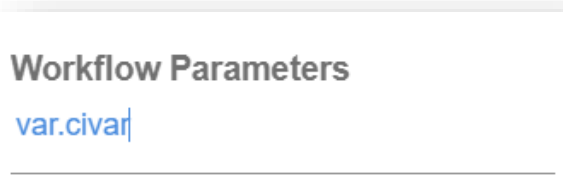
Figure 330 – Workflow Parameter in Cisco Intersight Object

3. Click on the deploy blueprint icon. For details on how to deploy the Cisco Intersight type object from the Design Blueprint page, please refer the section Deployment from the Design Blueprint page.

There are three ways to deploy a blueprint:

- Deployment from the Design Blueprint page

- Deployment from the View Blueprint tab of the Manage Blueprint page

- Deployment from Process workflow

3.1.4.2.1   Deployment from the Design Blueprint page
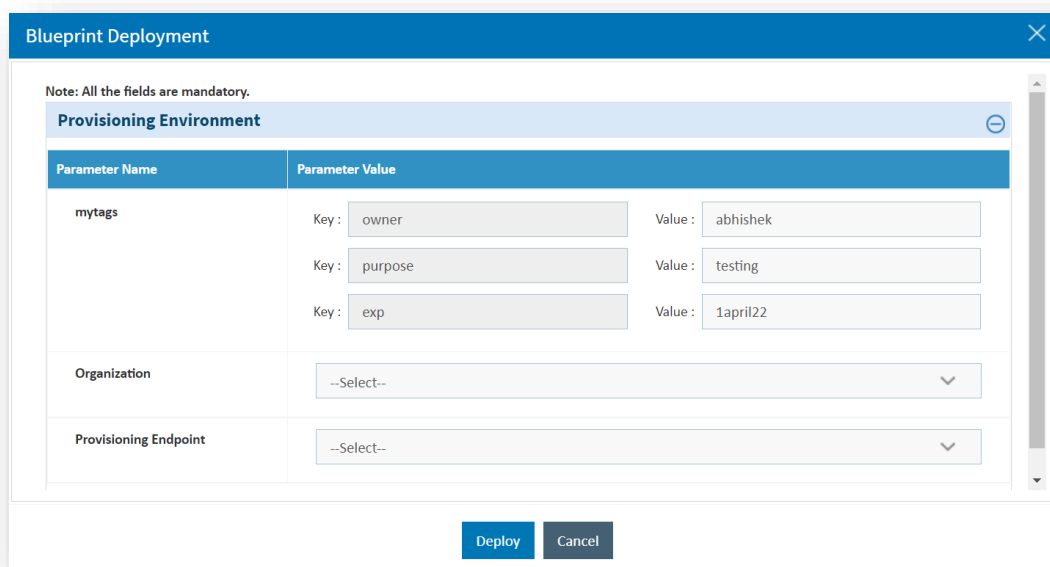
The Deploy Blueprint option on the Design Blueprint page is to deploy the created blueprint to do provisioning of the objects configured in the blueprint.

The deployment can be categorized into two types:

- Deployment without Ansible objects

- Deployment with Ansible objects

For deployment without Ansible Objects:

1. Click on the Deploy icon on the bottom right of the page.

2. The **Blueprint Deployment** Window appears.

Figure 331 – Blueprint Deployment

3. The user has the option to change the mapped variable values if desired.

4. Select the Organization and Provisioning Endpoint.

5. Click on **Deploy** button.

6. A Provisioning window appears and shows the real-time provisioning logs.

Figure 332 – Provisioning Window for Blueprint

7. On successful completion of provisioning, the output result is displayed in green color. The blueprint objects are successfully provisioned on the selected cloud platform.

Figure 333 – Successful Provisioning of Blueprint Objects

8. In the case of any error in processing, it shows it in red color.

9. For Deployment with Ansible Objects:

10. Click on the Deploy icon [icon] on the bottom right of the page.

11. The Deployment Window appears.

Figure 334 – Blueprint Deployment Window from Ansible Object

12. On the Blueprint Deployment window, the Ansible Extra Vars will be displayed under Ansible environment section.

Figure 335 – Extra Vars in Ansible Object

13. Change the **Extra Vars** values if required.

14. Select the **EndpointURl**, populate all the required fields, and click on **Deploy** button.

15. The further steps are same as described in the section Deploy Blueprint.

16. On successful deployment, the configured Ansible task is run.

17. For Deployment with Cisco Intersight Objects:

18. Click on the Deploy icon on the bottom right of the page.

19. The Deployment Window appears.

Figure 336 – Blueprint Deployment Window from Cisco Intersight Object

20. On the Blueprint Deployment window, the Cisco Intersight Workflow parameters will be displayed under Cisco Intersight environment section.

Figure 337 – Workflow Parameter in Cisco Intersight Object

21. Change the Workflow Parameter values if required.

22. Select the **EndpointURl**, populate all the required fields, and click on **Deploy** button.

23. The further steps are same as described in the section Deploy Blueprint.

24. On successful deployment, the configured Cisco Intersight task is run.

Deployment from the View Blueprint tab

Another way to deploy the blueprints is from the View Blueprint tab. The deploy button available on this screen allows users to deploy a blueprint from here. Clicking on the deploy button opens the deploy dialog box. Follow the similar steps as described in the section "Deployment from the Design Blueprint page".

In this method, the blueprints are deployed through process workflow. The section "Execution of Blueprint by Creating UI and Process Template" contains detailed information on deployment from process workflow.

3.1.4.3   Re-Run Blueprint

This option is used to re-run the deployment request. By using Re-run, a user can again request the deployment of the same blueprint request and can change the existing machine attributes values which are mapped to variables. For the attributes which are not mapped with the variables, the user will not be able to change values on re-run.

If the deployment request is not decommissioned, this option does not create new cloud objects; it makes modifications to the existing cloud objects that were created during the deployment request.

If the deployment request has been decommissioned and then re-run is used, it creates the new cloud object mentioned in the deployment request.

The user cannot change the platform or environment in the case of re-run.

The Re-Run action does not appear in the case of an InProgress or Error status of the deployment request. It appears only in the case of the Success status of the deployment request.

For a new deployment, it creates the new request id in the deployment history but for the re-run case, it runs the execution under the same request id. It does not create the new request id. It uses the same terraform state file for task execution.

3.1.4.3.1   Terraform State File

Terraform must store information about your managed infrastructure and configuration. This information/state is used by Terraform to map real-world resources to your configuration, to keep track of metadata, and to improve performance for large infrastructures.

This state is stored by default in a local file named "terraform.tfstate", but it can also be stored remotely, which works better in a team environment.
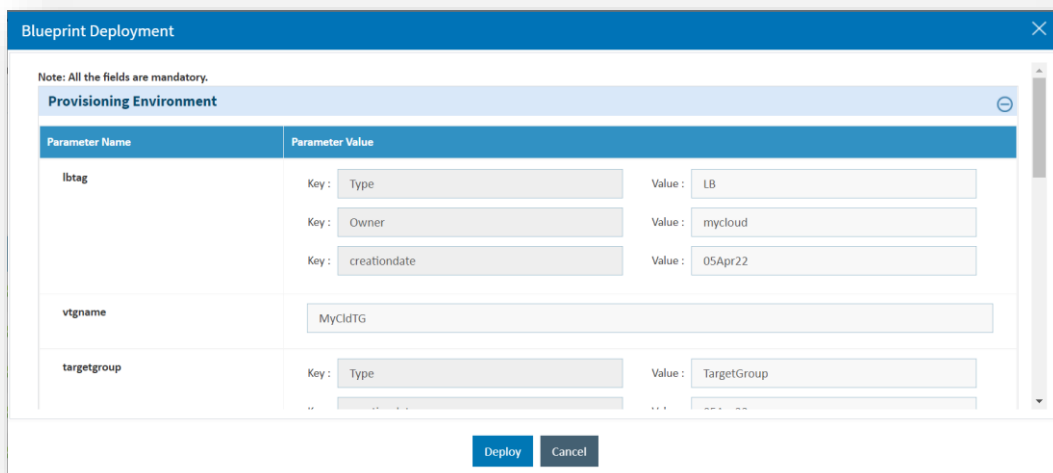
Terraform uses this local state to create plans and make changes to your infrastructure. Terraform performs a refresh prior to any operation to update the state with the actual infrastructure.

The primary purpose of Terraform state is to store bindings between objects in a remote system and resource instances declared in your configuration. When Terraform creates a remote object in response to a change in configuration, it records the identity of that remote object against a particular resource instance and then potentially updates or deletes that object in response to future configuration changes.

Terraform stores information about your infrastructure in a state file. This state file keeps track of resources created by your configuration and maps them to real-world resources.

Terraform compares your configuration with the state file and your existing infrastructure to create plans and make changes to your infrastructure. When you run terraform apply or terraform destroy against your initialized configuration, terraform writes metadata about your configuration to the state file and updates your infrastructure resources accordingly.

1. Click on Re-Run ⟳ icon listed in the action column.
2. The **Blueprint Deployment** window appears.

Figure 338 – Blueprint Deployment on Re-Run
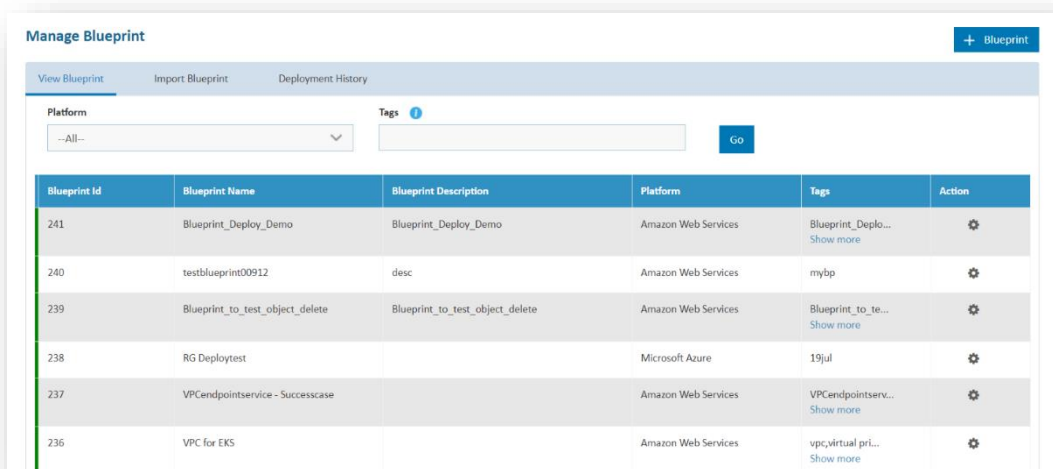
3. The user has the option to change the variable values mapped to the object attributes.
4. Click on the deploy button and perform the similar steps as described in the section "Deployment from the Design Blueprint page".

