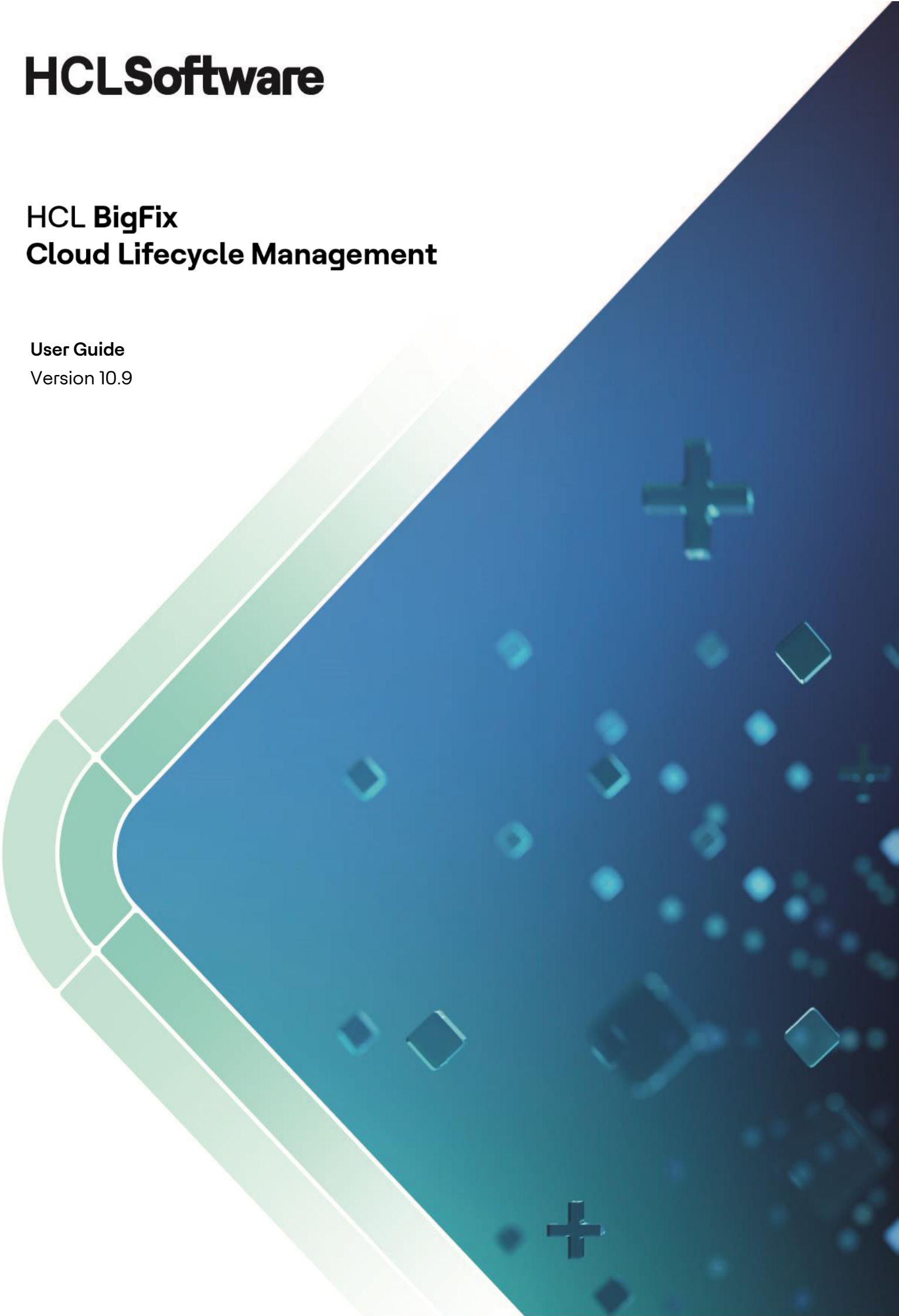
HCLSoftware

HCL BigFix
Cloud Lifecycle Management

User Guide

Version 10.9



HCL has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the HCL website at www.hcltechsw.com.

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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
November, 2020	DRYiCE MyCloud v10.1 User Guide
February, 2021	DRYiCE MyCloud v10.2 User Guide
April, 2021	DRYiCE MyCloud v10.4 User Guide
October, 2021	DRYiCE MyCloud v10.5 User Guide
September, 2022	DRYiCE MyCloud v10.6 User Guide
July, 2023	HCL_DRYiCE_ MyCloud _v10.7_User_Guide
April, 2024	HCL_DRYiCE_ MyCloud _v10.8_User_Guide
September, 2024	HCL_DRYiCE_ MyCloud _v10.8.1_User_Guide
February, 2025	HCL_MyCloud_v10.8.2_User_Guide
July, 2025	HCL_BigFix_Cloud_Lifecycle_Management_v10.9_User_Guide

1 Preface

This section provides information about the HCL BigFix Cloud Lifecycle Management 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 HCL BigFix CLM services.

1.2 About This Guide

This guide provides instructions to use and consume HCL BigFix CLM 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 HCL BigFix CLM .

- HCL BigFix CLM Introduction Guide
- HCL BigFix CLM Installation Guide
- HCL BigFix CLM Configuration Guide - Admin Module
- HCL BigFix CLM Configuration Guide - Provider Module - Part 1
- HCL BigFix CLM Configuration Guide - Provider Module - Part 2
- HCL BigFix CLM Troubleshooting Guide
- HCL BigFix CLM Developer Guide
- HCL BigFix CLM 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 HCL BigFix CLM Overview

HCL BigFix CLM 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. HCL BigFix CLM data-driven recommendations and advisories ensure continuous optimization of enterprise cloud environments across areas, including cost, performance, security, and utilization.

2.1 HCL BigFix CLM Roles

This following table highlights the various roles that are available in HCL BigFix CLM.

Table 2 – BigFix CLM Roles and Responsibilities

Role	Description
Super Admin	Super Admin has the right to manage providers, admin level jobs and other component related configurations
Provider Admin	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 right 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 right to approve the requests raised by the requesters.

Refer to **HCL BigFix CLM Configuration Guide** for more information about Super Admin and Provider Admin.

2.2 HCL BigFix CLM 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 HCL BigFix CLM 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 initiative-taking 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 HCL BigFix CLM Services

3.1 HCL BigFix CLM Modules

This section highlights the different modules of HCL BigFix CLM 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 – HCL BigFix CLM 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 HCL BigFix CLM 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 HCL BigFix CLM.	Business Approver Technical Approver
Reports	Different types of reports (Top Bottom Nodes, Request Tracking, My Bills and many more) are accessed in HCL BigFix CLM through this module.	Provider Admin, 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 HCL BigFix CLM

First, get the URL and user credentials for HCL BigFix CLM.

Reach out to the person who has configured HCL BigFix CLM or drop an email to bigfixclm-prodsupport-team@hcl-software.com

1. Launch the web browser (Chrome, Mozilla, or Edge) and use the HCL BigFix CLM **URL** and user credentials to login.
2. Enter the **Email ID**.
3. Click **Continue**.

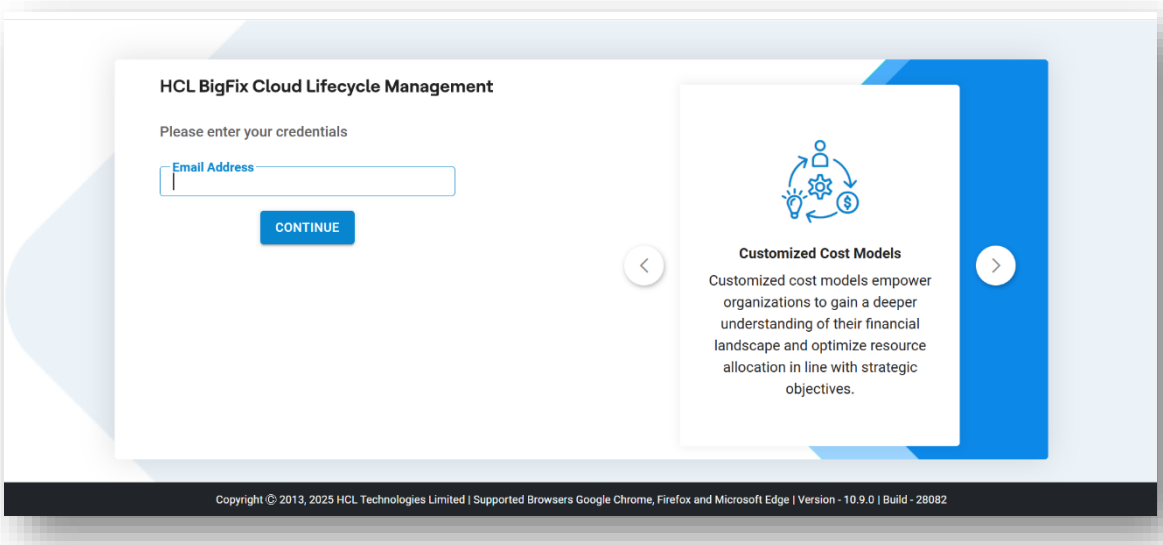


Figure 1 - HCL BigFix CLM Login Page

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 bigfixclm-prodsupport-team@hcl-software.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.

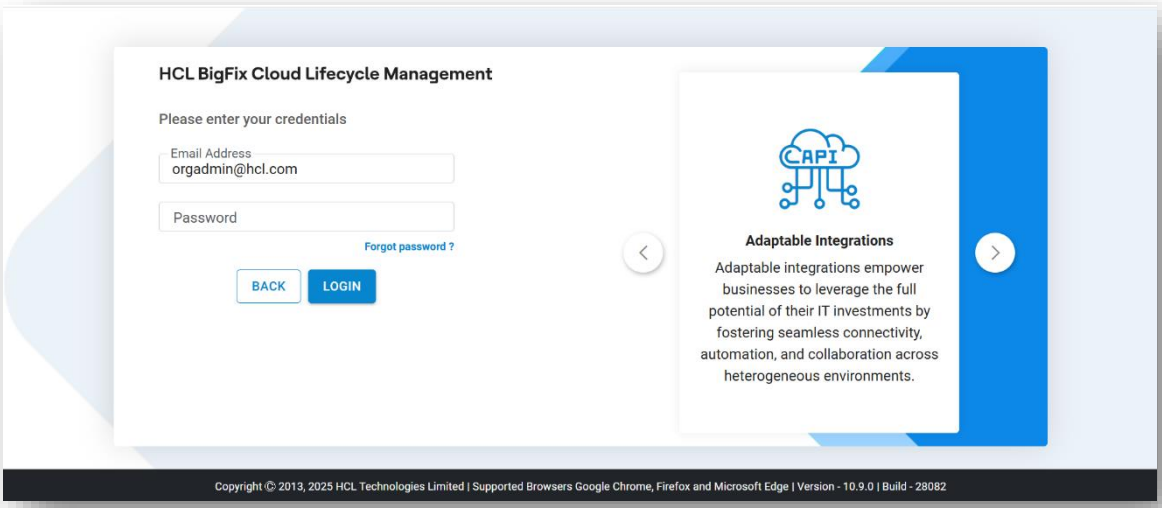


Figure 2 - HCL BigFix CLM Login Page (Cont.)

6. Click **Login**.
7. On a successful login, HCL BigFix CLM homepage appears as shown below.

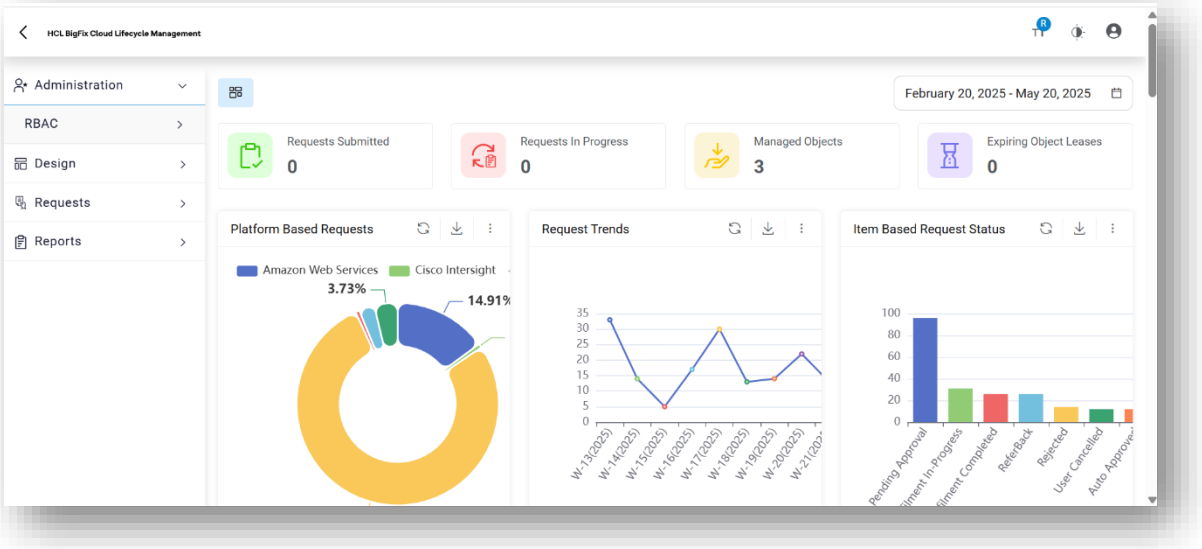


Figure 3 – HCL BigFix CLM Homepage

Admin users can change the appearance of the HCL BigFix CLM 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:

- Administration (RBAC)
- Design
- Requests
- Reports

3.1.1.1.1 RBAC (Role Based Access Control)

Role-Based Access Control (RBAC) is an essential component of HCL BigFix CLM. This module details the steps to manage the RBAC model within an environment to implement several critical securities such as the 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 permission to access resources, and these permissions are given based on mapping of the users to system-based groups.

1. On the main bar, click **RBAC**.
2. The drop-down appears with the following options:
   - Users
   - Groups
   - Roles

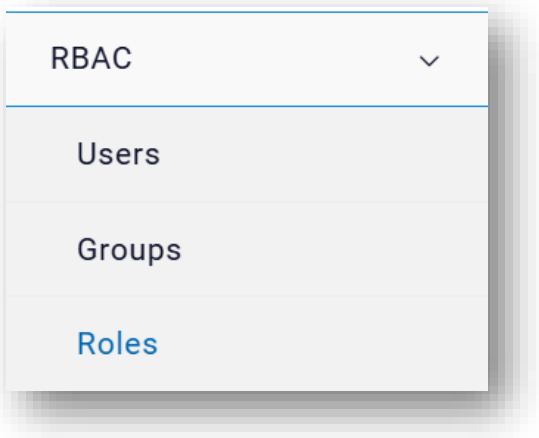


Figure 4 – RBAC

Provider gets access to both the **Manage Users, Manage Groups** and **Manage Roles** sections.

3.1.1.1.1.1 Manage Users

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 Users

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

1. Click on the **User** screen and then click **+ USER button**.

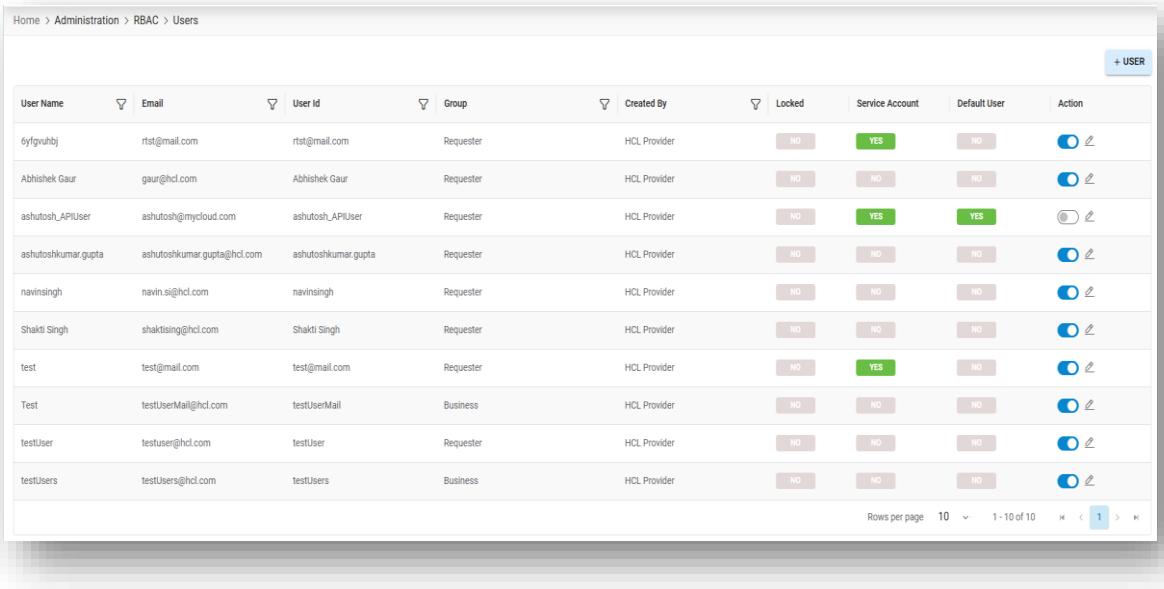


Figure 5 - Add User

2. The following "**Add User**" pop-up appears on the screen.

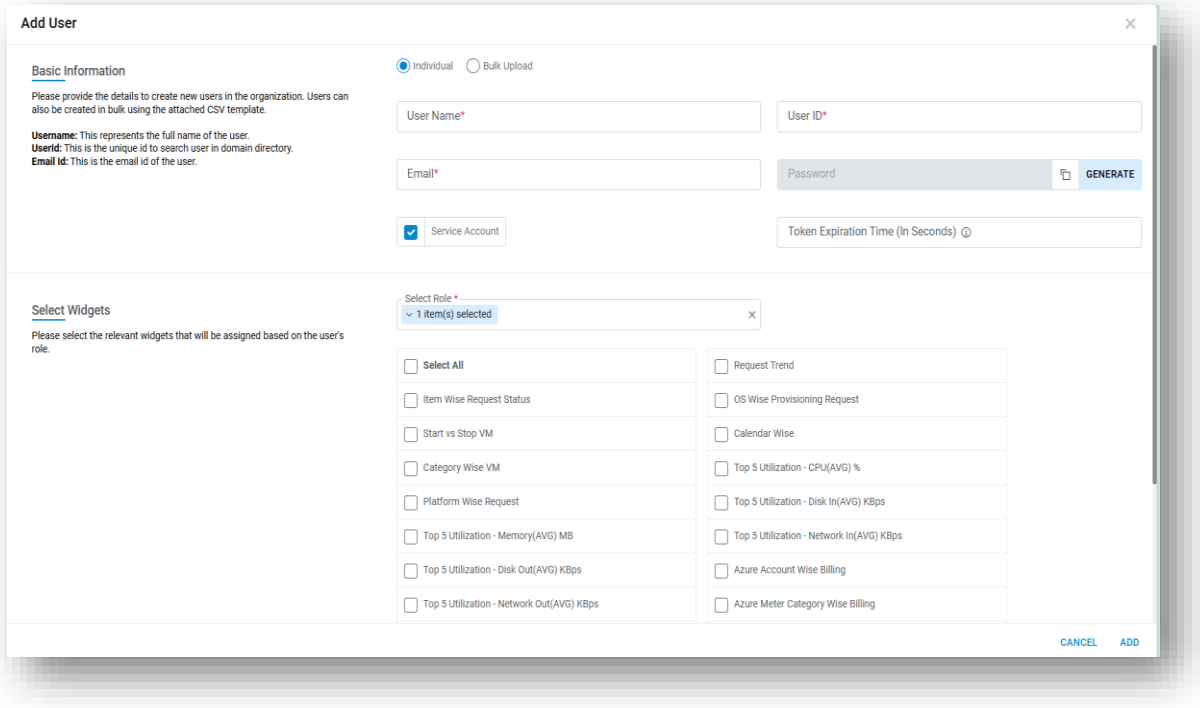


Figure 6 – Add User Screen

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

Table 5 – Add User Fields

Fields	Description
API user	User for API integration with HCL BigFix CLM
Organizational user	User for request and manage resources
Organization	Select the name of the organization (Business units/ divisions in organizations)

Username	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 HCL BigFix CLM generated password
Token Expiration Time (in seconds)	This section is applicable for service account users. It is an integer value to define the access token timeout for this user, to override the default token expiration value configured by admin user.
Generate password	The option that helps to generate a password in HCL BigFix CLM
Select Role	This section is applicable for organizational users. Provider needs to provide a role to a user while adding it in HCL BigFix CLM
Select widget	This section is applicable for organizational users. HCL BigFix CLM dashboard widgets are listed. System defined widgets appear

4. Enter the **Username** and then enter the **User ID**.
5. Enter **Email ID**.
6. Click **Generate Password** to generate a new password.
7. Select **Role**.
8. Once the role is selected, the widgets appear in the **Widget** box.
9. Select **Widget**.
10. Provider selects the widgets according to the roles which are to be assigned to an end user.
11. Click **ADD** button**.**

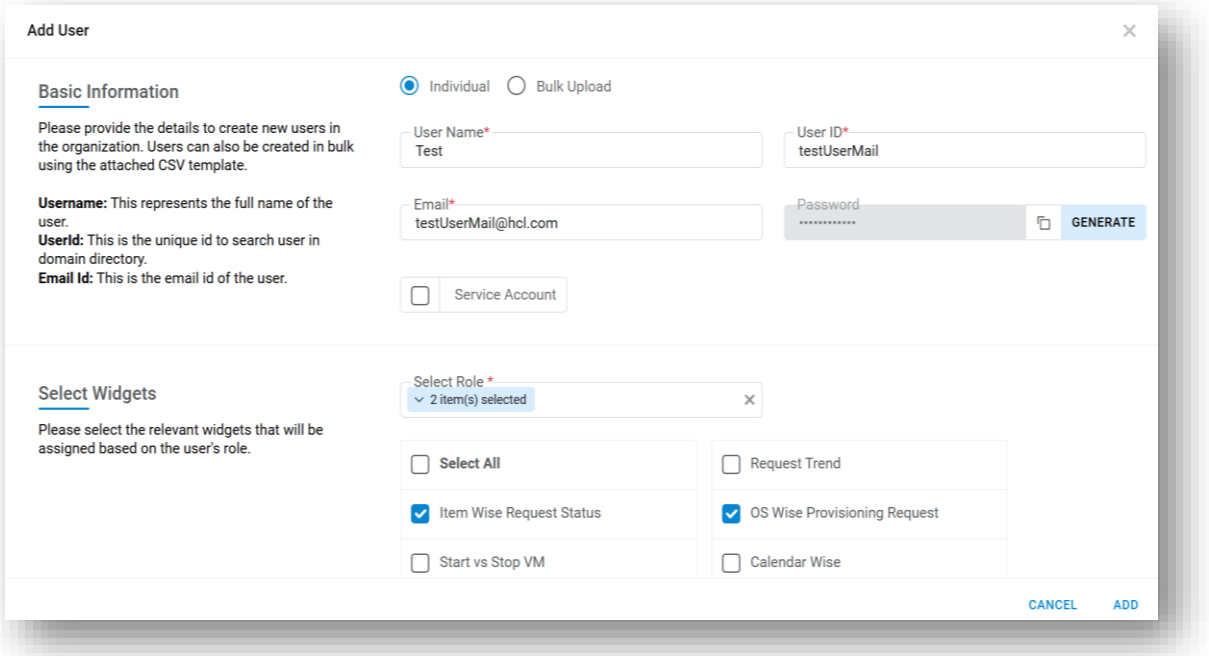


Figure 7 - Add User (Cont.)

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

12. A success message box appears on the following screen.

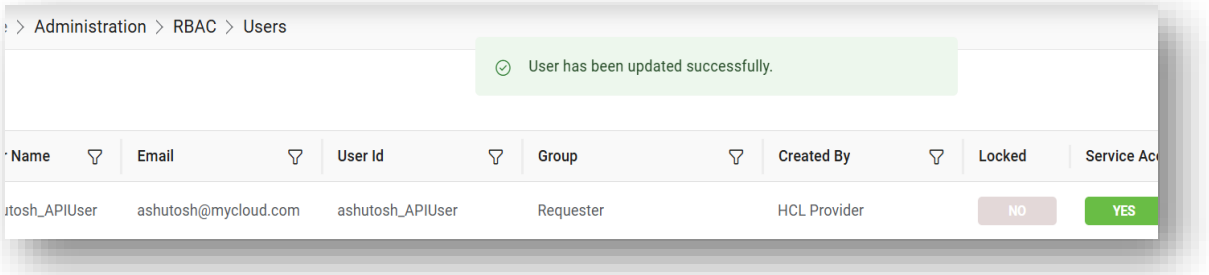


Figure 8 - Add User (Cont.)

3.1.1.1.1.1.2 View Users

This section lists all the provider users that have been created by an organization admin.

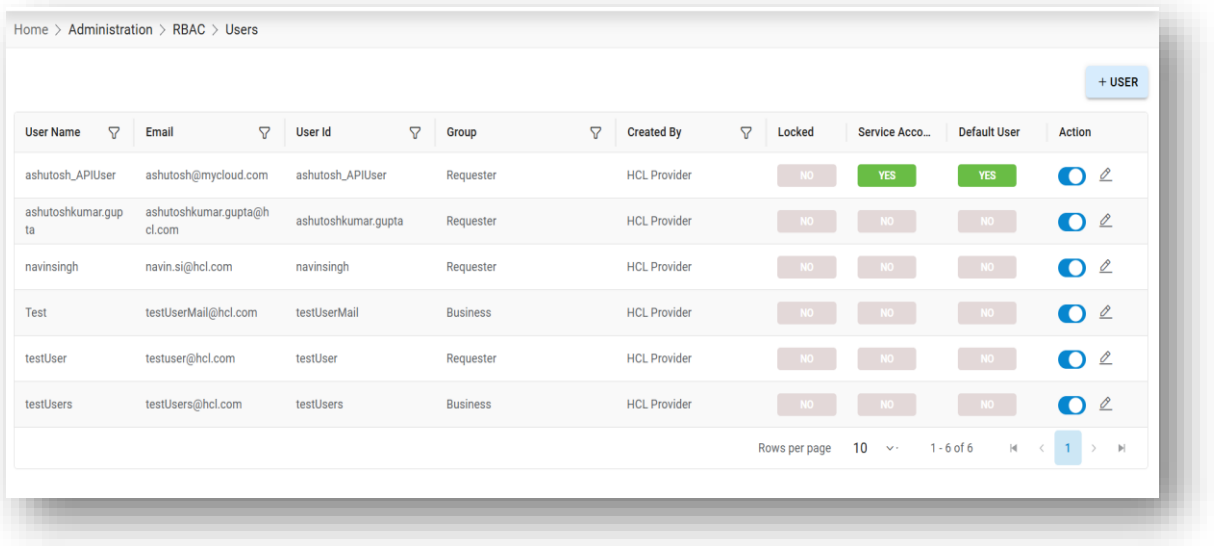


Figure 9 – View Users

Refer to the table below 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)
Username/Email	Enter Username or Email to filter the Grid 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 HCL BigFix CLM, post multiple failed login attempts
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 .

3.1.1.1.1.1.3 Edit Users

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

1. On the **User** screen.

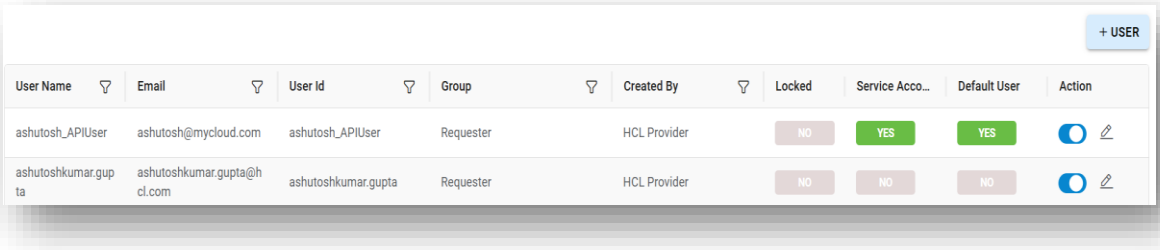


Figure 10 – Edit Users

2. Available users appear in a tabular view.
3. Click Edit ( ) icon.
4. Modify the details as desired and click **Update**.

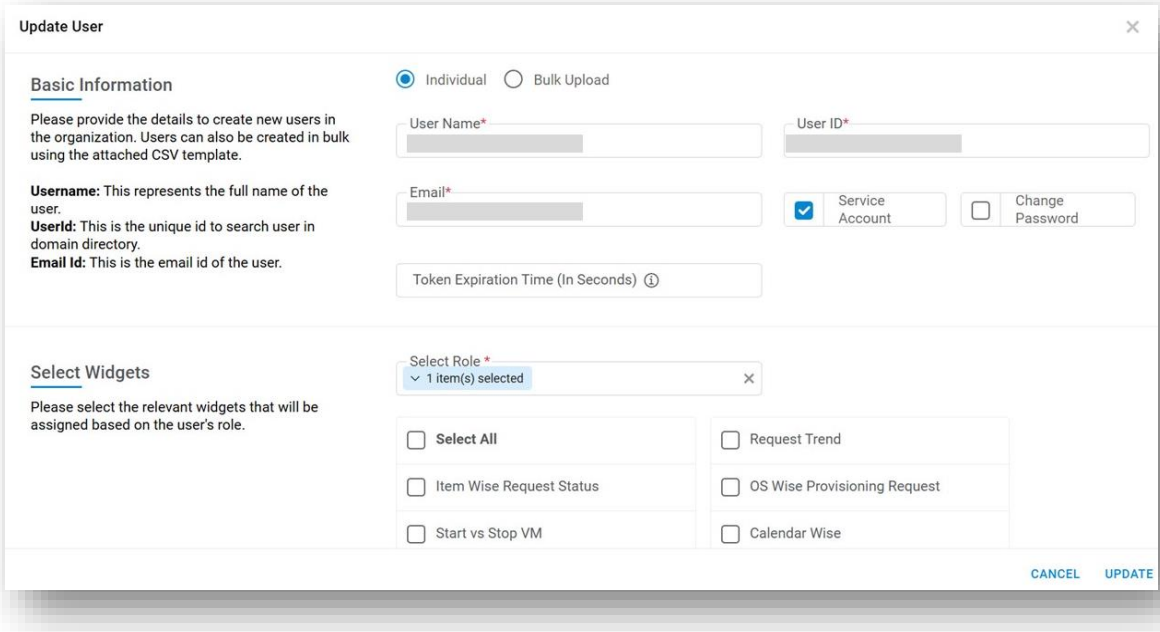


Figure 11 - Edit User (Cont.)

5. A success message box appears.

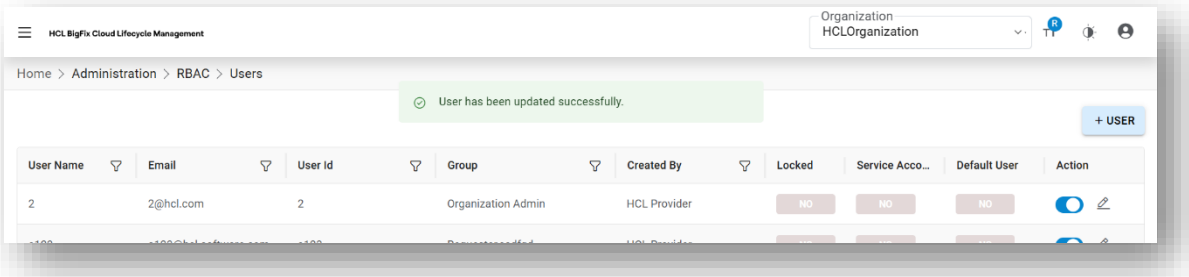


Figure 12 - User Updated Successfully

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. Select Bulk Upload and Click **Browse and upload data** to select the csv file that has the user details.
2. Click on **Import**.

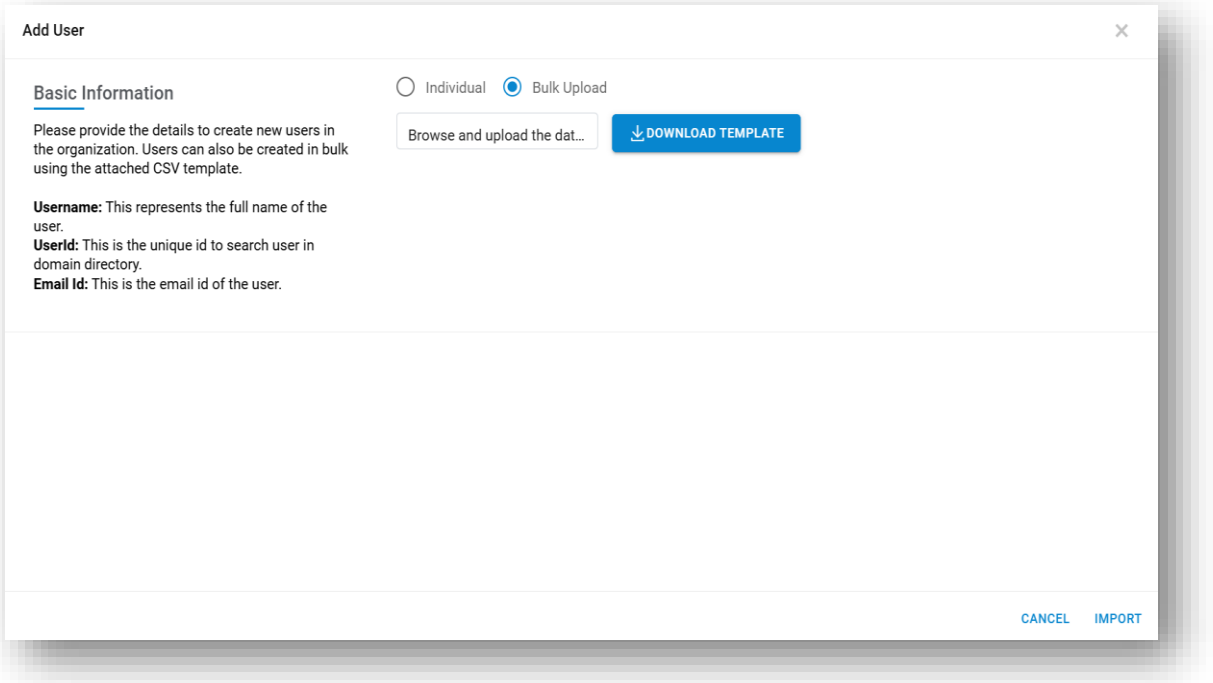


Figure 13 – Upload User

3. A success message box appears on the following screen.

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 into it, Organization Admin needs to follow the below-mentioned 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.

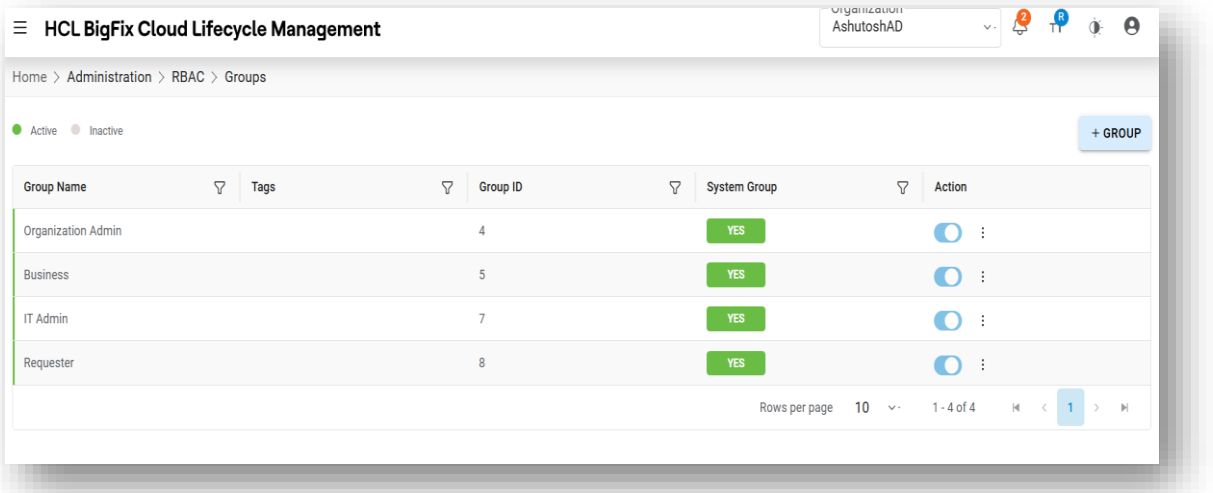


Figure 14 - Group Management

3. Refer to the following 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 HCL BigFix CLM 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-mentioned steps:

1. On the **Manage Group** screen, click **+GROUP** tab.
2. The following **Add Group** page appears on the screen:

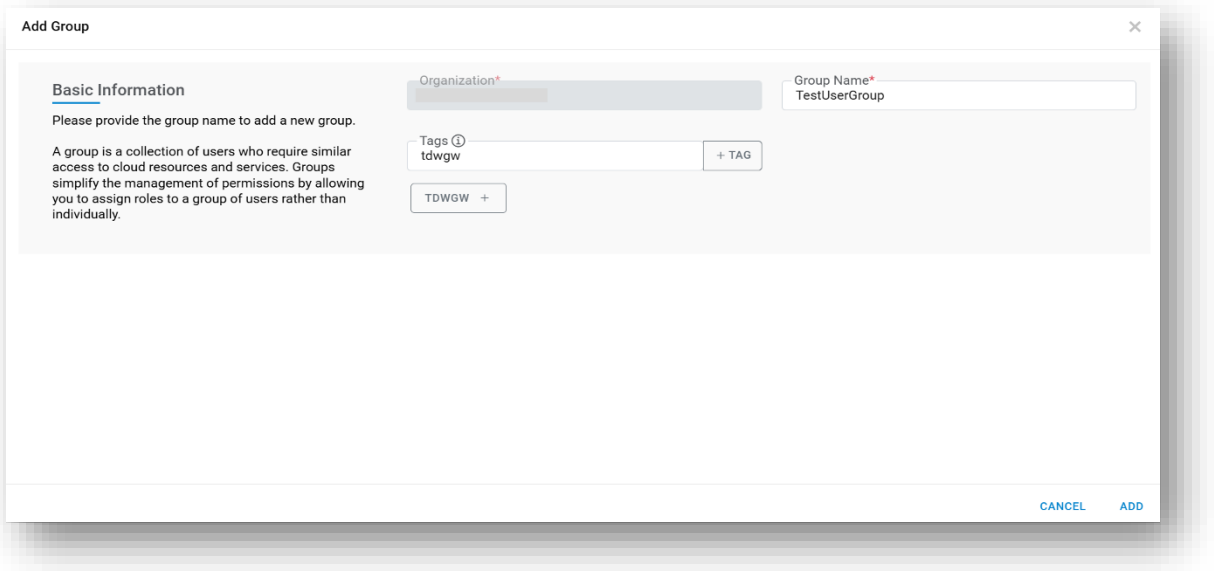


Figure 15 – Add Group

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

Table 8-Add Group Fields

Fields	Description
Name	Unique Name of the group.
Organization Name	Organization will be by default selected under which group needs to be created.
Tags	Tags to add any specific tag.

4. Click on **Add** Button.
5. A success message box appears on the following.

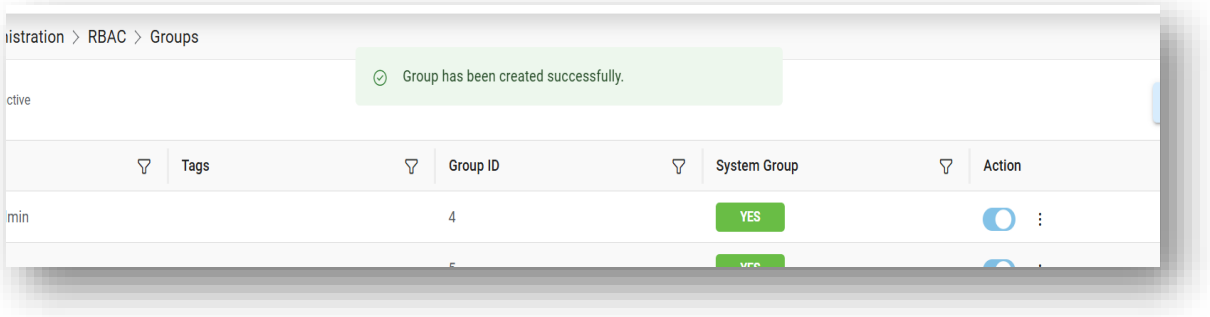


Figure 16 - Add Group (Cont.)

A new group is added and listed in the table.

Action like editing and deleting can only be performed when the **Hil BigFix CLM 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-mentioned steps:

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

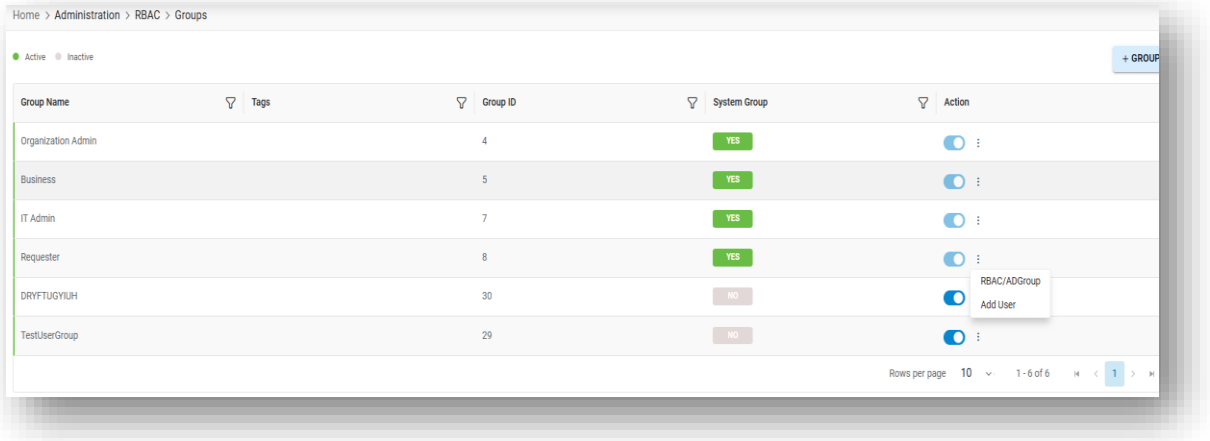


Figure 17 – View Groups

2. A pop-up window prompts 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.

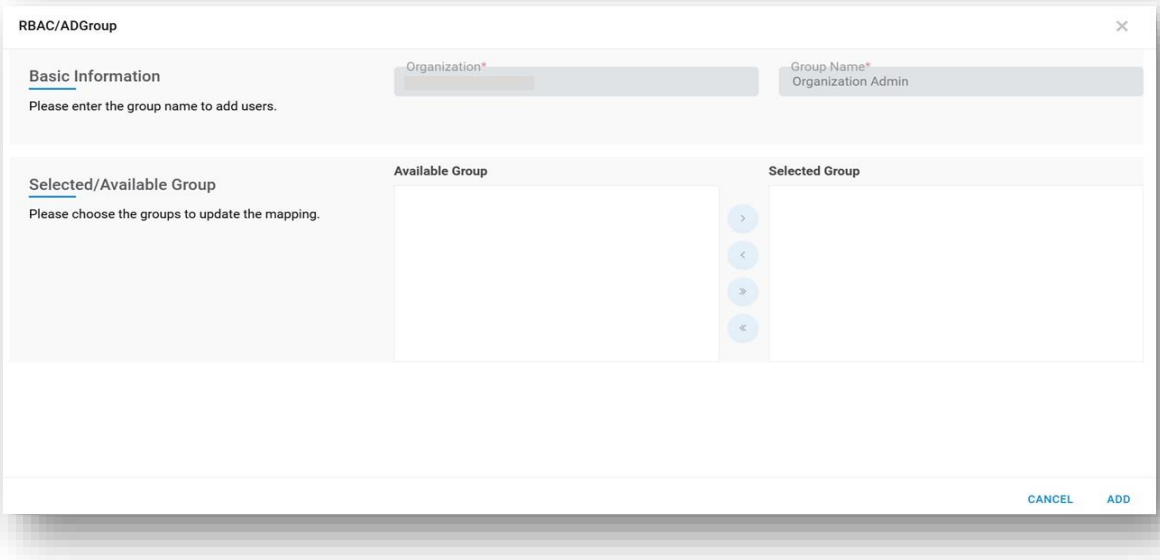


Figure 18 – Add Groups (Cont.)

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

6. Click **Save**.
7. A success message box appears on the screen.

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.

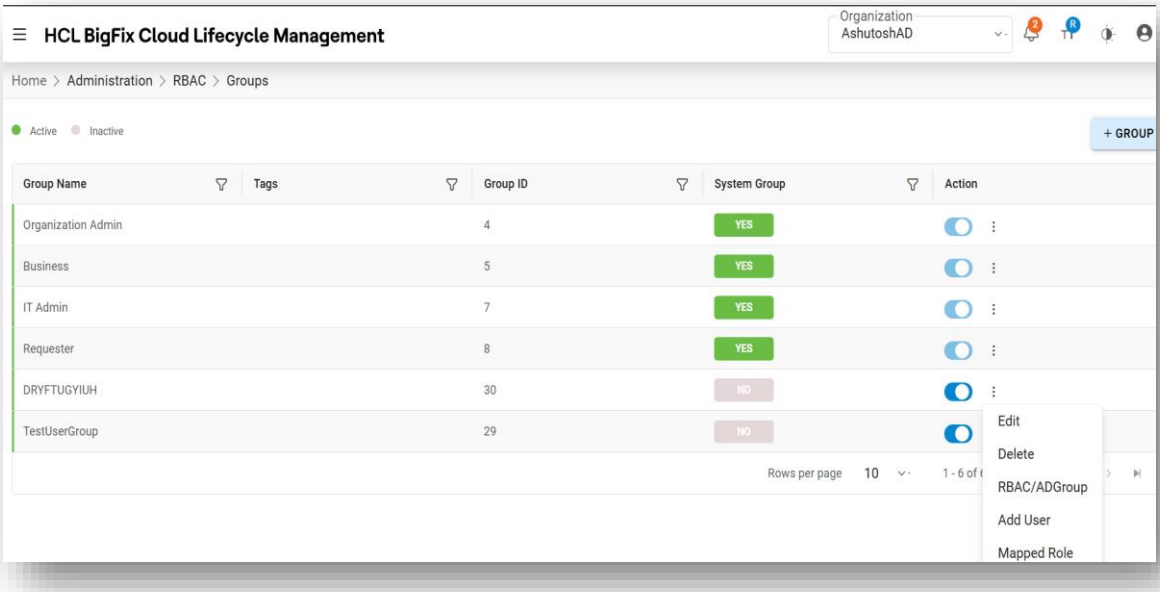


Figure 19 – Map User

2. A pop-up window prompts a user to map 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 **ADD.**

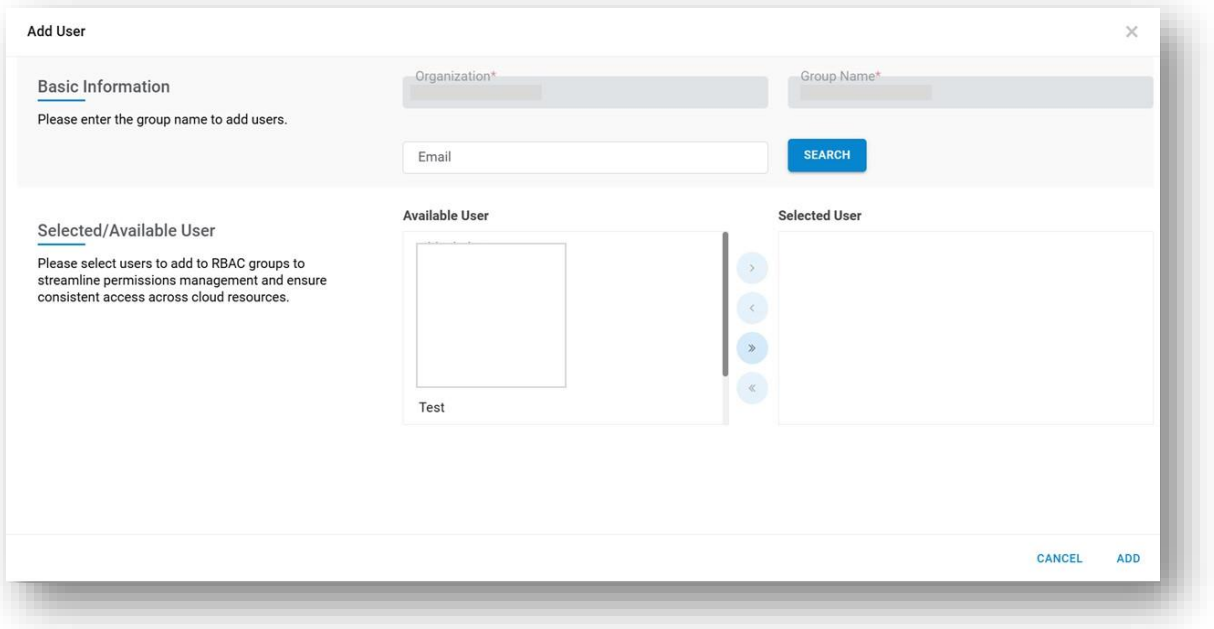


Figure 20 - Map User (Cont.)

All fields marked with asterisk (*) are mandatory.

8. A success message box appears on the following screen.

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'.

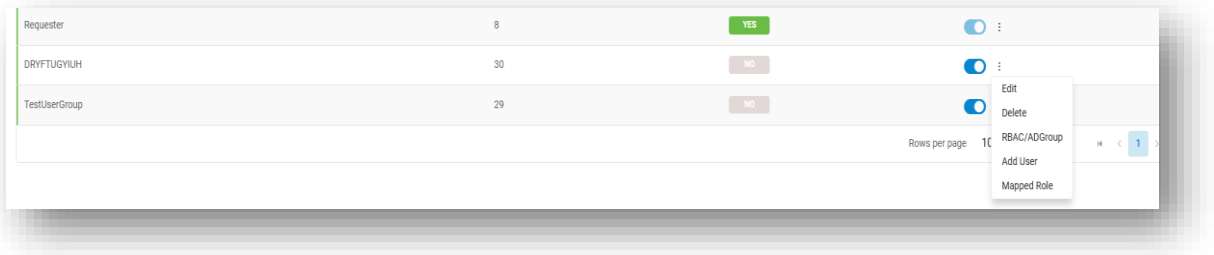


Figure 21 – Map Role

2. A pop-up window prompts a user to map 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.**

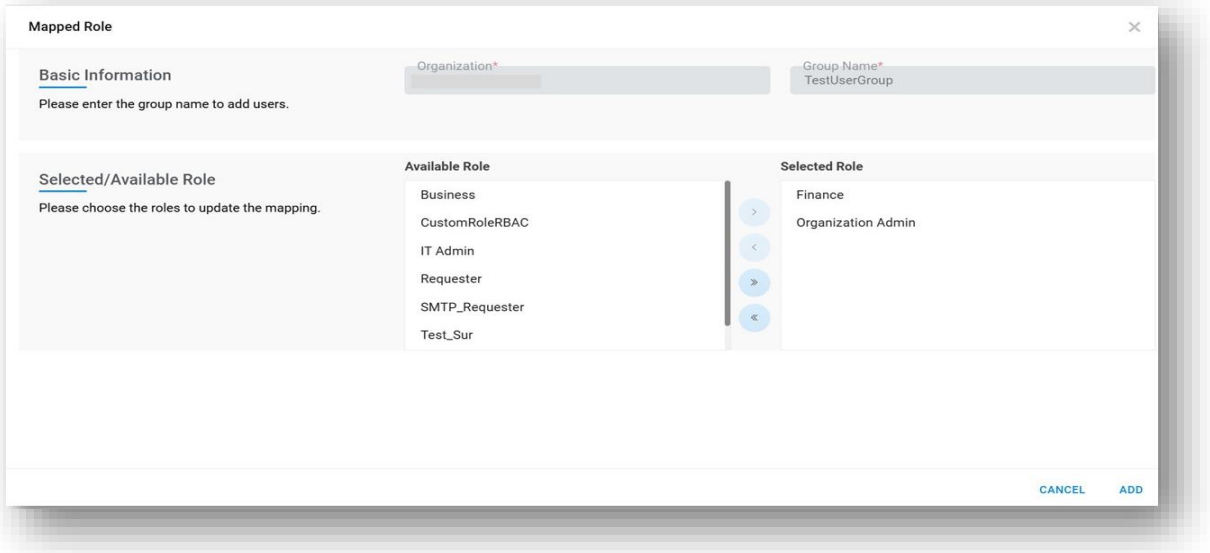


Figure 22 - Map Role (Cont.)

All fields marked with asterisk (*) are mandatory.

5. Click **ADD.**
6. A success message box appears on the screen.

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 **Roles.**
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.

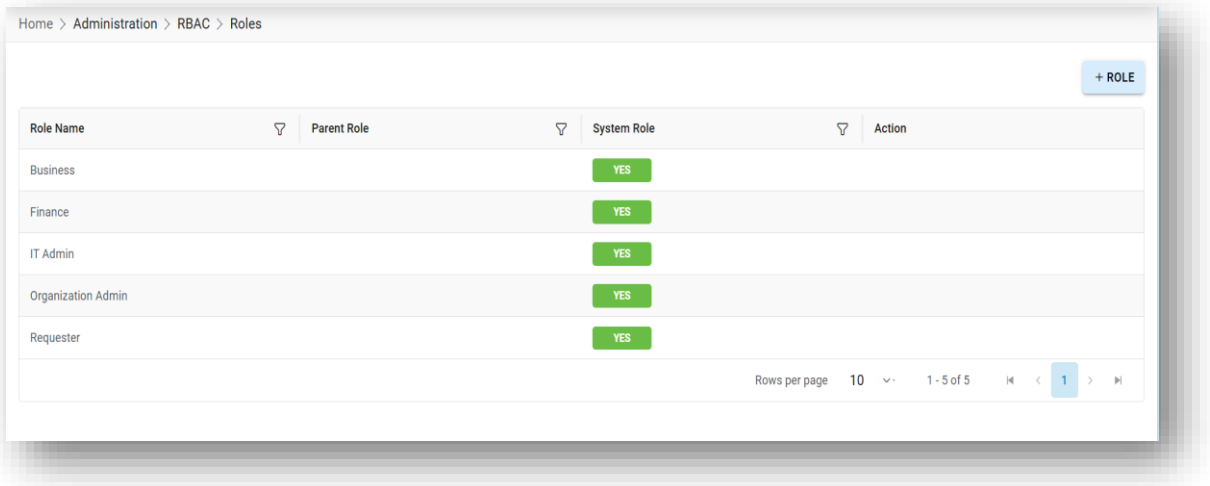


Figure 23 – Role Management

3. Refer to the table below 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 HCL BigFix System created Role that will act as a Parent Role for the Newly added User-Created role.
HCL BigFix CLM System Role	This field represents the role is HCL BigFix CLM 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 requests and objects belonging to another user in the same role.

It also consists of the following actions:

- Add Role: To add a role in organization.
- Edit Role: To update an existing role.
- 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, an organization admin needs to follow the following steps:

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

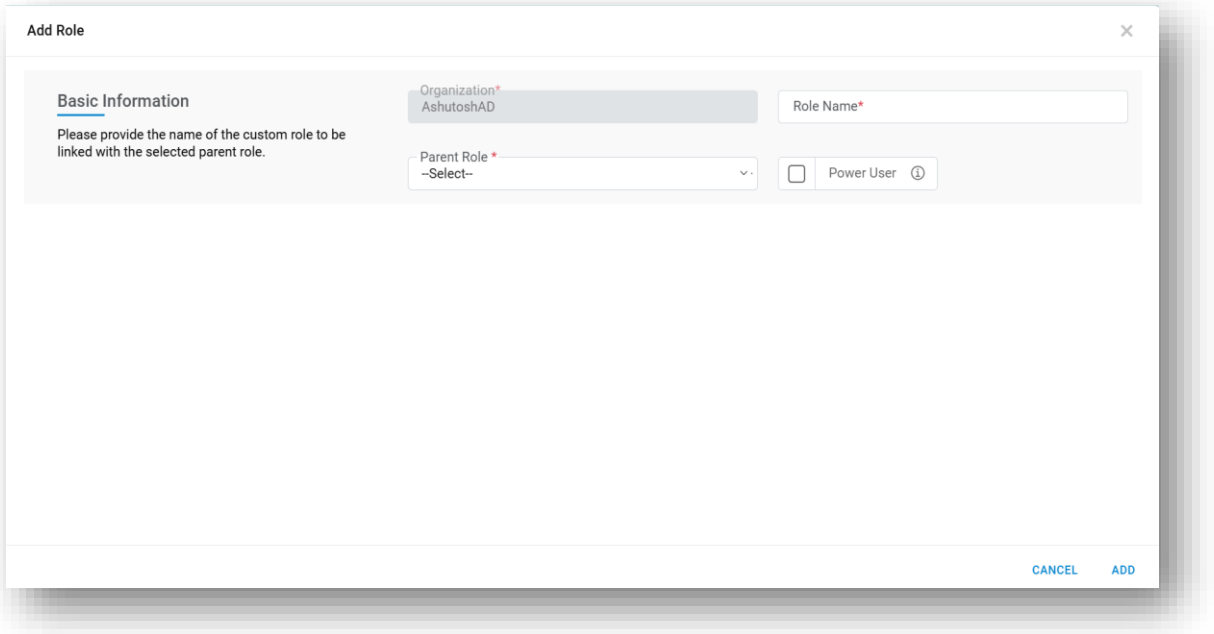


Figure 24 – Add Role Screen

2. Refer to the table below 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 HCL BigFix CLM 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 the **ADD**.
7. A success message box appears on the screen.
8. A new role is added and listed in the table.

Action like editing and deleting can only be performed when the **HCL BigFix CLM 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 **+Role**.

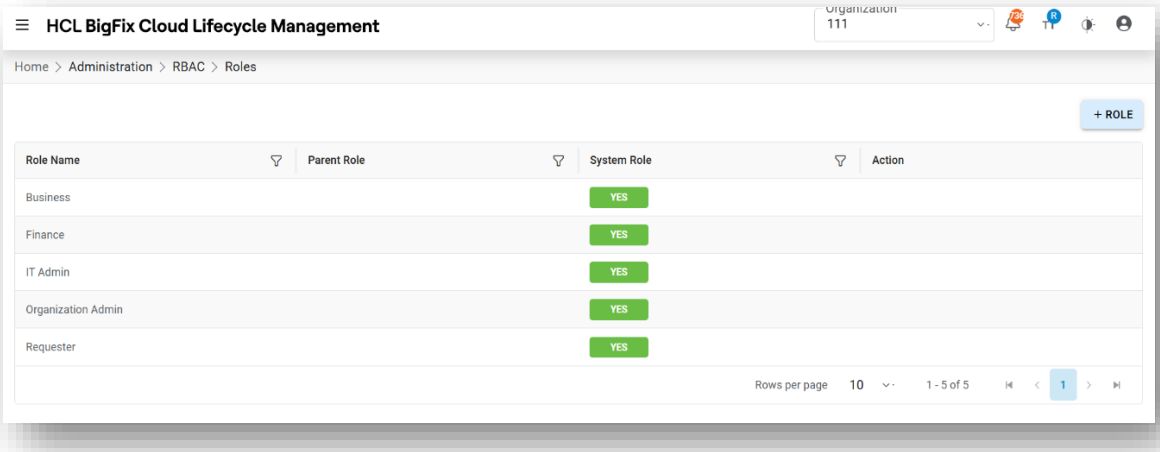


Figure 25 – Edit Role

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 **UPDATE**.

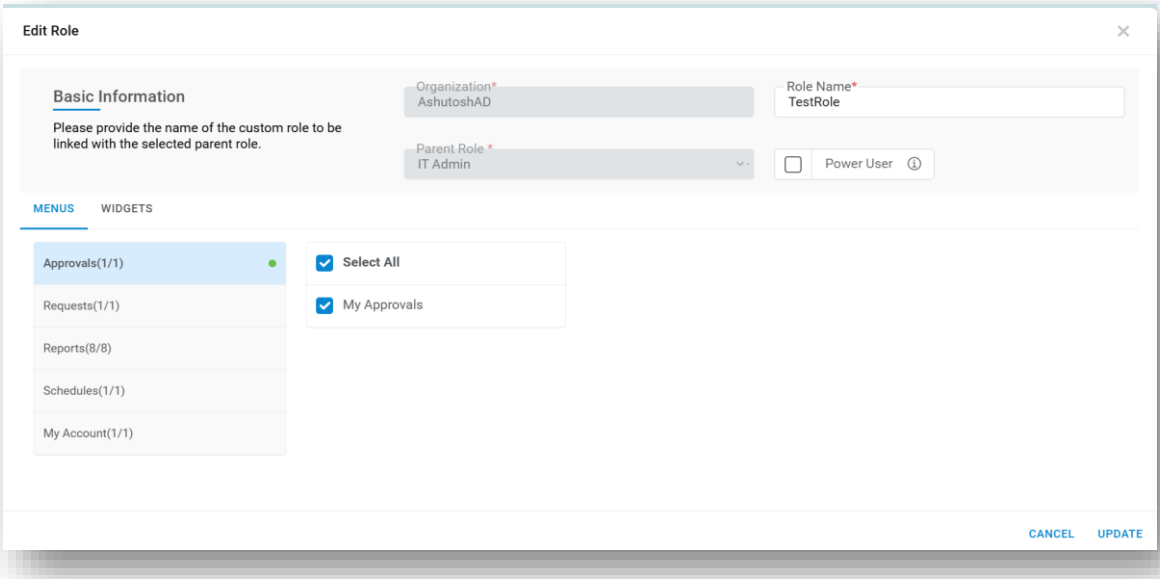


Figure 26 - Edit Role (Cont.)

7. A success message box appears on the screen.

3.1.1.1.1.3.3 Delete Role

To delete an existing Role, Organization users need to follow the below steps:

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

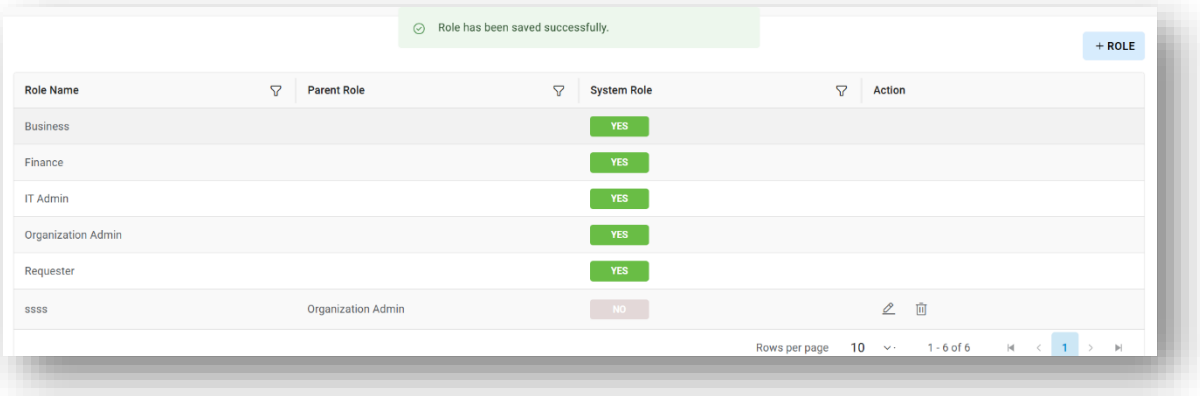


Figure 27 – Delete Role

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 on the screen.
7. Click **OK** to confirm. A successful message appears on the screen.

3.1.1.1.1.3.4 Configure Widgets

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

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

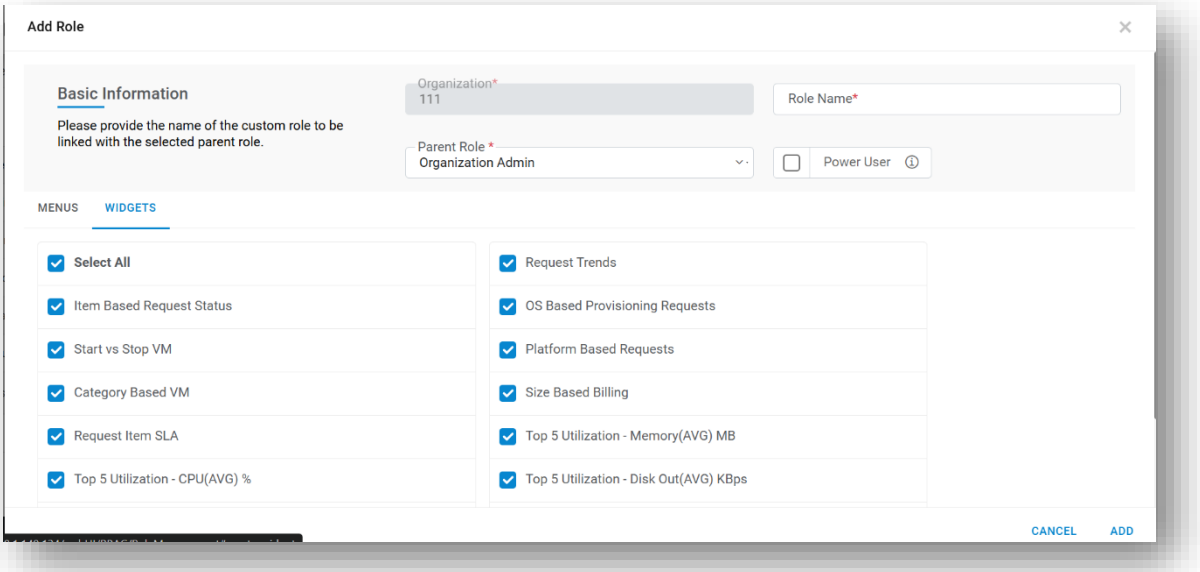


Figure 28 – Configure Widget

2. Available Role list will be shown in a tabular view.
3. Click **Edit** ( ) corresponding to the Role to be edited.
4. A popup window will appear on the screen.
5. If configuration of widgets has been done earlier, then all the widgets associated with the Parent Role will be shown as checked.

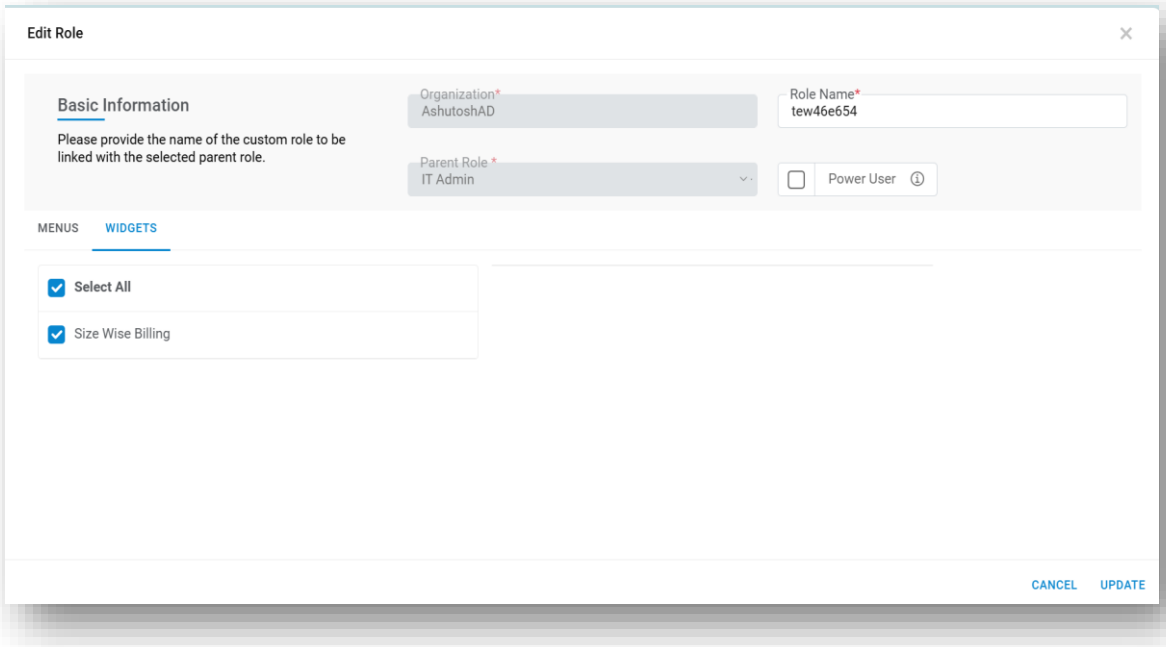


Figure 29 - Configure Widgets (Cont.)

6. Select/Unselect the Widgets as per widgets assignation. Click on **UPDATE.**
7. A successful message appears on the screen.

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.

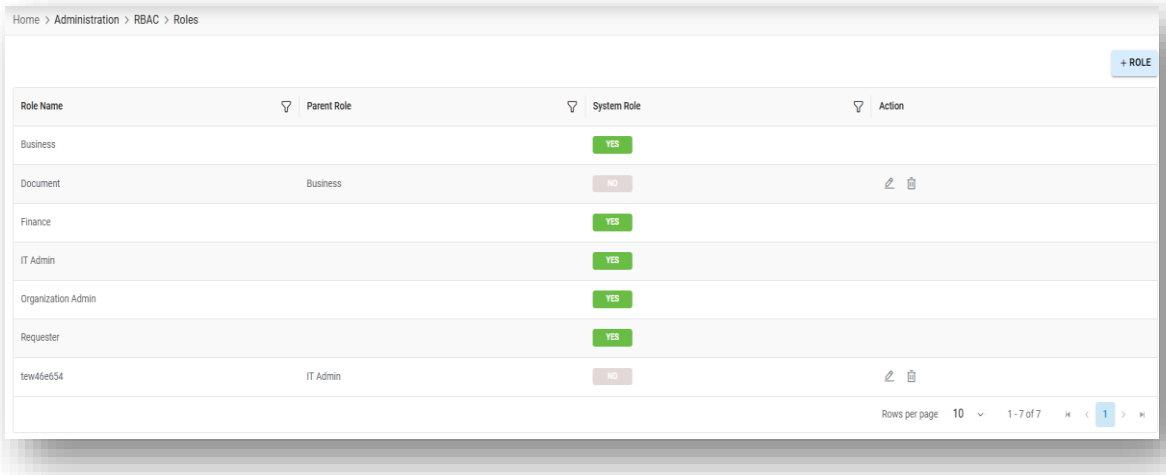


Figure 30 – Configure Menu

2. Available Role list will be shown in a tabular view.
3. Click **EDIT** ( ) corresponding to the Role to be edited.
4. A popup window will appear.
5. If configuration of menu has been done earlier, then all the menus associated with the Parent Role will be shown as checked.

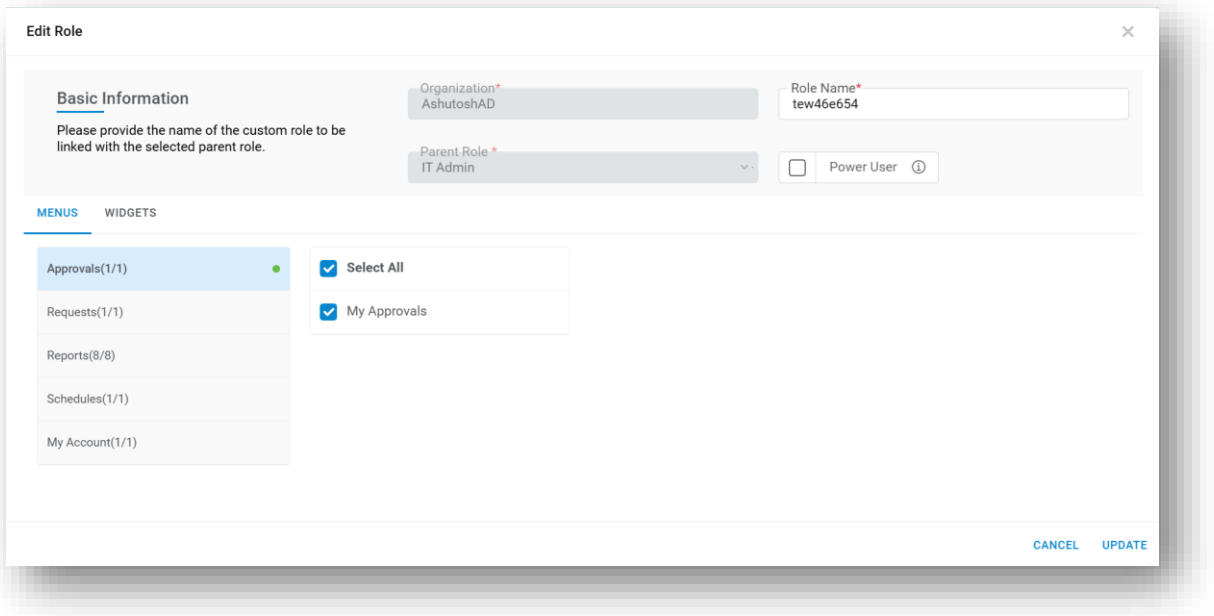


Figure 31 - Configure Menu (Cont.)

6. Select/Unselect the Menu Item as per menu assignation. Click on **UPDATE.**
7. A successful message appears on the screen.

3.1.1.1.2 Schedules

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

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

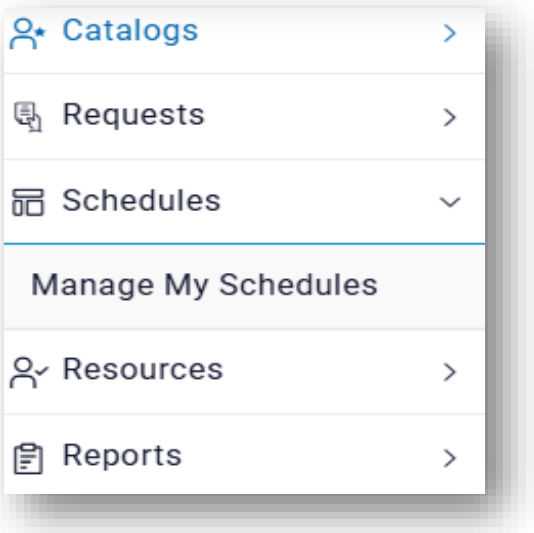


Figure 32 - My Account

3.1.1.1.2.1 Manage 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

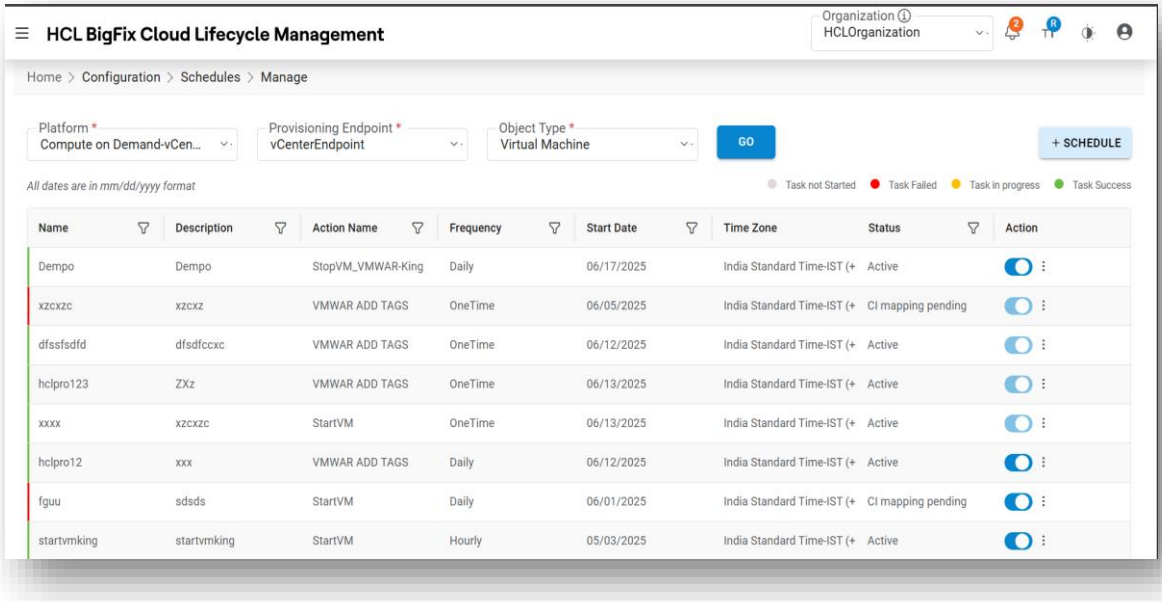


Figure 33 - My Schedules

3.1.1.1.2.2 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 **+Schedule**.

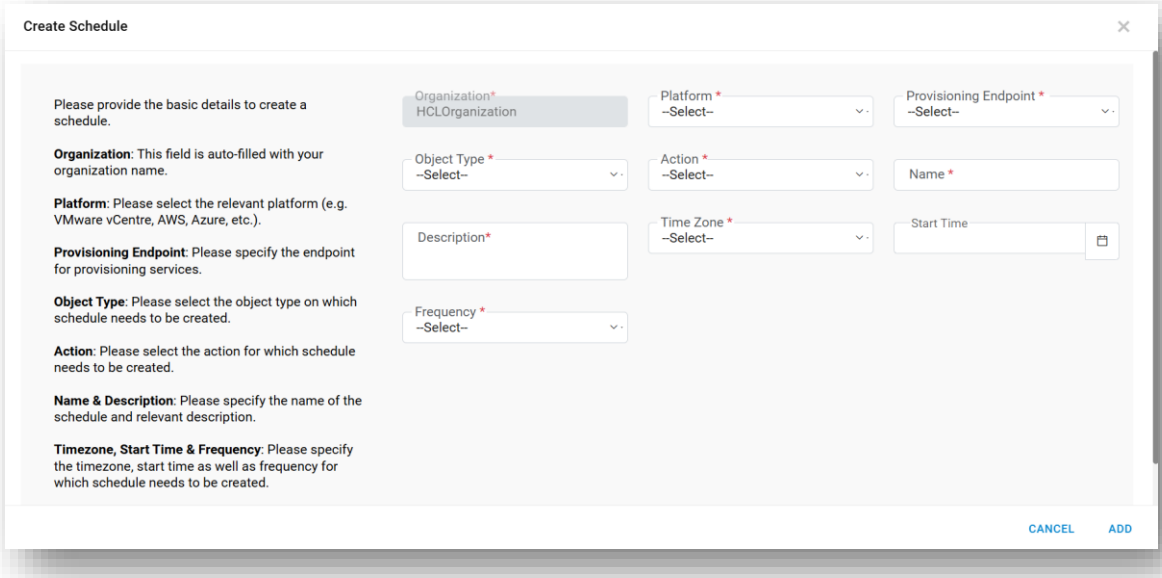


Figure 34 – Create Schedule

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

Table 11 – 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 with Object.
Name	This is a unique name for 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

   a. Select Platform and Provisioning Endpoint.
   b. Select Object Type.
   c. Select **Action**.
   d. Enter the **Name** and **Description** of Schedule.
   e. Select Time Zone and Start Time.
   f. Select **Frequency**.
3. 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 is to find the dynamic value of a control.
4. Click **ADD**.

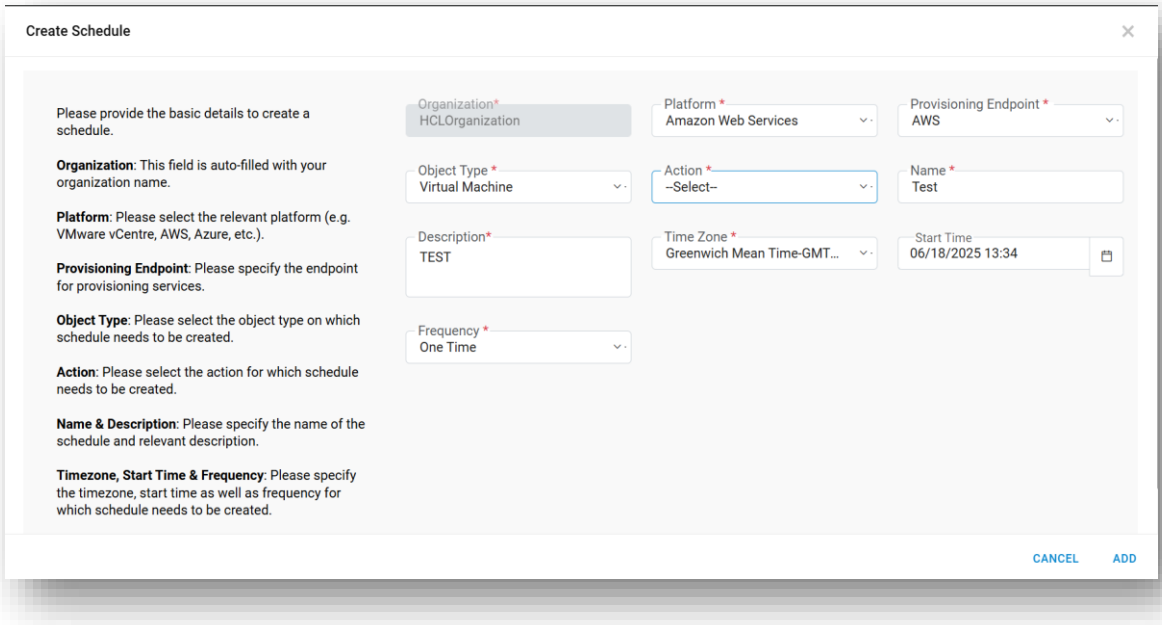


Figure 35 - Create Schedule (Cont.)

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

5. A success message box appears on the screen.
6. Now click on (⋮). And then click on Map Object. A Popup will open containing the relevant Object(s).

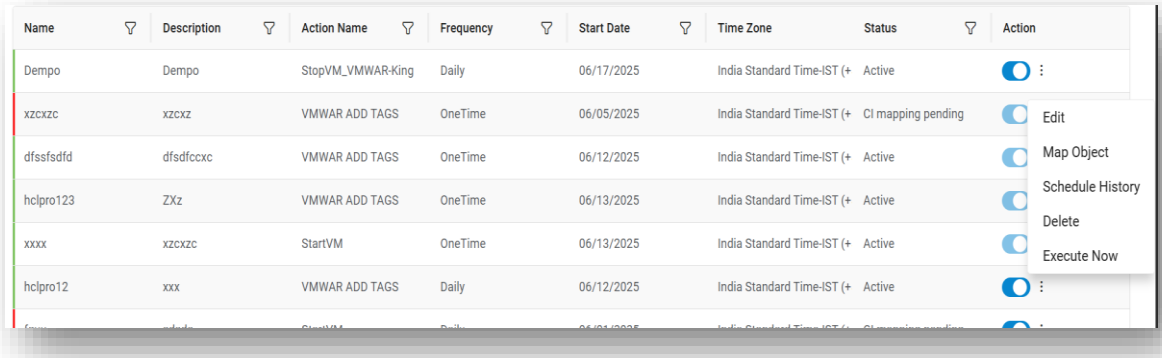


Figure 36 – Create Schedules

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

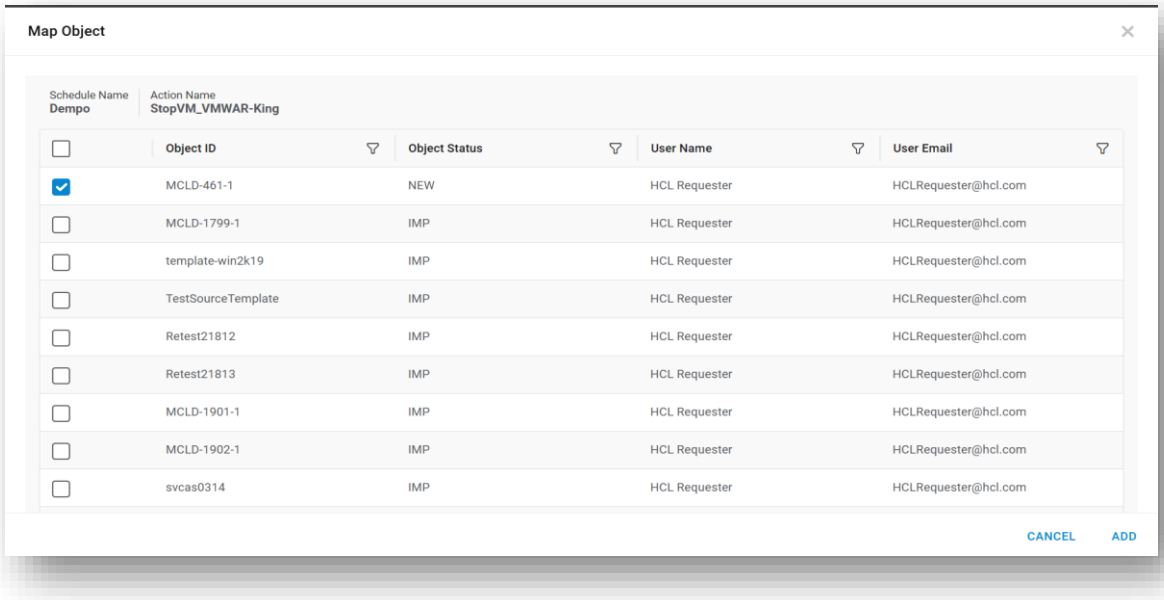


Figure 37 - Create Schedule (Cont.)

8. Now click on the **ADD** button.
9. A successful message appears on the screen.
10. The Action Scheduled Successfully.

3.1.1.1.2.3 View Schedules

1. This section lists all the Schedules that have been created by an organization admin.

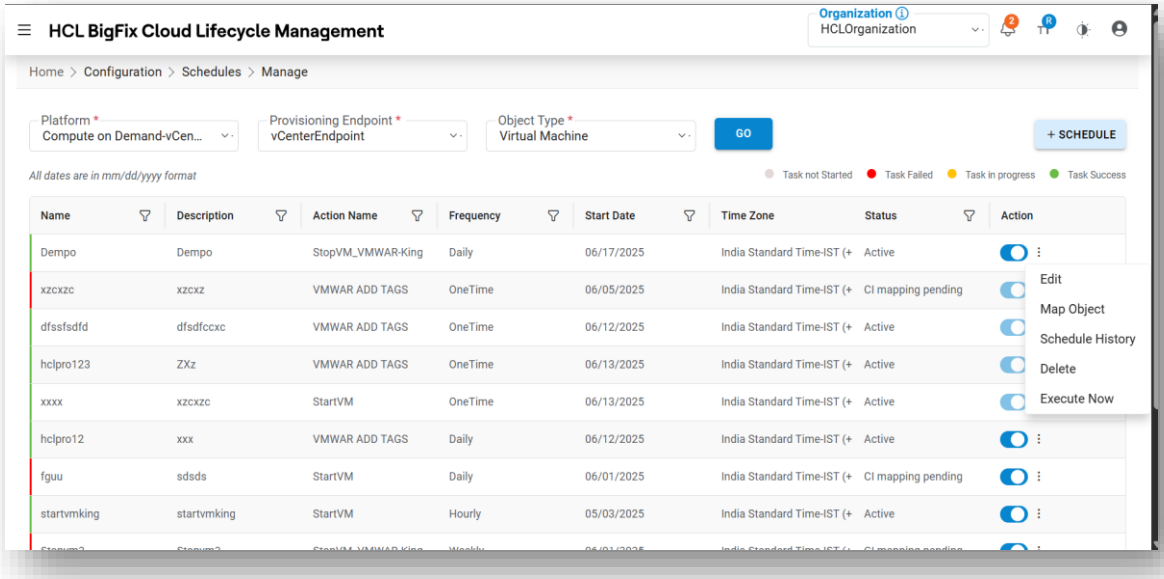


Figure 38 - View Schedules

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

Table 12 – 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 with Object.
Name	This is a unique name for 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 the 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

3. 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.

3.1.1.1.2.4 Schedule History

This section lists all the History of Schedules Actions.