3.1.4.4   Execution of Blueprint by Creating UI and Process Template

The section covers information about the deployment of blueprint through process workflow. This is one of the three methods of blueprint deployment.

To deploy the blueprints through process workflow, the user first needs to create a new blueprint through the Design Blueprint page. (Refer to the section Create New Blueprint to create a new blueprint).

In the example below, the workflow blueprints are created for all three platforms. As already discussed earlier, the listed blueprint can be filtered by typing the tag name in the Tags section.

Figure 339 – Blueprint Created for Process Workflow

For executing the created Blueprint from Process Workflow, the user needs to do the following:

1. Create the UI Template.

2. Create the Process template.

3. Create the Cloud template.

4. Create Catalog.

5. Publishing the Service Catalog.

6. Execution of Blueprint thorough Requester

7. Viewing the Request processing on the Request Task Management.

3.1.4.4.1   Creating UI Templates

For processing requests from the process template, the user needs to create a UI template where any blueprints can be deployed. The user provides input attributes and, after completing the deployment task, the output attributes are returned. These output attributes are passed to the process workflow to run the tasks. So, the UI templates are the medium to pass these output values from blueprint deployment output to process workflow execution.

1. Click on Manage UI Template under Workflow Management menu.
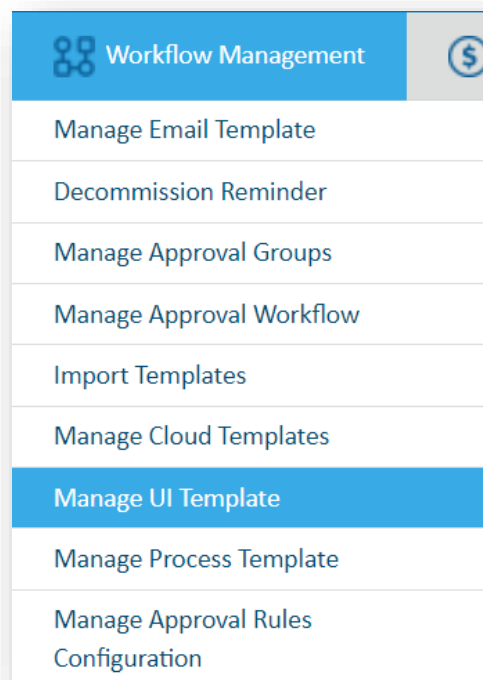
Figure 340 – Create UI Template Menu

2. Go to **Create UI Template** tab and create a UI template. For details on How to create a UI template, please refer to the section "**Manage UI Template→ Create UI Template**" in the *MyCloud Configuration Guide – Provider Module – Part 1.*

Figure 341 – UI Template Creation for Blueprint Deployment

The following five inputs have been created for the UI template as the blueprint to be executed expects these values form the user input:

– Key Value Pair

– Rbremarks1

– Rbremarks2

– Rbremarks3

– mabpout

To pass the inputs to the process workflow through the UI template, the user needs to create all the input and output parameters in the UI template to map.

3.1.4.4.2 Create Process Template

After creating UI template, we need to create process template.

1. Click on Manage Process Template under Workflow Management menu.
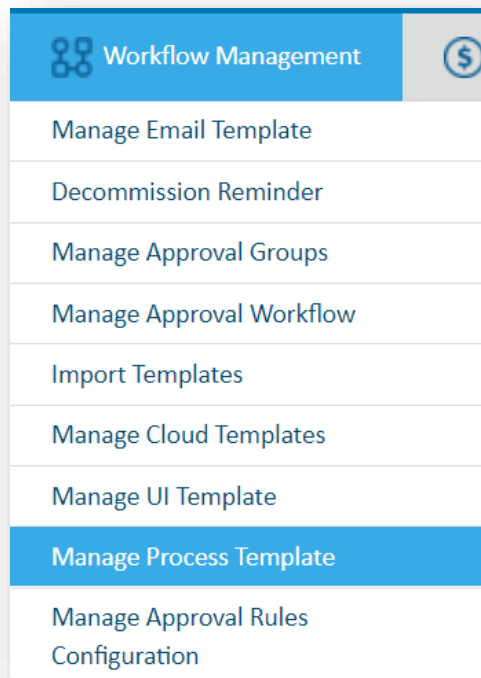
Figure 342 – Create Process Template Menu

2. Go to **Add Template** tab and create process template for the UI template. For details on How to create a Process template, please refer to the section "**Manage Process Template → Add Template**" in the *MyCloud Configuration Guide – Provider Module – Part 1*.

Figure 343 – Process Template Creation for Blueprint Deployment

3. Add the Task to Process template to be used to run the process workflow.

Figure 344 – Add Task for Process Template

4. Here the DEPLOYBL tasks have been created for the execution of the blueprint. It is a generic type of task. Different tasks are created for different platform workflows.

5. Click on **Manage Task** action on the created task table list.
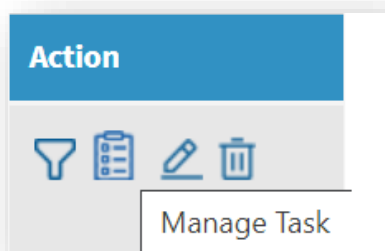
Figure 345 – Manage Task Action

6. The **Manage Task** window appears.
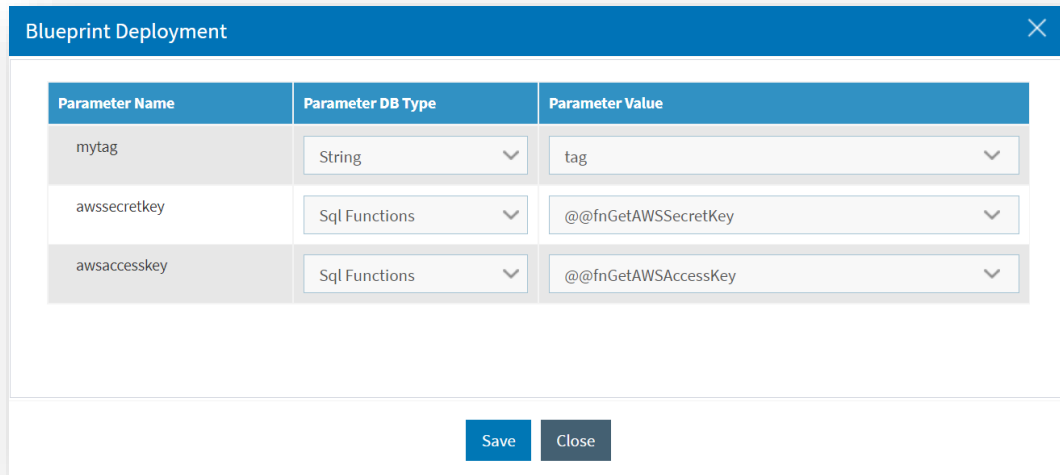
Figure 346 – Manage Task Action Window

7. Under the task, the user needs to map the input parameters to the process workflow. In the given example, there are four parameters mapped for the Deploy Blueprint task (DeployBL) as shown in the above screenshot.

8. All the parameters can be managed by selecting an option from the dropdown menu.

9. **Blueprint Id**: This is the Blueprint ID created for deploying the blueprint from the process workflow. Refer to the Table 58 – View Blueprint Table Columns.

10. **Output Blueprint**: Created to capture the output parameter value. There should be the same value of the output attribute created on the UI for the value provided here. And if there is no output attribute created in the UI, it creates a new key with the provided output value here.

11. **TerraformVariable**: It takes key value pair type variables. Click on the **Map Key Value** (Map Key Value) button to map the key value for this parameter.

Figure 347 – Map Key Value of Manage Task Action

12. The above screen allows you to map the subscription details for which the blueprints are deployed by selecting the respective credential of that environment. This window displays the platform-wise parameters and subscription-wise parameters. For AWS, the access key and the security key are platform specific. The user needs to provide credentials to access the provisioning environment. For GCP, provide the project id and for ARM, provide four keys to access the environment.

13. The window also allows users to map the key-value pairs. The following pairs are available:
   - Parameter Name
   - Parameter DB Type
   - Parameter Value.

14. In the case of Blueprint Deployment, the user needs pass the Access Key and Security Key from the configured values during the execution but in case process workflow, he/she needs to pass it thorough predefined SQL functions. This value is used to decide on which subscription the user deploys the blueprint. This depends on the selected platform such as AWS, ARM and GCP.

15. For Ansible, there is an option to configure Ansible variables by clicking on **Ansible Configuration** button (Ansible Configuration).

Figure 348 – Ansible Configuration of Manage Task Action

16. The user selects the Ansible endpoint, and all the key value mentioned in Ansible variables are listed here.

Figure 349 – Ansible Configuration of Manage Task Action (Cont.)

3.1.4.4.3 Create the Cloud Template

To process the requests from the process template, the user needs to create a cloud template.