To view the schedule history, follow the below-mentioned steps:

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

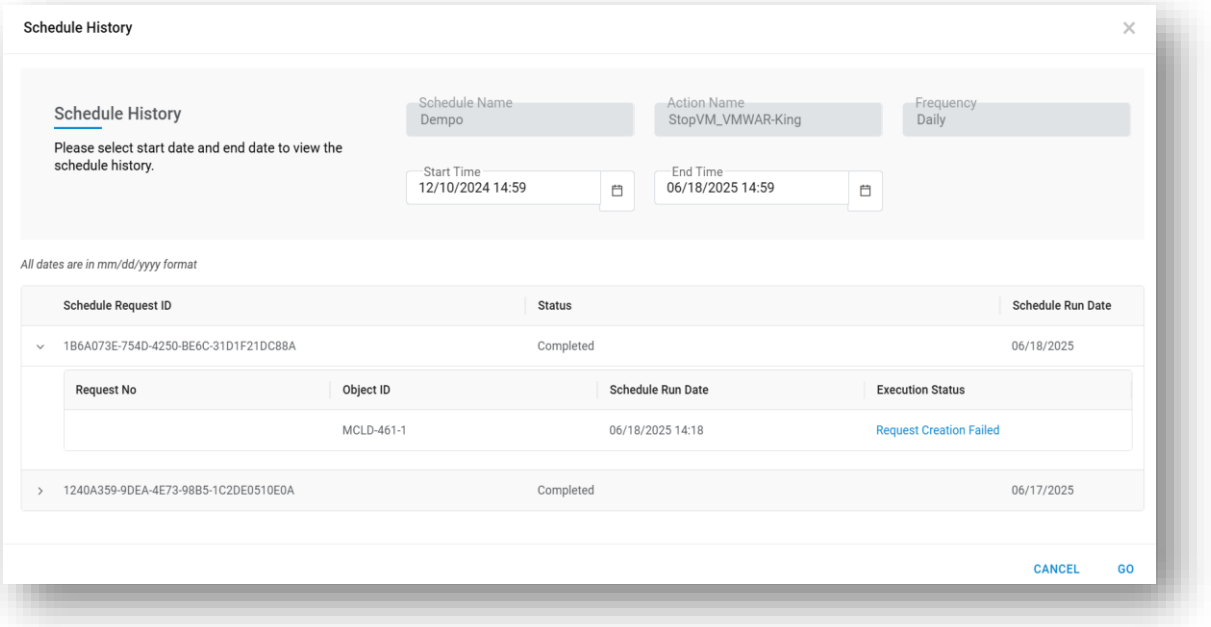


Figure 39 – Schedule History

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

Table 13 – Schedule History Field

Fields	Description
Schedule Name	This is a unique name for 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 of 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

3.1.1.1.3 Help

This section explains the details to understand more about BigFix CLM.

1. On the main menu bar, click **Help**.
2. The menu option displays the following:
    - Quick Guide

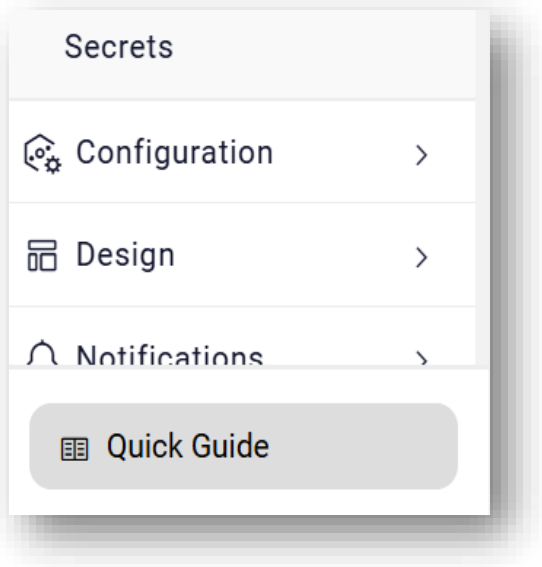


Figure 40 - Help

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 BigFix CLM. The following actions are performed through this module:

- Request service catalog items to which the user is entitled.
- Manage their provisioned resources.
- Manage My Schedules
- View reports

3.1.2.1 Accessing BigFix CLM

1. Obtain the URL and user credentials for BigFix CLM.

Contact the person who has configured BigFix CLM or drop an email to bigfixclm-prodsupport-team@hcl-software.com

2. Launch a web browser (Chrome, Mozilla, and Edge) and use the **BigFix CLM URL** and **user credentials** to login to the system.
3. Enter the **Email ID**.
4. Click **CONTINUE**.

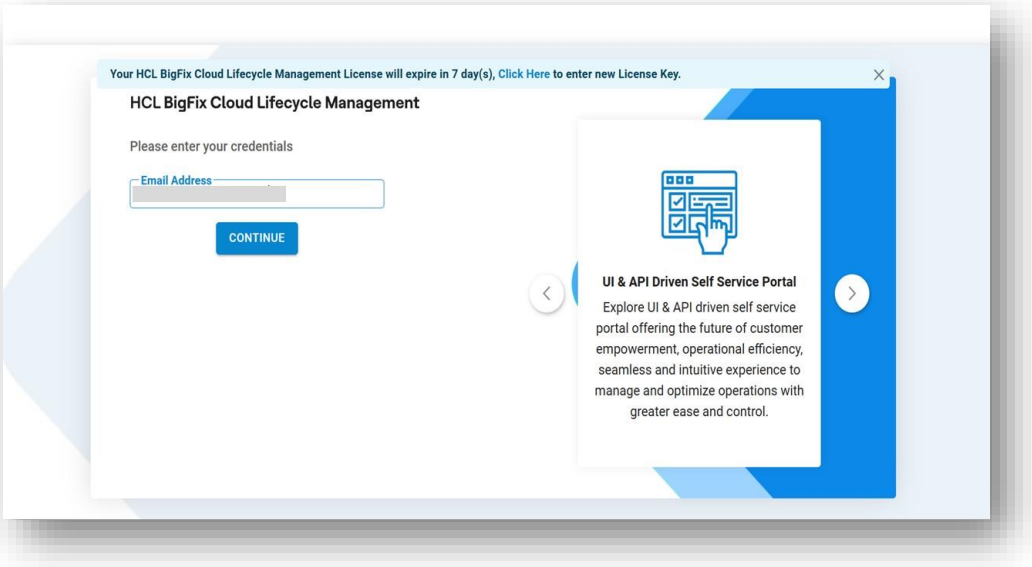


Figure 41 - BigFix CLM Login Page

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 14 – 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 bigfixclm-prodsupport-team@hcl-software.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.

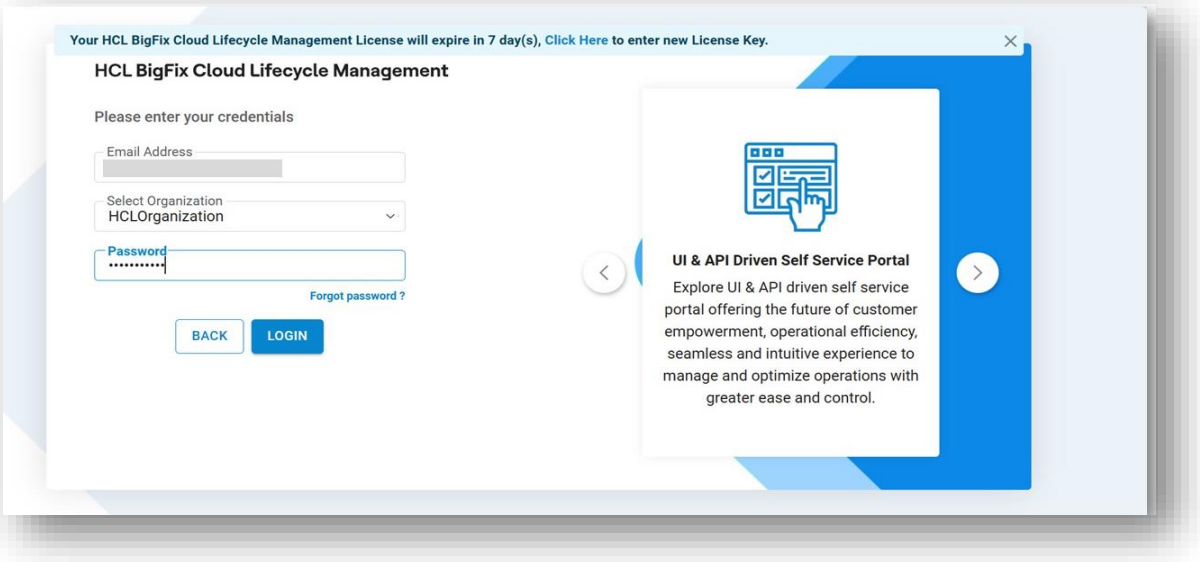


Figure 42 – BigFix CLM Login Page (Cont.)

7. Click **Login**.
8. On a successful login, BigFix CLM homepage appears as shown below:

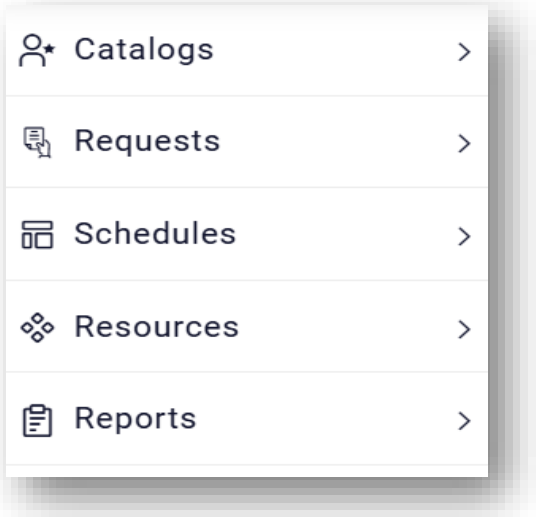


Figure 43 – BigFix CLM Dashboard

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

9. The **Requester Module** has the following options:
   - Catalogs
   - Requests
   - Schedules
   - Resources
   - My Reports

3.1.2.1.1 Catalogs

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 services offered to one place and then redefining them in the context of a dynamic business environment.

1. On the main menu bar, click **Catalogs**.
2. The drop-down appears with the following option:
   - Request Service

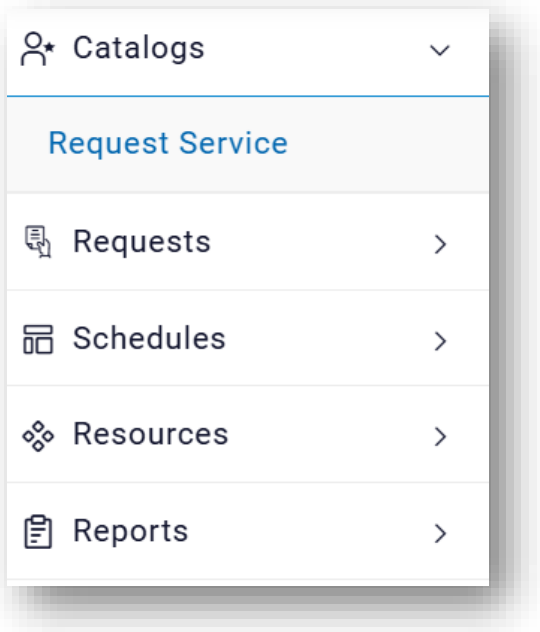


Figure 44 - Request

3.1.2.1.1.1 Request Service Catalog

To request a service in the catalog, the end user needs to follow the steps mentioned 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 Amazon Service Request

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.**

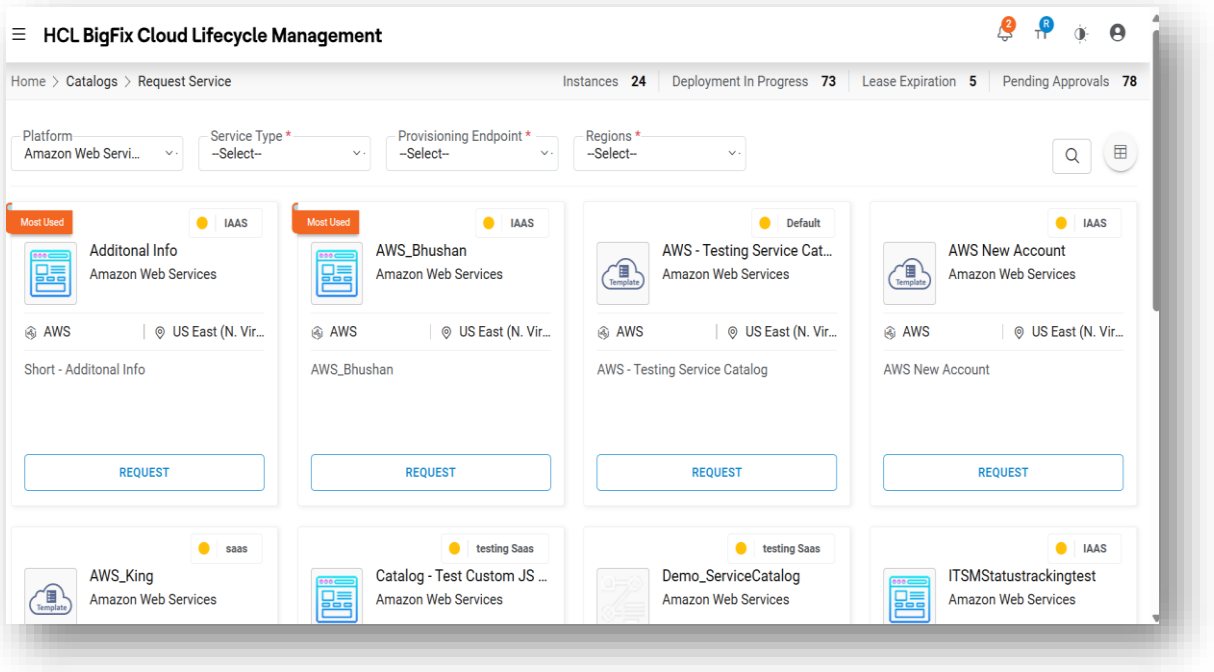


Figure 45 – Request Service at Organization Level

5. **Most Used:** This flag indicates that requests for this catalog item are frequently created. It is configured at the organization level.
6. On **Service Catalogs** page, Select the following fields:
   a. Select **Service** from the options 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:
      - User logged in with Requester Role: Only Those Endpoints will be listed, which are allocated to user's Organization by the Provider admin user.
      - 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.**
      - Private Cloud: Region at which Private DCs would be located, and resources would be getting consumed.
      - Public Cloud: Region selected by the Provider admin at the time of creating the Provisioning EndPoint.
7. 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.

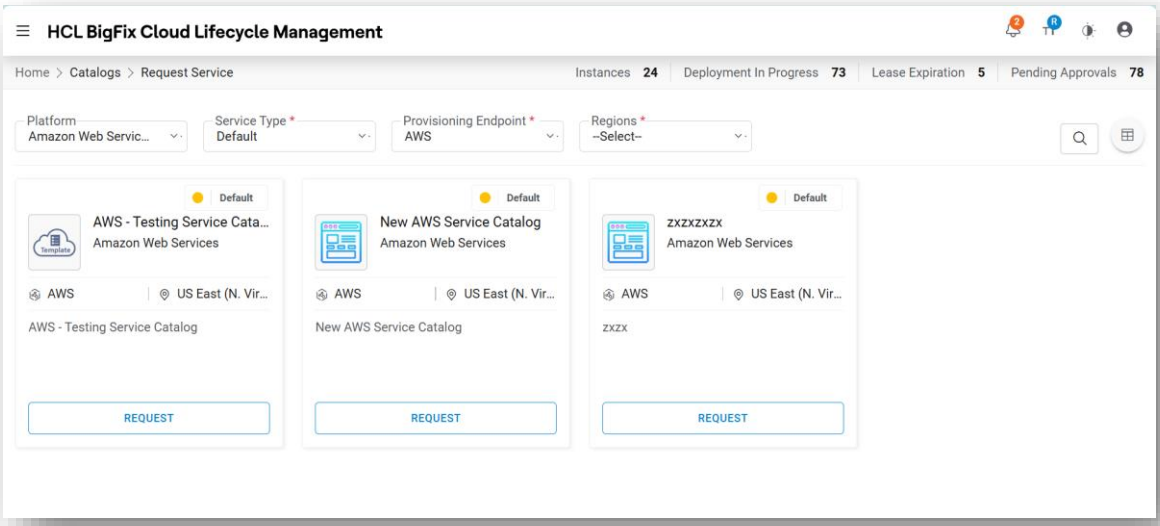


Figure 46 – Cloud Provider Selection (Cont.)

8. 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**.

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

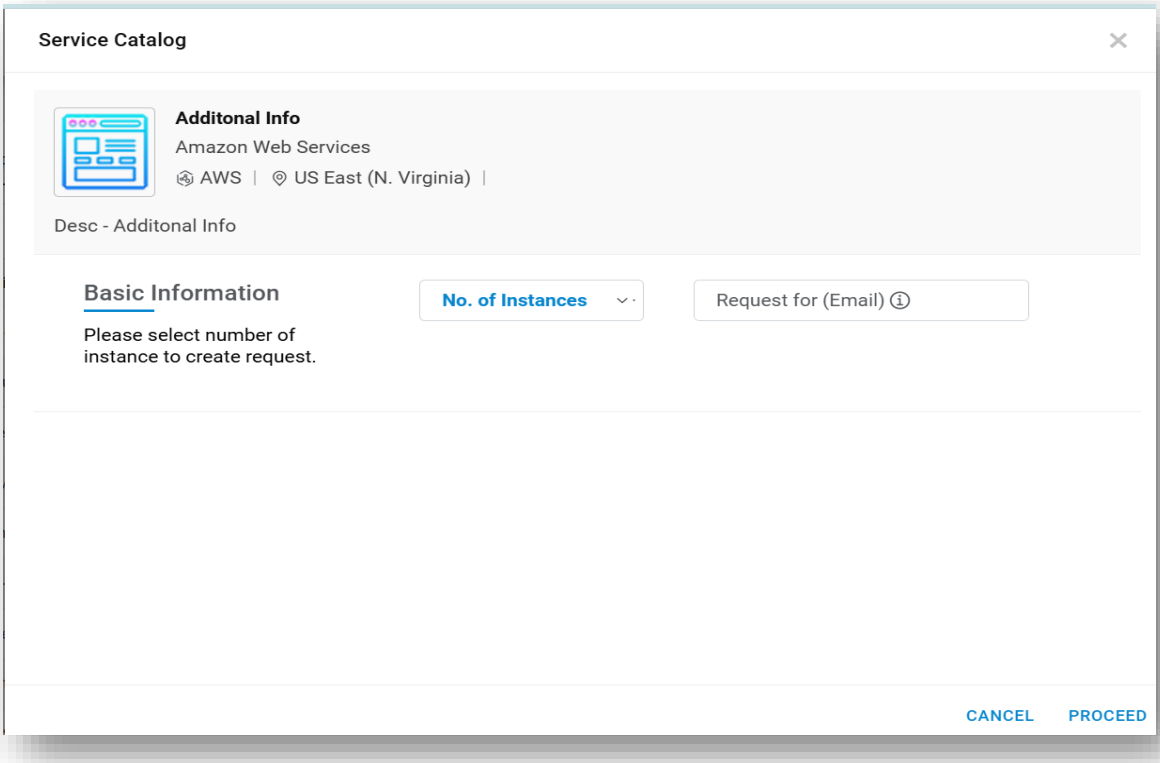


Figure 47 – Request Service Catalog (Cont.)

9. 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.

10. 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.

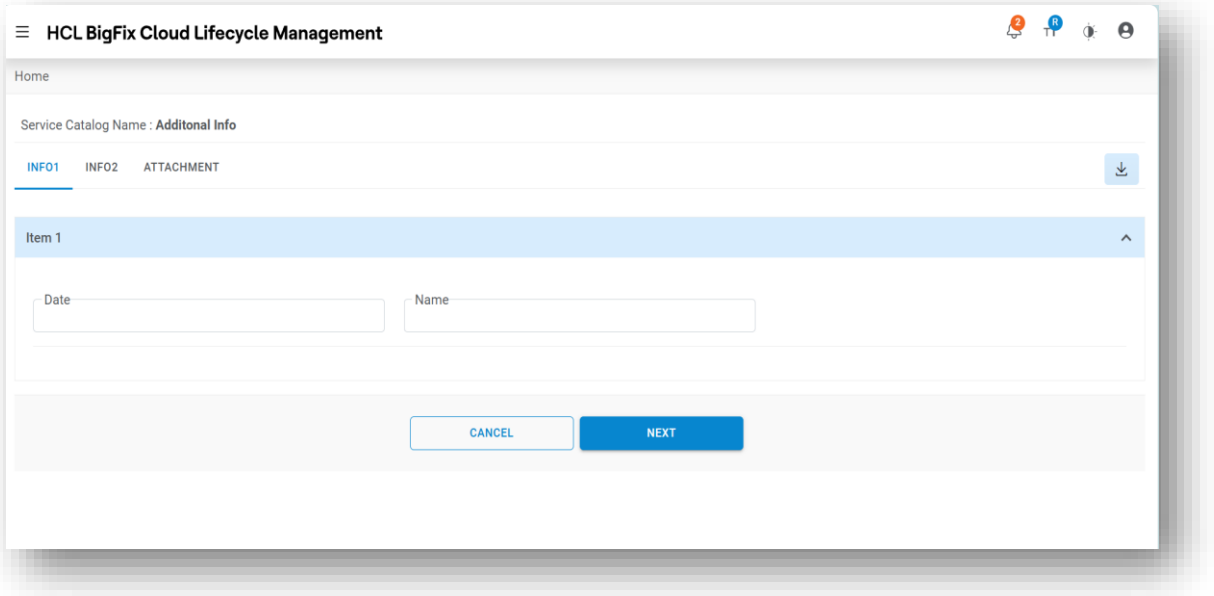


Figure 48 - Request Service Catalog

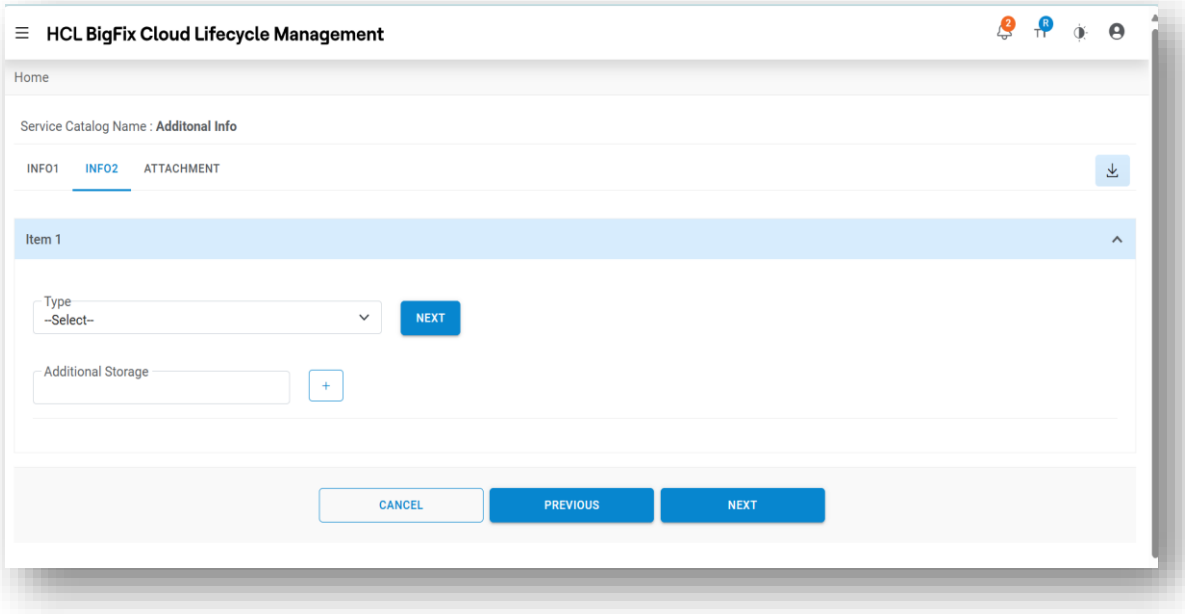


Figure 49 - Request Service Catalog (Cont.)

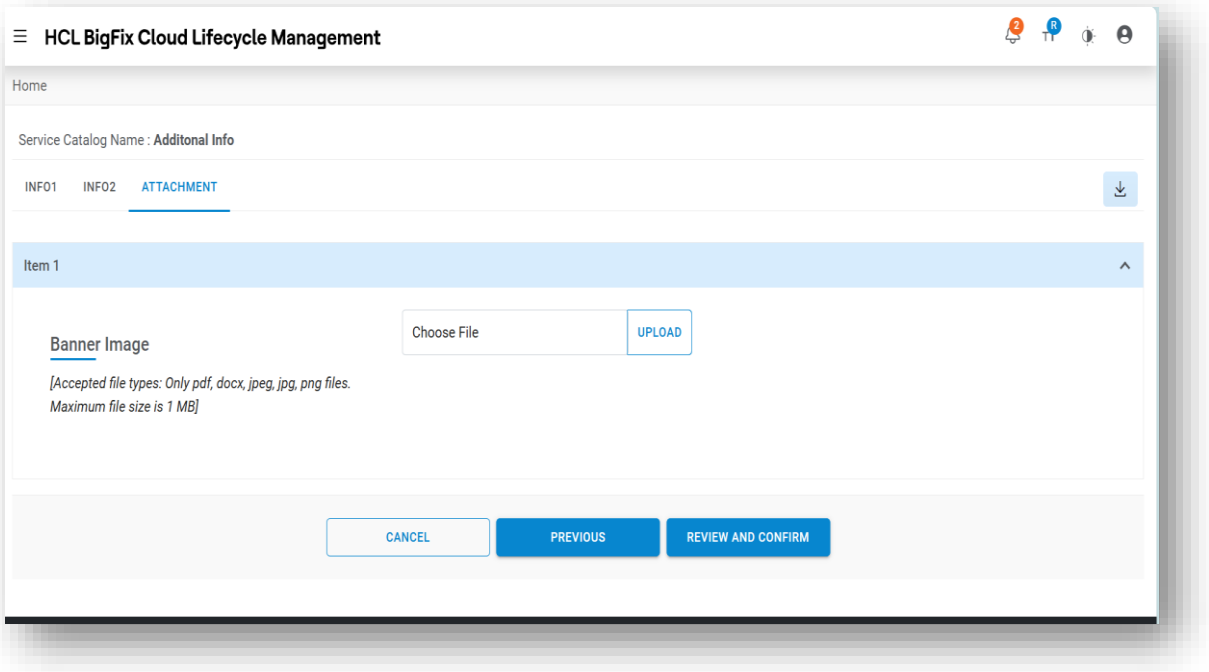


Figure 50 - Request Service Catalog (Cont.)

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

Table 15 - Request Service Catalog: GCP General Fields

Fields	Description
Machine Name	The name which is used to provision the machine
Zone	The zone where machines are 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. Users need 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 **Review and Confirm.**
13. Once the form is filled, then click Additional Storage.

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

3.1.2.1.1.1.2 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.

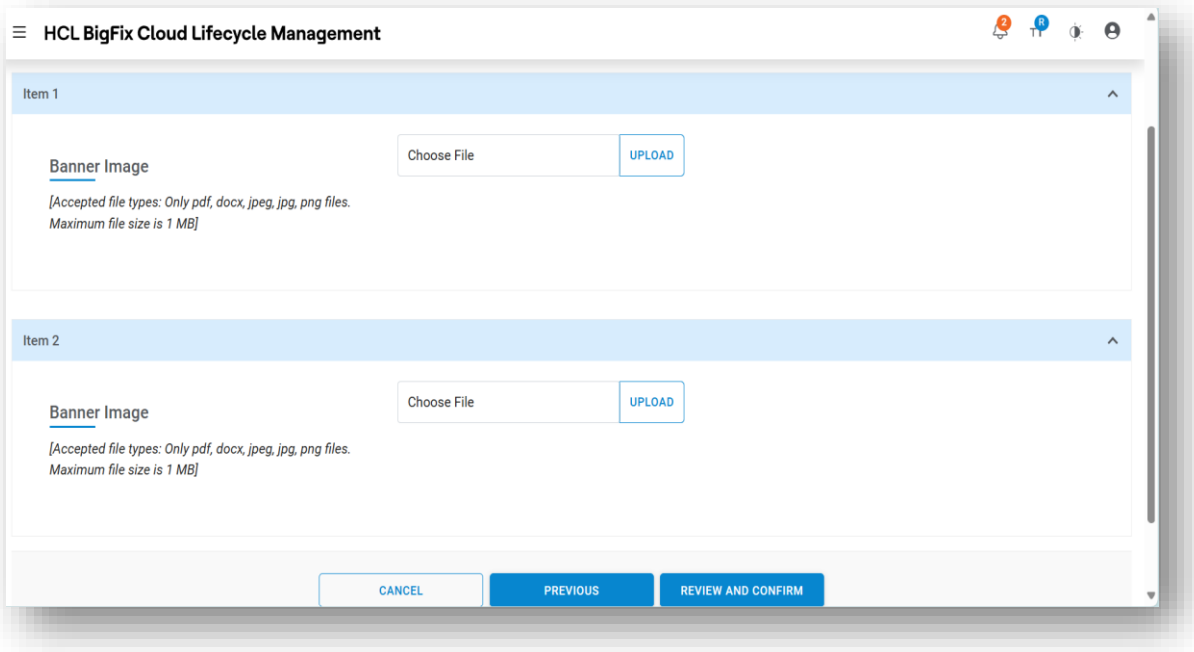


Figure 51 – Item Details

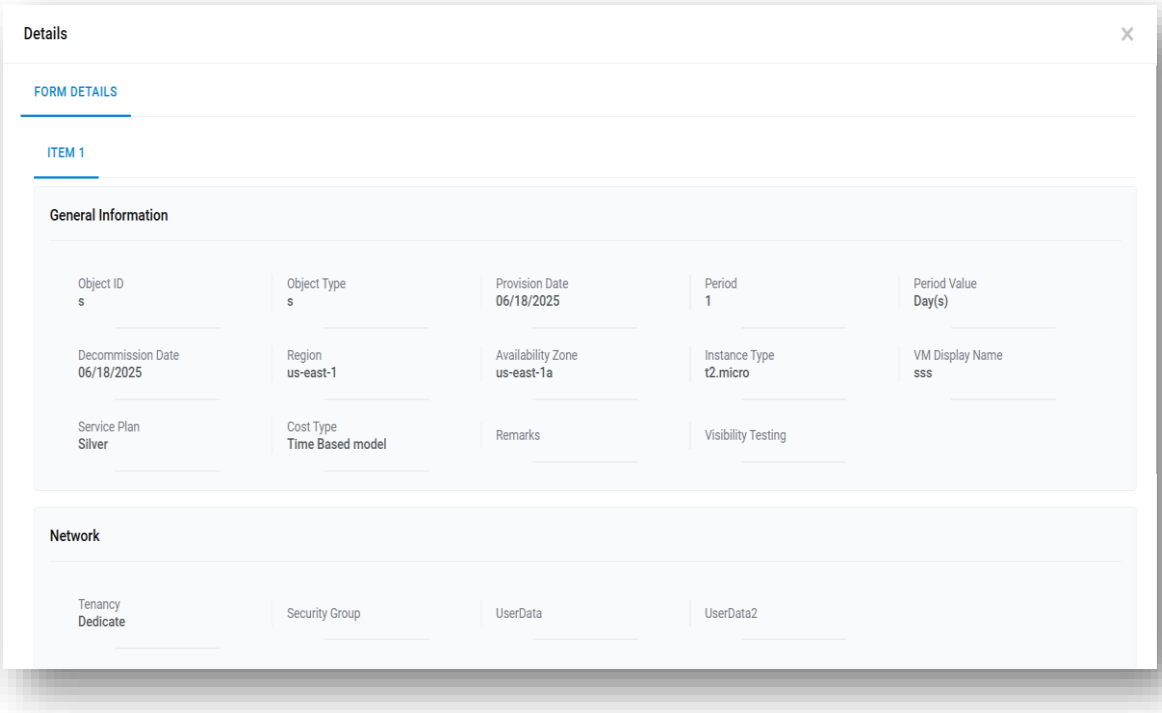


Figure 52 -Item Details (Cont.)

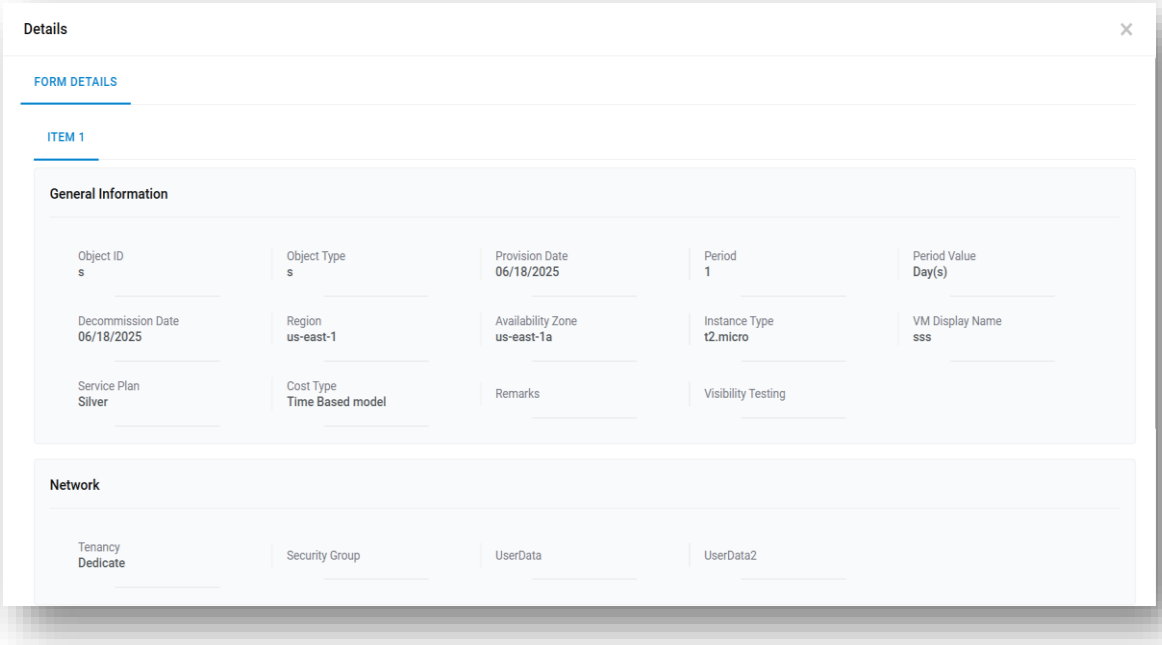


Figure 53 – Attachment

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

3.1.2.1.1.1.3 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.

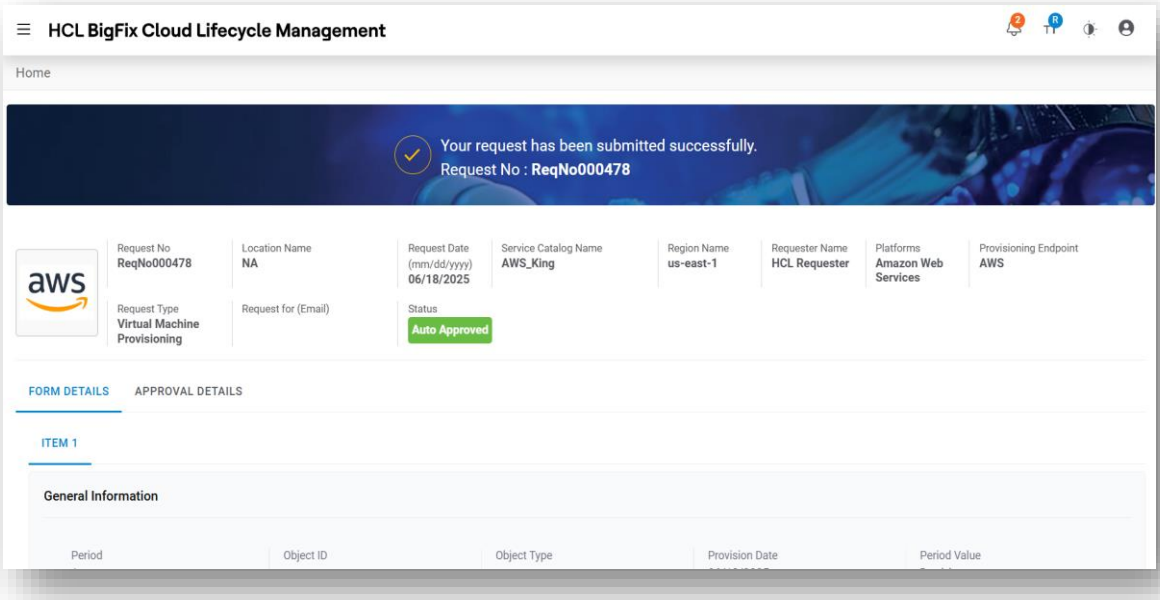


Figure 54 – Item Details (Architecture Diagram)

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.**

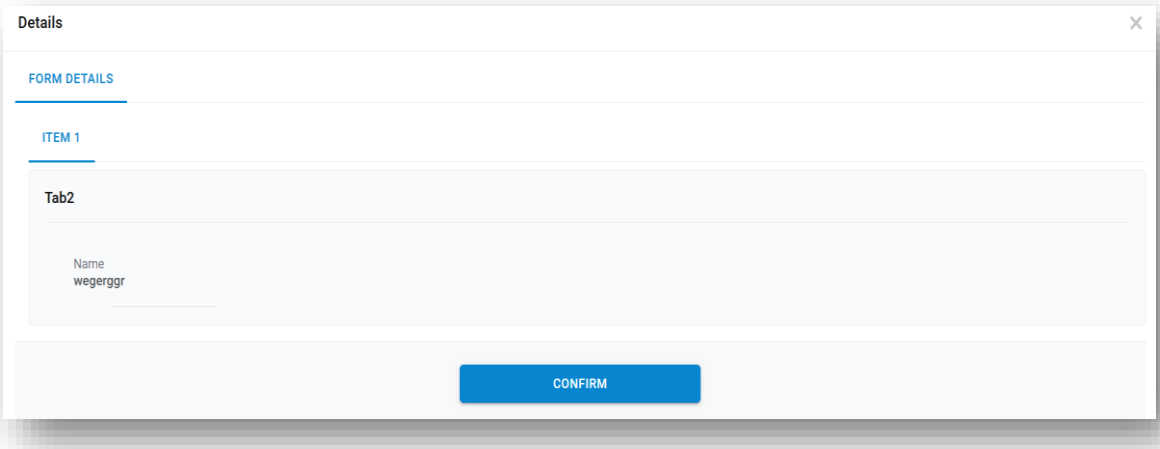


Figure 55 - Request Service Catalog (Cont.)

7. The order confirmation pop-up window appears.
8. Users can request a new service request by clicking **New Request.**
9. Click **Close** to close the pop-up window.

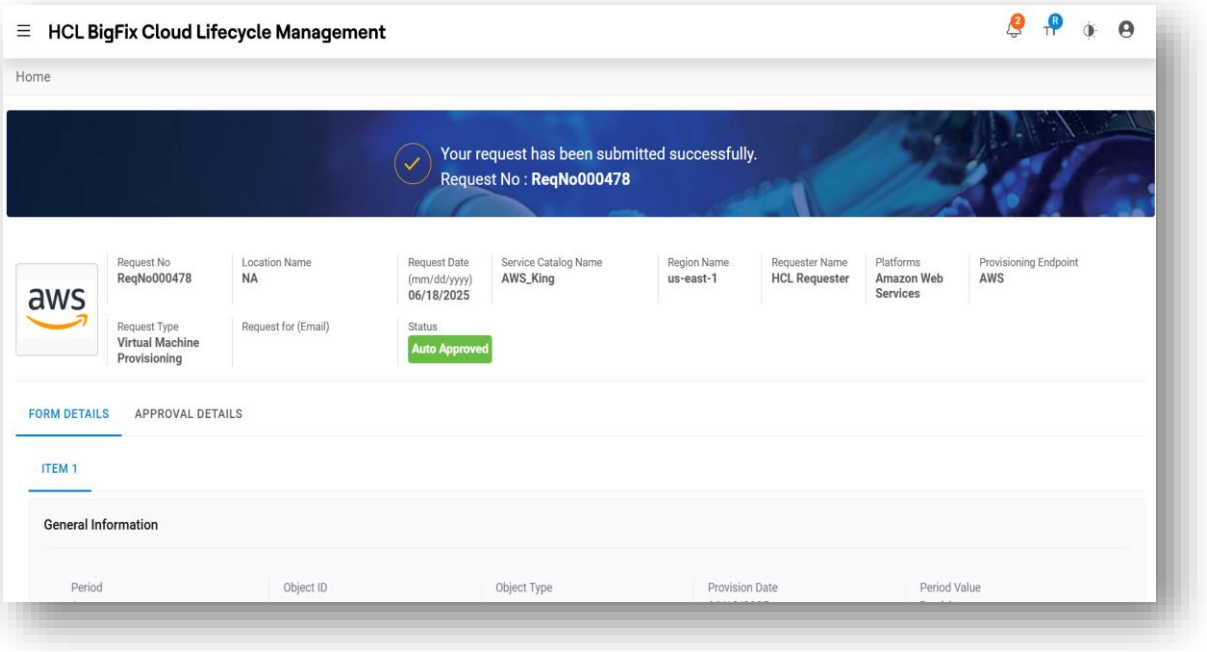


Figure 56 - Request Service Catalog (Cont.)

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

Table 16 – Approval History

Field	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 fields marked with an asterisk (*) are mandatory.

11. Requests are 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, the 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 enabled to Provider admin.

3. Select **Region.**
4. Region at which **Private DCs** would be located, and resources would be getting consumed.
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.**
7. Select the Number of Instances and click Proceed.

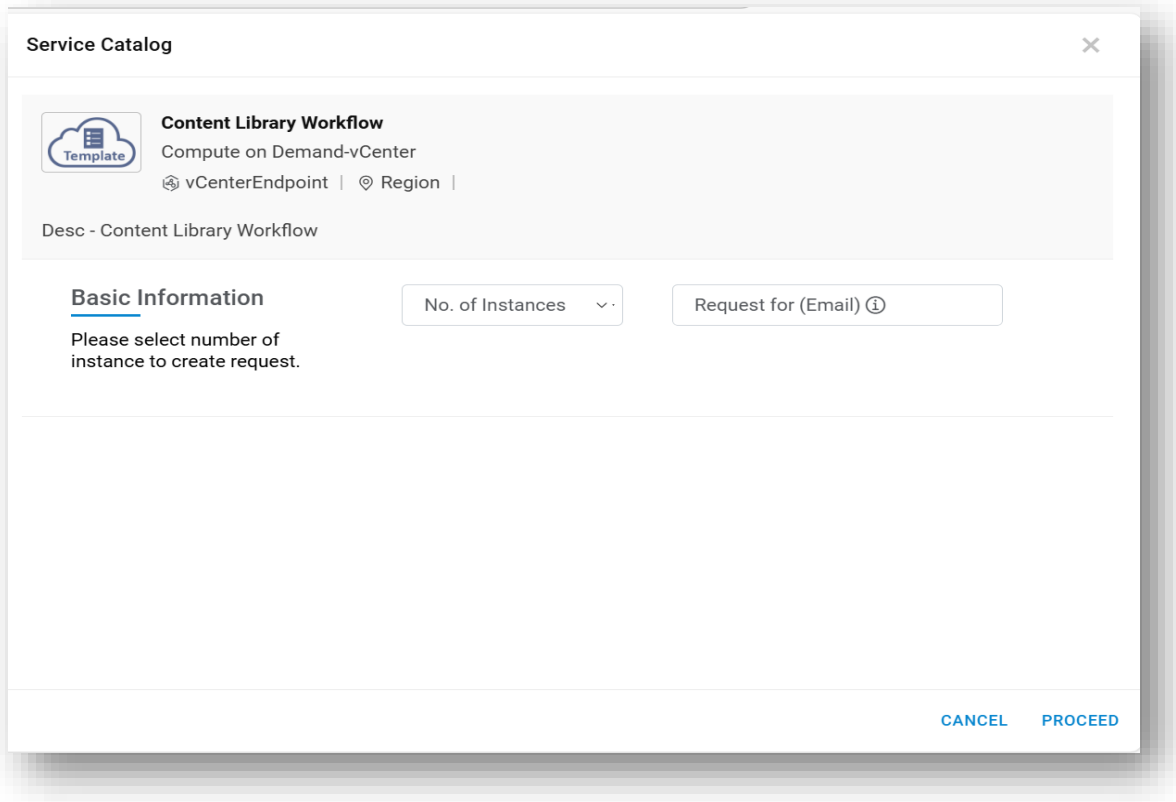


Figure 57 - Request Service Catalog (Cont.)

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 another. 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.

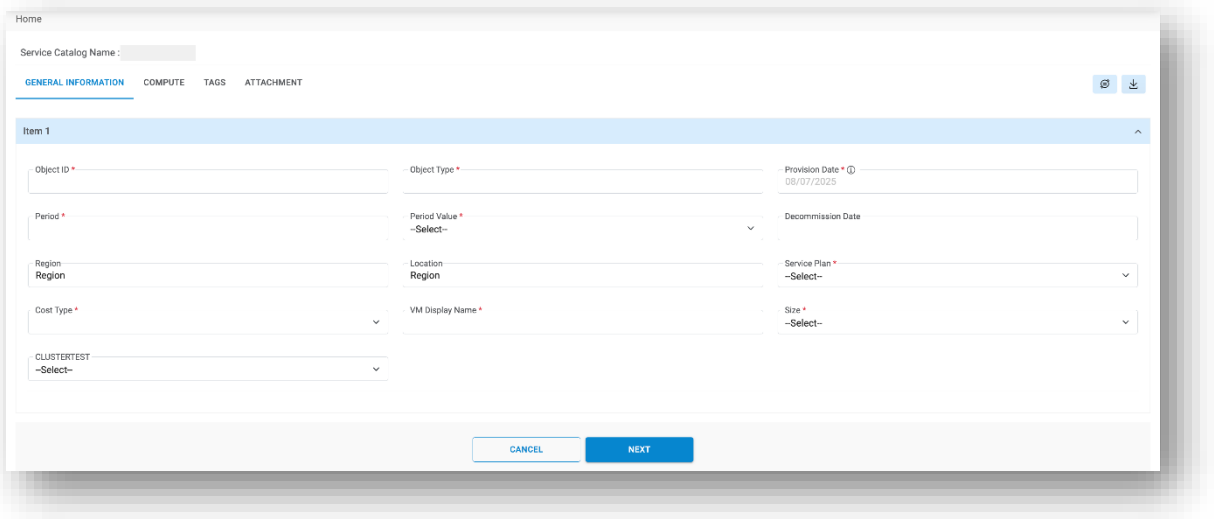


Figure 58 - Request Service Catalog (Cont.)

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

Table 17 – 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**.

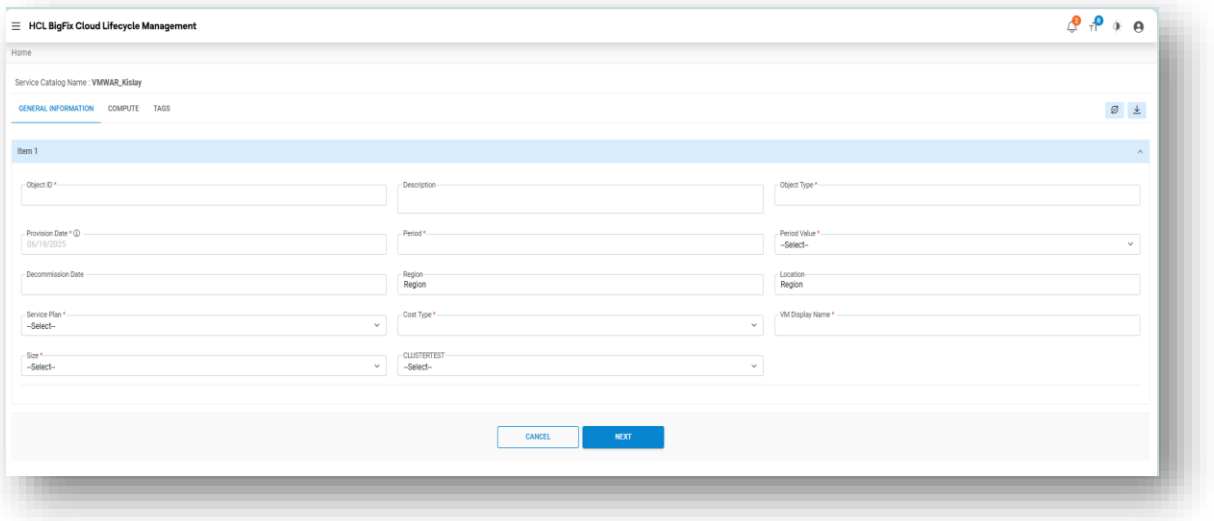


Figure 59 - Request Service Catalog (Cont.)

9. If a user has selected no. of instances, then the same no. of item information appears on the screen in the form of Item number (s).
10. Users need to provide 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 Next

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

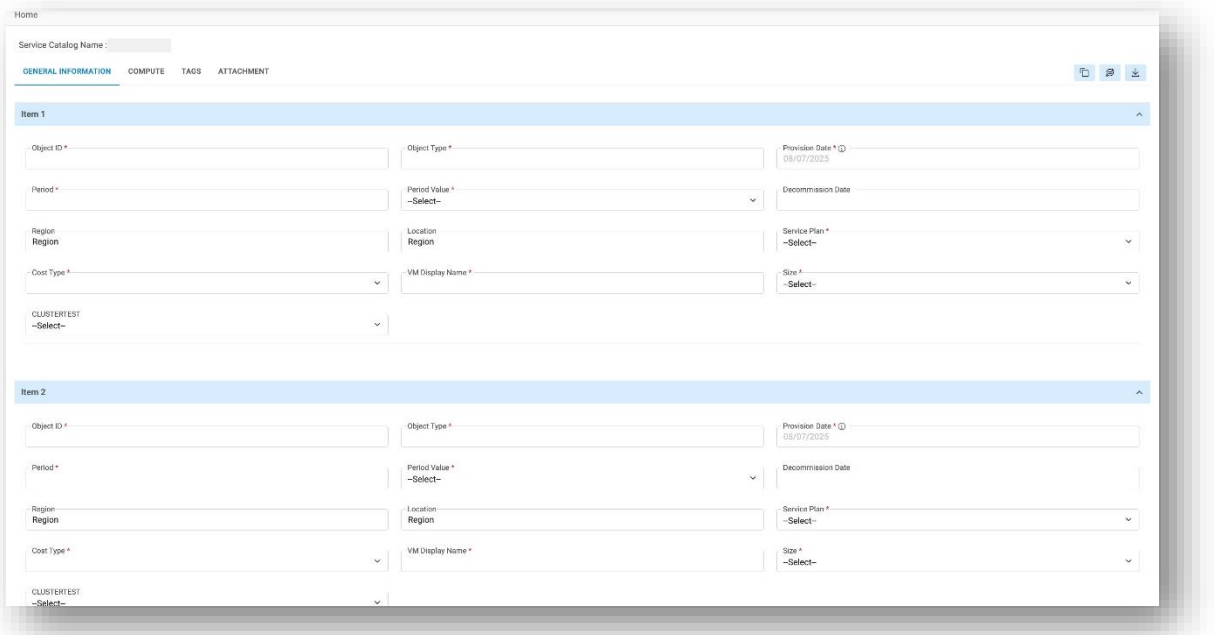


Figure 60 - Request Service Catalog (Cont.)

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**

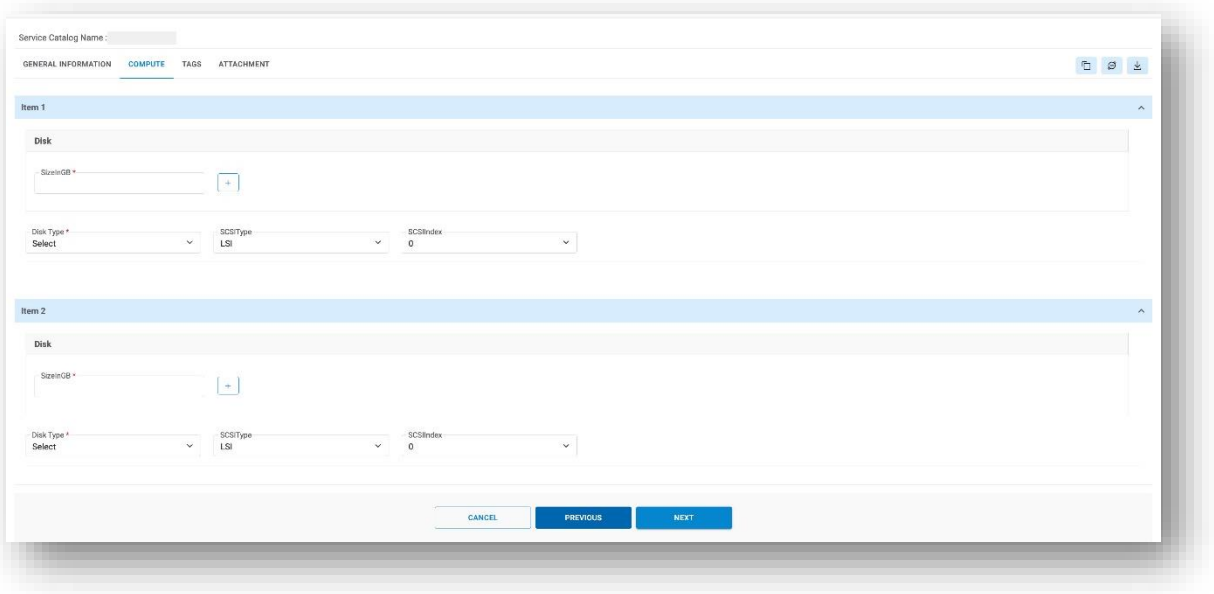


Figure 61 - Request Service Catalog (Cont.)

3. If a user has selected no. of instances, then the same no. of item information appears on the screen in the form of Item number(s)
4. Users need 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 Next
5. Once the form is filled, click **Submit.**
6. The **Order Summary** screen appears as shown in Figure 62 - Request Service Catalog (Cont.),
7. Scroll down and click **Confirm.**

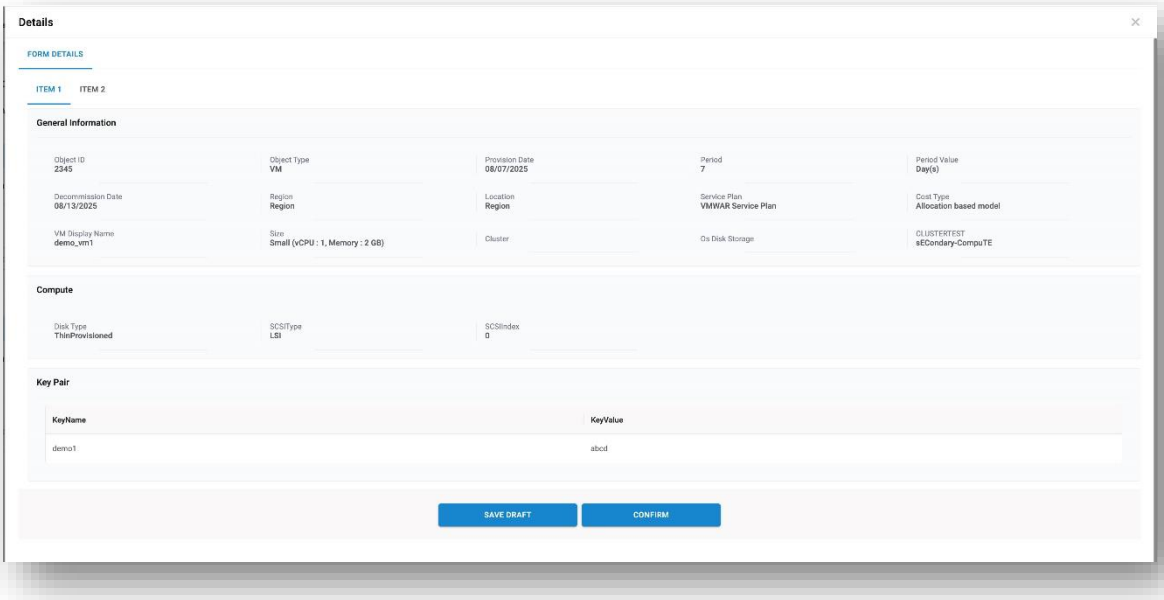


Figure 62 - Request Service Catalog (Cont.)

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

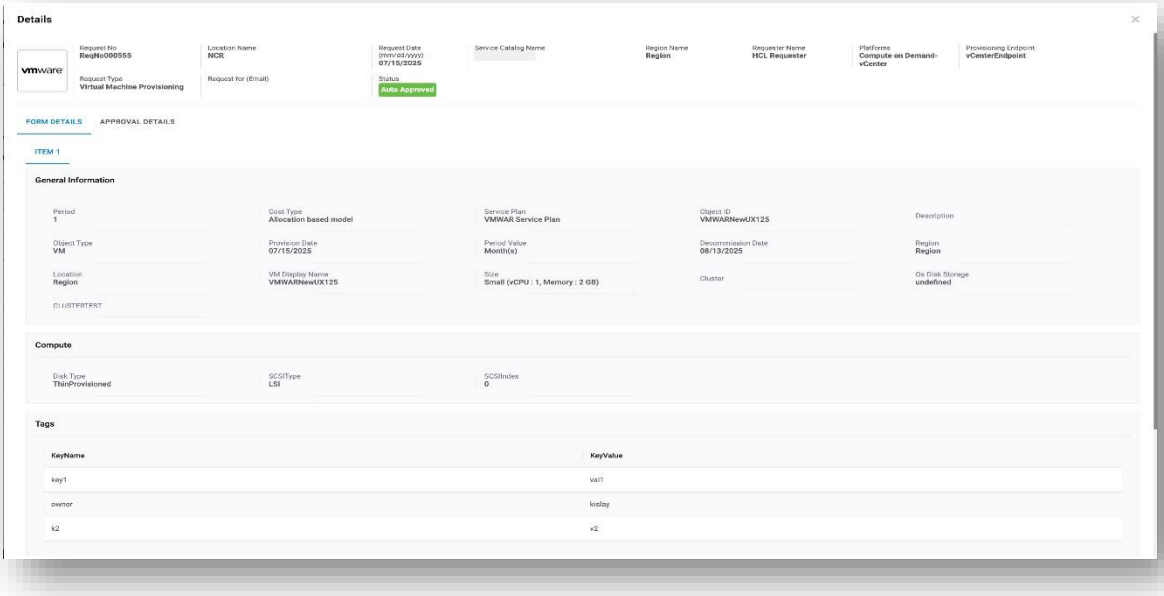


Figure 63 - Request Service Catalog (Cont.)

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.**

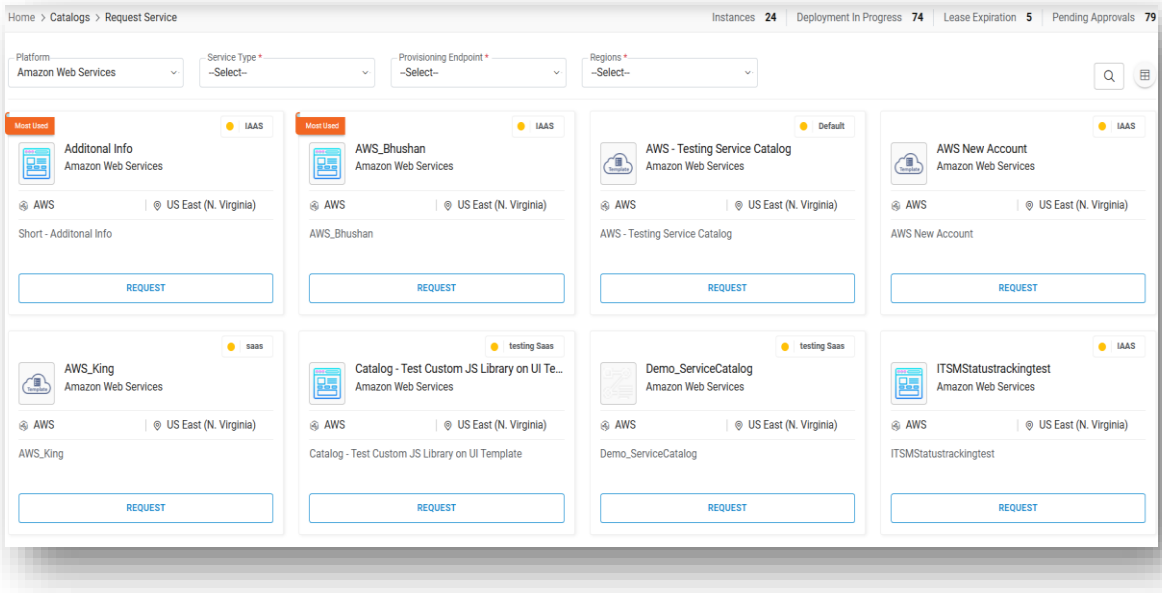


Figure 64 - Request Service Catalog (Cont.)

5. Select **number of Instance** required.
6. Click **Proceed**.

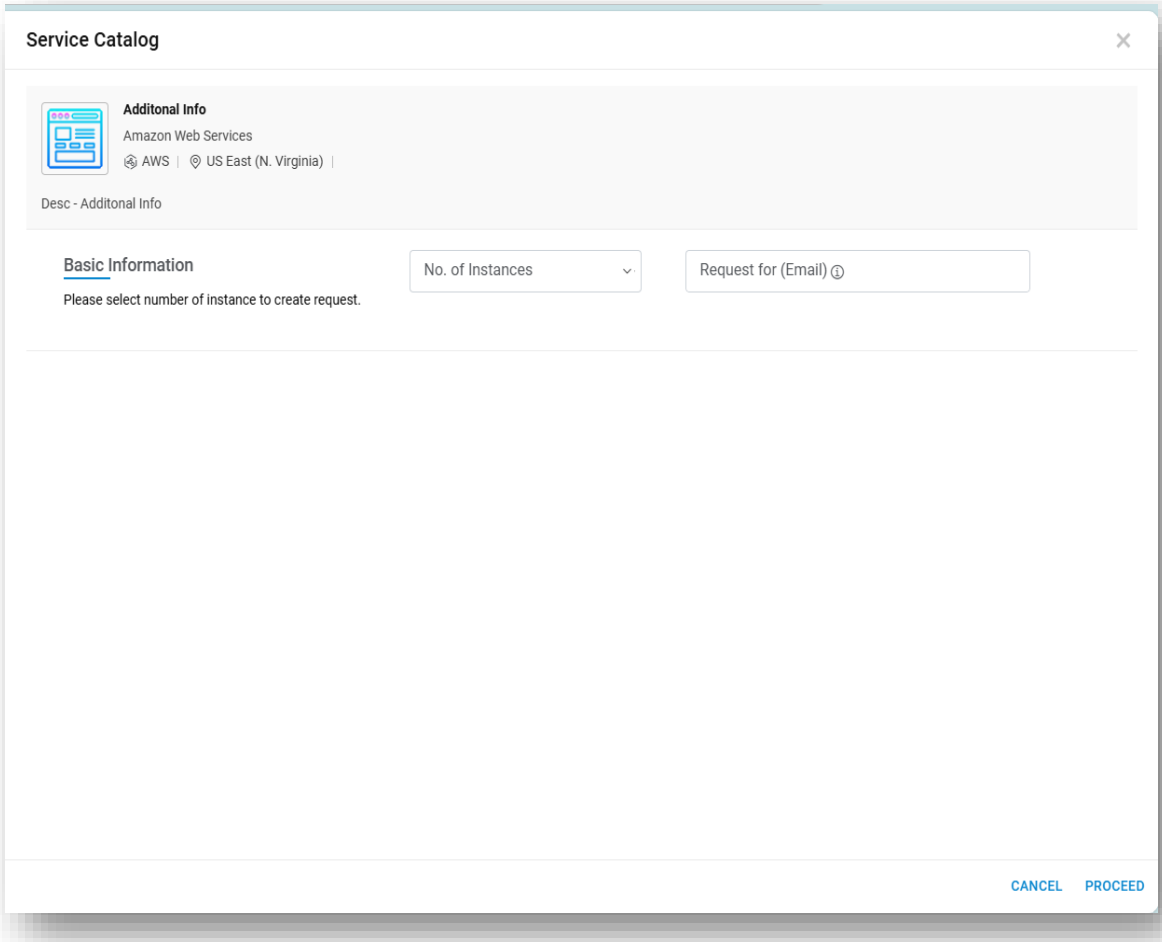


Figure 65 - Request Service Catalog (Cont.)

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.

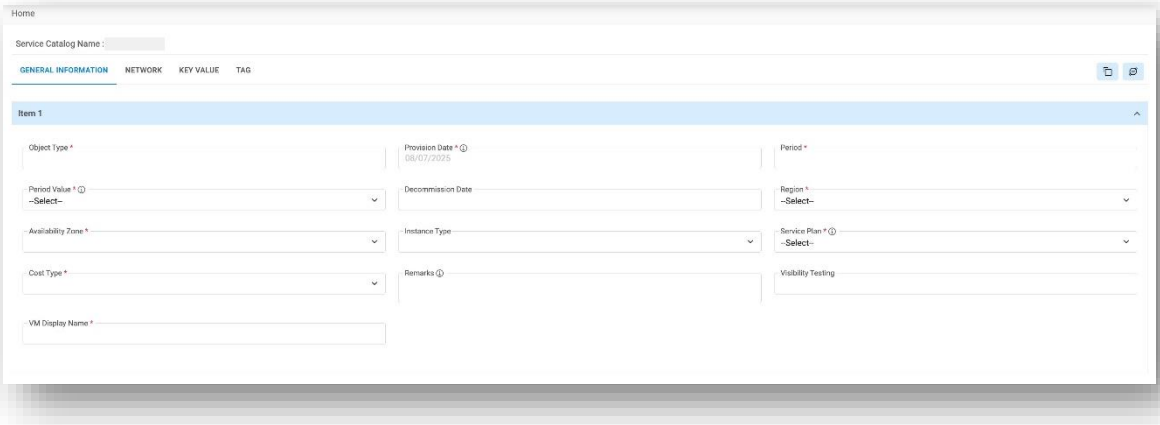


Figure 66 - Request Service Catalog

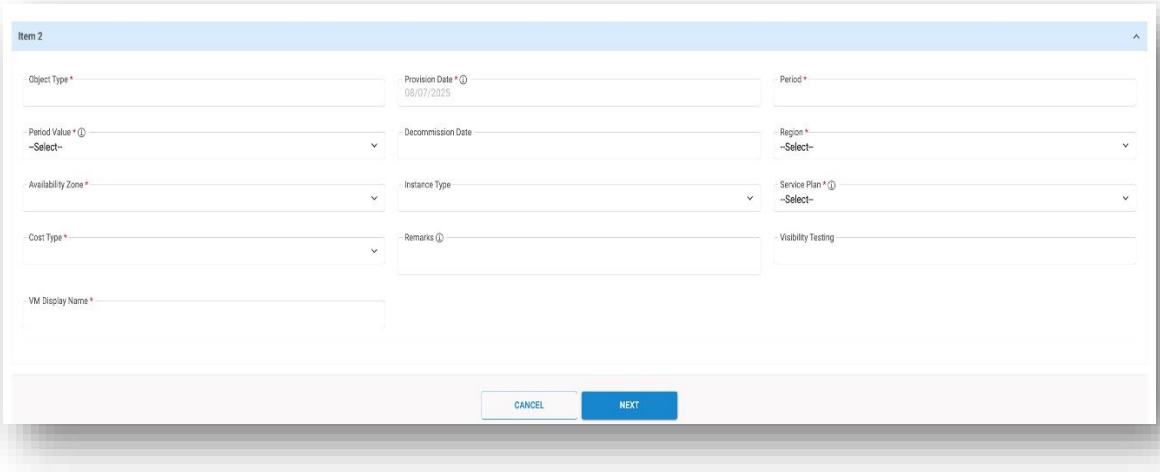


Figure 67 - Request Service Catalog (Cont.)

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

Table 18 - Request Service Catalog Fields

Fields	Description
Provision Date	The date on which the resource gets provisioned
Period	The time 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	Additional comments/ descriptions/ information, if any

Region and **Location** pre-populates based on the selection made on the previous screen as shown in the Figure 67 - Request Service Catalog (Cont.)

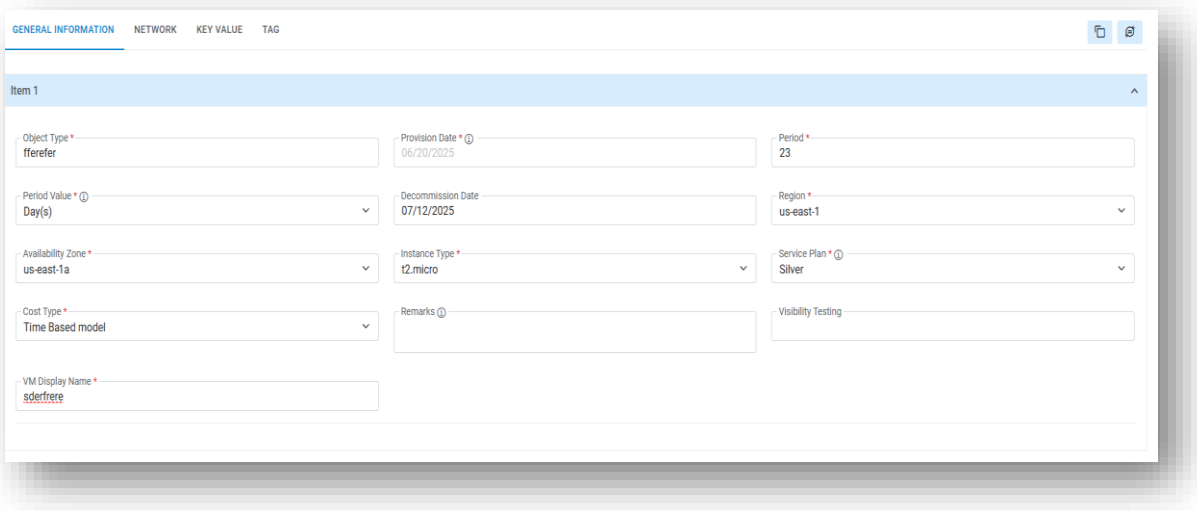


Figure 68 - Request Service Catalog (Cont.)

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 no. of instances, then the same no. of item information appears on the screen in the form of Item number(s).
9. Users need 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 Next
10. Once the form is filled, click on VPC.

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

3.1.2.1.1.1.2.2.2 Network

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

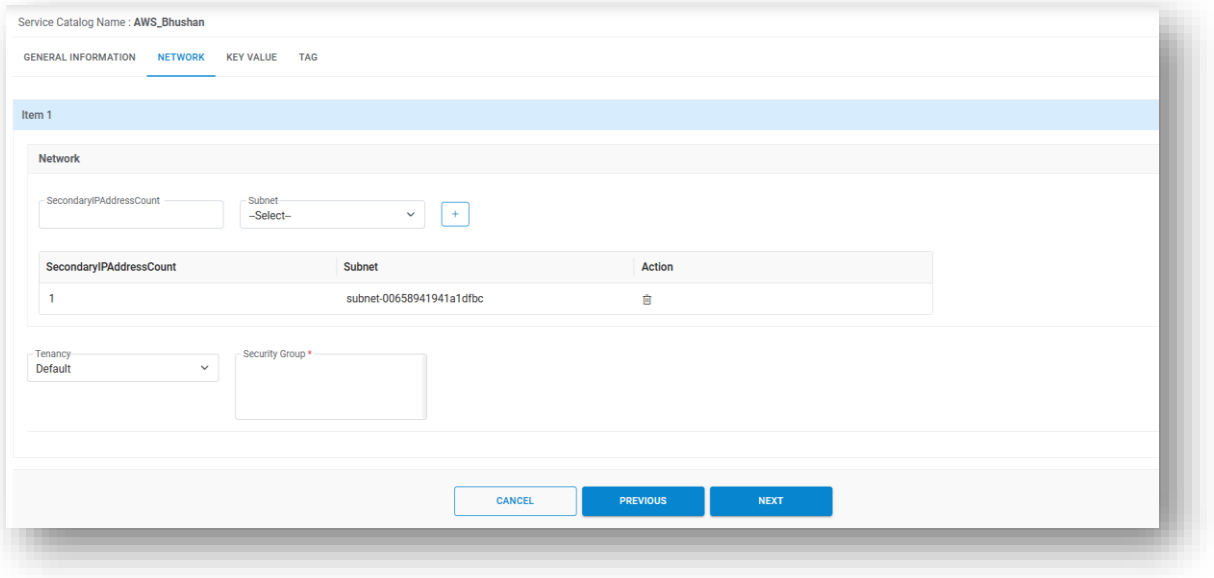


Figure 69 - Request Service Catalog (Cont.)

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

Table 19 - 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 appears 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. Users need 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 Next
4. Once the form is filled, then click General Details.

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

3.1.2.1.1.1.2.2.3 Key Value

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

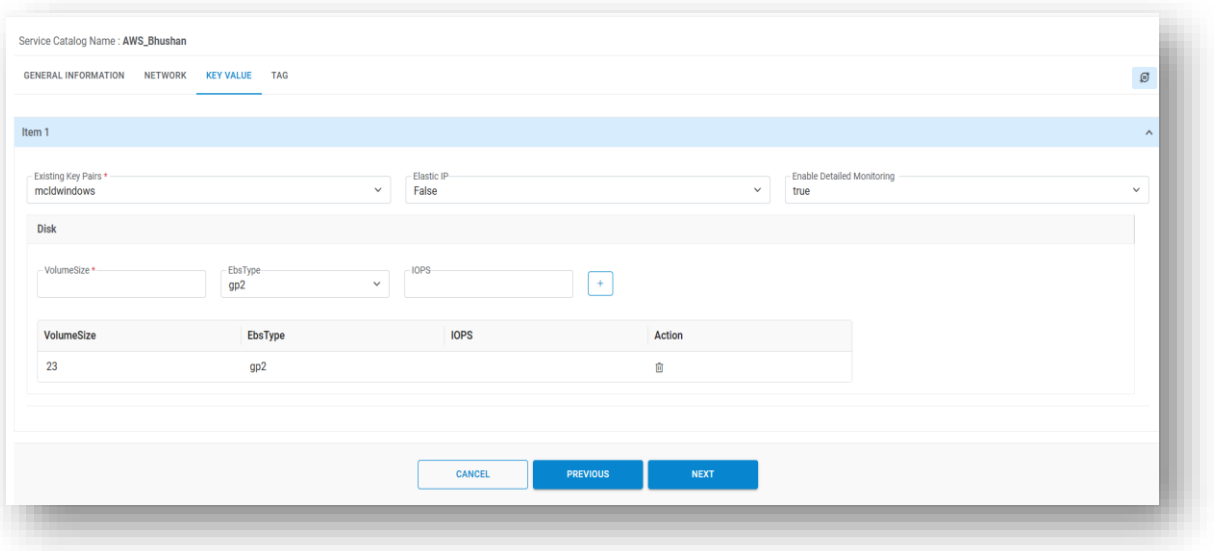


Figure 70 - Request Service Catalog (Cont.)

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

Table 20 - 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.
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. Users need 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 Next.

3.1.2.1.1.1.2.2.4 Tags

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

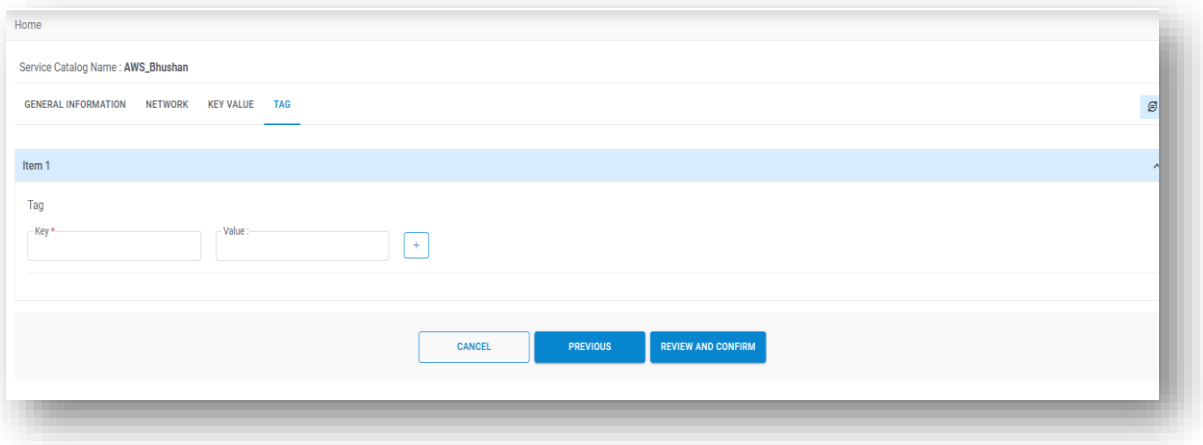


Figure 71 - Request Service Catalog (Cont.)

1. Enter **Key** and value 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 on the screen.

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

6. Click **Confirm**.

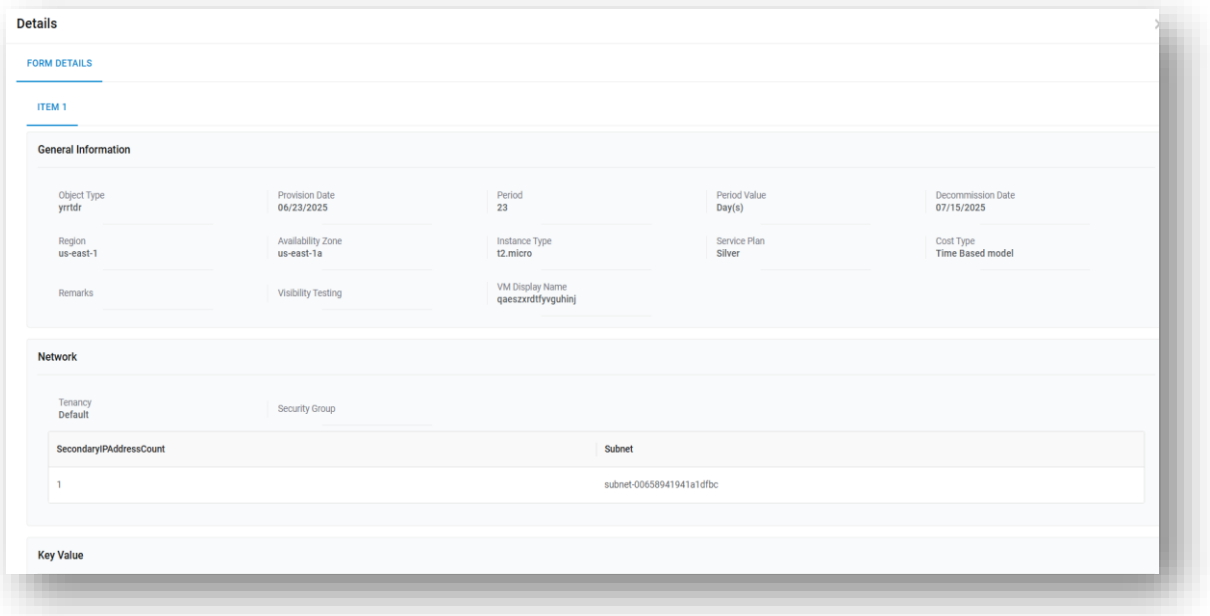


Figure 72 - Request Service Catalog (Cont.)

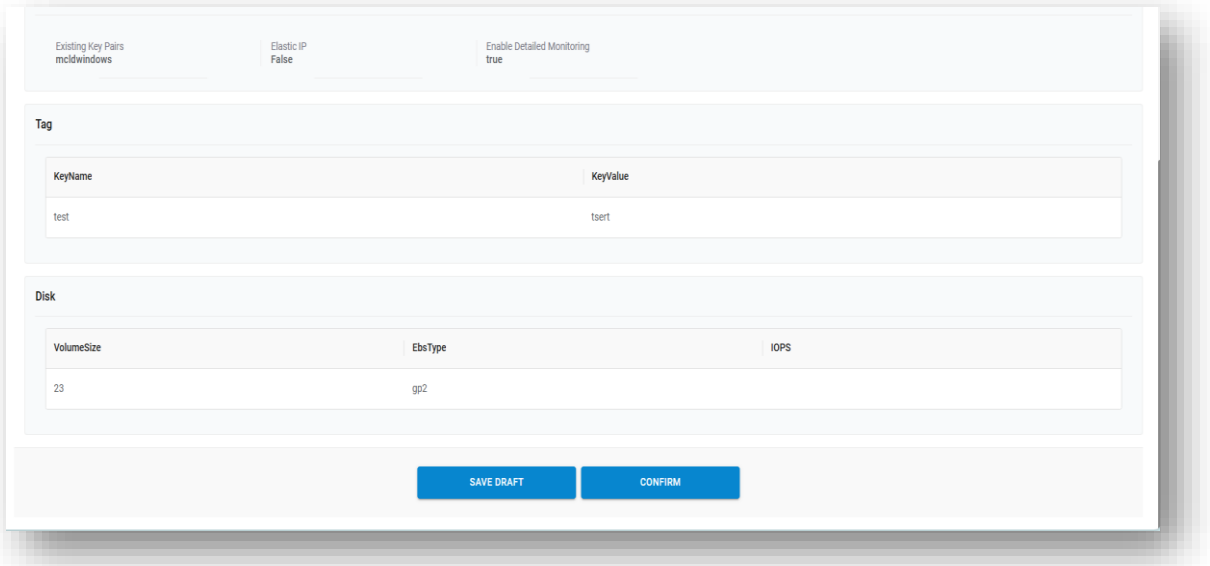


Figure 73 - Request Service Catalog (Cont.)

7. The order confirmation window appears on the screen.
8. Users can request a new service request by clicking **New Request**.
9. Click **Close** to close the pop-up window.

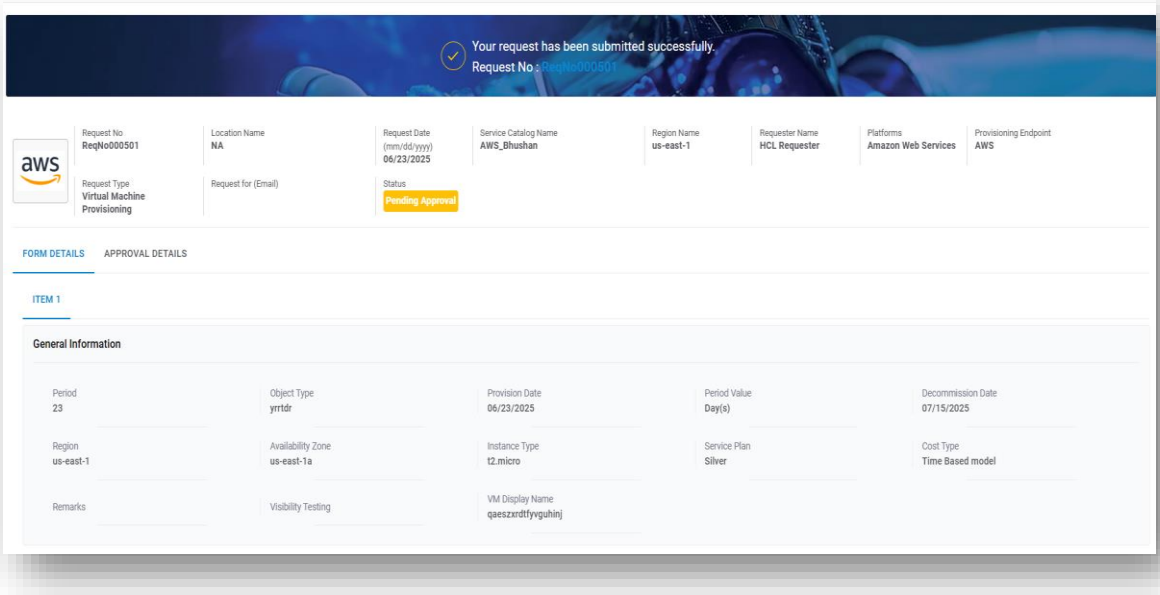


Figure 74 - Request Service Catalog (Cont.)

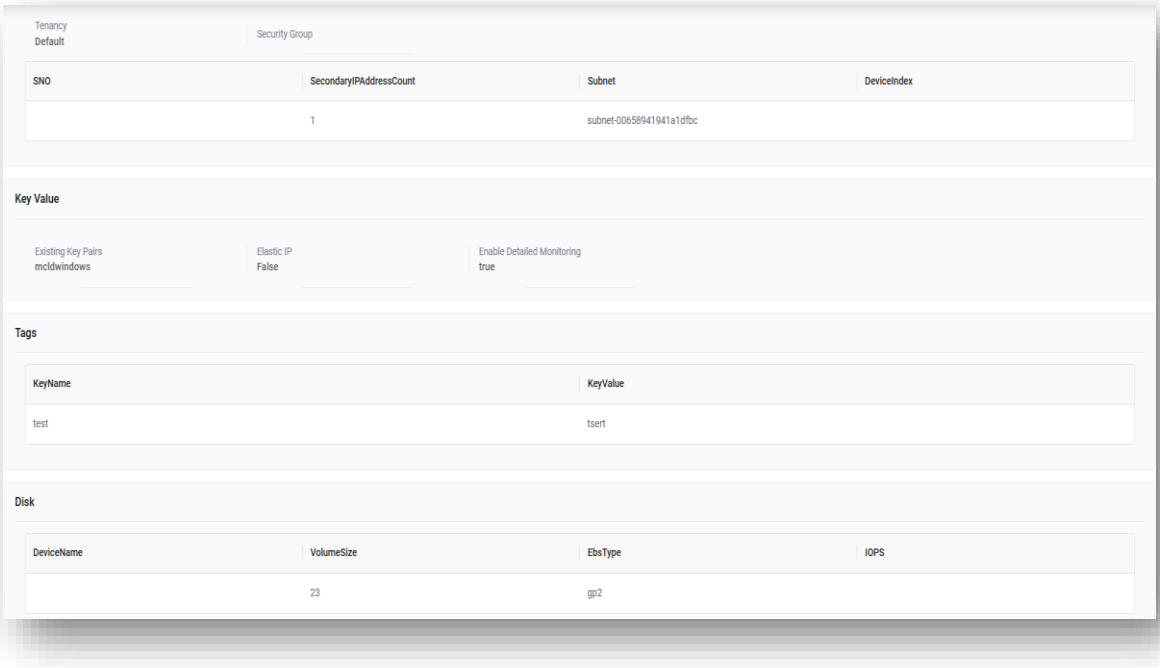


Figure 75 – Request Service Catalog (Cont.)

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

Table 21 – 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	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 enabled to Provider admin.
2. Select **Region**.
3. Select **Service** from All Services option on the left pane. (All Services options include all the services given in the other catalog).
4. Click **Request**.

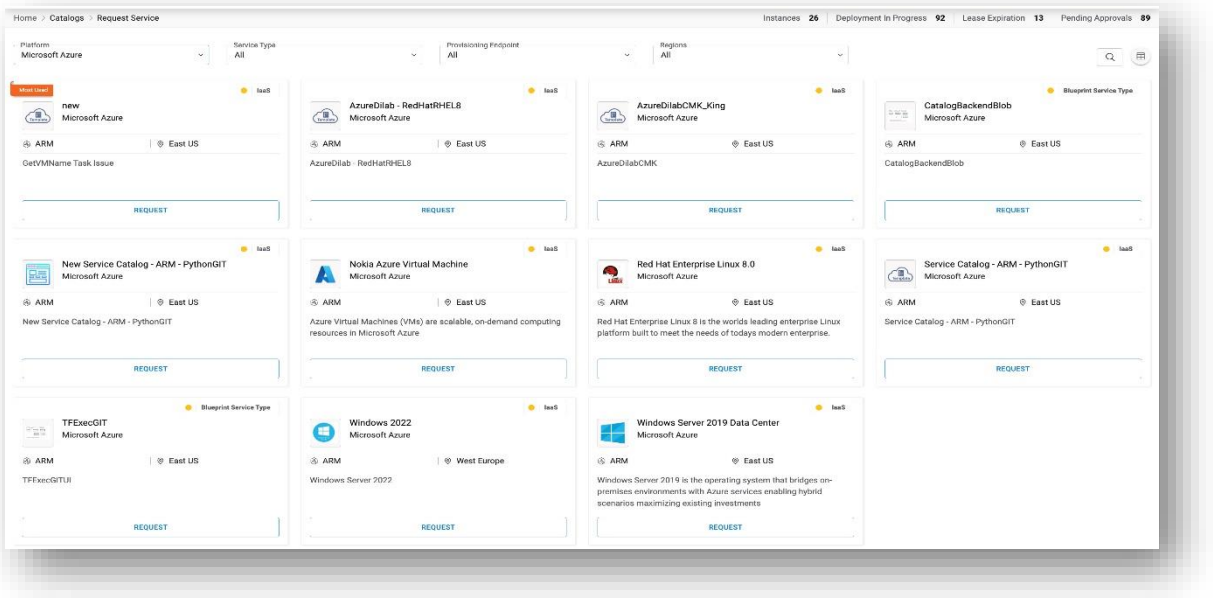


Figure 76 - Request Service Catalog (Cont.)