1. Click on Manage Cloud Template in the Workflow Management menu.
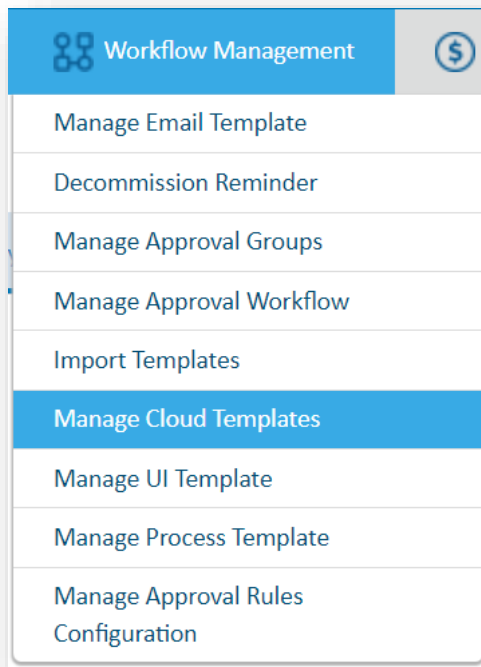
Figure 350 – Manage Cloud Template Menu

2. Select the Platform and the Provisioning Endpoint.

Figure 351 – Manage Cloud Templates

3. Select the **Create Template** tab and create a cloud template. For details on How to create a Cloud template, please refer to the section "**Manage Cloud Template → Create Template**" in the *MyCloud Configuration Guide – Provider Module – Part 1*.

Figure 352 – Create Cloud Template

3.1.4.4.4   Create Catalog

To process the request from the process template, the user needs to create a catalog.

1. Click on Manage Catalog in the Service Catalog menu.
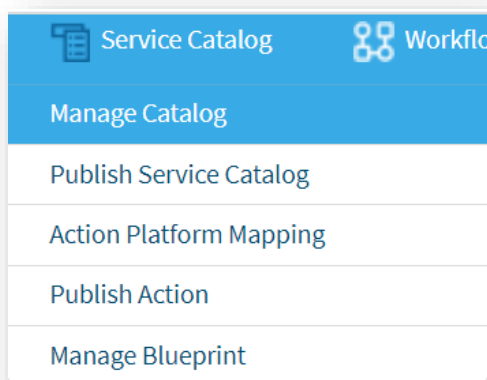
Figure 353 – Create Catalog Menu

2. Select the Platform and Provisioning Endpoint.

Figure 354 – Manage Catalog

3. Create a Catalog from the **Create Catalog** tab. For details on How to create a catalog, please refer to the section "**Manage Catalog → Create Catalog**" in the *MyCloud Configuration Guide – Provider Module – Part 1*.

Figure 355 – Manage Catalog (Cont.)

3.1.4.4.5   Publish Service Catalog

To process the request from the process template, the user needs to a create catalog.

1. Click on Publish Service Catalog in the Service Catalog menu.
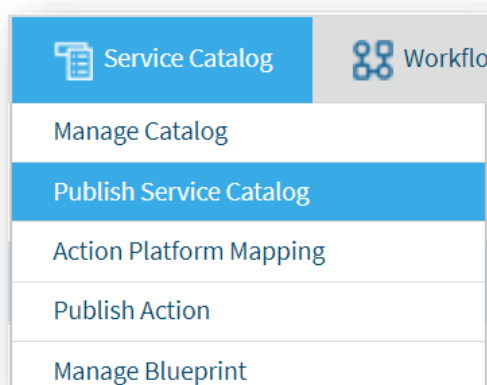
Figure 356 – Publish Service Catalog Menu

2. Select the Organization, Platform, and Provisioning Endpoint.

Figure 357 – Publish Service Catalog

3. Create a Service Catalog from the **Create Service Catalog** tab. For further steps to create a Service catalog, please refer to Section **Publish Service Catalog→ Create Service Catalog** in the *MyCloud Configuration Guide – Provider Module – Part 1.*

Figure 358 – Publish Service Catalog (Cont.)

3.1.4.4.6   Execution of Blueprint thorough Requester

To create requests for the workflow execution, the user needs to create a service catalog. This is done similarly to the existing UI and process template creation process. The following are the steps to explain one of the cases of deploying the blueprint through process workflow.

1. Login to MyCloud as a Requester.
2. Click on Request Service Catalog under the Request Menu.
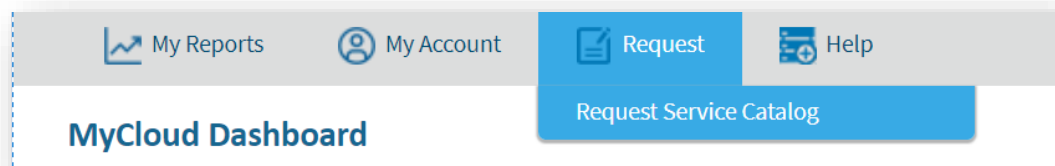
Figure 359 – Request Service Catalog Menu

3. Select the Environment Type, Purpose, and OS Type. Click on Proceed.

Figure 360 – Request Service Catalog

4. Select the **Platform** for which you want to create a request and click on **Proceed.**
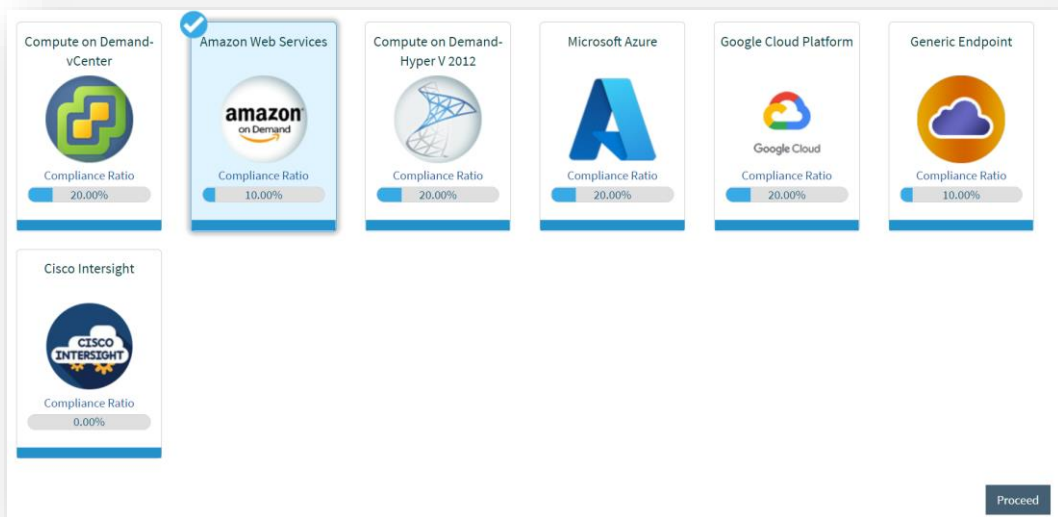
Figure 361 – Request Service Catalog (Cont.)

5.   Click on the created service request.
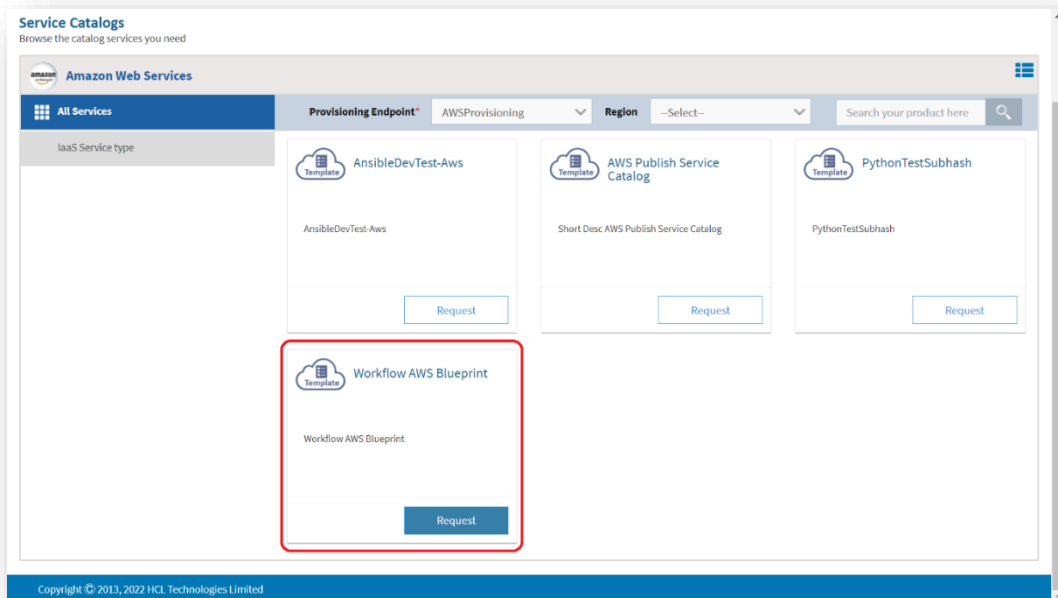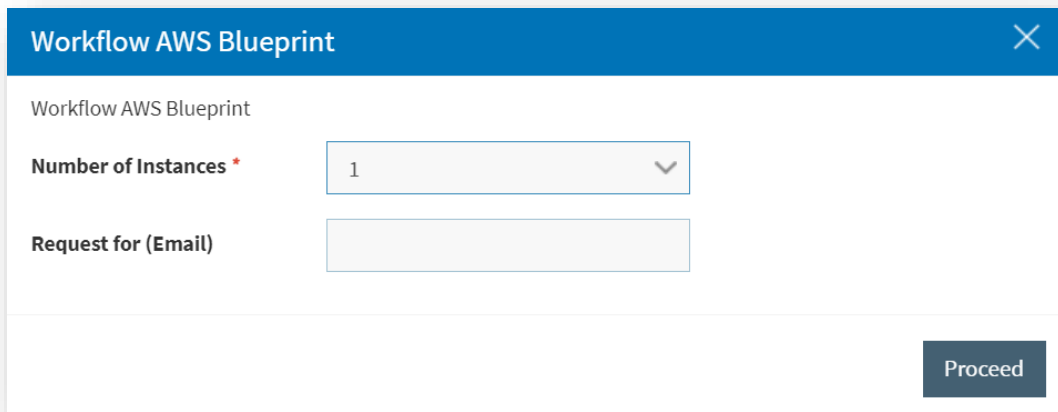
Figure 362 – Request Service Catalog (Cont.)
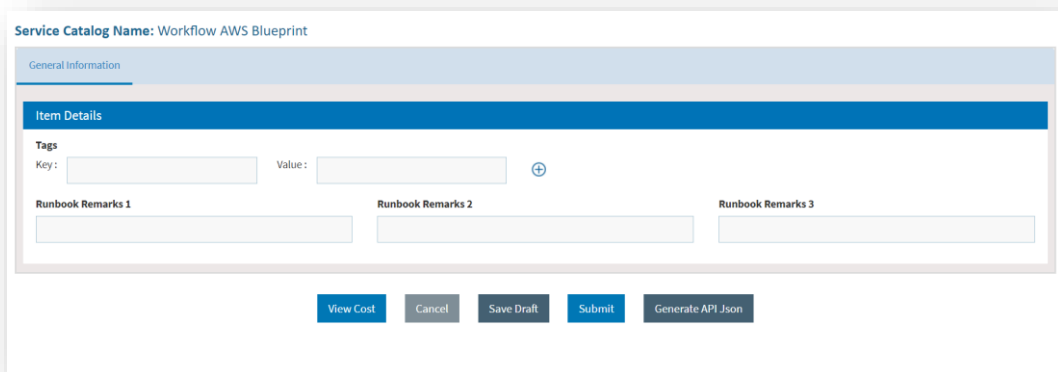
6.   Select the Number of Instances and click Proceed.

Figure 363 – Request Service Catalog (Cont.)

7. The UI template for requesting appears.

Figure 364 – Request Service Catalog (Cont.)

8. Input the values and click on **Submit** to raise a new request.

9. The request can be seen by clicking on **My Request** under **My Account** Menu.

Figure 365 – Request under My Request

10. Clicking on the request displays the further details related to the task.

Figure 366 – Request under My Request (Cont.)

3.1.4.4.7   Viewing the Request processing on the Request Task Management

To check the task execution status, the user needs to take the following steps:

1. Login to MyCloud as a Provider User.

2. Click on Request Task Management under the My Report menu.
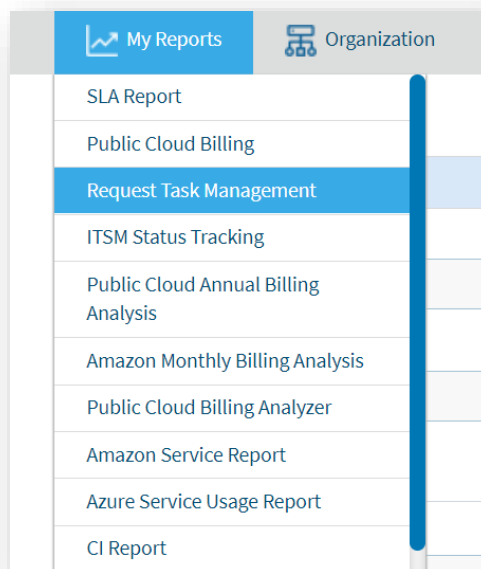
Figure 367 – Request Task Management Menu

3. The **Request Task Management** page appears, displaying the list of requests.

Figure 368 – Request Task Management

4. Expand your request by clicking on the plus icon .

Figure 369 – Request Task Management (Cont.)

5. The Task execution list is displayed.

6. The user can view the Request XML of the task by clicking on the **View Message XML** icon under the action column.

Message XML

<Amazon><Request><OrderNo>482</OrderNo><ItemNo>1</ItemNo><TaskCode>DEPLOYBL</TaskCode><MinCount>1</MinCount><MaxCount>1</MaxCount>
<RegionEndPoint>https://ec2.us-east-1.amazonaws.com</RegionEndPoint><RegionName>us-east-1</RegionName><CloudWatchEndPoint>https://monitoring.us-east-
1.amazonaws.com</CloudWatchEndPoint><ELBEndPoint>https://elasticloadbalancing.us-east-1.amazonaws.com</ELBEndPoint><ScalingEndPoint>https://autoscaling.us-
east-1.amazonaws.com</ScalingEndPoint><CFRegionEndPoint>https://cloudformation.us-east-1.amazonaws.com</CFRegionEndPoint><Configuration>
<LogFilePath>C:\Program Files\MyCloudLog\ORCSERVICE\</LogFilePath><SQLLogAPIEndpoint>Log/CreateLog</SQLLogAPIEndpoint><EnableLog>1</EnableLog>
<DeleteCommandFile>N</DeleteCommandFile><ProxyURL /><ByPassProxyforLocal>true</ByPassProxyforLocal><ProxyByPassList />
<RestAPIBaseUrl>http://10.1.150.125:80/WebAPI</RestAPIBaseUrl><ResponseAPIEndPoint>workflow/ProcessResponseMessage</ResponseAPIEndPoint>
<ResponseAPIUserName>MyCloudAdmin@hcl.com</ResponseAPIUserName><ResponseAPIPassword>rYrD/RqwzFw7dyUKhkqGCw==</ResponseAPIPassword>
<IsAsyncTask>false</IsAsyncTask><ProcessRequestDetailId>814</ProcessRequestDetailId><OrgEntityId>ORG-BB37A079-048E-40C9-AD2E-D8A15B56E117</OrgEntityId>
<ResultFieldSeparator>|</ResultFieldSeparator><ResultKeySeparator>:</ResultKeySeparator></Configuration><OutputBlueprint>mabpout</OutputBlueprint>
<ConfigurationDetails>{"OrgEntityId":"ORG-BB37A079-048E-40C9-AD2E-D8A15B56E117","EnvironmentID":"AMAZN-49DDE10C-FB6F-4667-A384-6B564F1D9398"}
</ConfigurationDetails><TerraformVariable>
{"awsaccesskey":"AKIAQHY3VMGJWRJOCRPG","awssecretkey":"@(QtMKMSig4Afq4znfFMhS+pTksReUxXJqGDaLheSq97RNpPL1mlXQ8/ZOToQmtKKE)@","mytag":"
{\\\"platform\\\":\\\"aws\\\",\\\"creationdate\\\":\\\"14mar22\\\"}"}</TerraformVariable><AnsibleVariable>{"ansible":{"runbookexecution":"1","runbookid":"32","extravars":"
[{\"Name\":\"Hostname\", \"Value\":\"output_subnet_id1\", \"Lookup\":\"Y\"},{\"Name\":\"test\", \"Value\":\"TR1\", \"Lookup\":\"N\"}]"},"ansible2":
{"runbookexecution":"9","runbookid":"32","extravars":"[{\"Name\":\"Hostname\", \"Value\":\"output_vpc_id1\", \"Lookup\":\"Y\"},{\"Name\":\"test\", \"Value\":\"TR2\",
\"Lookup\":\"N\"}]"},"ansible3":{"runbookexecution":"5","runbookid":"32","extravars":"[{\"Name\":\"Hostname\", \"Value\":\"output_subnet_id1\", \"Lookup\":\"Y\"},
{\"Name\":\"Hostname2\", \"Value\":\"output_vpc_id1\", \"Lookup\":\"Y\"},{\"Name\":\"testing\", \"Value\":\"remarks3\",
\"Lookup\":\"N\"}]"},"EndpointURL":"http://10.1.140.165:8052","Username":"MyCloudSVC","Password":"@(h9pTOzZbz0IzRR0IO2IQMQ==)@"}</AnsibleVariable>
<BluePrintId>111</BluePrintId><FetchLogAPIEndPoint>BluePrint/RequestId/{requestid}/SequenceNo/{sequenceNo}/TaskLog/TaskId/{taskId}</FetchLogAPIEndPoint>
<GenerateDeploymentRequestEndPoint>BluePrint/GenerateBPRequest</GenerateDeploymentRequestEndPoint>

Figure 370 – Request Task Management (Message XML)

7. Click on the **View Response** icon under the action column to view the response.

Response

<ErrorCode>0</ErrorCode><ErrorDescription>&lt;![CDATA[]]&gt;</ErrorDescription><Result>mabpout:{"ExecutionId":"610","Output":{"output_subnet_id1":"subnet-
01e74446f7324e85c","output_vpc_id1":"vpc-0ddd51b3b465897ae","output_AnsibleJobId_2":"1951","output_AnsibleJobId_3":"1952","output_AnsibleJobId_4":"1953"}}|</Result>

Figure 371 – Request Task Management (View Response)

8. To view the detailed logs, click on the **Detailed Log** icon in the action column.

Detailed Logs

Log Details:
2022-05-24 16:01:29 INITIATED CloudAgnosticClass - Going to call Method SetRequestParameters() with Requestt XML : e4QCDXR9FBI5hNQ+cJM6FYk7fwCyVoyQEcI7nINeUUso2wzrdmScKnUGnKHIsqV+PeDydo0YVpn2++9PWQnMu3/uA
...
Please refer C:\Program Files\MyCloudLog\ORCSERVICE\LDZ\AWSDEPLOYBL\LDZ-AWSDEPLOYBL-DeployAWSBluePri-1772-1.log file under components log folder.

Close

Figure 372 – Detailed Logs

3.1.5 My Report

This section describes the features and functionality of various reports. Through this module, an overview of managing a full range of standard reports and custom reports is provided.

My Cloud reports are divided into following categories:

- Metering
- My Dashboard Requester
- Top Bottom Nodes
- My Bills
- Request Tracking
- Request Analytical Report
- Request Trend Compare
- SLA Report
- Finance Report
- Public Cloud Billing
- Public Cloud Annual Billing Analysis
- Amazon Monthly Billing Analysis
- Public Cloud Billing Analyser
- Amazon Service Report
- Azure Service Usage Report
- Request Task Management
- vCenter Performance Dashboard
- vCenter Performance Report
- Request Task Management (OT)

Reports are viewed based on the role of a person:

If the user is not able to see the report as per below reports grid, then kindly contact Provider Admin User to configure the reports.

Organization User and **Technical Approver** will be able to see the report data respective to the organization the user belongs to.

Requester User will be able to see the report data respective to the resource requested by the user, for the user and delegated resources.

Business Approver will be able to see the report data respective to the request where the user is an approver.