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

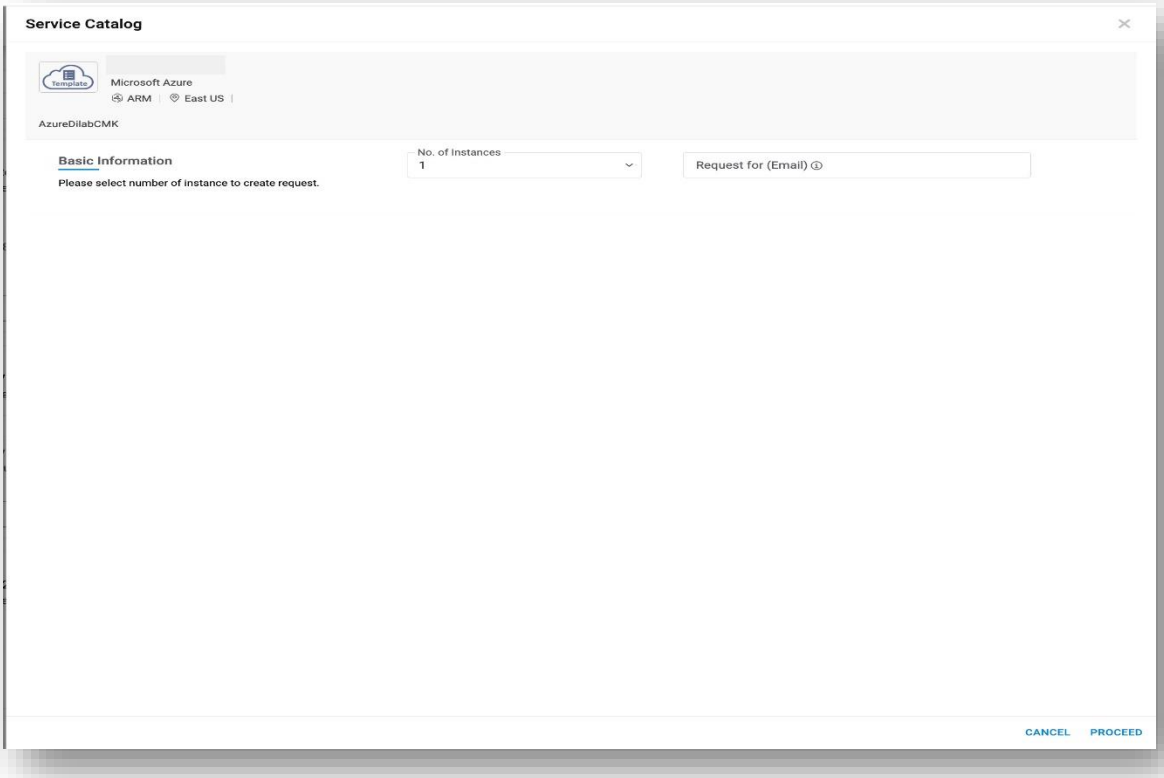


Figure 77 - Request Service Catalog (Cont.)

6. The Request Service Catalog form appears. The form is categorized into four categories:
   - General Information
   - Instance Details
   - Additional Storage
   - Tags

3.1.2.1.1.1.2.3.1 General Information

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.

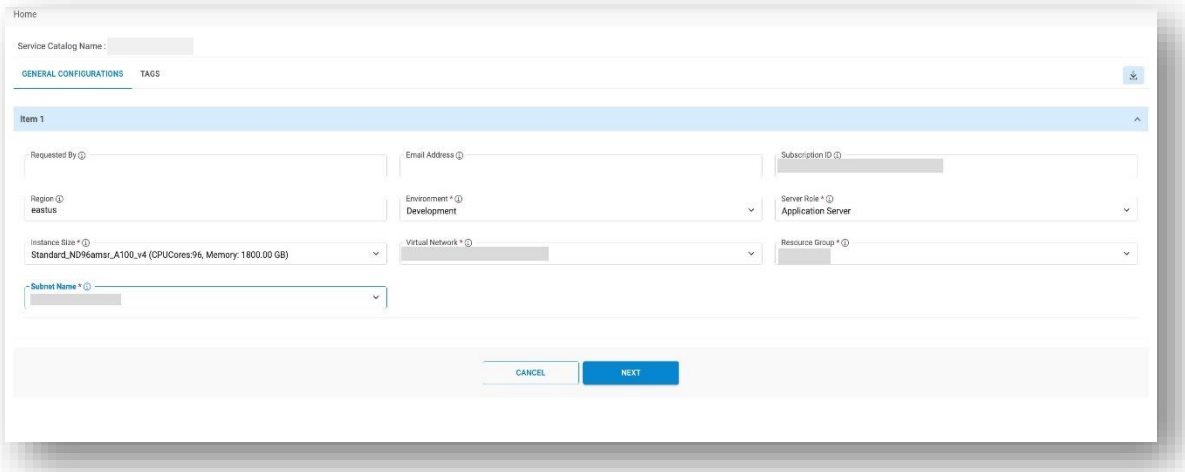


Figure 78 - Request Service Catalog (Cont.)

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

Table 22 - Request Service Catalog: Azure General Information Fields

Fields	Description
Provision Date	The date on which a resource gets provisioned
Period	The time 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 the **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. Users need 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 Next.
11. Once the form is filled, then click Instance details.

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

3.1.2.1.1.2.3.2 Tags

To add Tags, users need to follow the below-mentioned steps:

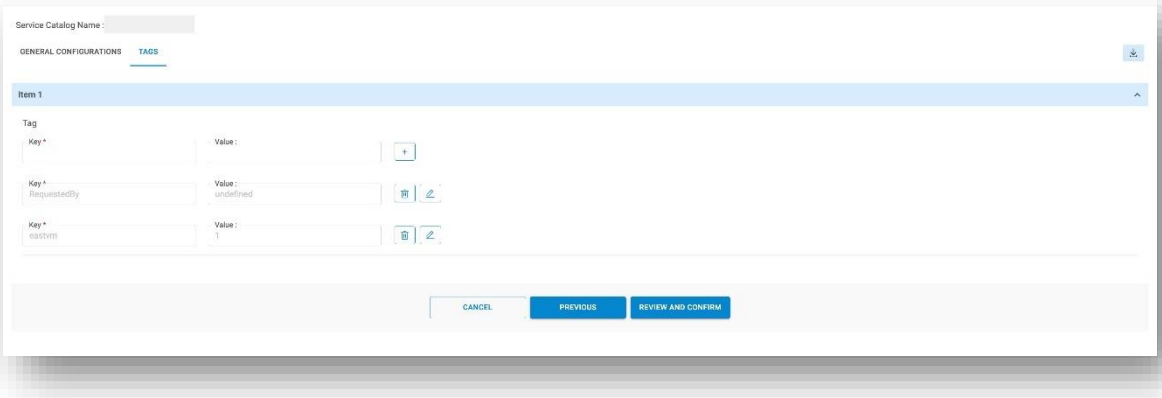


Figure 79 - Request Service Catalog (Cont.)

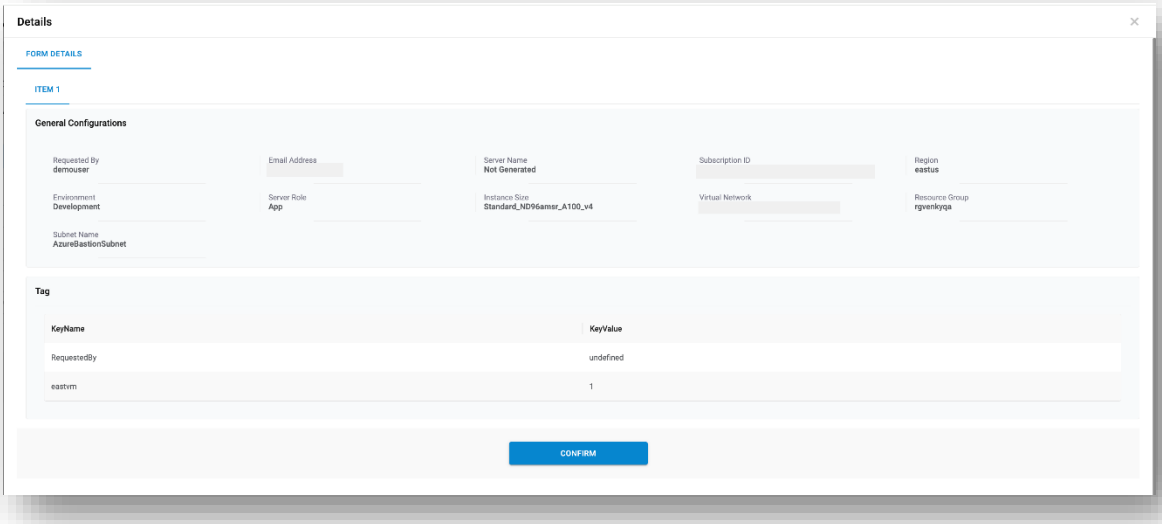


Figure 80 - Request Service Catalog (Cont.)

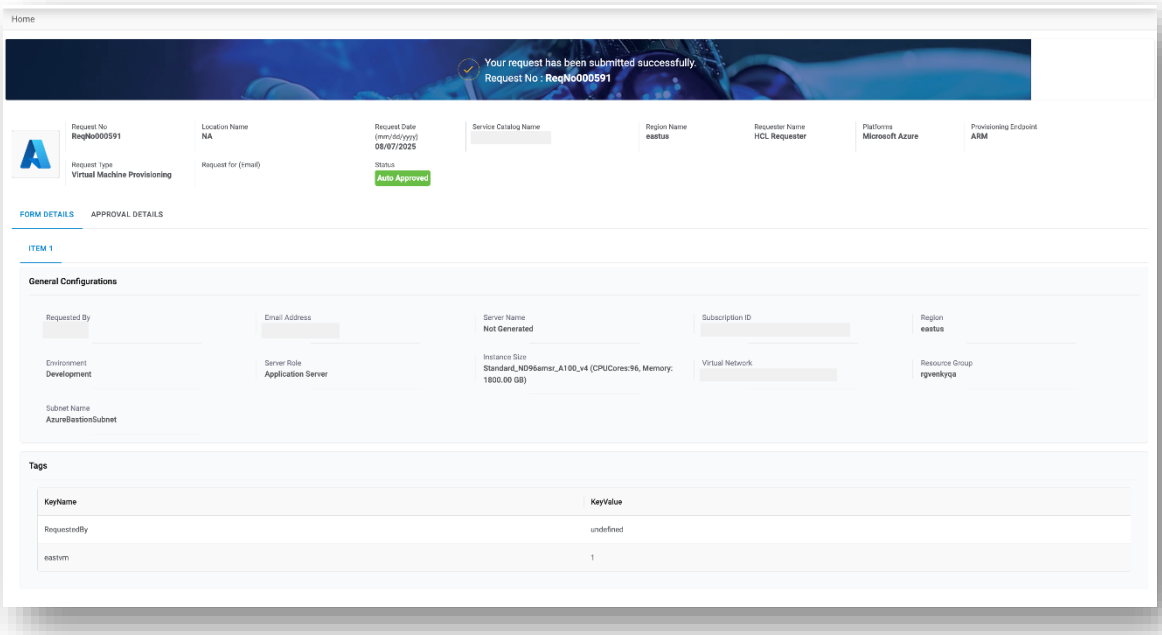


Figure 81 - Request Service Catalog (Cont.)

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**.

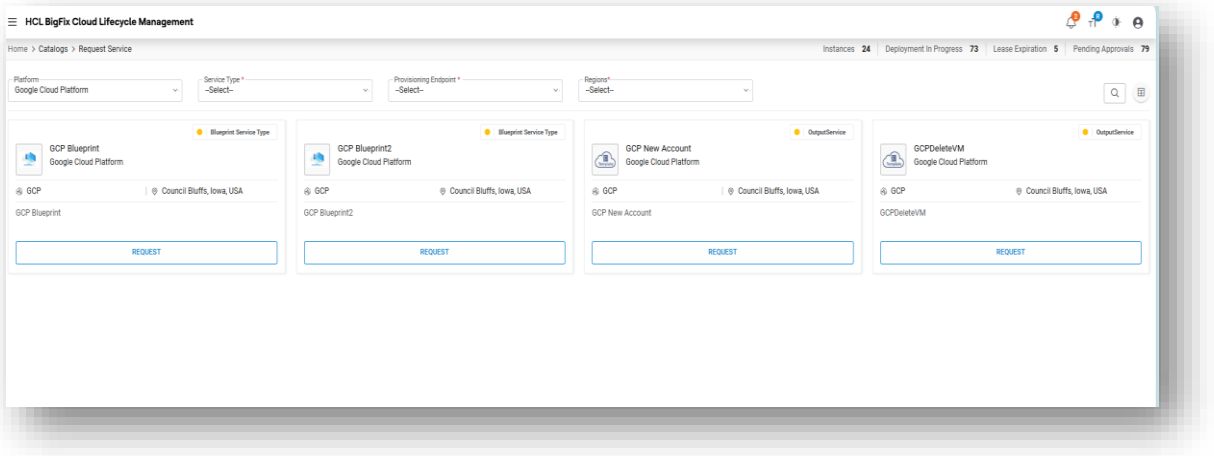


Figure 82 - Request Service Catalog (Cont.)

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

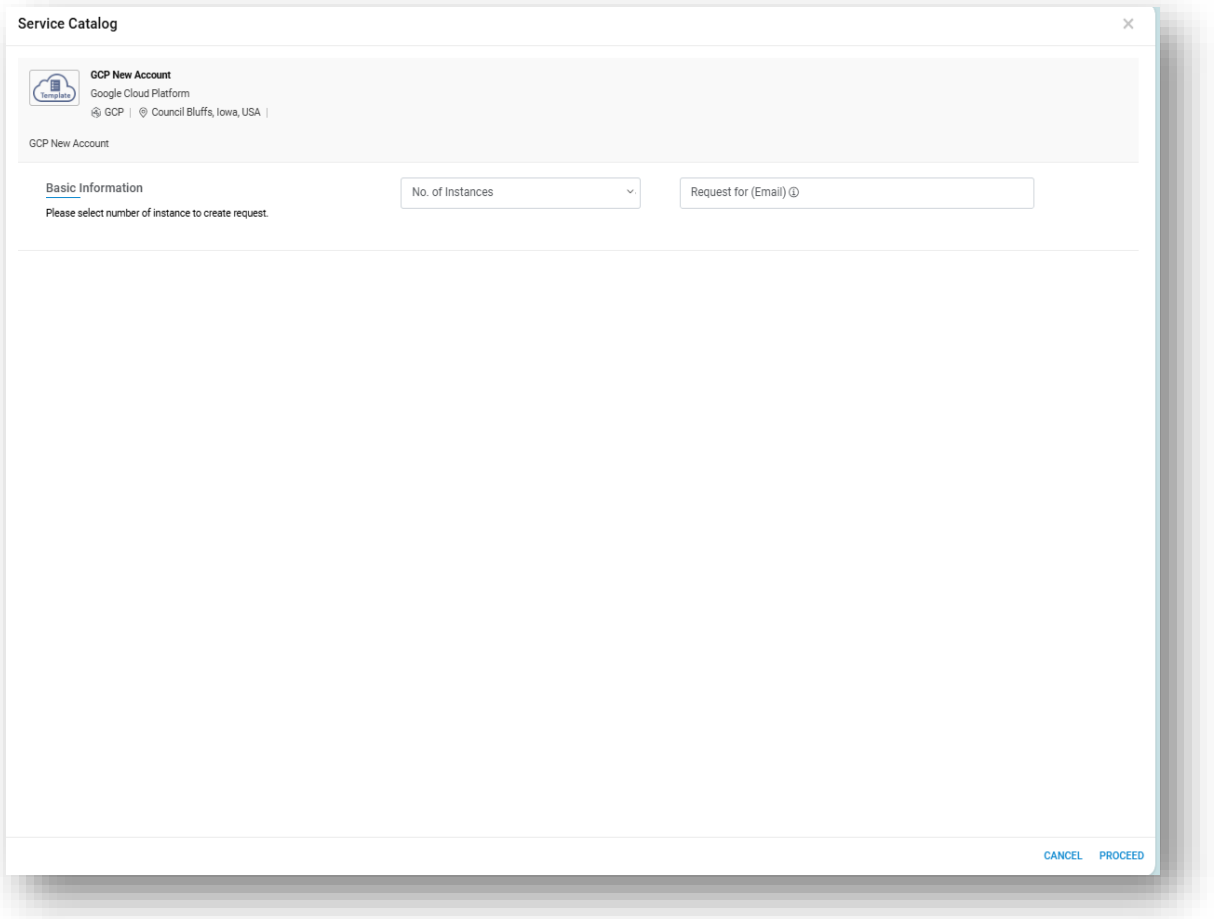


Figure 83 - Request Service Catalog (Cont.)

5. The request service catalog form appears. The form is categorized into three categories:
   - General
   - Additional Storage
   - Tags

3.1.2.1.1.1.2.4.1 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.

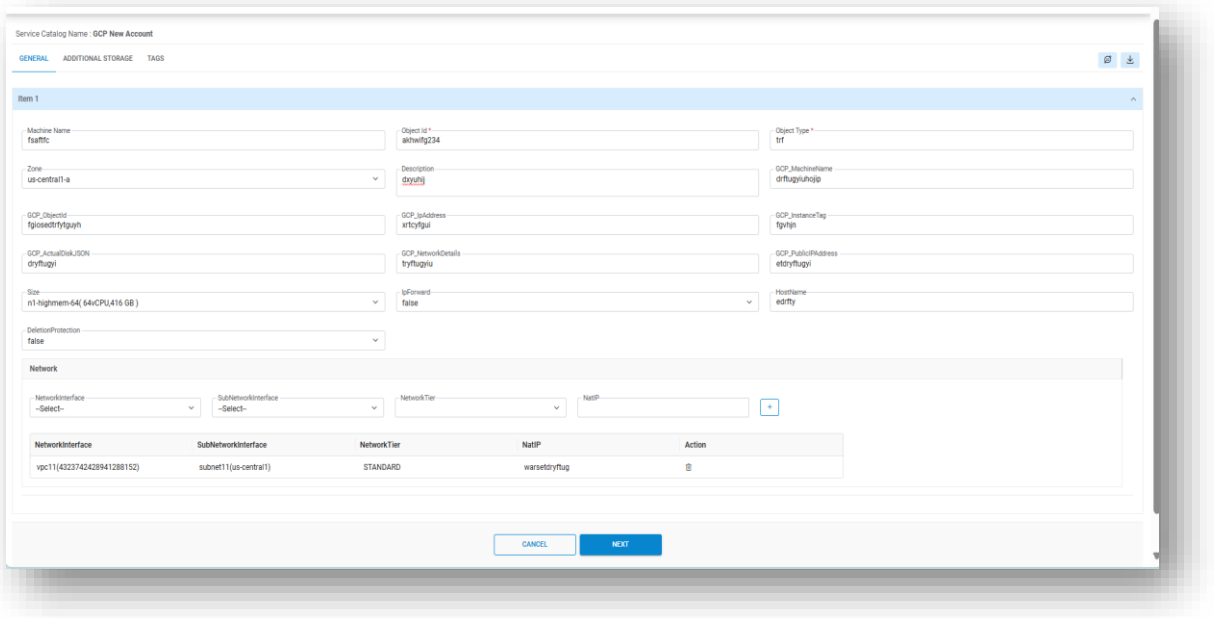


Figure 84 - Request Service Catalog (Cont.)

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

Table 23 - Request Service Catalog: GCP General Fields

Fields	Description
Machine Name	The name which is used to provision the machine
Zone	The zone where machines are 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. Users need 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 Next
11. Once the form is filled, then click Additional Storage.

All the fields marked with an asterisk (*) are mandatory and UI fields vary 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, users need to follow the below-mentioned 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.

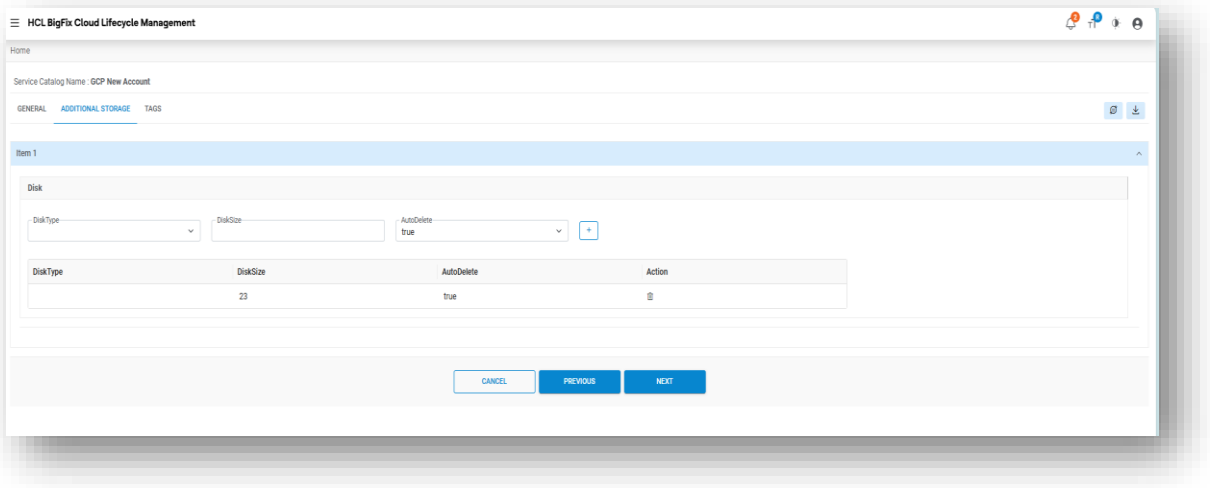


Figure 85 - Request Service Catalog (Cont.)

3.1.2.1.1.1.2.4.3 Tags

To add Tags, users need to follow the following steps:

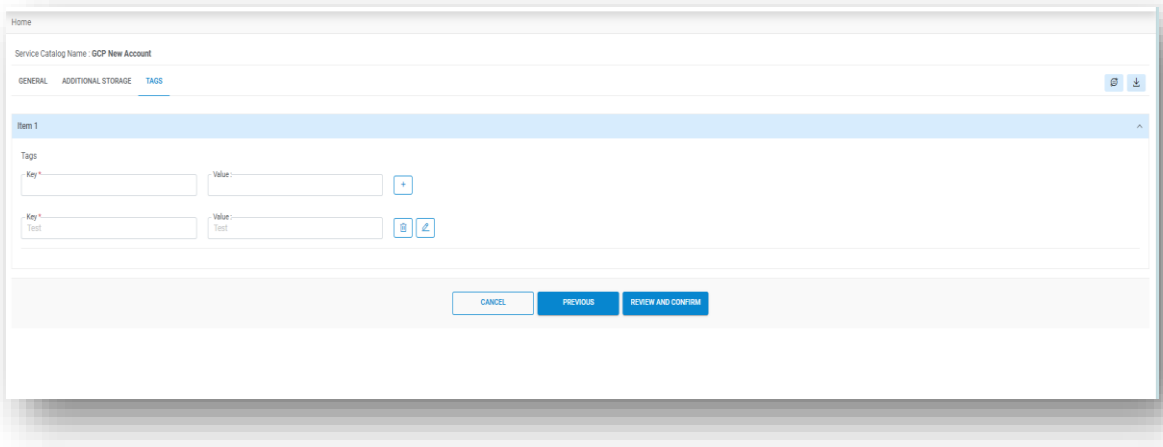


Figure 86 - Request Service Catalog (Cont.)

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.**

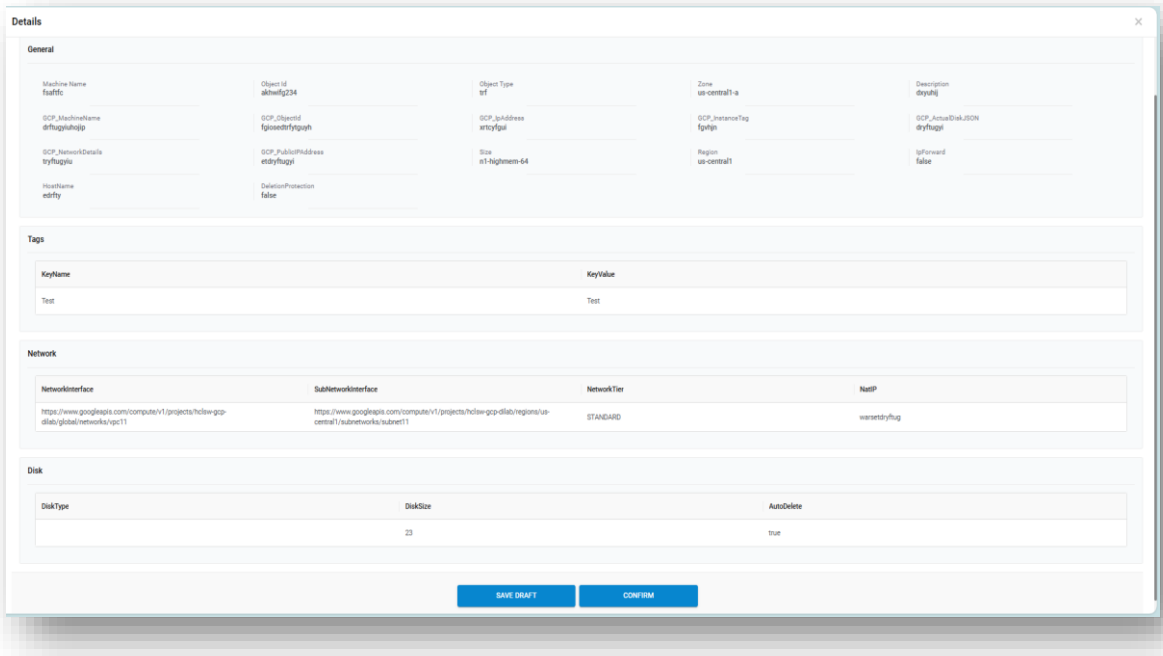


Figure 87 - Request Service Catalog (Cont.)

7. The order confirmation pop-up window appears.
8. Users can request a new service request by clicking **New Request.**
9. Click **Close** to close the pop-up window.

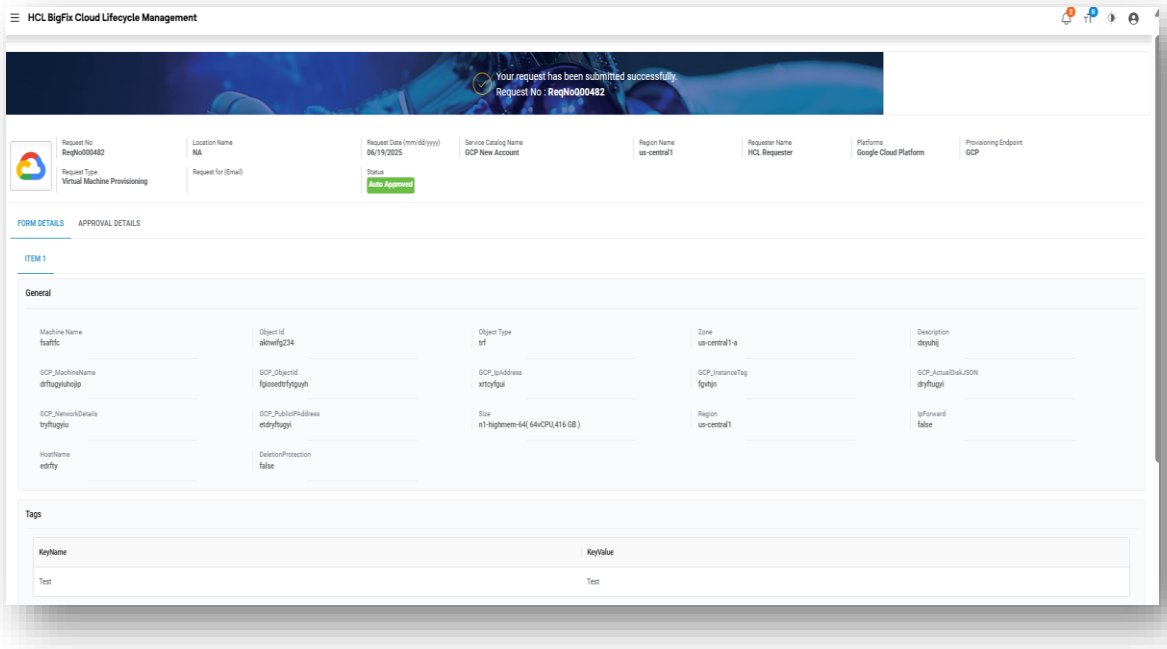


Figure 88 - Request Service Catalog (Cont.)

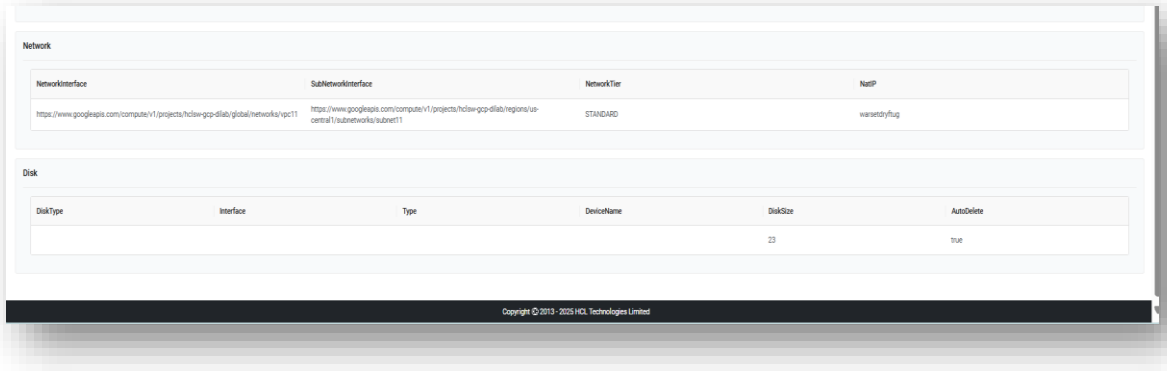


Figure 89 - Request Service Catalog (Cont.)

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

Table 24 – 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 fields marked with an asterisk (*) are mandatory.

3.1.2.1.1.1.2.5 HyperV 2012

To proceed with service requests that HyperV 2012 have 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**.

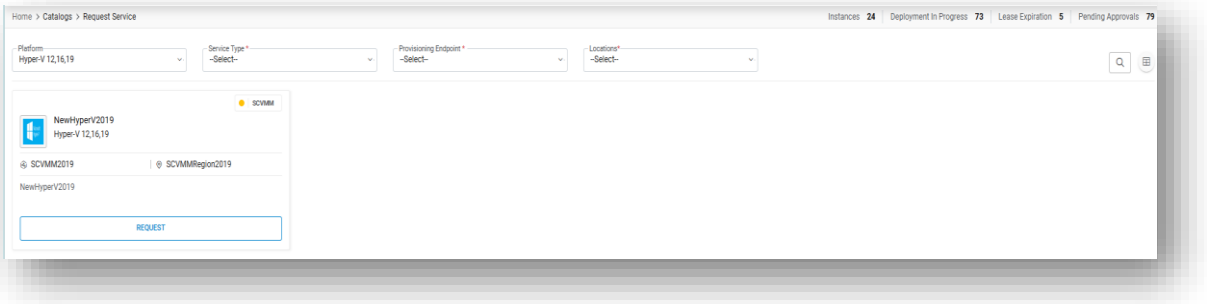


Figure 90 -Request Service Catalog (Cont.)

4. Select the number of Instances and click **Proceed**.

3.1.2.1.1.1.2.5.1 General Information

This tab allows the user to manage the general configuration.

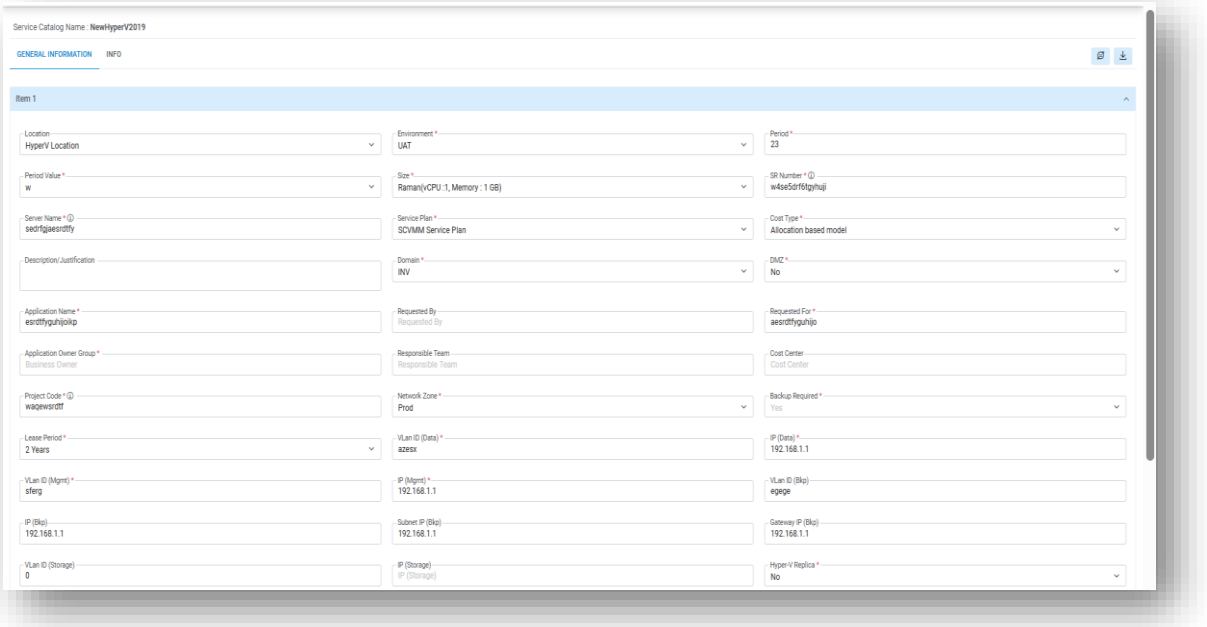


Figure 91 - Request Service Catalog (Cont.)

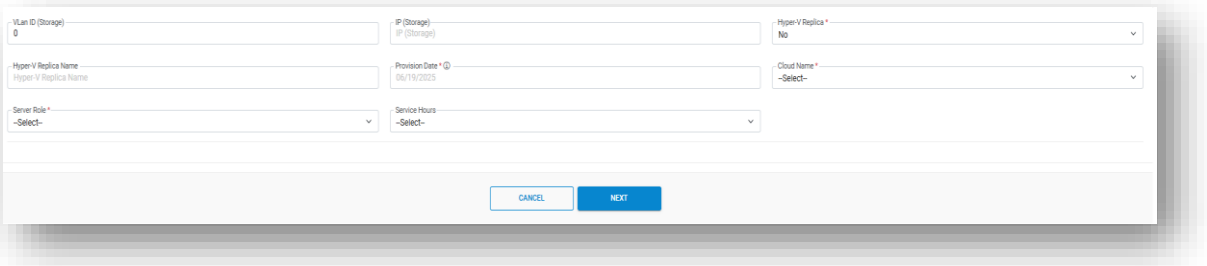


Figure 92 - Request Service Catalog (Cont.)

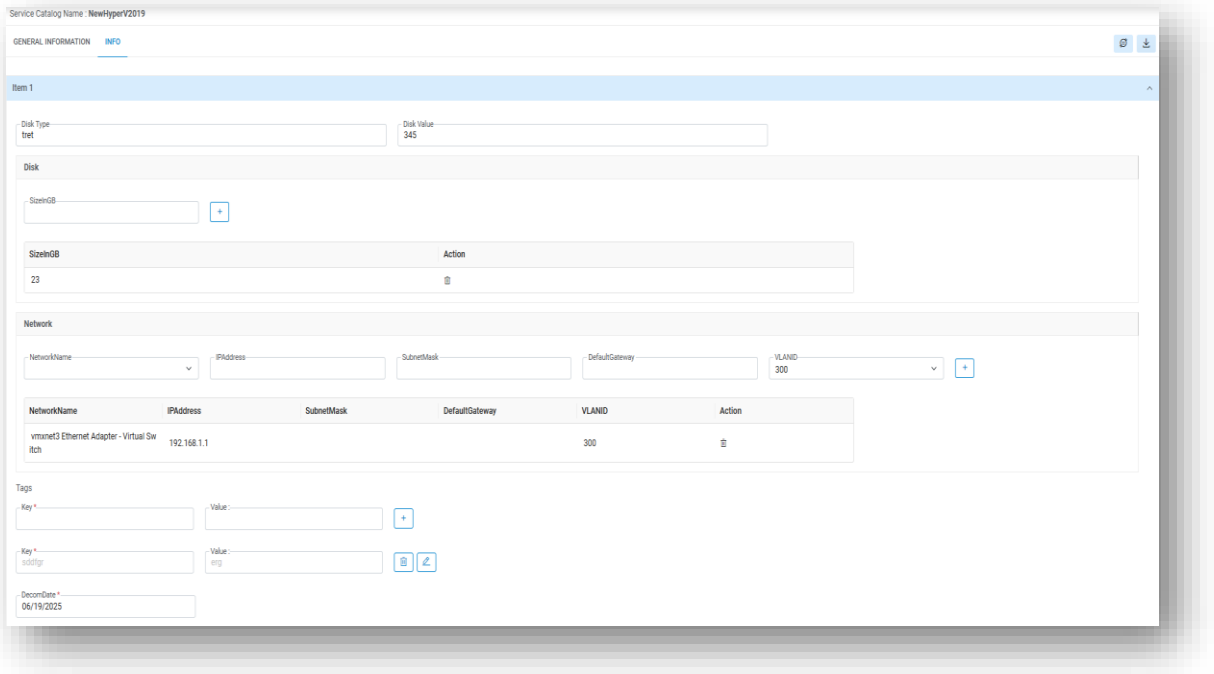


Figure 93 - Request Service Catalog (Cont.)

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

All the fields marked with an asterisk (*) are mandatory and UI fields vary 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, the end user needs to follow the steps below:

1. Select **Provisioning Endpoint**. Only the Provisioning Endpoints are tagged in RBAC group of users and configurations are enabled to Provider admin.
2. Select Region.
3. Click Request.

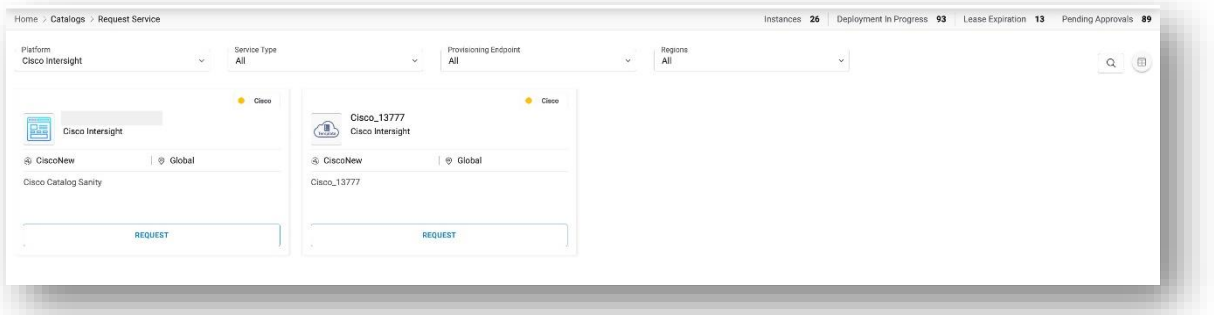


Figure 94 – Cloud Provider Selection (Cont.)

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

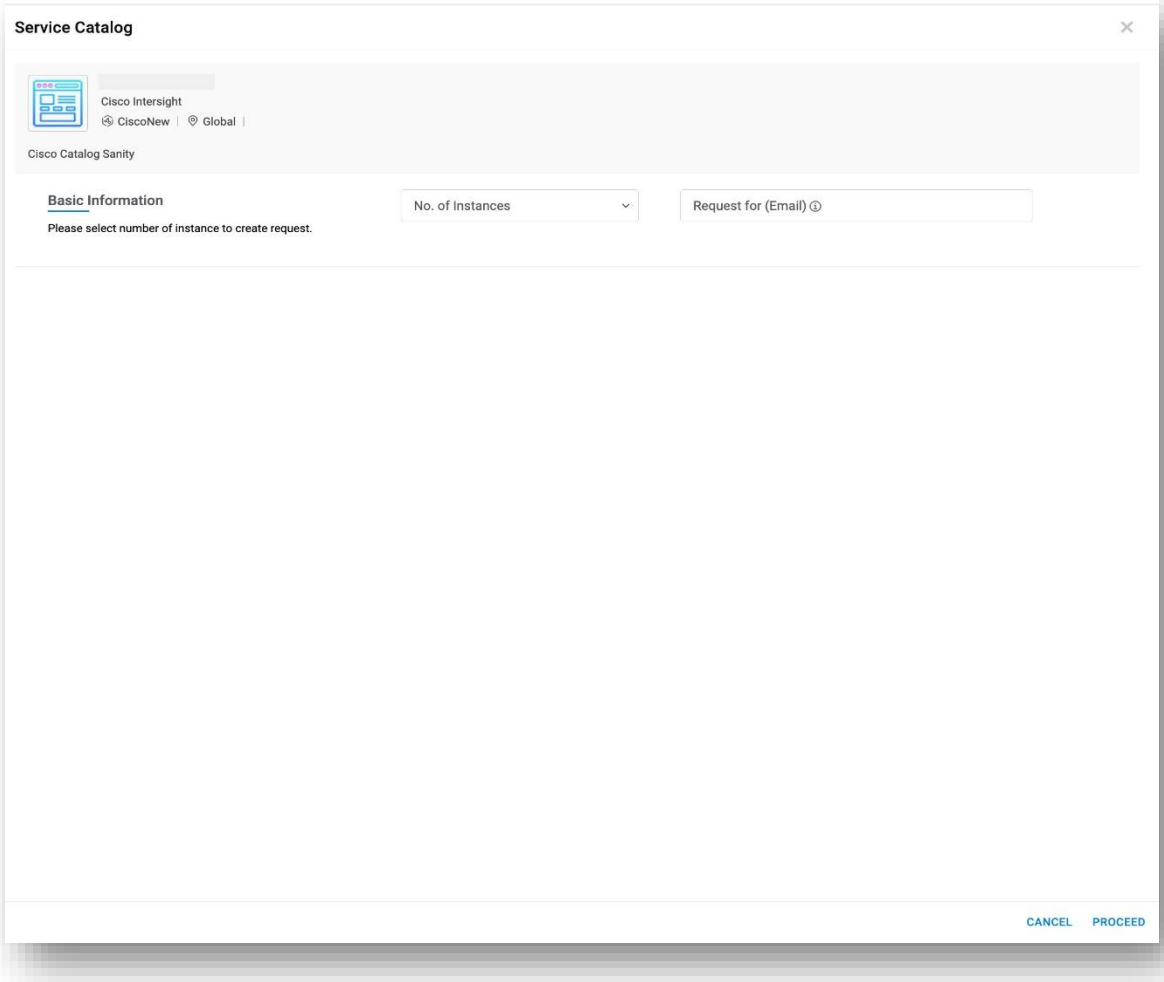


Figure 95 - Request Service Catalog (Cont.)

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.

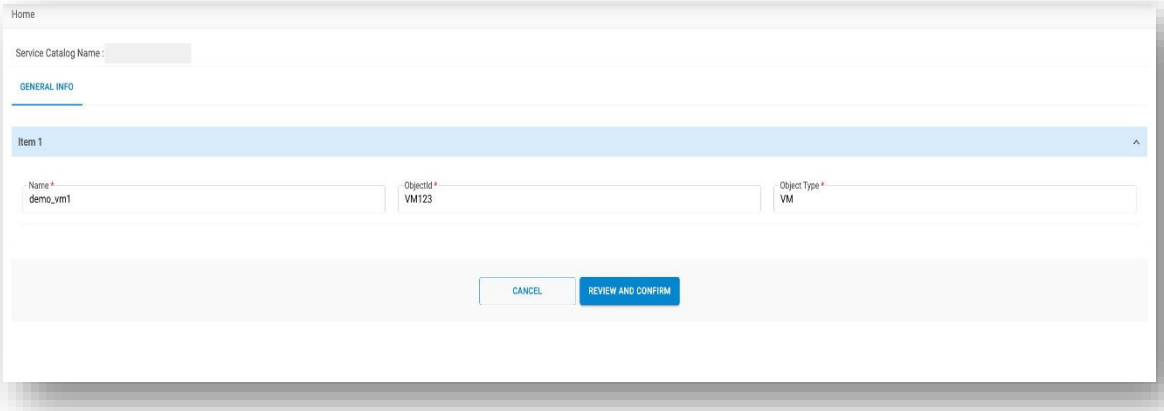


Figure 96 - Request Service Catalog (Cont.)