Table 61 – Reports and the Access to Them

Type of Report	Access to Reports				
	Org Admin	Requester	Technical Approver	Business Approver	Custom_Org_Role
My Dashboard- Requester	No	Yes	Yes	No	No
SLA Report	Yes	Yes	Yes	No	No
Metering	Yes	Yes	Yes	Yes	Yes
Request Analytical Report	Yes	Yes	Yes	Yes	Yes
Request Trend Compare	Yes	Yes	Yes	Yes	Yes
Top Bottom Nodes	Yes	Yes	Yes	Yes	Yes
My Bill	No	Yes	No	No	No
Request Tracking	Yes	Yes	Yes	Yes	Yes
Public Cloud Billing	Yes	No	Yes	No	No
Public Cloud Annual Billing Analysis	Yes	No	Yes	No	No
Amazon Monthly Billing Analysis	Yes	No	Yes	No	No
Public Cloud Billing Analyzer	Yes	No	Yes	No	No
Amazon Service Report	Yes	No	Yes	No	No
Azure Service Usage Report	Yes	No	Yes	No	No
Request Task Management	Yes	Yes	No	No	No
vCenter Performance Dashboard	Yes	No	Yes	No	No
vCenter Performance Report	Yes	No	Yes	No	No
Finance Report	Yes	No	Yes	No	No
Request Status Tracking (OT)	Yes	No	Yes	No	No

MyCloud offers advanced monitoring features to keep track of Cloud Account usage with the help of metering report. It creates daily data report at the machine level. This section explains how to manage the Metering report:

Report data is viewed based on the role of the logged in user.

- User views CPU usage, memory usage, disk usage and network I/O usage of virtual server based on filtered period.
- User views monthly/daily/hourly data for specific machines.

Metering report is a hierarchical report. Report hierarchy is shown below:

- Top Level: Quarterly record based on Machine/ instances
- First level: Detail of Monthly reports
- Second Level: Detail of daily reports
- Third Level: Hourly report
- 5 Minutes Data: Live data

1. On the main menu bar, click **My Reports**, and then click **Metering**.

2. The **Metering Report** screen appears and allows the user to fill the details in the form to get a hierarchical level report:

Figure 373 – Metering Report

Refer the below table to understand the fields mentioned in the above figure.

Table 62 –Metering Report

Fields	Description
Period	The lease period for which a resource is required.
From Date	Starting dating of log.
To Date	Ending date of log.
Platform	Name of Cloud service providers.
Provisioning EndPoint	Name of environment (cloud endpoint). Only enabled Endpoints configured in Performance Configuration Screen at Provider Admin level, will be populated here.

3. To view the **Metering Reports**, user needs to follow the below steps:

- **Cloud Filter-** It allows the user to get the filtered result. Based on the requirement, User gets a report only from cloud environment.

  a. Select **Period** for which a user requires a report.

  b. Select From Date and To Date.

  c. Select **Platform** and **Provisioning Endpoint**.

  d. Click **Show Report** to get the results.

Figure 374 – Metering Report (Cont.)

Reports appear in a tabular form, as shown below:

Figure 375 – Metering Report (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 63 – Metering Report (Cont.)

Fields	Description
Machine Name	Name of the machine
CPU (MHz)	CPU (MHz) utilization of the server
AVG Memory (MB)	Average Memory (MB) utilization of the server
AVG Disk Read (Kbps)	Average Disk read (KPBS) utilization of the server
AVG Disk Write (Kbps)	Average Disk write (KPBS) utilization of the server
AVG Network Transmitted (Kbps)	Average Network transmitted (Kbps) of the server
AVG Network Received (Kbps)	Average Network received (Kbps) by the server

4. To export the report user needs to follow the below steps:

- **Export and Segregation Filter:** This step enables the user to export a filtered report or complete MyCloud environment report based on the selection made in cloud filter.
    a. Select **Aggregation** i.e., Average, to extract reports based on average usage, Max to get reports based on maximum Usage, or Min to get reports based on minimum usage.
    b. Select **Export Period** and **Export Type** as PDF, Excel, or CSV.
    c. Click **Export**.

Figure 376 – Metering Report (Cont.)

    d. The file gets downloaded.

All the fields marked with an asterisk (*) are mandatory.

3.1.5.2 My Dashboard Requester

This step explains how to manage the requester dashboard. The report displayed under requester dashboard shows machine level graph of CPU (MHz), memory (MB), disk in-out (Kbps), network in-out (Kbps) along with the status and state of the machine.

The objective of requester dashboard is to view last 30- or 60-minutes statistics of VMs.

Report data is viewed based on the role of the logged in user.

- User views the drill down details for specific VM as status of CPU/memory /hard disk.
- User views CPU utilization, memory utilization, network utilization, disk I/O utilization for specific period (Date/Time) as data view or chart view.

To view the Requester Dashboard,

1. On the main menu bar, click **My Reports**, and then click **My Dashboard–Requester**.
2. The **Requester Dashboard** screen appears and allows the user to fill the details in the form to get the report:

Figure 377 – Requester Dashboard

Refer the below table to understand the fields mentioned in the above figure.

Table 64 – Requester Dashboard

Fields	Description
Platform	Provide the name of Cloud service providers
Provisioning Endpoint	Displays the name of environment (cloud endpoint). Only enabled Endpoints configured in Performance Configuration Screen at Provider Admin level, will be populated here.
Aggregation	Lists the type of data aggregation type

3. To view **Requester Dashboard** reports, user needs to follow the below steps:

– **Cloud Filter**– It allows the user to filter the results. Based on the requirement, User gets a report only from cloud environment.

a. Select **Platform.**

b. Select Provisioning Endpoint.

c. Select **Aggregation** i.e., Average, to get reports based on average usage, Max to get reports based on maximum usage, or Min to get reports based on minimum usage.

d. Click Show Report.

Figure 378 – Requester Dashboard

Reports appear in a tabular form, as shown below:

e. Click Server Name.

Figure 379 – Requester Dashboard (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 65 – Requester Dashboard Fields

Fields	Description
Server Name	Name of the server
Computer Name	Name of the computer
Display Name	Name assigned by a user
AVG CPU (MHz)	Average CPU (MHz) utilization of the server
AVG Memory (MB)	Average memory (MB) utilization of the server
AVG Disk (Kbps)	Average disk (KPBS) utilization of the server
AVG Network (Kbps)	Average network in-out (kbps) of the server

> Green status signal shows trouble-free functioning of the machine.

 f. Clicking **Server Name** opens the following window where a user views the detailed report of selected server:
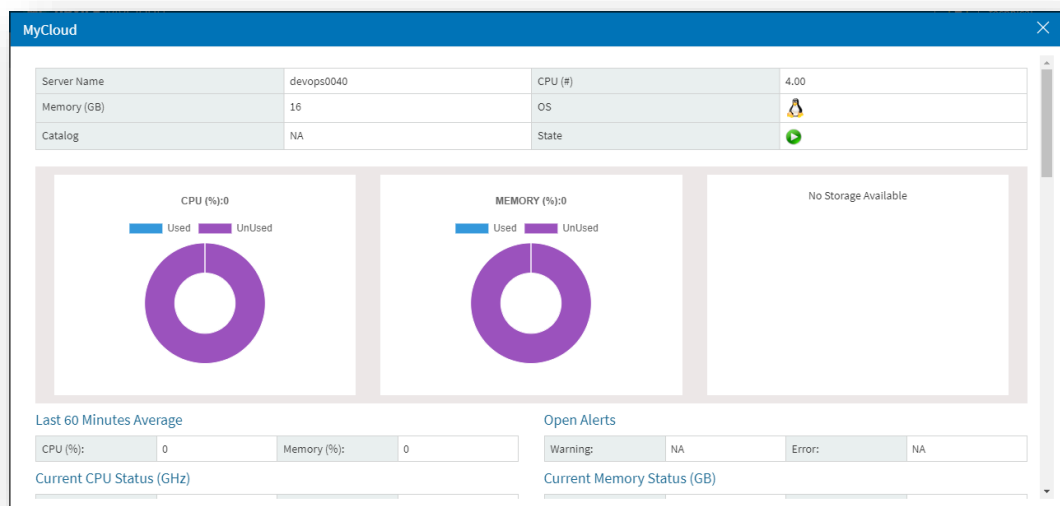
Figure 380 - Requester Dashboard (Cont.)

Refer the below table to understand the fields mentioned in the above figure–

Table 66 – Cloud Control

Fields	Description
Server Name	Displays the name of server.
CPU	Displays the server compute
Memory (GB)	Displays the server memory
Catalog	Displays the catalog which is being used to deploy the server
State	Shows the current state of server whether active or not
OS	Displays operating system of the server

If a user want to export the file, follow the below steps:

    a.   Select file output as PDF, Excel, or CSV.

    b.   Click **Export**.
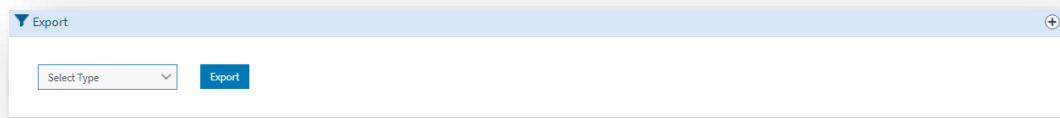
Figure 381 – Export Functionality

    c.   File gets downloaded on the system.

All the fields marked with an asterisk (*) are mandatory.

3.1.5.3   Top Bottom Nodes

Top Bottom Nodes allows a user to view the reports for utilization of all the Mibs, i.e. CPU, memory, disk in-out, network in-out in a graphical form.

The objective is to view data center information at different hierarchical levels.

Report data is viewed based on the role of a logged-in person.

User views VM information at different hierarchical levels.

To view the Top-Bottom Nodes, user needs to follow the below steps:

1. On the main menu bar, click **My Reports**, and then click **Top-Bottom Nodes**.

2. The **Top-Bottom Nodes Reports** screen appears and allows the user to fill the details in the form to get a desired report.

Figure 382 - Top-Bottom Nodes

Refer the below table to understand the fields mentioned in the above figure.