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

All the fields marked with an asterisk (*) are mandatory and UI fields vary 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 configurations are enabled to Provider admin.
2. Click **Request**.
3. Select **Number of Instances**, and then click **Proceed**.

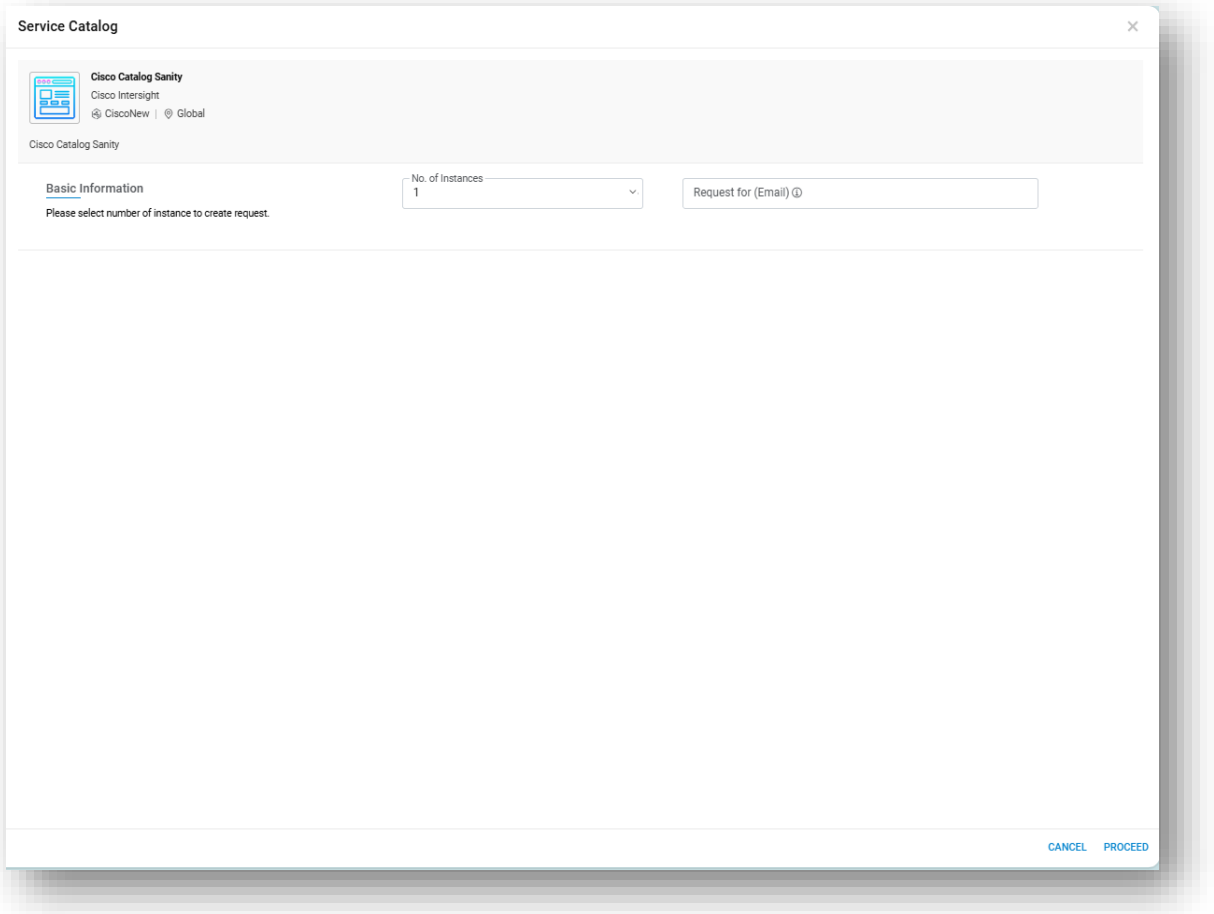


Figure 97 - Request Service Catalog (Cont.)

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.

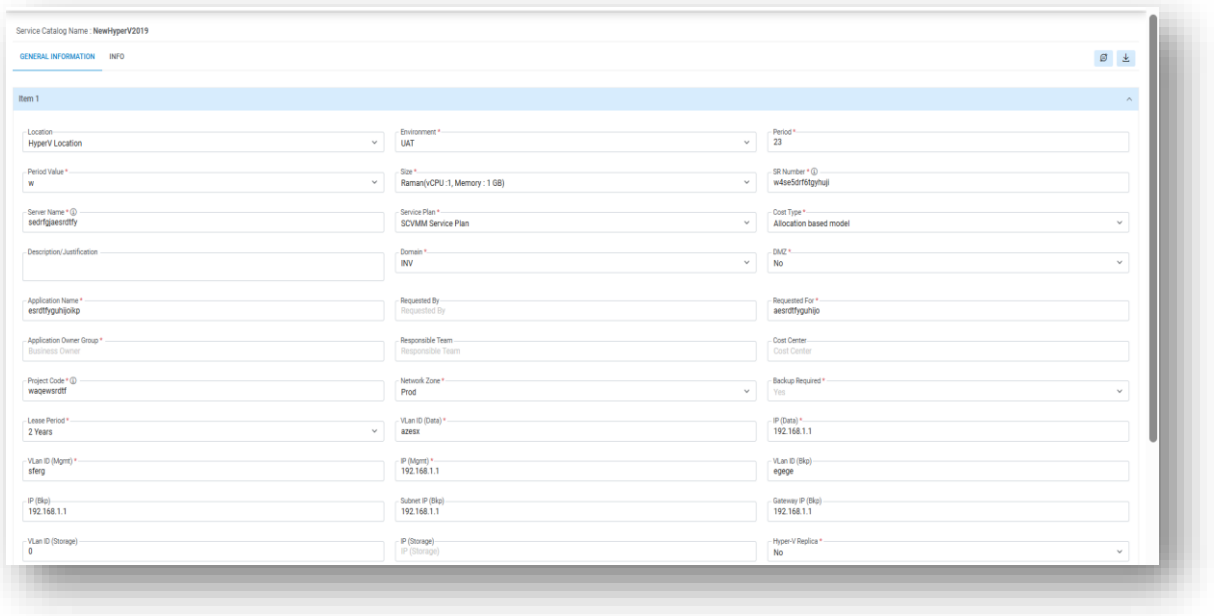


Figure 98 - Request Service Catalog (Cont.)

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

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

3.1.2.1.1.1.2.8 Red Hat OpenShift (OCP)

To proceed with service requests that have OCP as a cloud provider, the 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 enabled 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.**

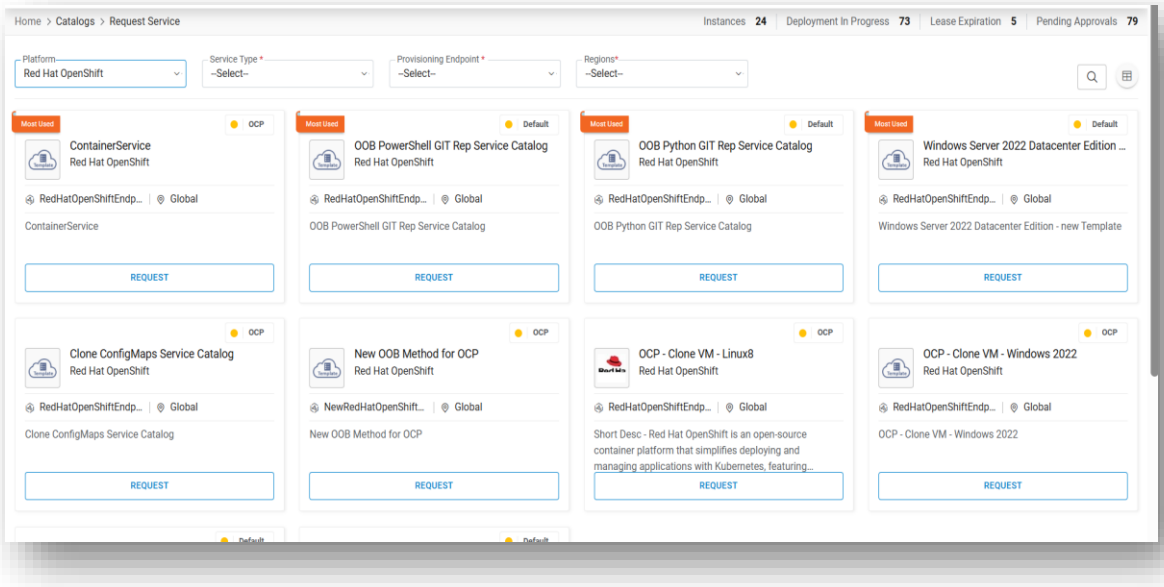


Figure 99 - Request Service Catalog (Cont.)

6. Select the Number of Instances and click Proceed.

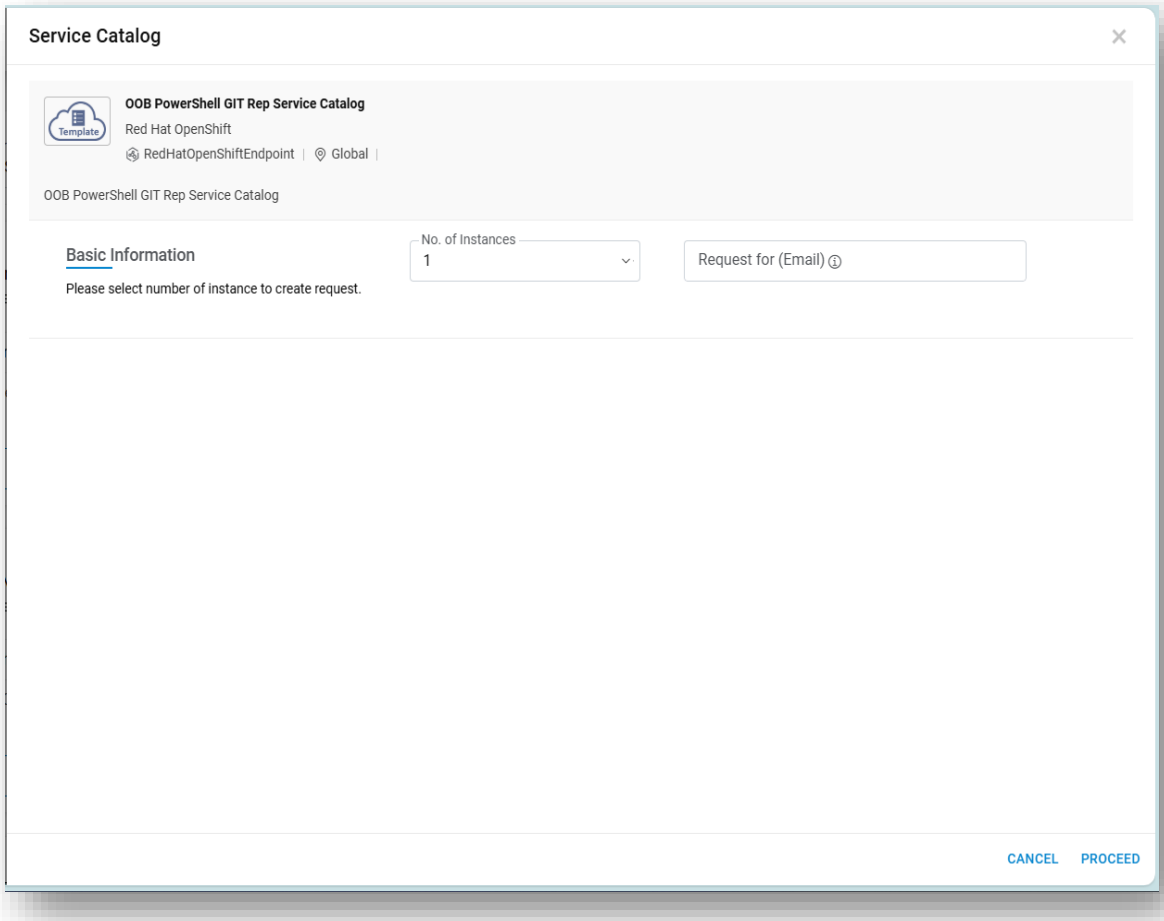


Figure 100 - Request Service Catalog (Cont.)

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 another. 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.

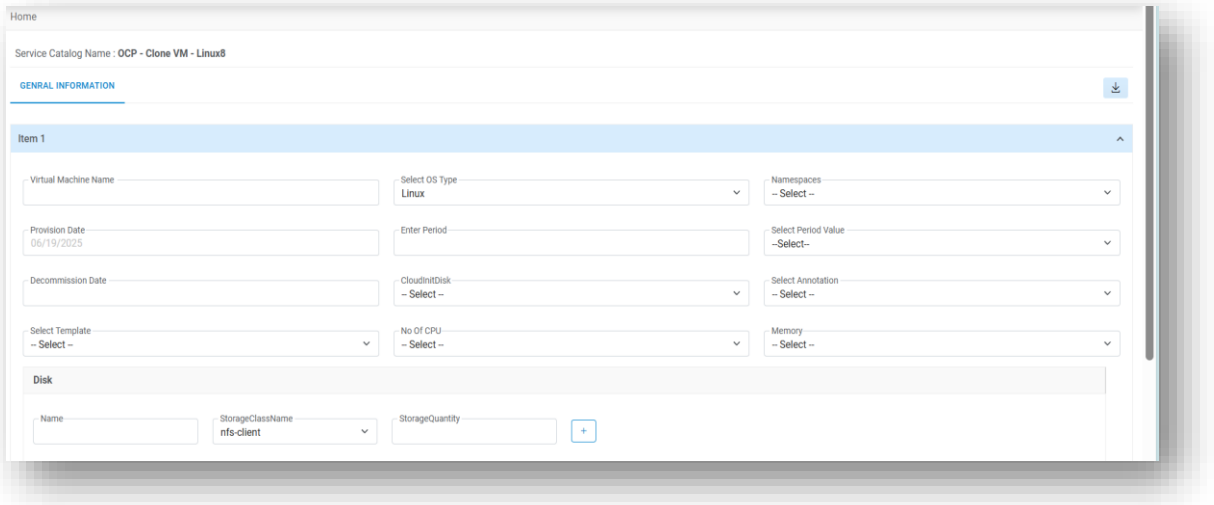


Figure 101 - Request Service Catalog (Cont.)

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

Table 25 – 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**.

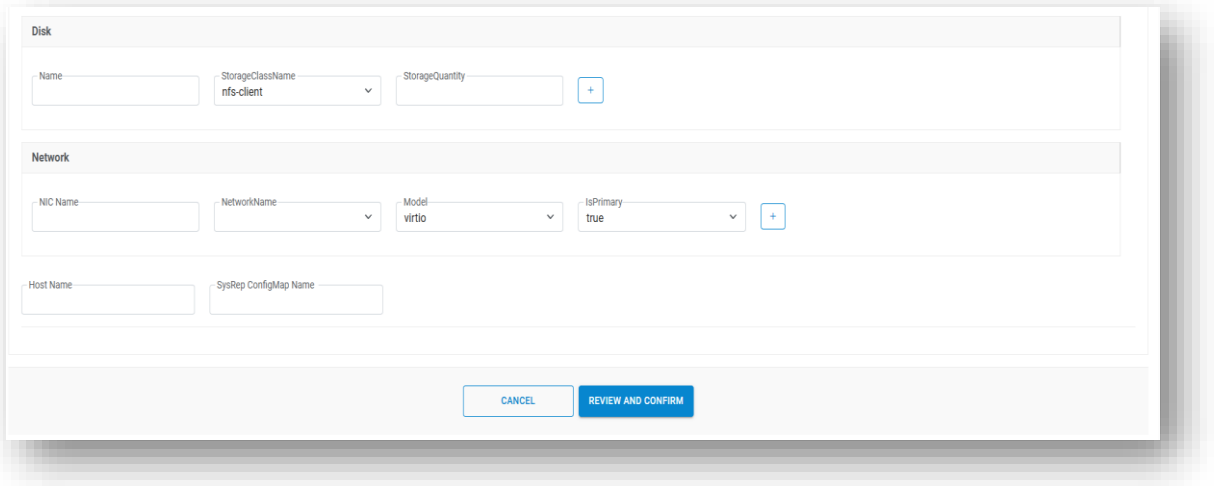


Figure 102 - Request Service Catalog (Cont.)

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 Next.

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

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.

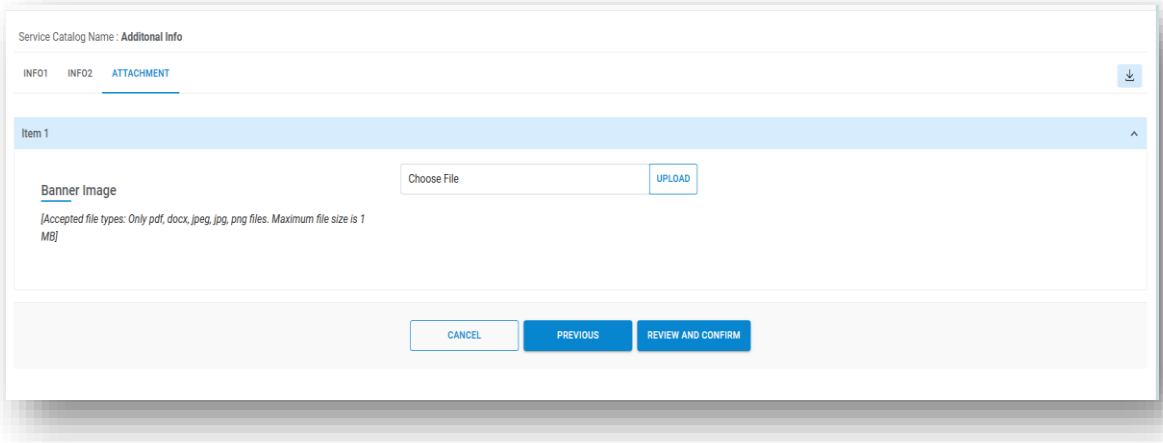


Figure 103 - Request Service Catalog (Cont.)

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. Users need 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 Next.
3. Once the form is filled, click **Submit**.
4. The **Order Summary** screen appears as shown in Figure 62 - Request Service Catalog (Cont.).
5. Scroll down and click **Confirm**.

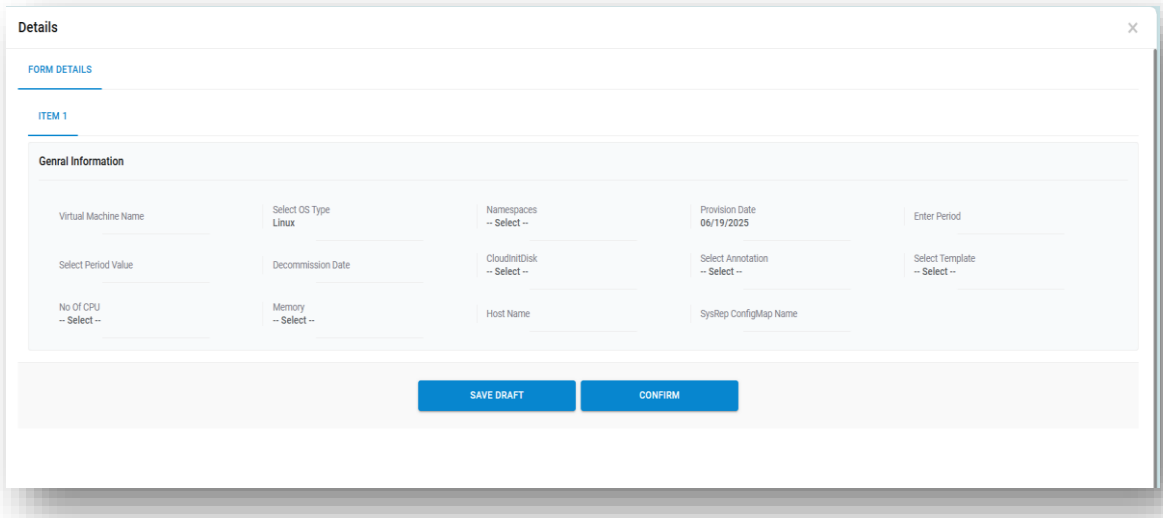


Figure 104 - Request Service Catalog (Cont.)

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

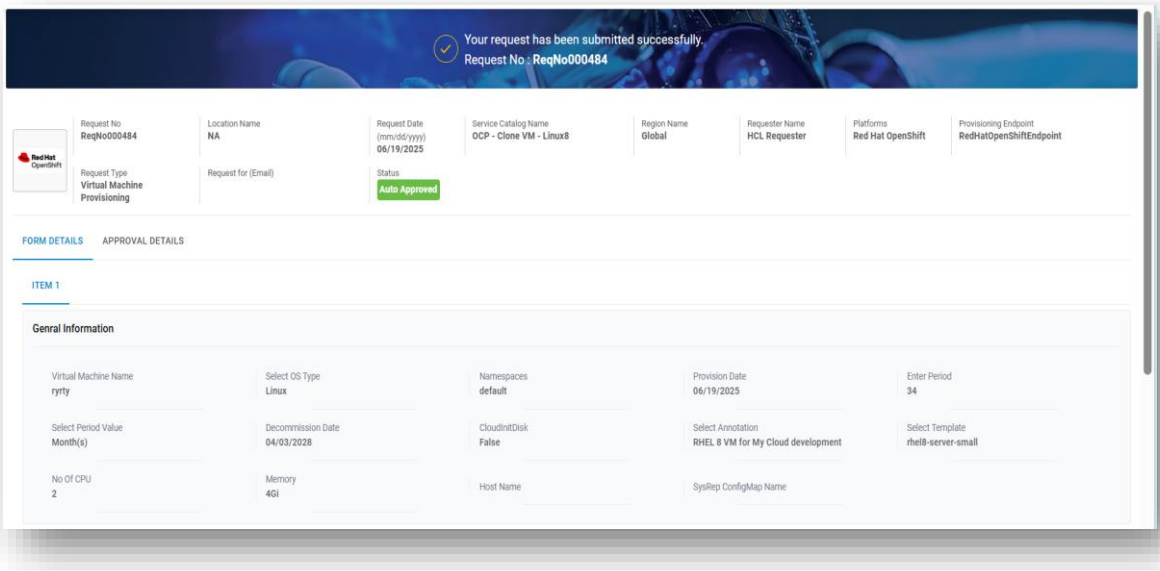


Figure 105 - Request Service Catalog (Cont.)

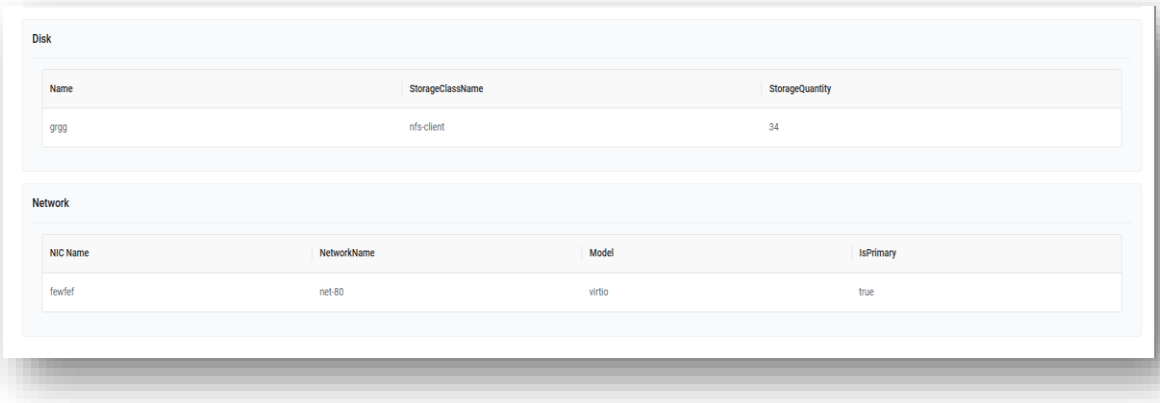


Figure 106 - Request Service Catalog (Cont.)

3.1.2.1.1.2 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

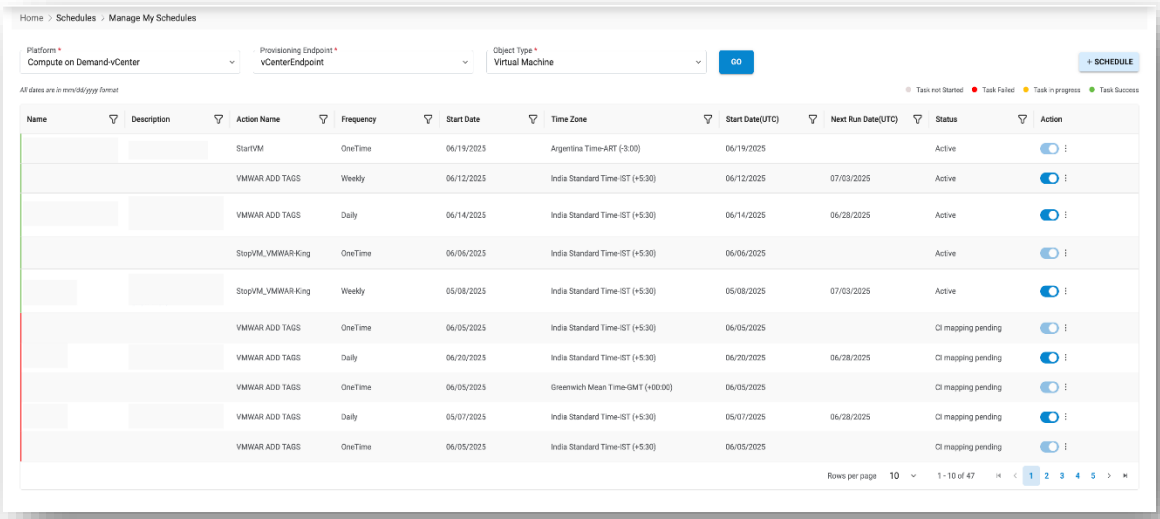


Figure 107 - Schedules

3.1.2.1.1.2.1 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**.

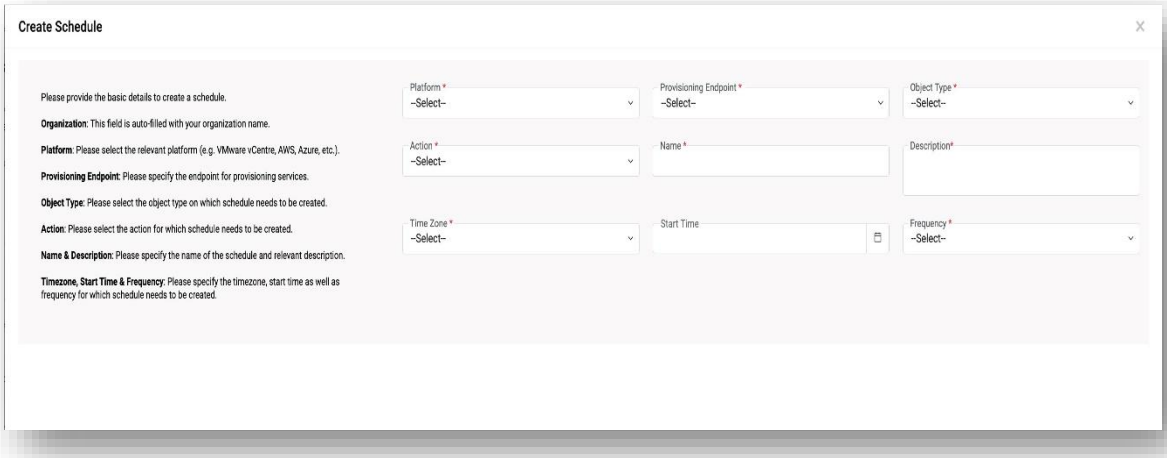


Figure 108 – Create Schedules

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

Table 26 – 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 with Object.

Name	This is a unique name for 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

a. Select Organization.
b. Select Platform and Provisioning Endpoint.
c. Select Object Type.
d. Select **Action**.
e. Enter the Name and Description of Schedule.
f. Select Time Zone and Start Time.
g. Select **Frequency**.

3. Now the map of the Parameters of Action. Parameter Data Type supports two types:
   - Static – User can provide the Static value of a control.
   - SQL Function – An SQL function can be used to find the dynamic value of a control.
4. Click **Save.**

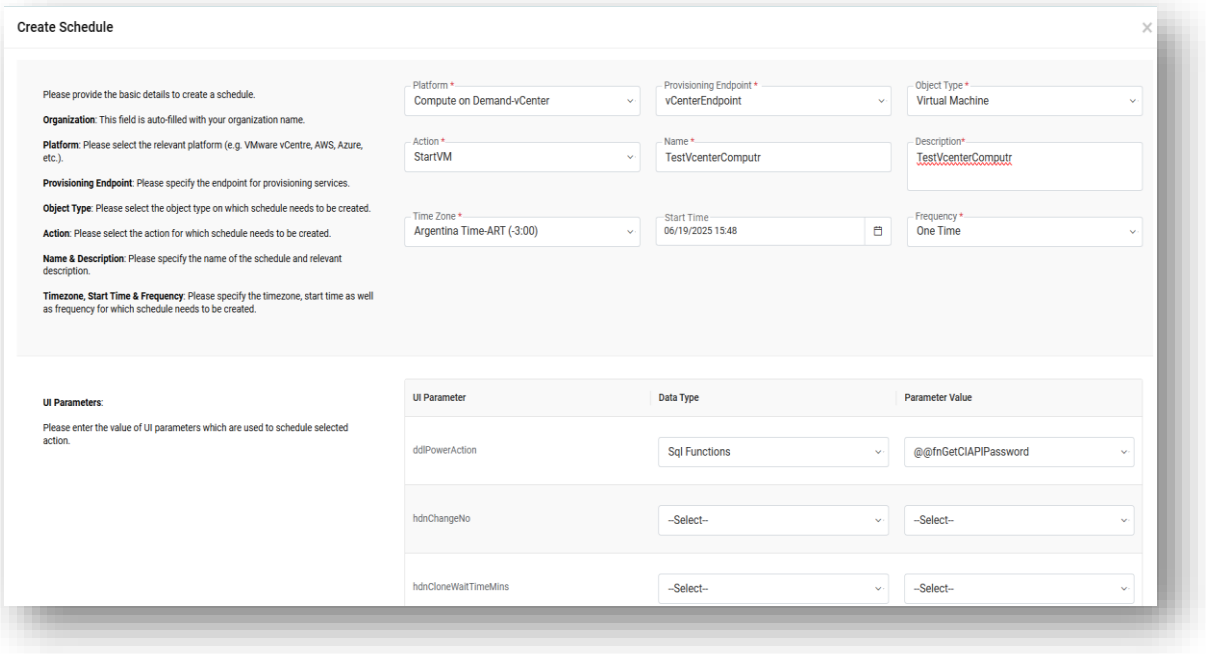


Figure 109 - Create Schedule (Cont.)

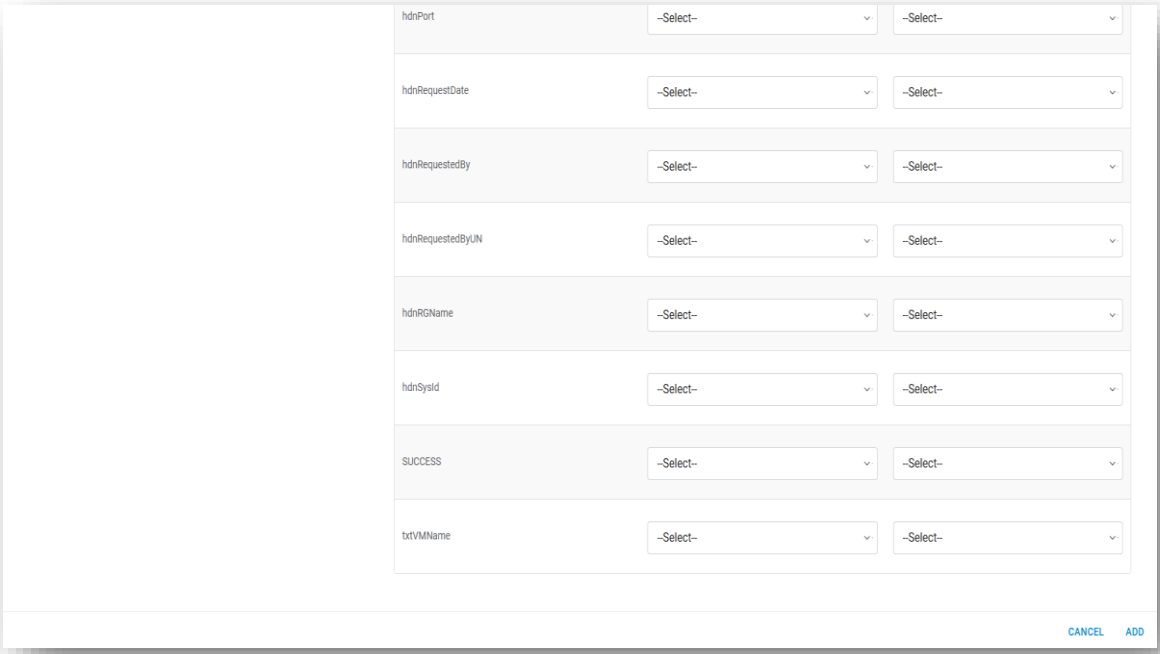


Figure 110 - Create Schedule (Cont.)

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

5. A success message box appears on the screen.

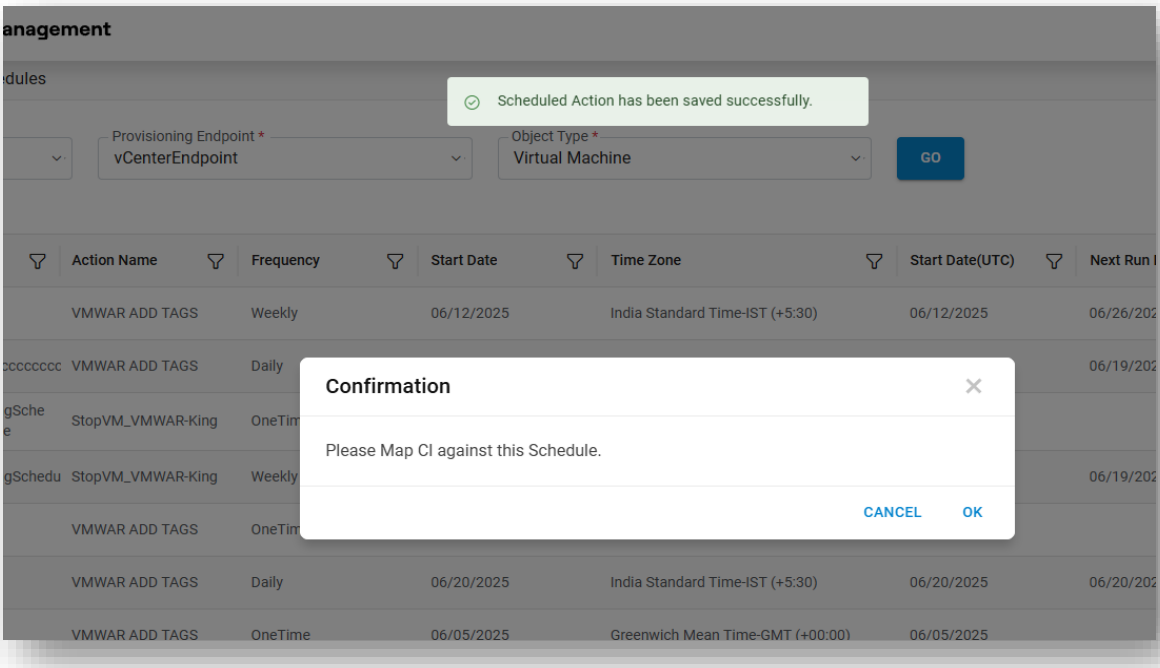


Figure 111- Create Schedule (Cont.)

6. Now click **Ok**. A Popup will open containing the relevant Object(s).
7. You can select the appropriate Object(s), on which Action needs to be scheduled.

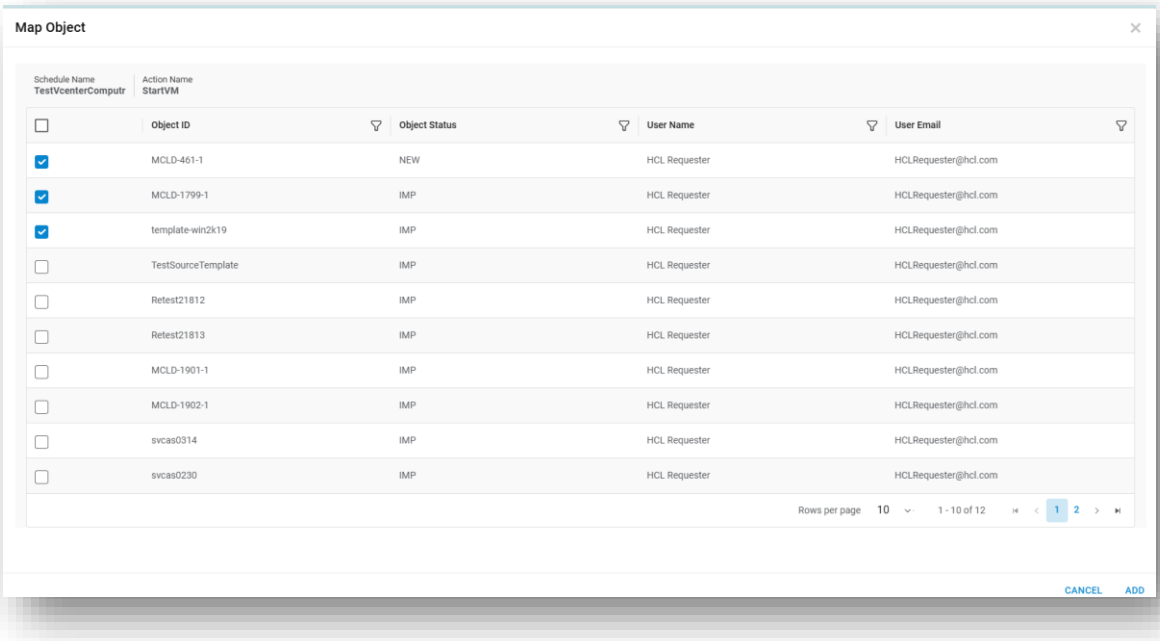


Figure 112 - Create Schedule (Cont.)

8. Now click on the **Map** button.
9. A success message box appears on the screen.

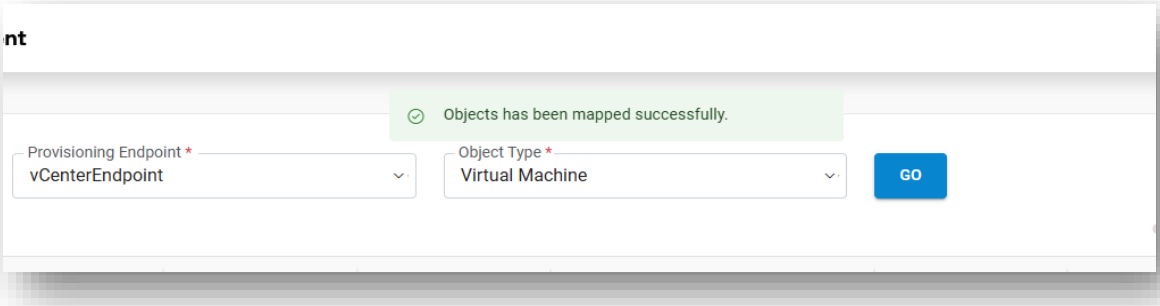


Figure 113 - Create Schedule (Cont.)

10. The action scheduled successfully.

3.1.2.1.1.2.2 View Schedules

This section lists all the Schedules that have been created by an organization admin.

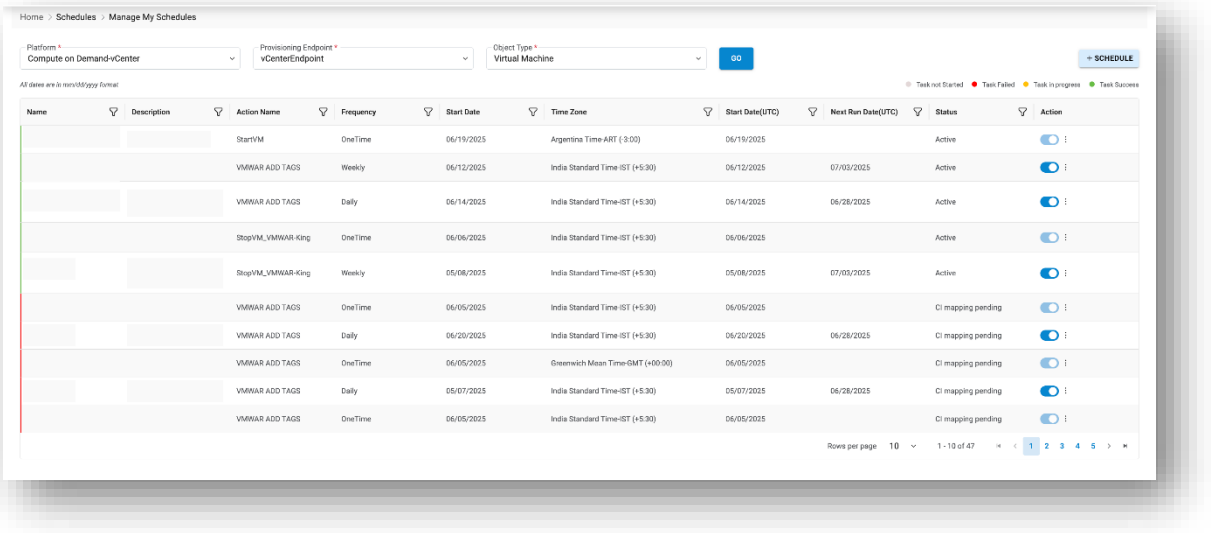


Figure 114 – View Schedules

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

Table 27 – 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 with Object.
Name	This is a unique name for 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 the 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.

3.1.2.1.1.2.3 Schedule History

This section lists all the History of Schedules Actions.