Table 67 – Top Bottom Nodes

Fields	Description
Platform	Name of Cloud service providers
Provisioning Endpoint	Name of environment (cloud endpoint). Only enabled Endpoints configured in Performance Configuration Screen at Provider Admin level, will be populated here.
Period	The lease period for which a resource is required
From Date	Starting date of log
To Date	End date of log
Chart type	Types of charts used for data visualization
Device	List the type of resource that needs to be shown on the report
Order By	Order of data can be ascending or descending
Number of Record	Total no of records can be 5 or 10
HA Category	Displays whether high availability (HA) is enabled or not

To view the Top Bottom Nodes Report, user needs to follow the below steps:

- **Cloud Filter**: It allows the user to filter the results. Based on the requirement, user gets a report only from cloud environment.

a. Select Platform and Provisioning Endpoint.

b. Select **Period**, for which user requires a report.

c. Select **From** and **To Date**.

d. Select a **Chart Type** i.e., Bar, Meter, or Line.

e. Select a **Device** and then select **Mibs Parameters** from the available options.

f. Select Order By and No. of Records.

g. Enter No. of Records.

h. Select HA Category.

i. Click **Show Reports** to get the result.

Figure 383 – Top-Bottom Nodes (Cont.)

Reports appear in a graphical form, as shown below:

Figure 384 – Top-Bottom Nodes (Cont.)

If a user want to export the file, follow the below steps:

a. Select Aggregation.

b. Select File Output as PDF, Excel, or CSV.

c. Click **Export**.

Figure 385 – Export Functionality

The file gets downloaded on the system.

All the fields marked with an asterisk (*) are mandatory.

3.1.5.4   My Bills

This step explains how to view the billing related information for virtual servers used in an organization on regular basis.

Reports are viewed based on the role of a logged in user:

- User views the report for specific year/month.
- User views billing cost of virtual servers.

To view the Billing Reports, user needs to follow the below steps:

1. On the main menu bar, click **My Reports**, and then click **My Bill**.
2. The **Billing Report** screen appears and allows the user to fill the details in the form to get billing related reports.

Figure 386 – My Bills

Refer the below table to understand the fields mentioned in the above figure.

Table 68 – My Bills

Fields	Description
Provider	Lists the name of Cloud service providers
Organization	Lists the name of organization.
Platform	Provide the name of Cloud service providers
Provisioning Endpoint	Lists the name of environment (cloud endpoint). Only enabled Endpoints configured in billing Configuration Screen at Provider Admin level, will be populated here.
Month	Name of the Month for which the user wants to view report.
Year	Year for which the user wants to view report.

To view the Billing Report, user needs to follow the below steps:

– **Cloud Filter**- It allows the user to filter the results. Based on the requirement, Only the cloud Provisioning Endpoint related reports are fetched.

   a. Select **Provider.**
   b. Select Organization.
   c. Select Platform and Provisioning Endpoint.
   d. select duration in terms of **Months** and **Years**.
   e. Click Show Report.

Report appears in the tabular form as shown below.

   f. Click **Expand** (+) to view more details.

Figure 388 – My Bills (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 69 – My Bills Fields

Fields	Description
View	Allows the user to view detailed report
Server Name	Name of server.
Display Name	Name to be displayed against the Resource being created
Service Plan	Resource category created by the provider i.e. platinum, gold or bronze
Duration	Lease period
SAP ID	Unique ID
IP Address	IP address of machine
Provision Date	Provisioning Date
Decommission Date	Decommissioning date
Total Cost	Total cost incurred against the server

If a user want to export the file, follow the below steps:

a. Select **File Output** as PDF, Excel, or CSV.

b. Click **Export**.

Figure 389 – Export Functionality

c. The file gets downloaded.

All the fields marked with an asterisk (*) are mandatory.

3.1.5.5 My Bills New

This step explains how to view the billing related information for virtual servers used in an organization on regular basis.

Reports are viewed based on the role of a logged in user:

- User views the report for specific year/month.
- User views billing cost of virtual servers.

To view the Billing Reports, user needs to follow the below steps:

1. On the main menu bar, click **My Reports**, and then click **My Bill New.**
2. The **Billing Report** screen appears and allows the user to fill the details in the form to get billing related reports.

Figure 390 – My Bills New

Refer the below table to understand the fields mentioned in the above figure.

Table 70 – My Bills

Fields	Description
Provider	Lists the name of Cloud service providers
Organization	Lists the name of organization.
Platform	Provide the name of Cloud service providers
Provisioning Endpoint	Lists the name of environment (cloud endpoint). Only enabled Endpoints configured in billing Configuration Screen at Provider Admin level, will be populated here.
Month	Name of the Month for which the user wants to view report.
Year	Year for which the user wants to view report.

To view the Billing Report, user needs to follow the below steps:

- **Cloud Filter**- It allows the user to filter the results. Based on the requirement, Only the cloud Provisioning Endpoint related reports are fetched.

Display Name	Name to be displayed against the Resource being created
Total Cost	Total cost incurred against the resource
Duration	Lease period
Provision Date	Provisioning Date
Decommission Date	Decommissioning date
Service Plan	Resource category created by the provider i.e. platinum, gold or bronze
Resource Name	Name of object.

a. Select **Provider.**

b. Select Organization.

c. Select Platform and Provisioning Endpoint.

d. Select duration in terms of **Months** and **Years**.

e. And if you want to apply any custom filter which is not present in Cloud Filter section, then use Additional Filters.

f. Click Show Report.

Table 71 – My Bills Fields

Figure 391 – My Bills (Cont.)

g. Report appears in the tabular form as shown below.

Figure 392 – My Bills (Cont.)

h. Click **Expand** (+) to view more details.

Figure 393 – My Bills (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 72 – My Bills Fields

Fields	Description
View	Allows the user to view detailed report
Service Catalog	Name of service catalog which is use for resource deployment
Total Bill	Total cost incurred against the Service Catalog
Resource Count	Total No. of source deploy using this publish service catalog
Per day cost	Per day charges
One day cost	One day charges

Item Name	No. of Units	Unit Price (INR)	Billing Frequency	Cost (INR)
mycloud0227 52080.00 Imported 12 Month(s) 2023-01-11 platinum				
Per Day Cost				
Cisco Cluster Storage Test (Catalog)	1	2.00	NA	62.00
Catalog CPU	8	0.00	NA	1,240.00
Catalog Memory (GB)	16	5.00	NA	2,480.00
Tier-1 (GB)	220	3.00	NA	20,460.00
AGService (Service)	1	0.00	NA	155.00
backup (Service)	1	3.00	NA	62.00
Total Bill (INR)				**24459.00**
One Time Cost				
Cisco Cluster Storage Test (Catalog)	1	0.00	NA	0.00
Catalog CPU	8	0.00	NA	0.00
Catalog Memory (GB)	16	3.00	NA	0.00
Tier-1 (GB)	220	0.00	NA	0.00
AGService (Service)	1	0.00	NA	0.00
backup (Service)	1	0.00	NA	0.00
Total Bill (INR)				**0.00**
Recurring Cost				
Cisco Cluster Storage Test (Catalog)	1	11.11	Per Week	0.00
Catalog CPU	8	0.00	Per Week	106.33
Catalog Memory (GB)	16	3.00	Per Week	212.66

Figure 394 – My Bills (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 73 – My Bills Fields

Fields	Description
Item Name	Resource name
No. of unit	No of unit
Unit price	Per Unit price
Billing Frequency	Total No. of source deploy using this publish service catalog
Total Cost	Total cost incurred against the resource
Per day cost	Per day charges
One day cost	One day charges

If a user want to export the file, follow the below steps:

a. Select **File Output** as PDF, or CSV.

b. Click **Export**.

* **Displaying data till Yesterday.**
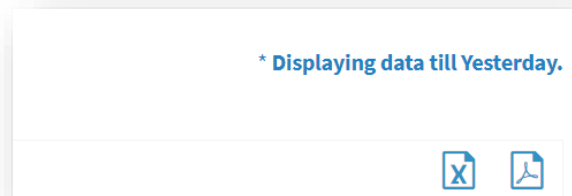
Figure 395 – Export Functionality

c. The file gets downloaded.

All the fields marked with an asterisk (*) are mandatory.

3.1.5.6 Request Tracking

This report helps in tracking the requests for specific cloud platforms.

Reports data are viewed based on the role of the logged in user.

- User views the detailed status of requests given by requester.

- User views the status of tasks corresponding to the requests.

To view the Request Tracking Reports, user needs to follow the below steps:

1. On the main menu bar, click **My Reports**, and then click **Request Tracking**.

2. The **Request Tracking Report** screen appears and allows the user to fill the details in the form to get reports related to Request Tracking:

Figure 396 – Request Tracking

Refer the below table to understand the fields mentioned in the above figure.

Table 74 – Request Tracking Filter Parameters

Fields	Description
Organization	Displays the name of organization
Platform	Provide the name of Cloud service providers
Provisioning Endpoint	Displays the name of environment (cloud endpoint).
Status	Displays all possible status of the requests
Search Key	Displays all UI keys for quick filtering
Request Number	Filter using Specific Request Number

To view the Request Tracking, user needs to follow the below steps:

– **Filter**: It allows the user to filter the results. Only the cloud environment related reports are fetched.

    a. Select **Organization.**

    b. Select **Platform**.

    c. Select **Provisioning Endpoint**.

    d. Select **Status**.

    e. Select **Key** and **Type Value**.

       Or

    f.   Provide Request Number

    g. Click Show Report.

Reports appear in a tabular form, as shown below:

Figure 397 – Request Tracking (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 75 – Request Tracking Fields

Fields	Description
Request No	Request number of the request
Catalog Name	Name of catalog used to place the request
Platform	Name of the cloud platform
Provisioning Endpoint	Name of environment (cloud endpoint).
Request Status	Status of the request
Request Date	Date on which request was made
Requester Name	Name of the requester.

h. Click **Expand** (⊕) on the left navigation bar of a Request as shown in expands the grid and display the Tasks details of the selected Request.

Figure 398 – Request Tracking (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 76 – Request Tracking Fields

Fields	Description
Item No	Item number of the request.
Task Sequence	Sequence of the Task.
Task Name	Name of the Task
Status	Status of the Task
Execution Start Date	Time at which execution is started.
Execution End Date	Displays the date with time at which the execution ended.

3.1.5.7   Request Analytical Report

This report helps to view reports related to SRs created by different requesters.

Report data is viewed based on the role of the logged in user.

- User views all the requested VM by requesters.
- User views all the requested data on click VM requested by requester.

- User views the status of VM.

To view Request Analytical Reports, user needs to follow the below steps:

1. On the main menu bar, click **My Reports**, and then click **Request Analytical Report**.
2. The **Request Analytical Report** screen appears and allows the user to fill the details in the form to get request analytical report.

Figure 399 – Request Analytical Report

Refer the below table to understand the fields mentioned in the above figure

Table 77 – Request Analytical Report

Fields	Description
Provider	Displays the name of Cloud service providers
Organization	Displays the name of organization
Platform	Displays the name of Cloud service providers
Provisioning Endpoint	Displays the name of environment (cloud endpoint).
User Mail	Mail address of requester
Select User	Requested user
From Date	Report starting date
To Date	Report ending date
Status	Current status of request
Export – Select Type	List of Export Types

To view the Request Analytical Report, user needs to follow the below steps:

- **Cloud Filter**– It allows the user to get the filtered result. Based on the requirement, Only the cloud environment related reports are fetched.

    a. Select **Provider** and **Organization.**

    b. Select Platform and Provisioning Endpoint.

    c. Enter User Mail.

    d. Select **User**.

    e. Select From Date and To Date.

All the fields marked with an asterisk (*) are mandatory.

    f. Click **Show Report** to get the results.

If a user wants to draw next level report, then refer to organization filter.

Figure 400 – Request Analytical Report (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 78 – Request Analytical Report

Fields	Description
Request ID	MyCloud request unique identifier
Order Date	Date on which request is created
Name	Requester name
Organization Name	Name of organization of user
Status	Displays the status of the request

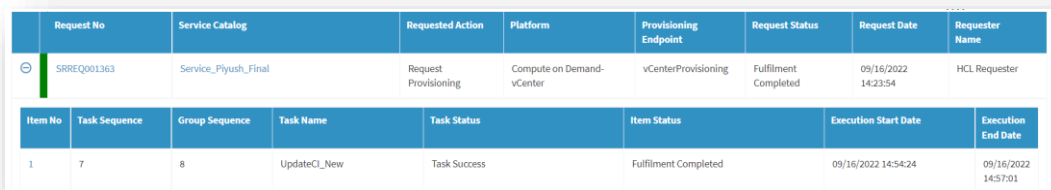   g. Click **Expand** (⊕) under Request Id which expands the grid and display the details of selected VM.

Figure 401 – Request Analytical Report (Cont.)

Refer the below table to understand the fields mentioned in the above figure.

Table 79 – Request Analytical Report Field

Fields	Description
Request ID	MyCloud request unique identifier
Catalog Name	Displays the name of the selected catalog
Provision Date	The date on which a resource is provisioned
Provisioning Endpoint	Displays the name of environment (cloud endpoint).

h. Click on **Request ID** prompt the **Order Detail**.

Figure 402 – Request Analytical Report (Cont.)

If a user want to export the file, follow the below steps:

a. Select file output as **PDF, Excel, or CSV**.

b. Click **Export**.

Figure 403 – Request Analytical Report (Cont.)

The file gets downloaded on the system.

> All the fields marked with an asterisk (*) are mandatory.

3.1.5.8   Request Trend Compare

This section explains how to view the request trend compare reports of selected date range which includes the status of VMs such as approved, pending, cancelled, and so on.

To view the Request Trend Compare Reports,

1. On the main menu bar, click **My Reports**, and then click **Request Trend Compare**.

2. The **Request Trend Compare** screen appears and allows the user to fill the details in the form to get a request trend report:

Figure 404 – Request Trend Compare

Refer the below table to understand the fields mentioned in the above figure.

Table 80 – Request Trend Compare Fields

Fields	Description
Provider	Name of Cloud service providers
Organization	Displays the name of the organization
Platform	Displays the name of cloud service providers
Provisioning Endpoint	Displays the name of environment (cloud endpoint)
User Mail	Mail address of requester
Select User	Requested user
Aggregation	Range or type of aggregation
Graph Type	Lists various time periods, based on which data visualization takes place at the chart level
Period	Period is the time frame for which user wants data to populate
Chart Type	Defines the type of chart
From Date	Start date of period
HH:MM	Start time of period
To Date	End date of period
HH:MM	End time of period
Status	Filters the status options
Activity	List all type of request
Filters	List all available filter like status, platform, organization
Export – Select Type	List of Export Types

To view the request trend, compare report, user needs to follow the below steps:

- **Cloud Filter**- It allows the user to get the filtered result. Based on the requirement user gets the result only from cloud environment.

  a. Select **Provider** and select **Organization.**
  b. Select Platform and select Provisioning Endpoint.
  c. Enter the **User Mail** and select **User**.
  d. Select Aggregation and Graph Type.
  e. Select **Period** and select **Chart Type**.
  f. Select From Date and To Date.
  g. Click **Show Report** to get the results.

Figure 405 – Request Trend Compare (Cont.)

To view the Status, user needs to follow the below steps,

    a.   Select the Report Status**.**

    b.   Select Activity Type.

    c.   Select Report Type.

    d.   Select **Filters**.

Figure 406 – Request Trend Compare (Cont.)

    e.   Click **Show Report** to get the report based on the status selected.
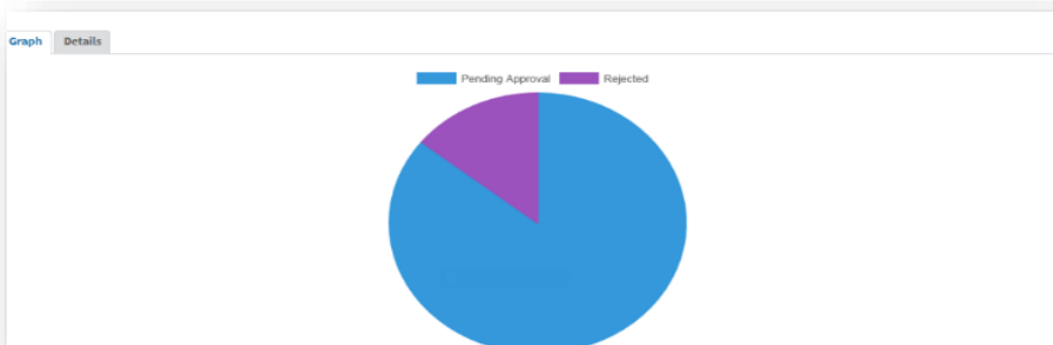
Figure 407 – Request Trend Compare (Cont.)

    f.   Rollover, on the pie chart, to get additional information.

Refer the below table to understand the fields mentioned in the above figure.

Table 81 – Request Trend Compare Fields

Fields	Description
Request ID	MyCloud request unique identifier
Order Date	Date on which request is created
Name	Requester name
Organization Name	Name of organization of user
Status	Displays the current status of the request

g.   Clicking **Expand** (⊕) under Request Id expands the grid and display the details of selected VM.

Figure 409 – Request Trend Compare (Cont.)

h.   Click **Request ID** to get the **Order Detail**.

Figure 410 – Request Trend Compare (Cont.)

If a user wants to export the file, follow the below steps:

    a.   Select file output as **PDF or CSV.**

    b.   Click **Export**.

Figure 411 - Request Trend Compare (Cont.)

    c.   The file gets downloaded on the system.

All the fields marked with an asterisk (*) are mandatory.

3.1.5.9   SLA Report

The SLA report is an on-demand report where a user reviews the SLA status of an object (VM) over a period that the user specifies. This step details how to manage the SLA reports that relate to the running tasks and the status of the task process.

To view the SLA Reports,

1.   On the main menu bar, click **My Reports**, and then click **SLA Report**.

2.   The **SLA Report** screen appears and allows the user to fill the details in the form to get the desired SLA report.

Figure 412 - SLA Report

Refer the below table to understand the fields mentioned in the above figure.

Table 82 – SLA Report Fields

Fields	Description
Organization	Displays the name of organization
Platform	Name of Cloud service providers
Provisioning Endpoint	Name of environment (cloud endpoint)
Status	Segregate reports status wise
CI Type	Display the Request Type
Request Number	Request Number
Export – Select type	List of Export Types

To view the SLA Report, user needs to Follow the below steps:

- **Cloud Filter**– It allows the user to filter the results. Based on the requirement user gets the result only from cloud environment.

    a. Select Organization, Platform and Provisioning Endpoint.

    b. Select **Status**.

    Or

    c. Only enter **Request No**. for which the user requires a report.

All the fields marked with an asterisk (*) are mandatory.

    d. Click **Show Report** and the report appears in a tabular view.

Request No	CI Type	Request Type	CI Name	Request Date	Approval Date	Completion Date	Configured SLA(In Minutes)	Total Time(In Minutes)	Platform	Provisioning Endpoint	Requester Name
SRREQ000006-1	Virtual Machine	VM Customization	6319415243861367066	02/12/2021	NA		0	4289	Google Cloud (GCP)	GcpDev	requester@hcl.com

All dates are in MM/dd/yyyy HH:mm:ss format

Figure 413 – SLA Report

Refer the below table to understand the fields mentioned in the above figure.

Table 83 – SLA Report Tabular View Fields

Fields	Description
Request No	Unique request number
CI Type	Object type for the request
CI Name	Name provided by requester
Request Date	Date on which request is placed
Approval Date	Date on which request is approved
Completion Date	Date on which request is completed
Configured SLA	Standard SLA period for the request
Total Time	Time taken in request completion after approval
Platform	Name of cloud service providers
Provisioning Endpoint	Name of environment (cloud endpoint)
Requester Name	Name of the user placed the request.