To view the schedule history, follow the following steps:

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

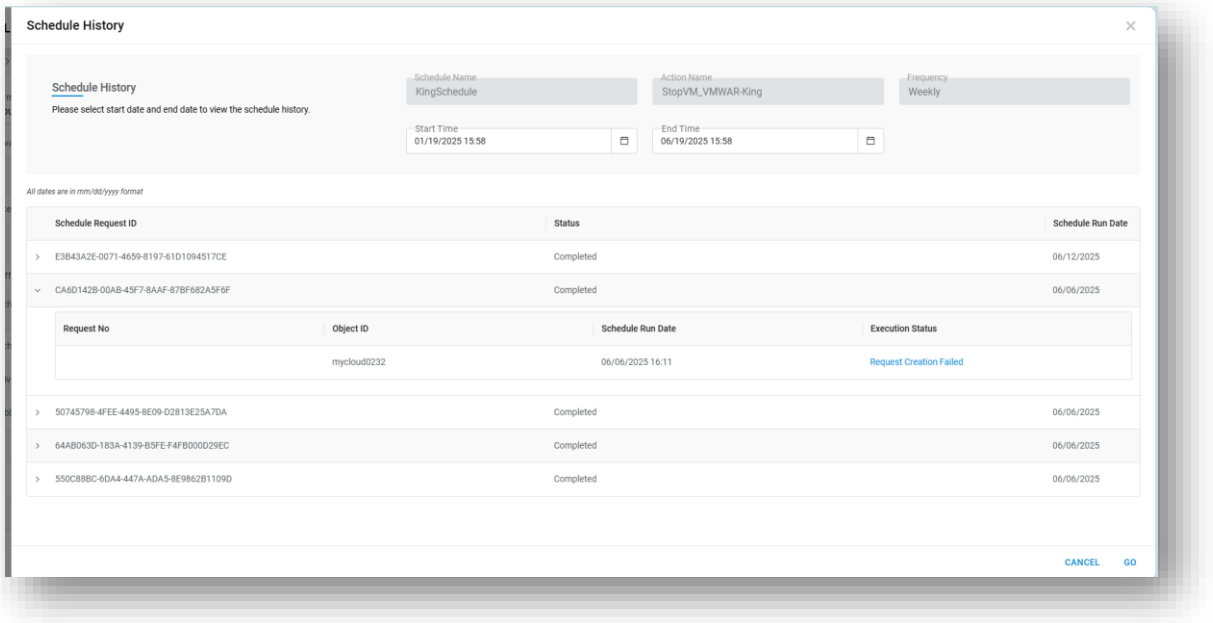


Figure 115 – Schedule History

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

Table 28 – Schedule History Field

Fields	Description
Schedule Name	This is a unique name for 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 of 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

3.1.2.1.1.3 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 **Request**.
2. Upon clicking, the following options appear on the screen:
   - My Request
   - My Drafts

3.1.2.1.1.3.1 Managing My Request

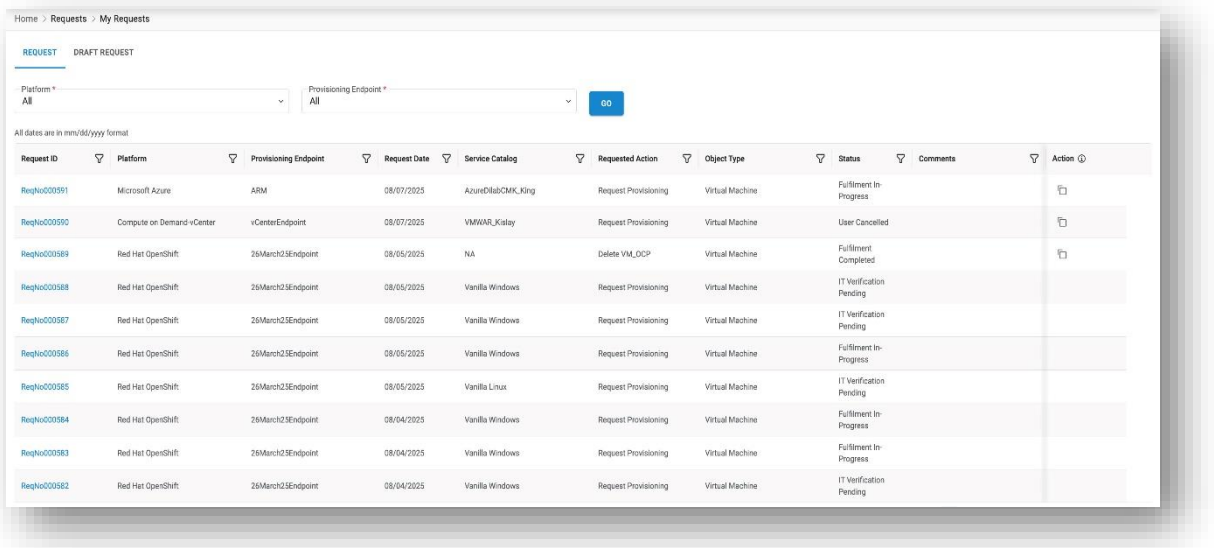


Figure 116 – Managing Request

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

Table 29 – Managing 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 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.

3.1.2.1.1.3.1.1 Clone Request

To make a new request, like existing requests, requester needs to follow the below-mentioned steps:

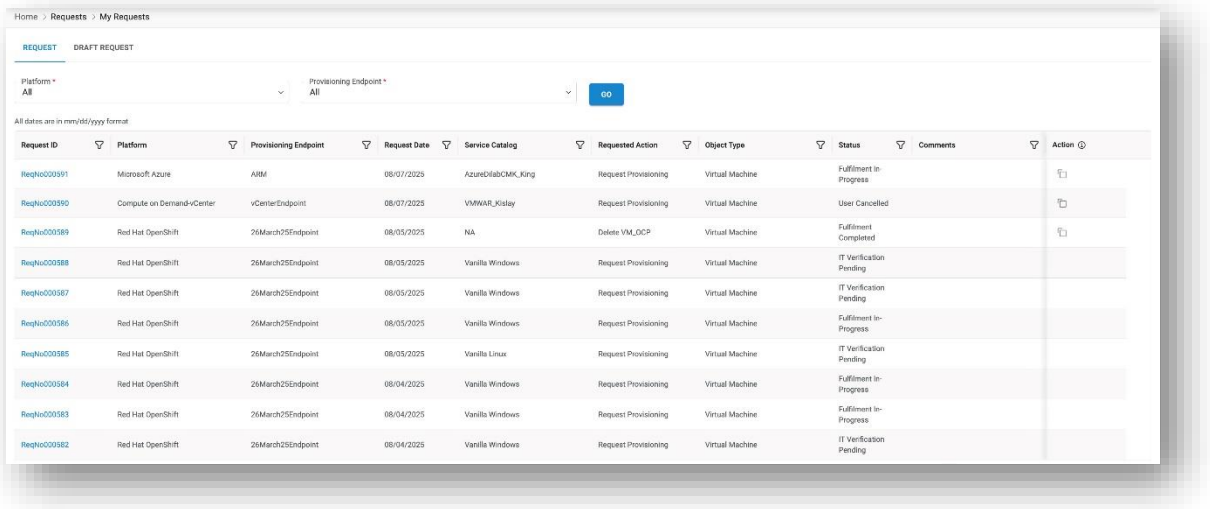


Figure 117 – Clone Request

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

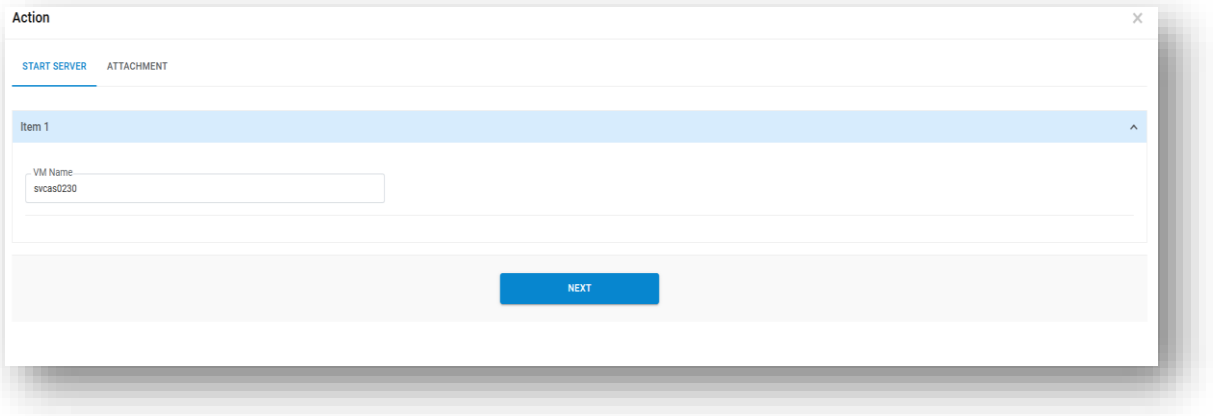


Figure 118 – Clone Request (Cont.)

2. Popup will open with filled in details of existing requests, 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**.
5. A success message appears on the following screen.

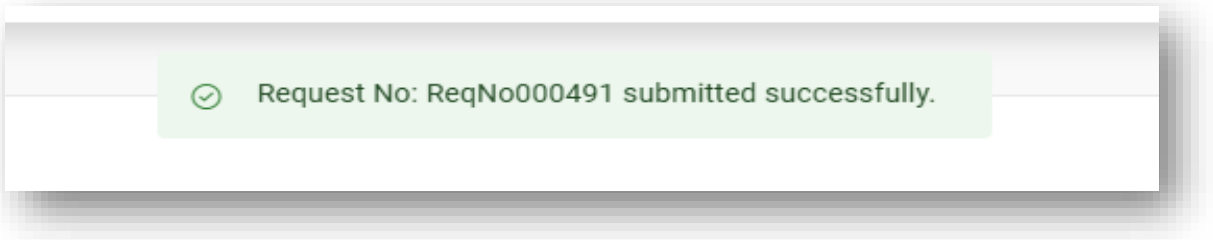


Figure 119 – Clone Request (Cont.)

6. The new request is saved and appears in a tabular view.

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.

3.1.2.1.1.3.2 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**.

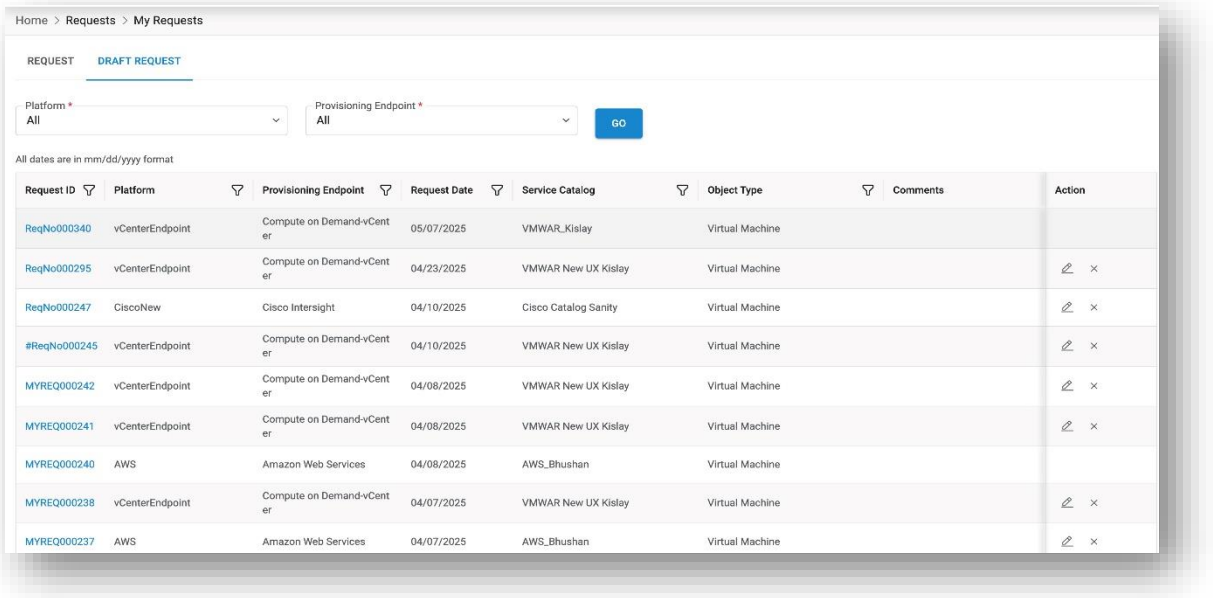


Figure 120 – Managing My Drafts

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

Table 30 – 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

3.1.2.1.1.3.2.1 Edit Drafts

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

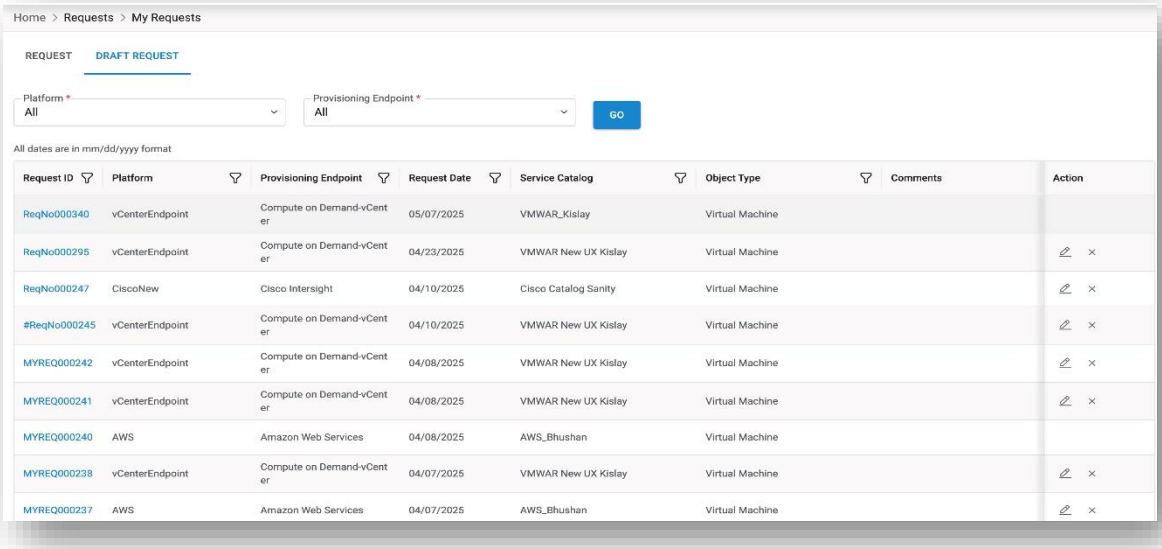


Figure 121 - Edit Drafts

1. Click **Edit** ( ).

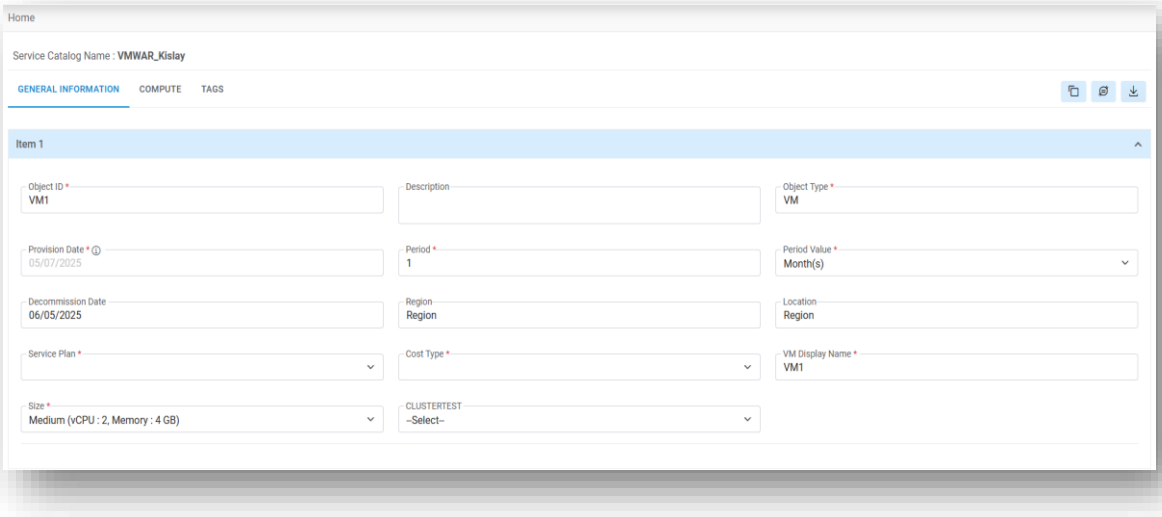


Figure 122 - Edit Drafts (Cont.)

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 on the screen.

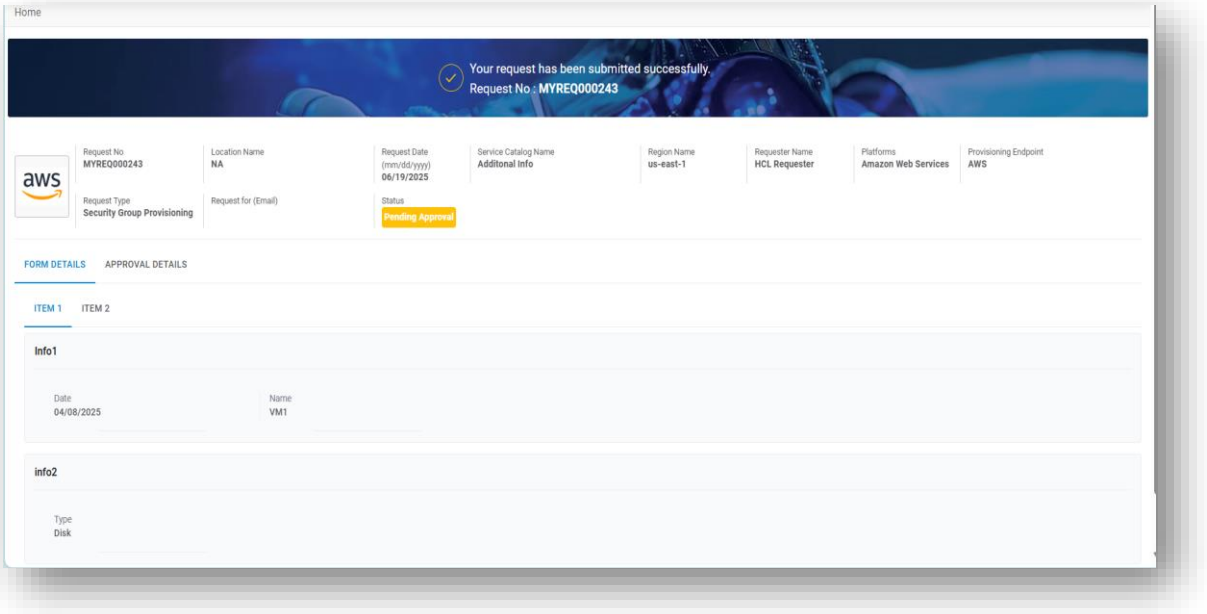


Figure 123 - Edit Drafts (Cont.)

The new draft is saved and appears in a tabular view as shown in Figure 121 - Edit Drafts.

3.1.2.1.1.3.2.2 Delete Drafts

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

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

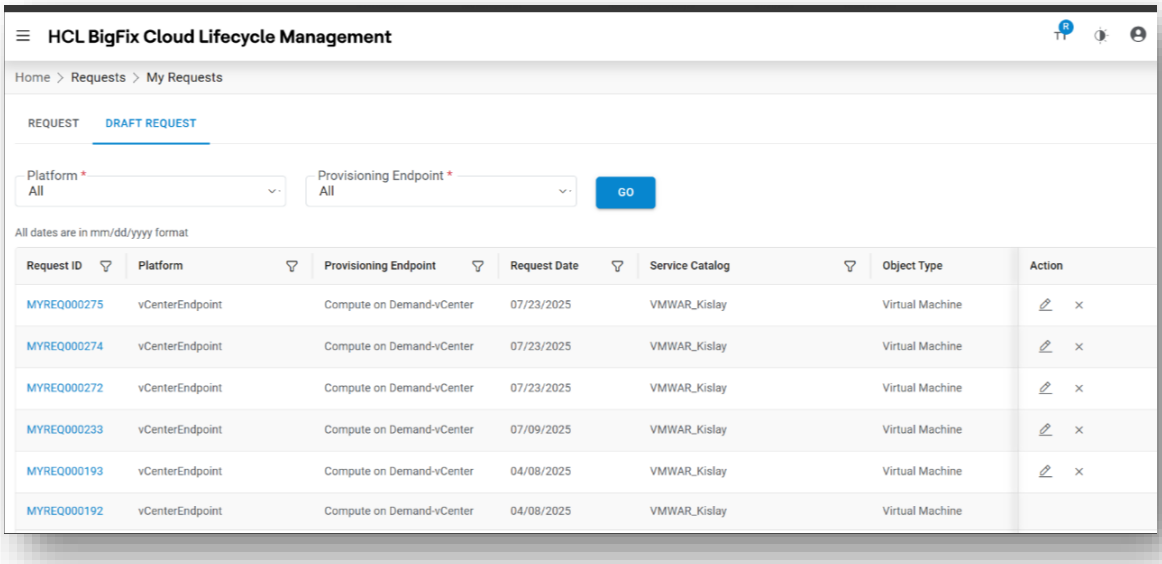


Figure 124 - Delete Drafts

2. To delete the request, click **OK**.

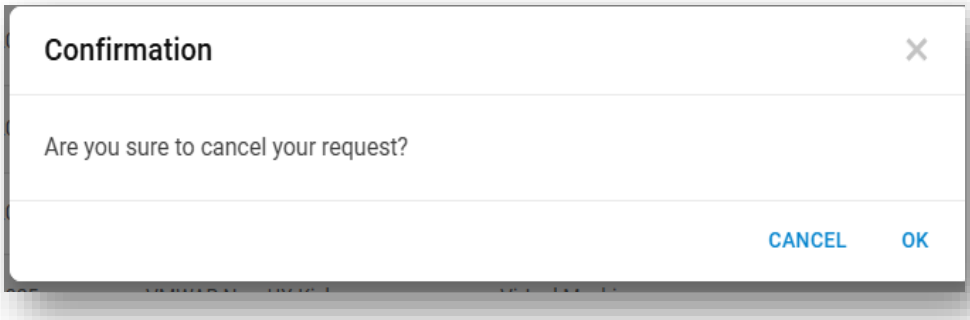


Figure 125 - Delete Drafts (Cont.)

3. A success message box appears on the following screen.

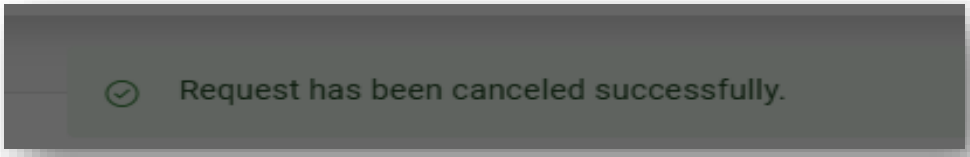


Figure 126 - Delete Drafts (Cont.)

3.1.2.1.1.3.2.3 Track Requests

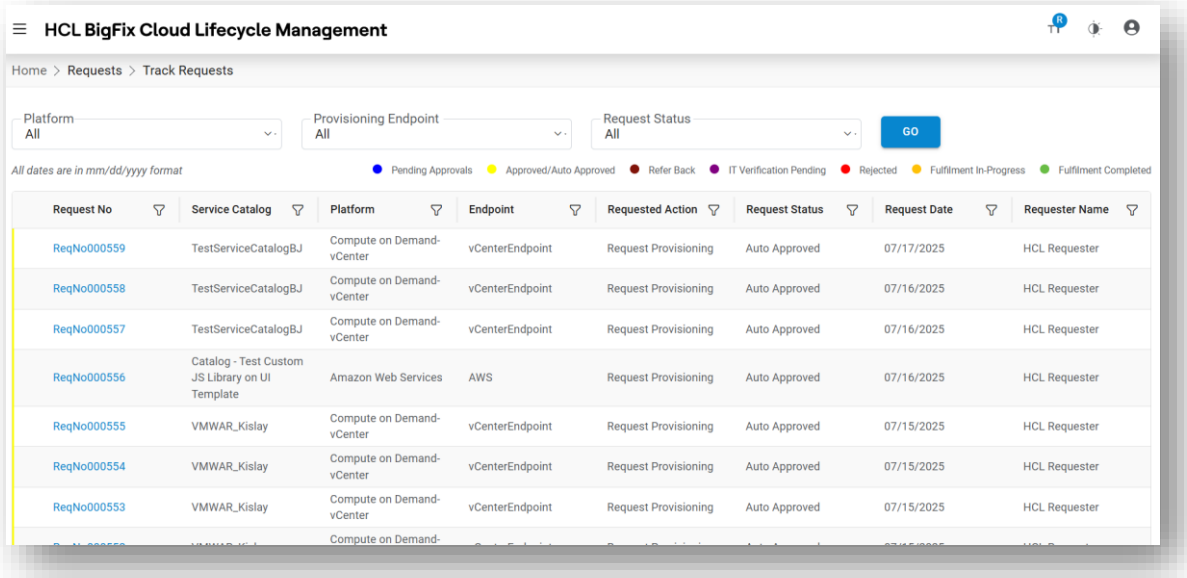


Figure 127 - Track Requests

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

Table 31 - Managing My Request

Fields	Description
Request No	Displays the ID-number of the request created
Platform	The name of Cloud service providers

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
Request Status	Displays the status of the request
Requester Name	Name of the object against which the request was raised

Submitted request can be visible. If approved in your request, then after approved show the request.

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

3.1.2.1.2.1 Resources

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

1. On the main menu bar, click **Resources**.
2. The drop-down appears with the following option:
   - My Object
3. Select **Platform** from the list of cloud service providers.
4. Select the **Object Type** from the list of infrastructure resources.
5. Click **Go**.

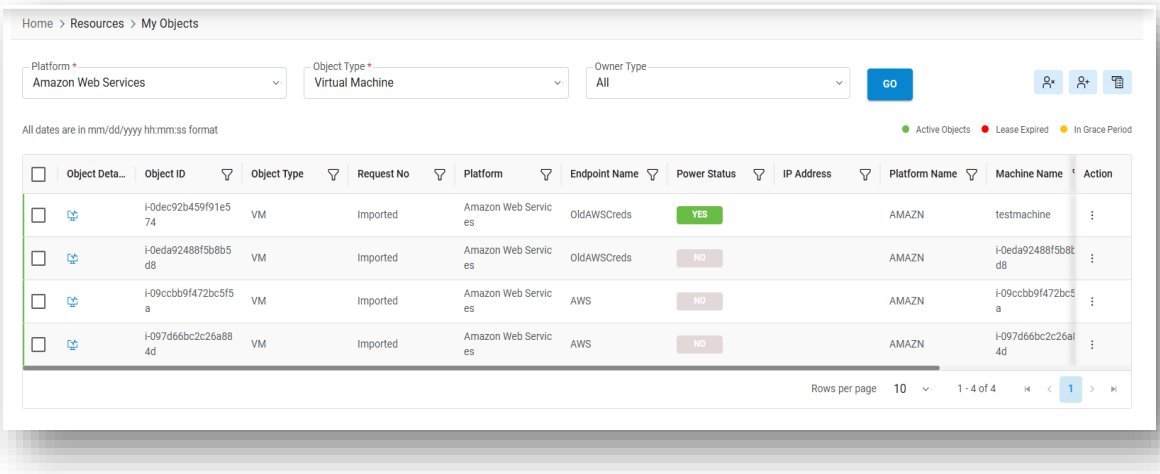


Figure 128 - My Objects

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

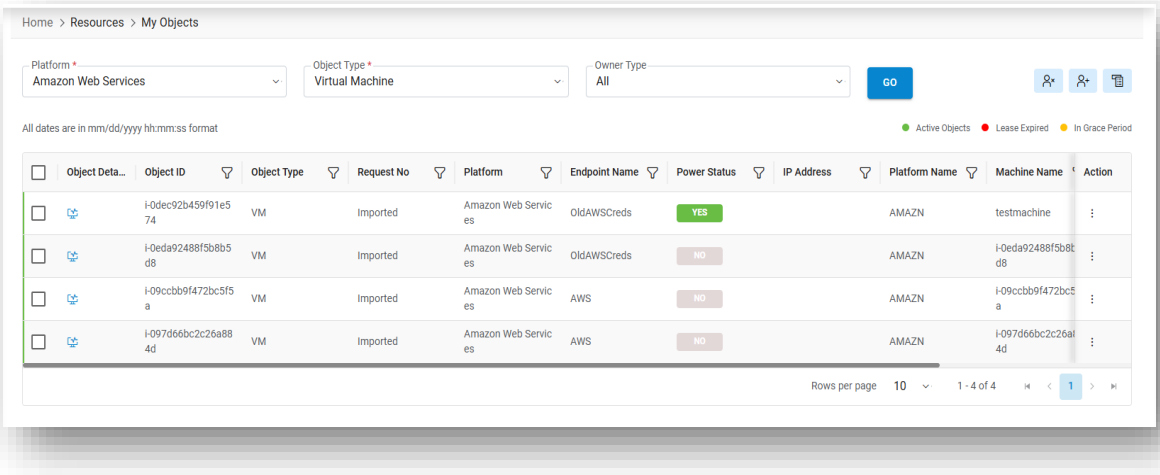


Figure 129 - My Objects (Cont.)

3.1.2.1.2.1.1 About My Objects

This section will provide the details of fields on My Objects Page.

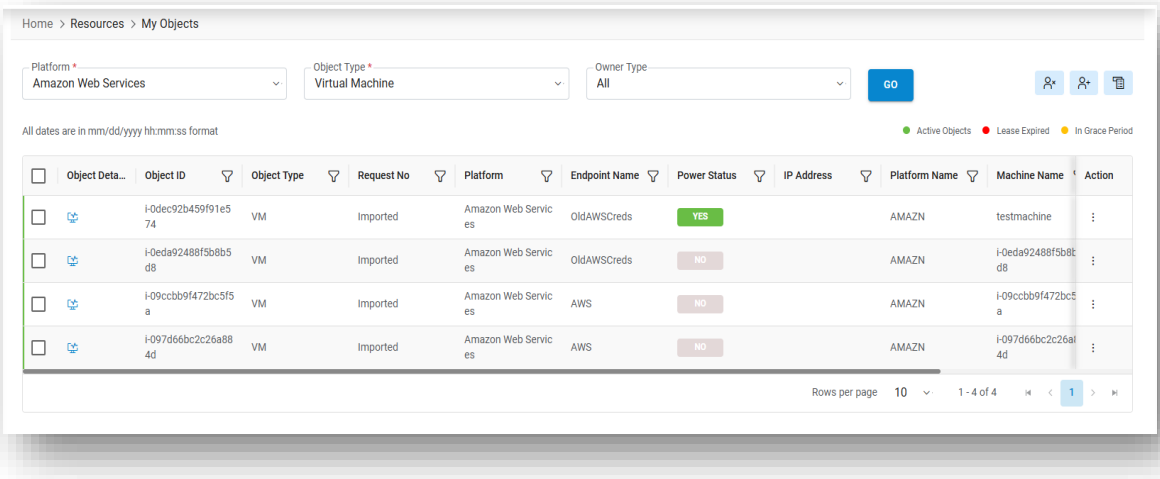


Figure 130 - My Objects (Cont.)

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

Table 32 - My Objects

Fields	Description
Platform	The name of Cloud service providers
Object Types	Infrastructure resource
Owner Type	Resource owners include Delegate or Self
☐	Checkbox to select specific or multiple Object Type(s).
	Object and Health Details.
	Remove Delegation
	Delegate object(s) to another user.
	Grid Column Settings
⋮	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

3.1.2.1.2.1.2 Bulk Delegation

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.

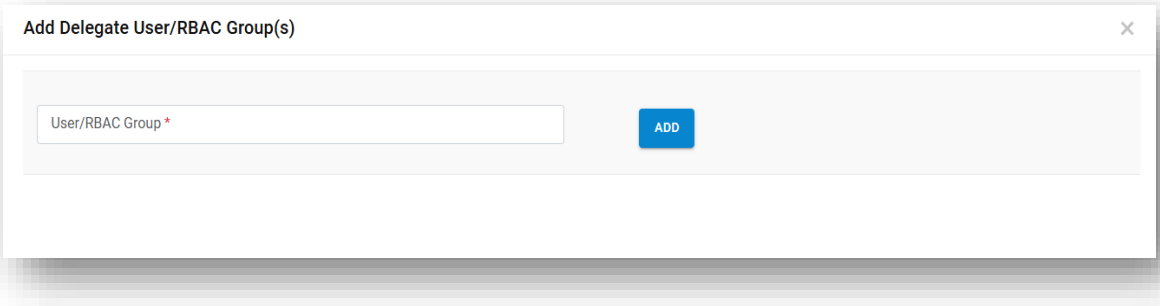


Figure 131 - My Objects - Add Delegate User

4. Enter the **User/RBAC Group** name in the text box and click on **Add**.
5. A Success Message appears on the screen:

3.1.2.1.2.1.3 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.

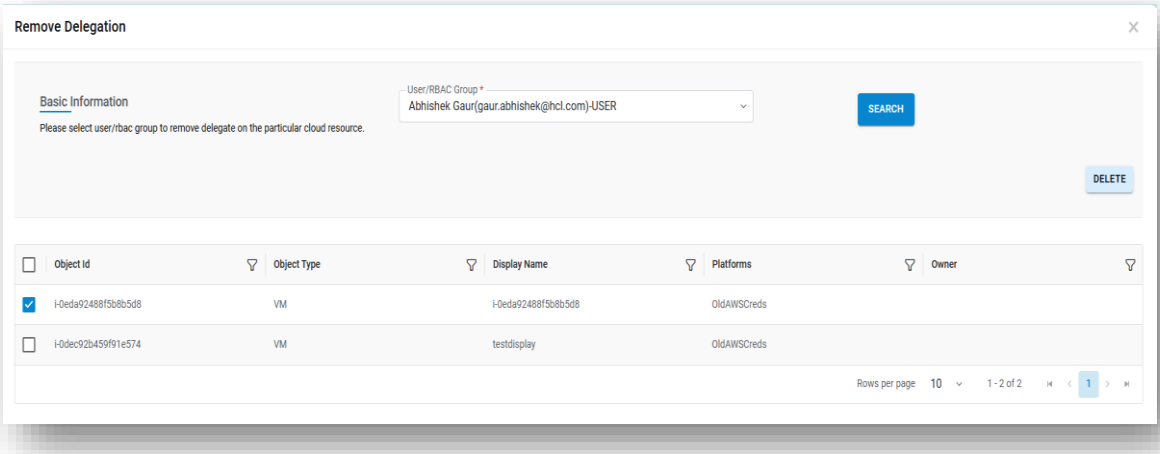


Figure 132 - My Objects - Remove Delegation

4. Select the object by clicking on the checkbox.
5. Click **Delete**.
6. A successful message appears on the screen.

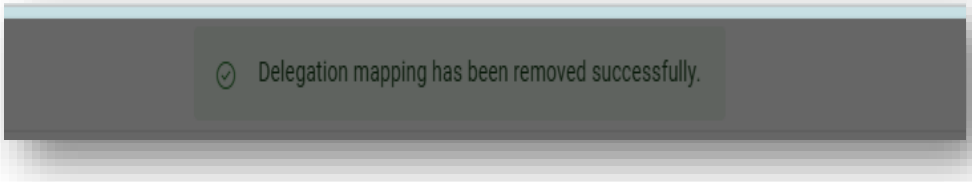


Figure 133 - My Objects - Remove Delegation

3.1.2.1.2.1.4 Grid Column Arrangement

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

1. Click on **the Column Settings** button  on the pane.
2. A screen will appear where requesters can configure the columns which will be visible/hidden on **My objects** page. This popup contains 2 sections:
   - Available Columns – List of columns that are not shown on the screens.
   - Selected Columns – Already selected columns.
3. Users 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**.

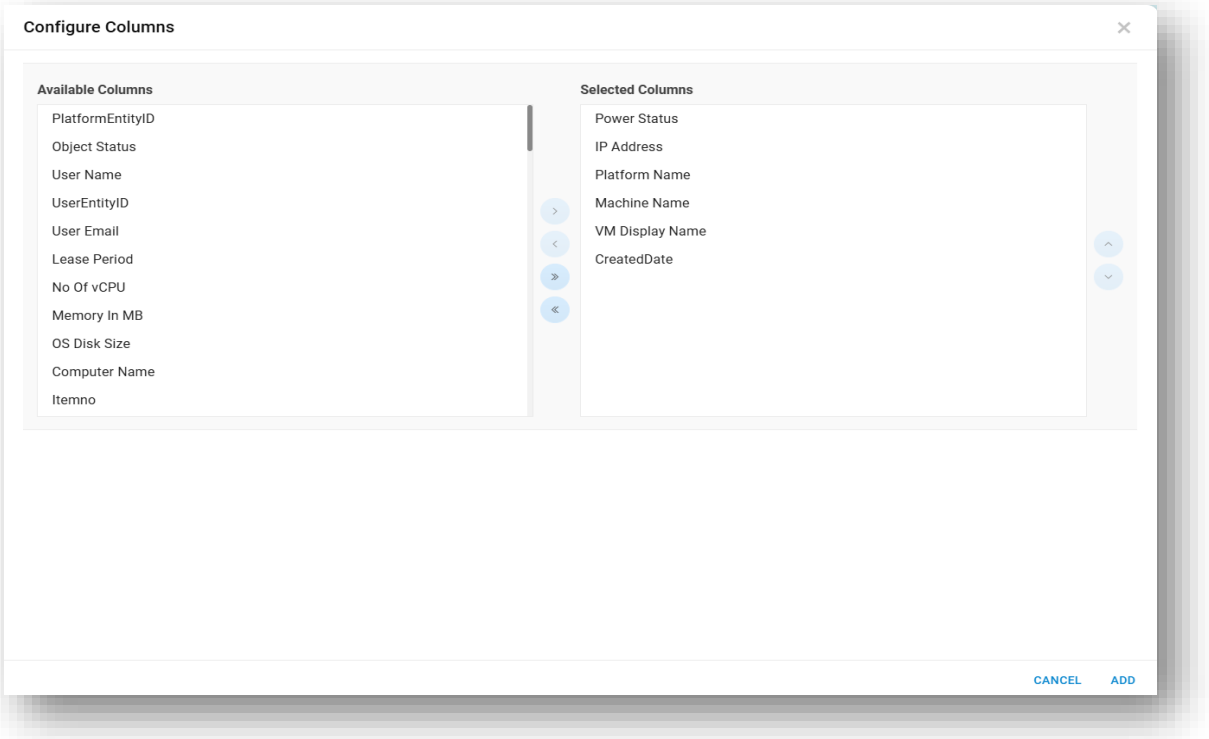


Figure 134 - My Objects - Grid Column Arrangement

3.1.2.1.2.1.5 Actions

This section provides 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 135 - My Objects - Actions

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

Table 33 - 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.

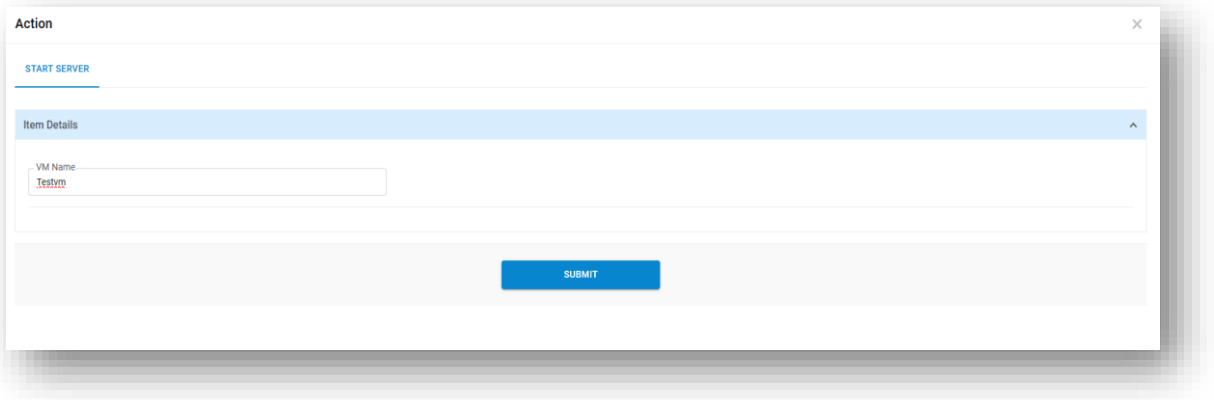


Figure 136 - My Objects - Actions

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

5. Fill in all required fields and Click **Submit**.
6. A successful message appears on the following screen.

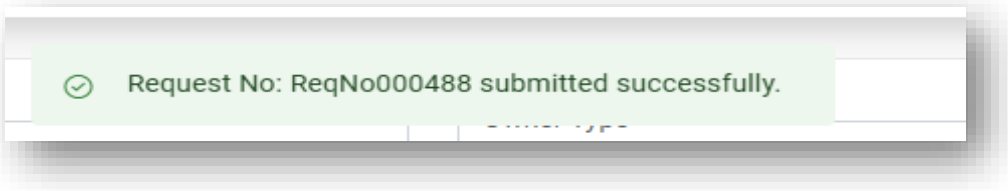


Figure 137 - My Objects - Actions

For more Actions and Actions related to other Object Type, kindly contact the Provider admin user, or refer the HCL BigFix CLM Configuration Guide - Provider Module

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

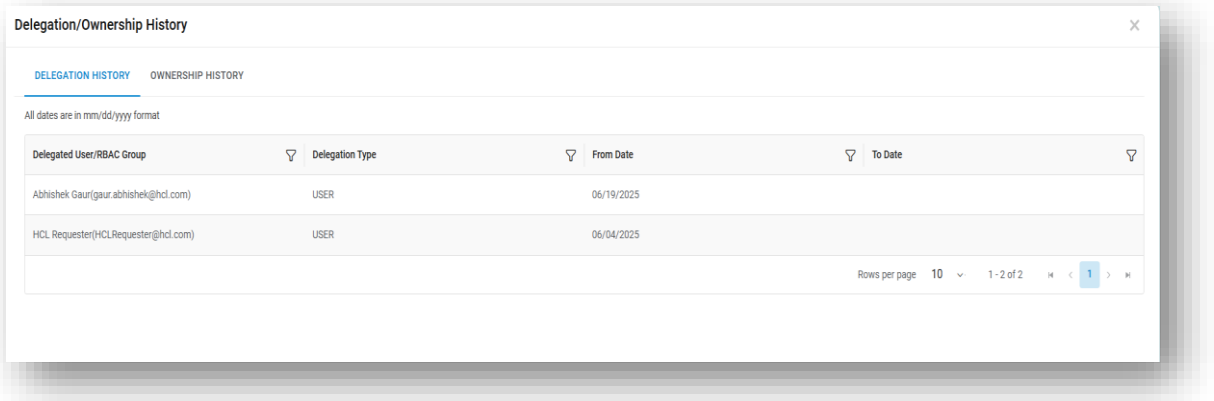


Figure 138 - My Objects – Actions (Delegation/Ownership History)

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).

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

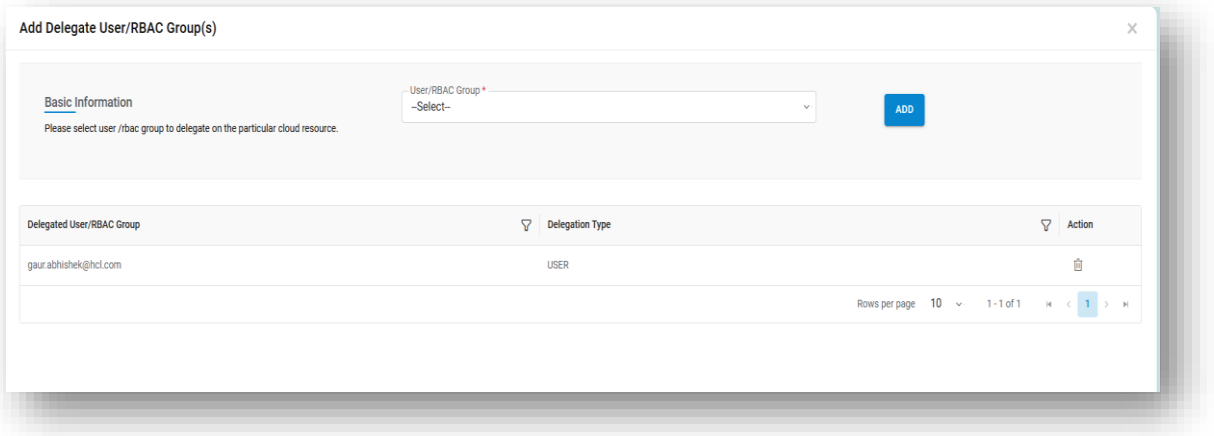


Figure 139 - My Objects – Actions (Add Delegate User/RBAC Group(s))

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

3.1.2.1.2.1.6 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.

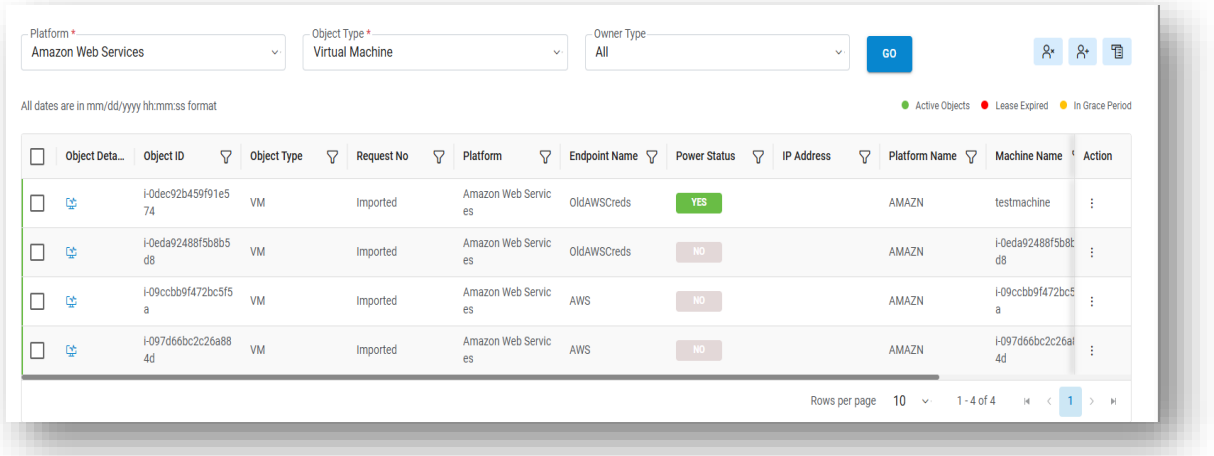


Figure 140 - My Objects - Object and Health Details

2. The **Cloud Control** pop-up appears with the following types of object details:
3. The Basic Details tab includes the Object ID, Request No., Object Type, and Power Status.
4. The health tab includes Machine Utilizations Graph information.
5. Click **Close** ( ) to close the pop-up window.