If a user want to export the file, follow the below steps:

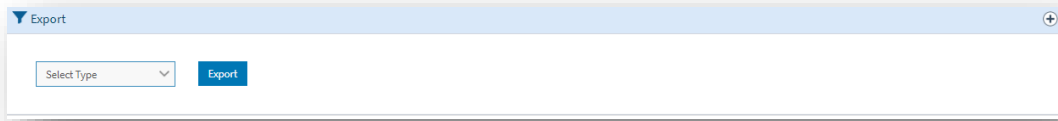   a. Select file output as **CSV.**

    b. Click **Export**.
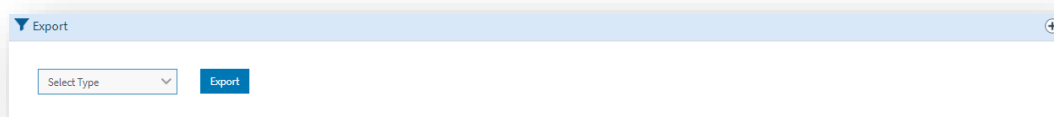
Figure 414 – SLA Reports (Cont.)

    c. The file gets downloaded on the system.

All the fields marked with an asterisk (*) are mandatory.

3.1.5.10   Finance Report

The Finance report is an on-demand report where a user reviews the bills of private cloud over a period that the user specifies. This step details how to manage the Finance reports.

To view the Finance Reports,

1. On the main menu bar, click **My Reports**, and then click **Finance Report**.

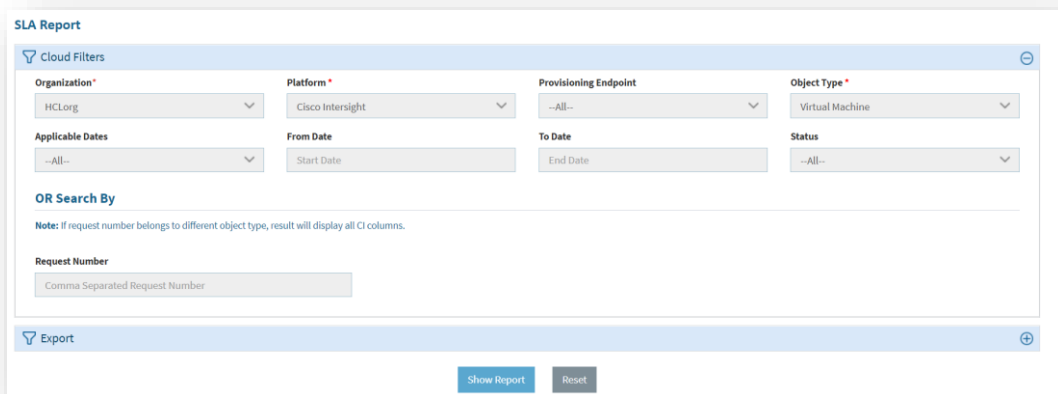2. The **Finance Report** screen appears and allows the user to fill the details in the form to get the desired Finance report.

Figure 415 - Finance Report

Refer the below table to understand the fields mentioned in the above figure.

Table 84 – Finance Report Fields

Fields	Description
Provider	Displays the name of Provider of the logged in user
Organization	Displays the name of organization
Platform	Name of Cloud service providers
Provisioning Endpoint	Name of environment (cloud endpoint)
Start Date	Starting Date of the Report
End Date	Ending Date of the Report
Additional Filters	If any extra filter is provided on any Custom **Fields**

To view the Finance Report, user needs to Follow the below steps:

- **Cloud Filter**- It allows the user to filter the results. Based on the requirement user gets the result only from cloud environment.

    a. Select Organization, Platform and Provisioning Endpoint.

    b. Select **Start Date** and **End Date**.

    c. And if you want to apply any custom filter which is not present in Cloud Filter section, then use Additional Filters.

Figure 416 – Finance Report Additional Filter

    d. Click **Show Report** and the report appears in a tabular view.

All the **Fields** marked with an asterisk (*) are mandatory.

Figure 417 - Finance Report

Refer the below table to understand the **Fields** mentioned in the above figure.

Table 85 – Finance Report Tabular View Fields

Fields	Description
Bill Date	Date on which Report is generated
Bill Amount	Total Amount Billed
View	To View the Details of the selected row.
Sap Code	**Configurable column and can be used to store unique identifier**
Project Code	**Configurable column and can be used to store unique identifier**
Amount to be Billed	Total billing amount
Currency	Currency Code in which Billing amount has been generated
Billing Frequency	The Periodic interval at which billing is generated
Name of Resource	Name of the Requester
Start Date	Provision Date of VM
End Date	Decommission Date of VM
Service Plan	Service Plan Name associated to Service Catalog
Server Name	Name of the VM
Specification	VM details
No of Days Billed	No days at which billing is generated
Request No	Resource Request Number
Project Name	Configurable column and can be used to store unique identifier
IP Address	IP of VM
VM Status	Status of VM
OS	OS Type of VM
Current RM	Configurable column and can be used to store unique identifier

If a user want to view the details of VM, follow the below steps:

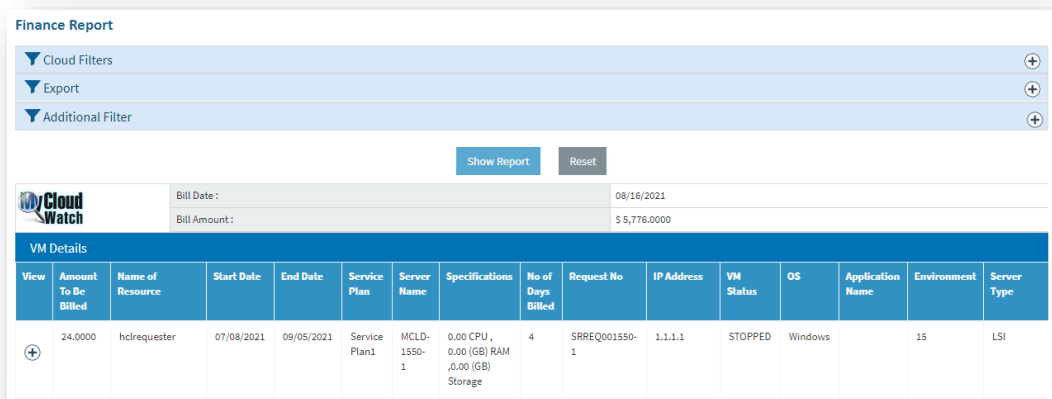a. Click on (⊕). Hardware and Items wise Bill details will show up.

Figure 418 - Finance Report

Refer the below table to understand the **Fields** mentioned in the above figure.

Table 86 – SLA Report Tabular View Fields

Fields	Description
Hardware Details	Hardware information for which bill has been generated
Source	What is the source of getting the CPU, Memory, Disk Information
CPU (#)	No. CPU associated to the VM
Memory (GB)	Memory associated to the VM
Disk (GB)	Size of Disk associated to the VM
Item wise Bill	Item wise billing information
Catalog – {Catalog Name}	Charges for Catalog
Component - Catalog CPU	Charges for CPU utilization
Component - Catalog Memory	Charges for Memory consumption
Storage - Catalog Storage	Charges for Storage usage

If a user want to export the file, follow the below steps:

b. Select file output as **PDF, Excel, or CSV**.
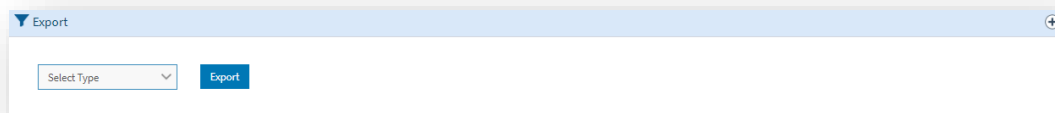
c. Click **Export**.

Figure 419 – Finance Reports (Cont.)

d. The file gets downloaded on the system.

All the fields marked with an asterisk (*) are mandatory.

3.1.5.11   Public Cloud Billing

This report gives the list of Billed usage details. User can drill down the data up to Resource level.

To get in-depth details of Public Cloud Billing. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.12   Public Cloud Annual Billing Analysis

This Report provides the comparison of expenses of Cloud Subscription of Last 12 Months.

To get in depth details of Public Cloud Annual Billing Analysis. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.13   Amazon Monthly Billing Analysis

This Report provides the details of Monthly Bill for Amazon. Data is the Line item of Amazon Usage Bill.

To get in depth details of Amazon Monthly Billing Analysis. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.14   Public Cloud Billing Analyser

This Report provides the Dashboard view to analyze the Billing. Its Show's Multiple widgets to give glimpse from different aspects.

To get in depth details of Public Cloud Billing Analyzer. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.15   Amazon Service Report

This Report provides Service Wise Billing for All Amazon Accounts or specific Amazon account.

To get in depth details of Amazon Service Report. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.16   Azure Service Usage Report

This Report provides the Service-wise Billing for All Azure Accounts or specific Azure Account for Specific Months Range.

To get in depth details of Azure Service Usage Report. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.17 Request Task Management

This Report provides the list of Task Level details against the Request Item. User can also take Actions (Restart, Complete) on Task. Different color codes are used to determine the Task Status.

To get in depth details of Request Task Management. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.18 vCenter Performance Dashboard

This Report provides the complete health of vCenter. This report has multiple widgets for different vCenter Resources for their respective performances. All resources can be drilled down with lowest level of performance information.

To get in depth details of vCenter Performance Dashboard. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.19 vCenter Performance Report

This Report provides the nested Visualization of vCenter. Starting from Topmost Datacenter Level, User can view the data to Lower-level resources Like Datastore

To get in depth details of vCenter Performance Report. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

3.1.5.20 Request Task Management (OT)

This report is same as Request Task Management. But the difference is that it does not allow user to perform Action(s) like: Restart a Task, Complete the Task.

To get in depth details of Request Task Management. Kindly refer to the *DRYiCE MyCloud Configuration Guide – Provider Module*.

4 Support

To get support for this product, please drop an email to MyCloud-ProdSupport-Team@hcl-software.com.

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