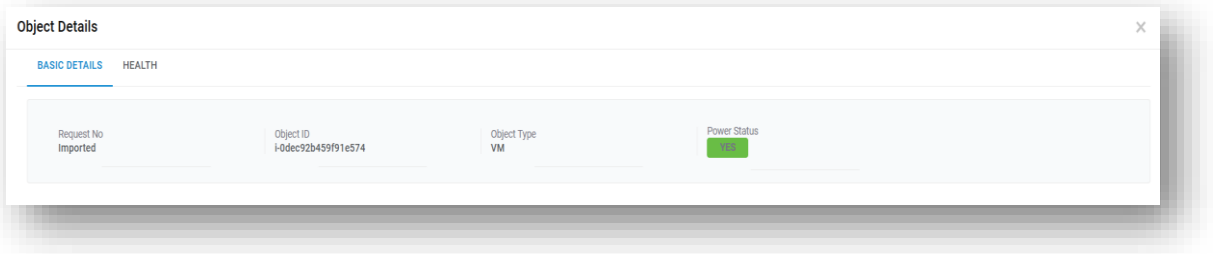


Figure 141 - My Object - Object and Health Details (Cont.)

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.

6. Click on **Object ID** that generates the summary of object type.
7. Click Close ( ) to close the pop-up window.

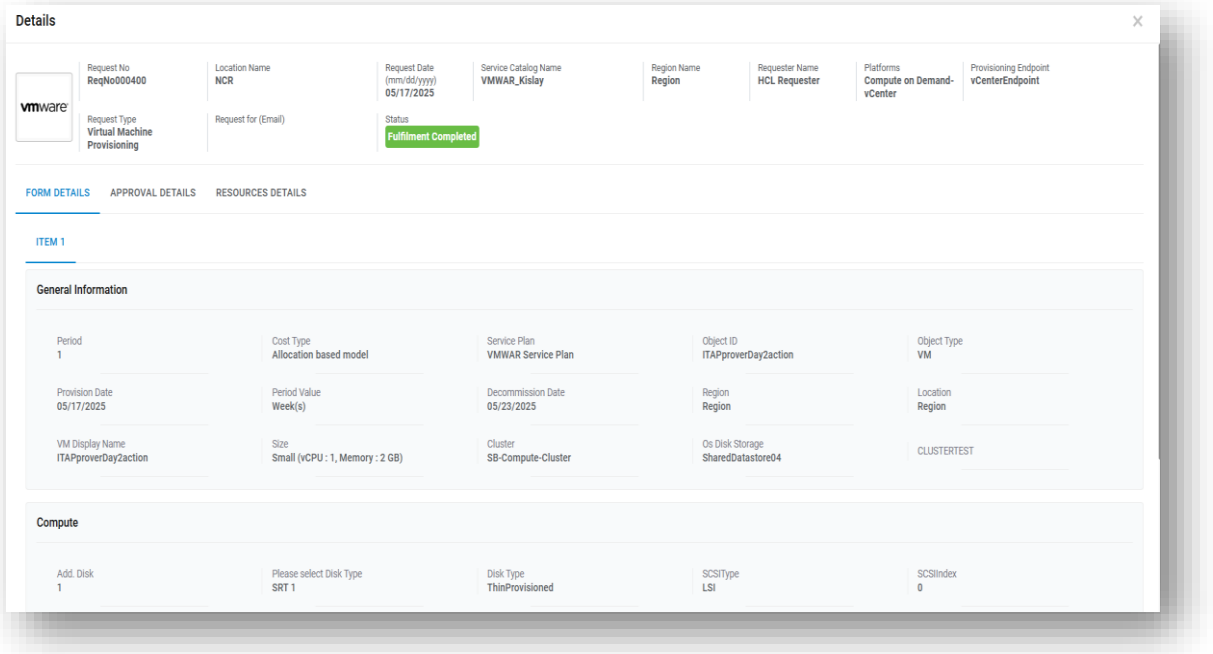


Figure 142 - My Objects - Object and Health Details (Cont.)

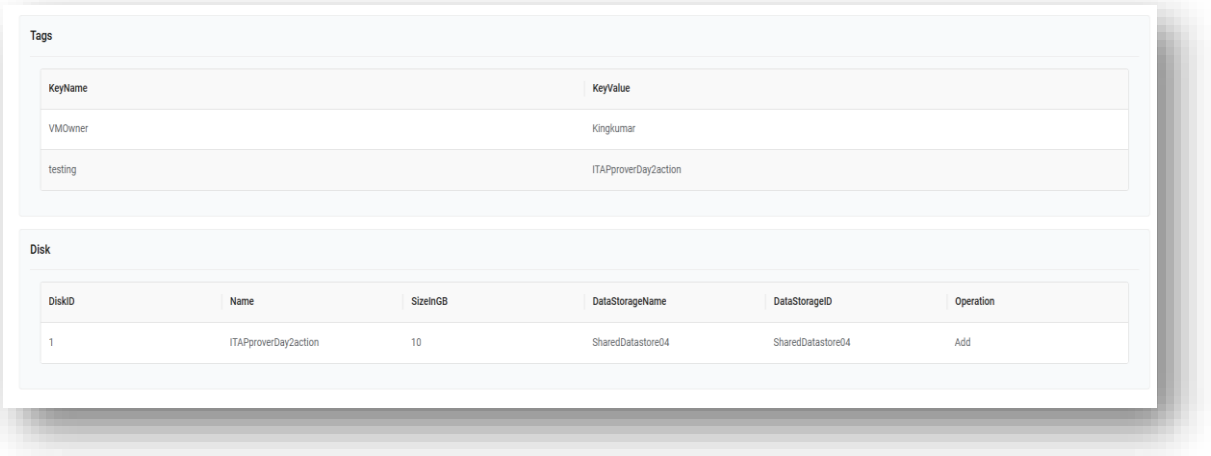


Figure 143 - My Objects - Object and Health Details (Cont.)

3.1.2.1.2.1.7 Object Order Details

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

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

1. Click Request No (ReqNo000400-1) in the **Object ID** column of the grid.

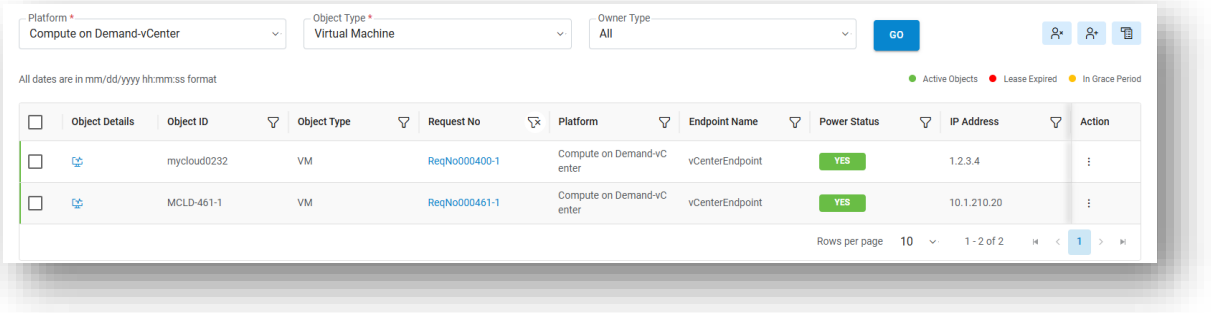


Figure 144 - My Objects – Object Order Details

2. The Cloud Control pop-up appears with the summary of object and Approval history.
3. Click **Close** (☒) to close the pop-up window.

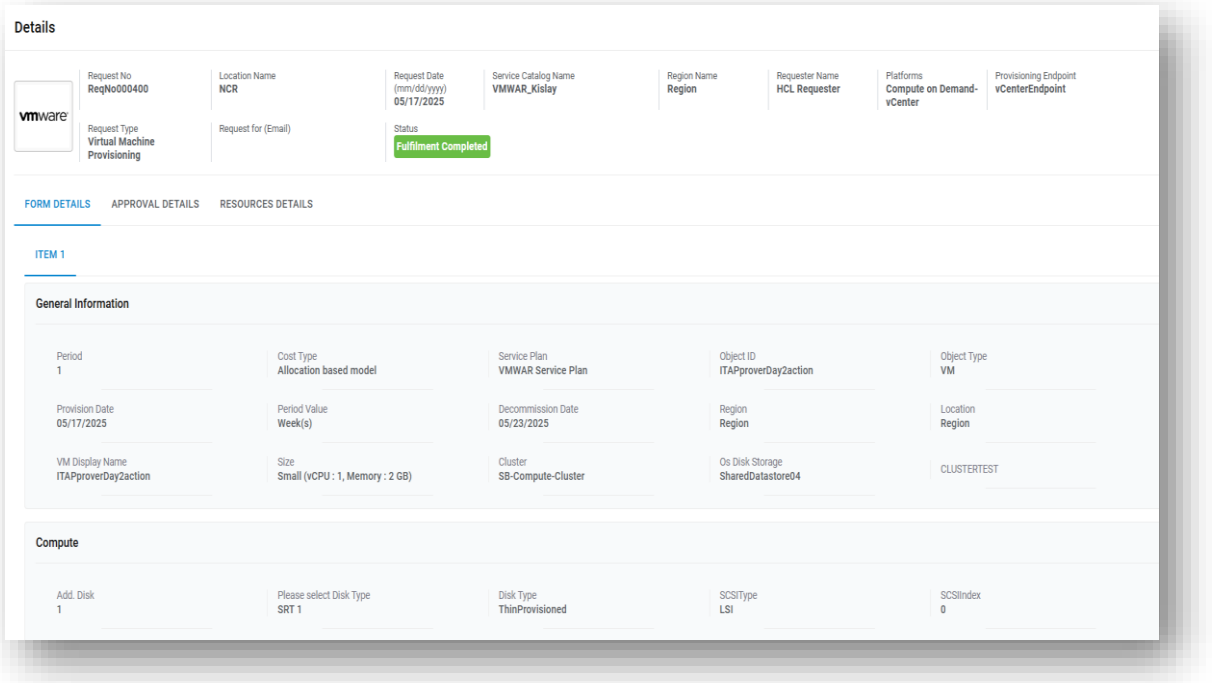


Figure 145 - My Objects – Object Order Details (Cont.)

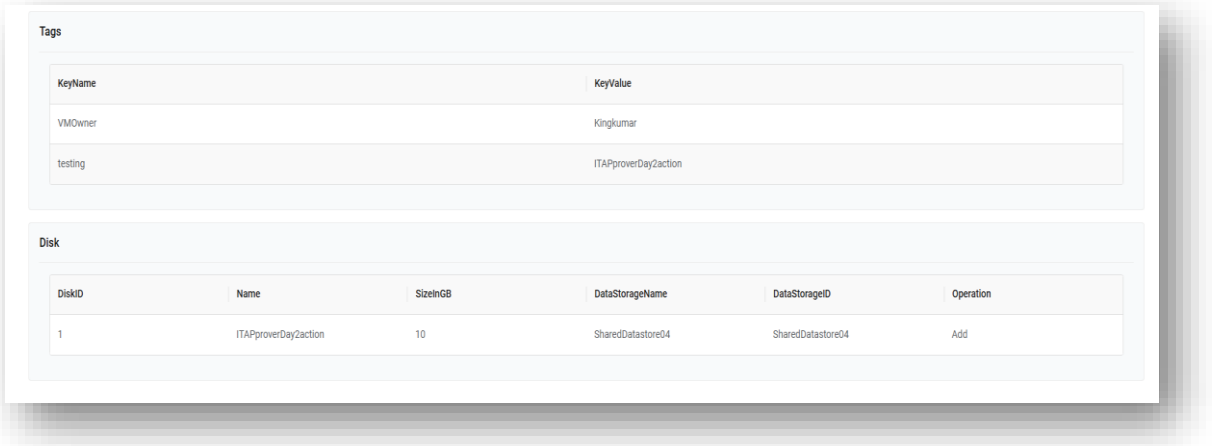


Figure 146 - My Objects – Object Order Details (Cont.)

3.1.2.1.2.1.8 Object Actions

This section provides the details of Virtual Machine Actions.

3.1.2.1.2.1.8.1 Start VM

To start with a VM, the 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. A successful message appears on the following screen.

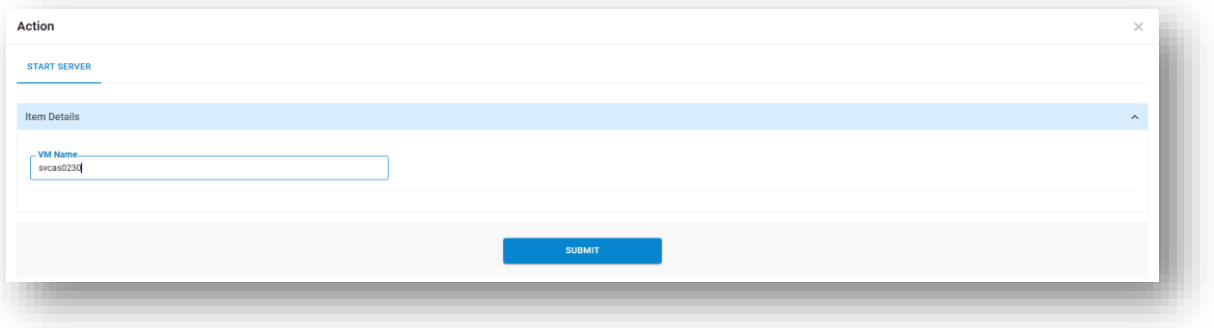


Figure 147 - Start VM

3.1.2.1.2.1.8.2 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. A successful message appears on the following screen.

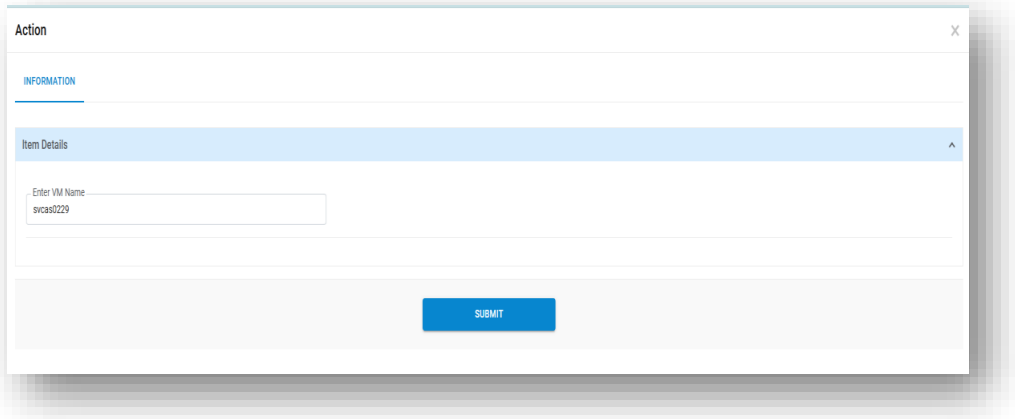


Figure 148 - Stop VM

3.1.2.1.2.1.8.3 Add Disk

To add disk, a requester needs to follow the following 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.
5. Click **Submit** to add disk.
6. A successful message appears on the following screen.

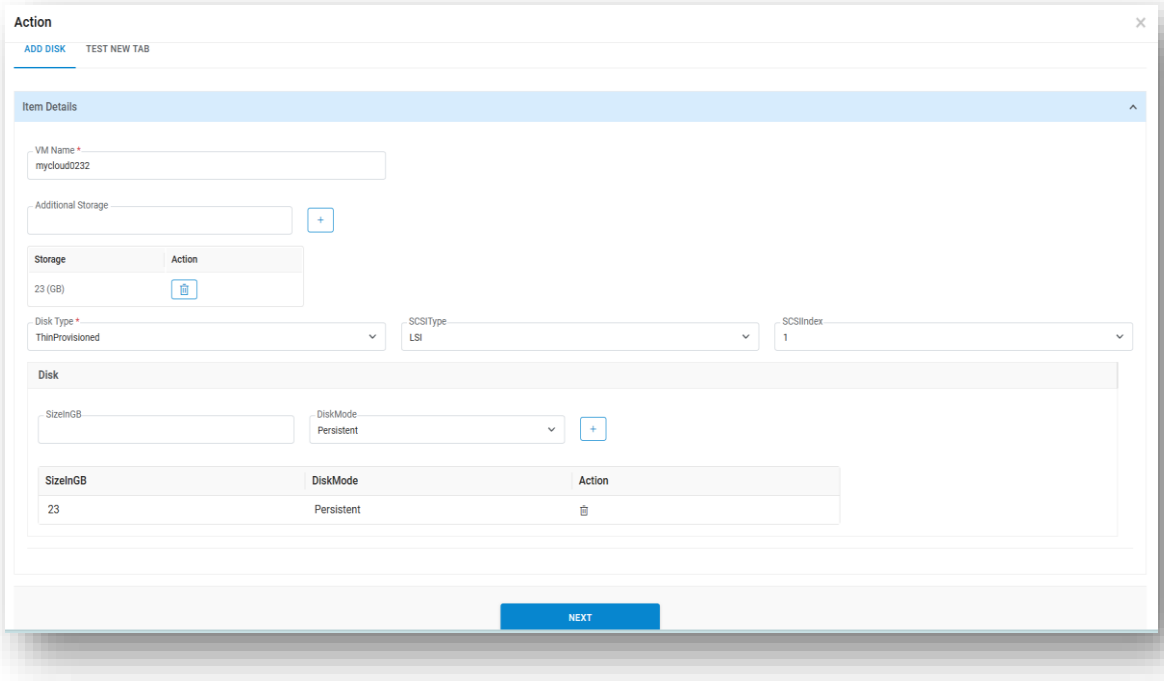


Figure 149 - Add Disk

3.1.2.1.2.1.8.4 Remove Disk

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

1. Enter **Server Name**.
2. Enter **Resource Group Name**.
3. Select **Disks**.
4. Click **Submit** to remove disk.

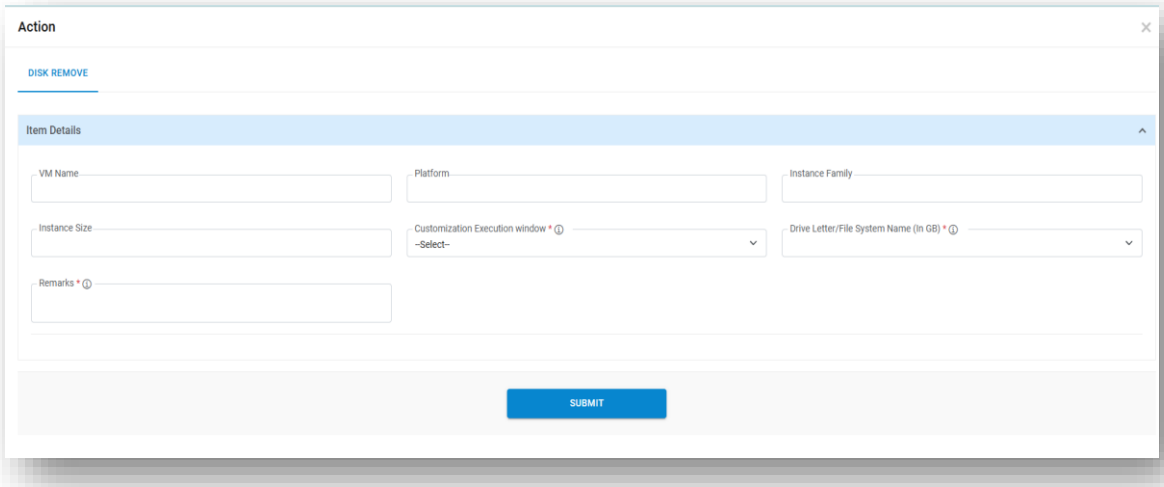


Figure 150 - Remove Disk

3.1.2.1.2.1.8.5 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.

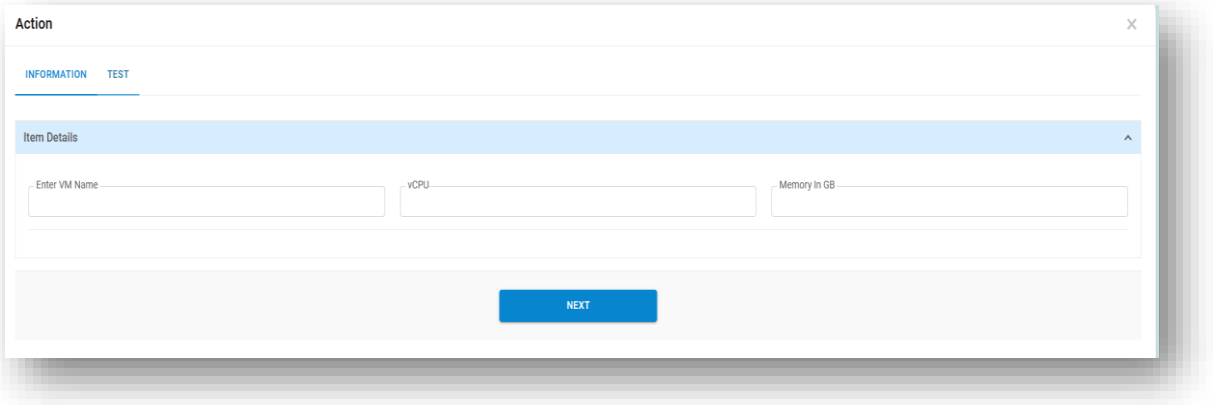


Figure 151 - Resize VM

3.1.2.1.2.1.8.6 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.

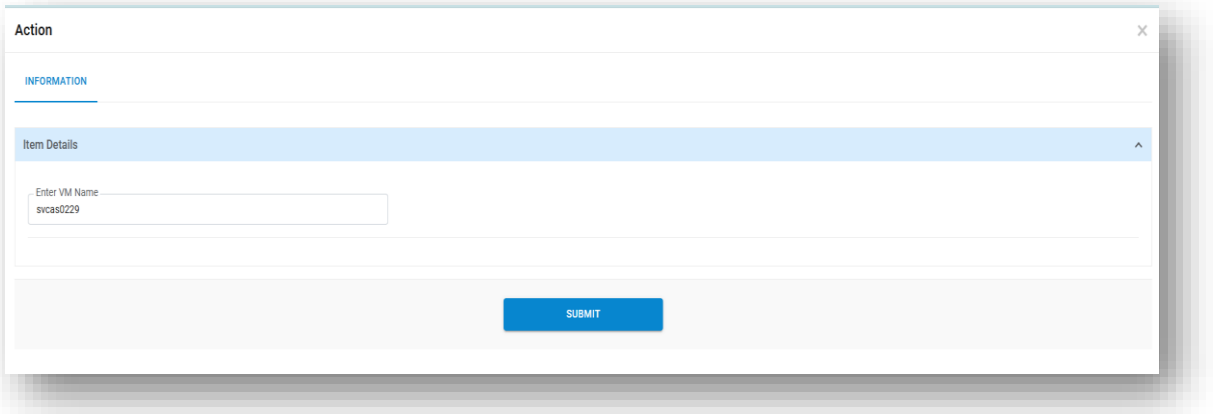


Figure 152 - My Object (Cont.)

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 HCL BigFix CLM.

The approval workflow includes two types of approvers:

- Business Approver
- Technical Approver

On successful Logging to business approver module, the user gets redirected to HCL BigFix CLM Requester Dashboard.

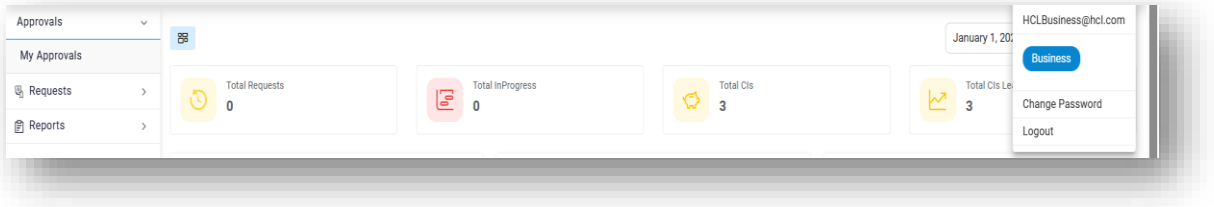


Figure 153 - Approver Module

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

3.1.3.1 Business Approver

3.1.3.1.1 Accessing BigFix CLM

Get the URL and user credentials for HCL BigFix CLM.

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

1. Launch a web browser (Chrome, Mozilla, or Edge) and use the HCL BigFix CLM URL and user credentials to login to the system.
2. Enter the **Email ID**.
3. Click **Next**

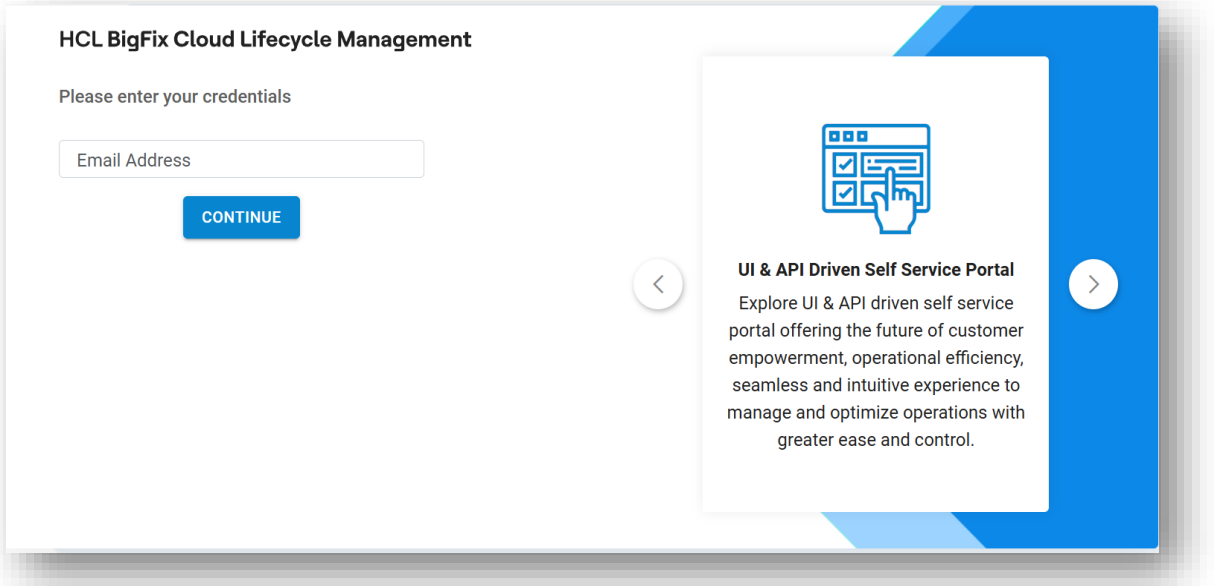


Figure 154 – HCL BigFix CLM Login Page

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 34 – 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 users through the third -party Identity Access Management (IAM) which supports SAML based authentication

If there are no login credentials, then drop an email to bigfixclm-prodsupport-team@hcl-software.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.

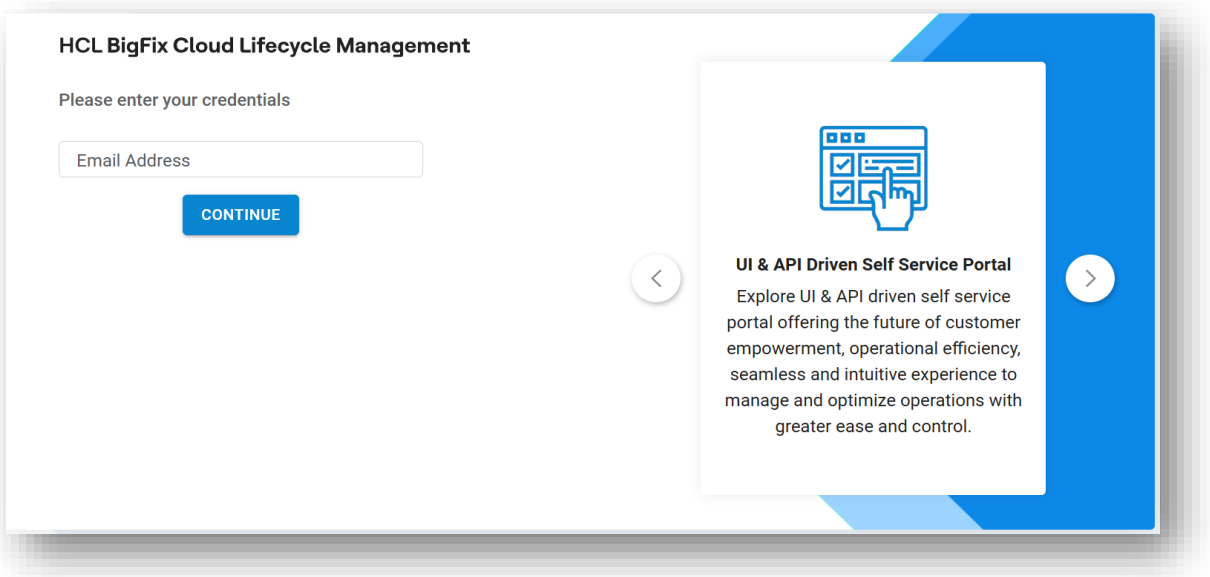


Figure 155 - HCL BigFix CLM Login Page

6. Click **Login**.
7. On successful login, HCL BigFix CLM homepage for Business Approver appears, as shown below.
8. The following are the options that are available for Business Approver:
   - My Reports
   - Service Catalog
   - My Account

- Cloud Advisory
- Help

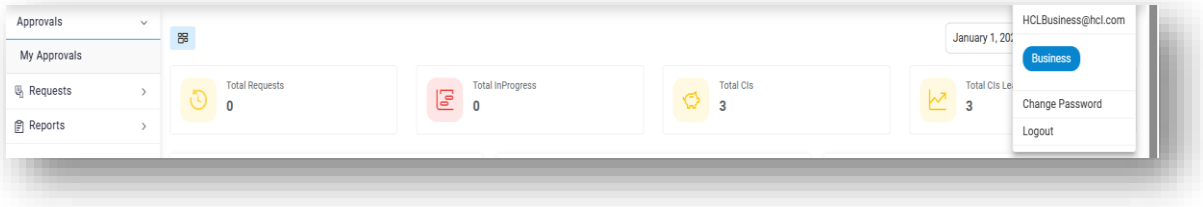


Figure 156 - My Approval

3.1.3.1.1.1.1 Approval

Approval screen appears with the following options:

- Pending Approvals
- Approval History

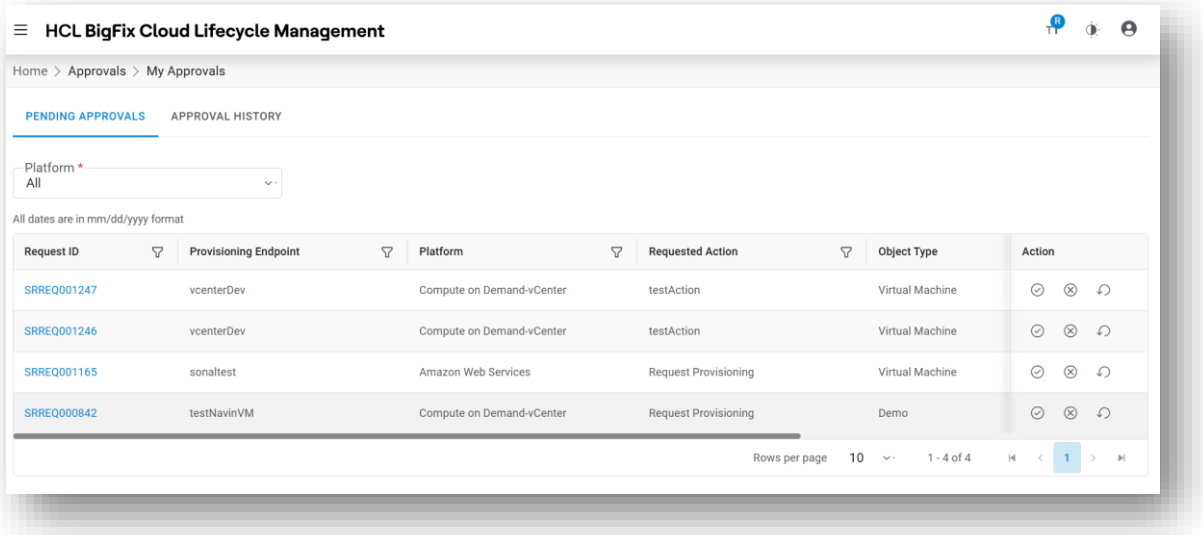


Figure 157 – Pending Approvals

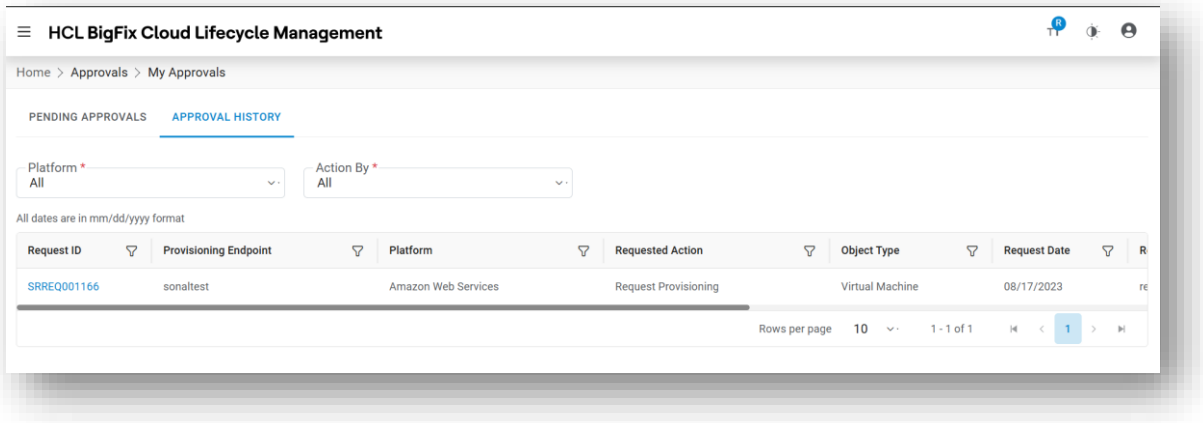


Figure 158 –Approval History

3.1.3.1.1.1.1.1 My Pending Approval

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

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

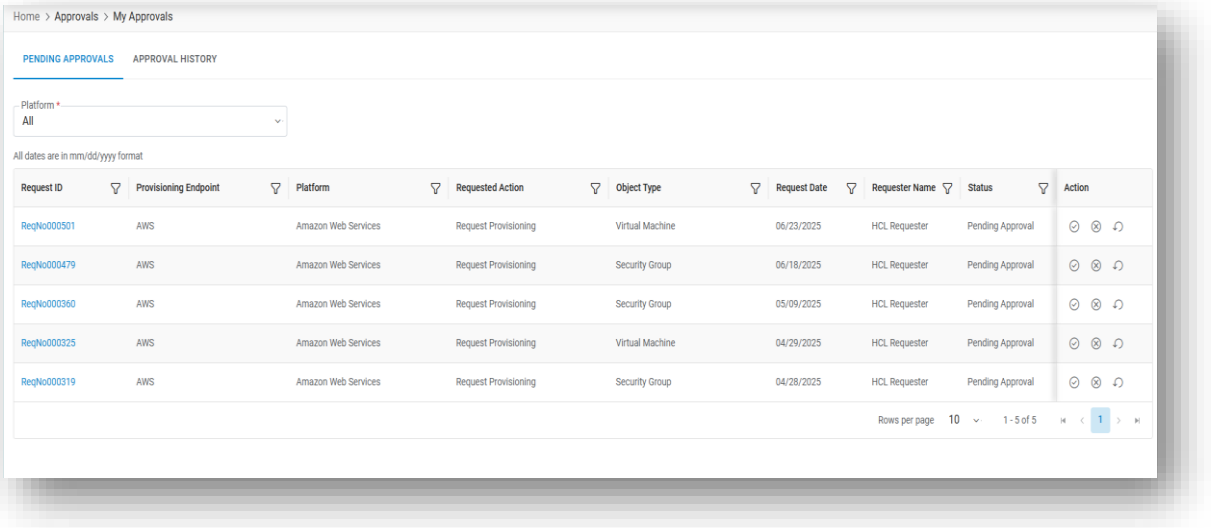


Figure 159 - Pending Approval

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

Table 35 – Pending Approval Fields

Fields	Description
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	Status of the request
Action	It allows the Approver to take actions like Approve, reject or refer back the request

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

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

a. Click **Approve** ( ) against the request ID that needs to approve.

   A window pops-up with a summarized view.

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

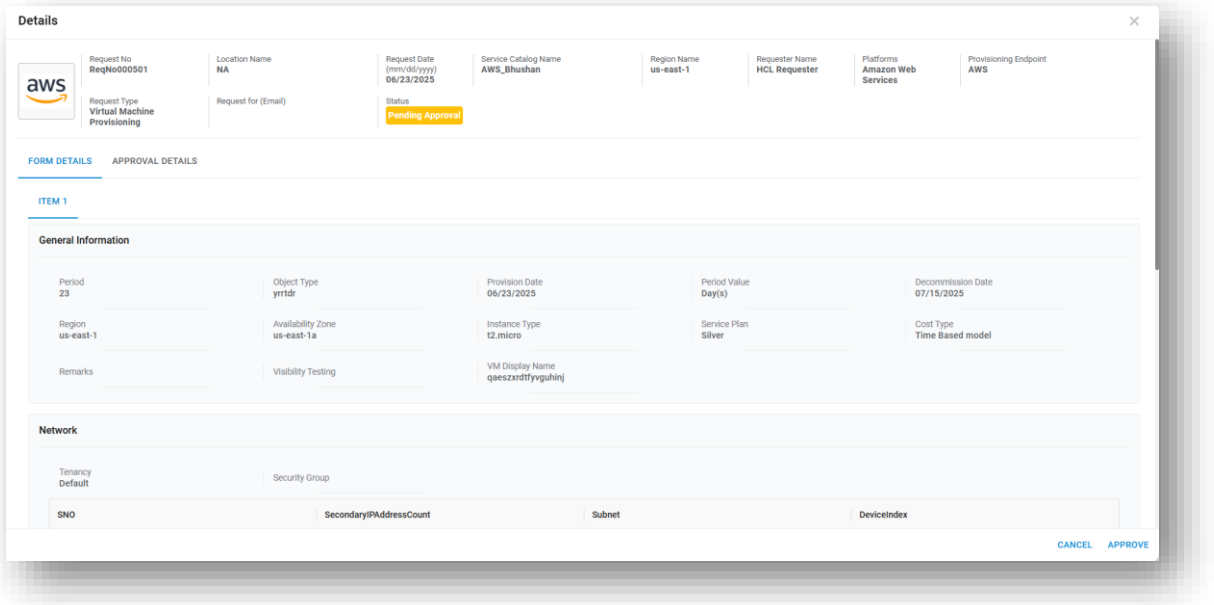


Figure 160 - My Pending Approval (Cont.)

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

d. A success message box appears on the following screen.

– **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.

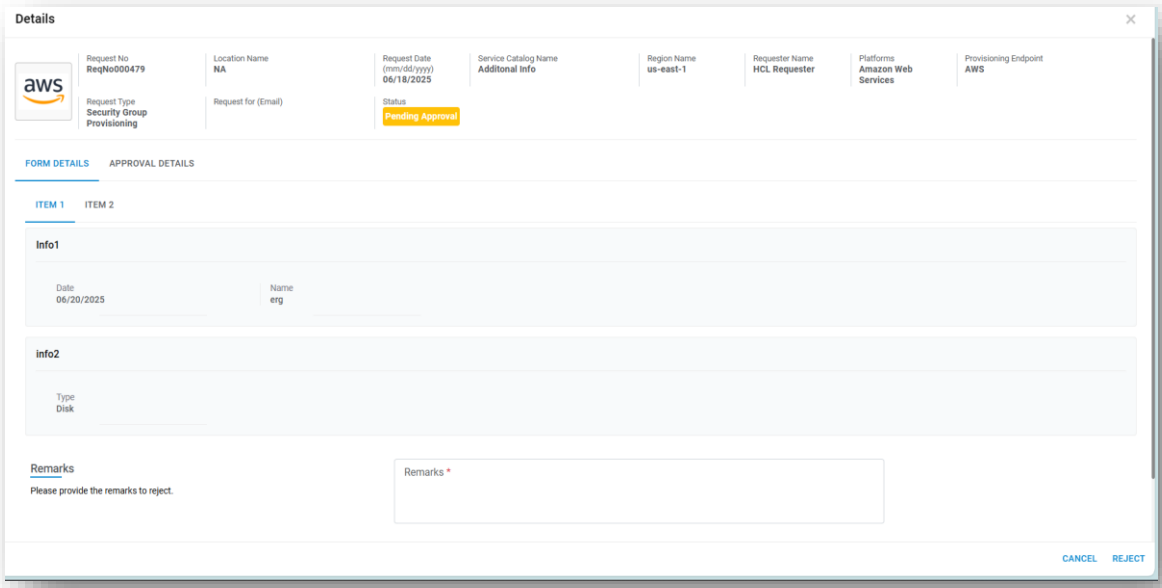


Figure 161 - Pending Approval (Cont.)

c. A success message box appears on the screen.

– **Refer Requests: To refer 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**.

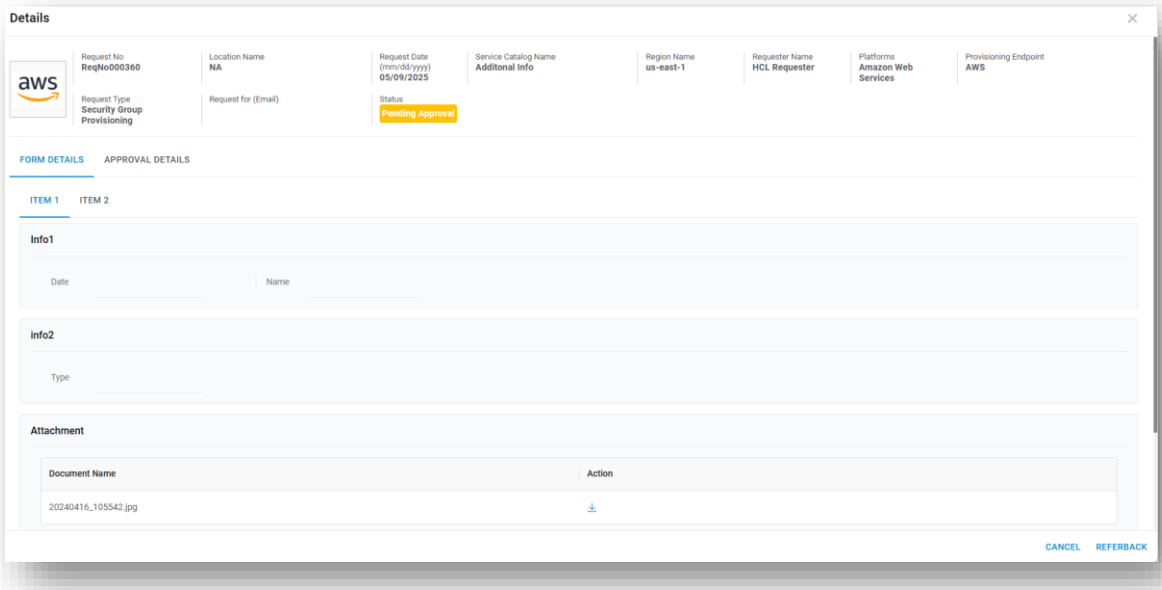


Figure 162 - Pending Approval (Cont.)

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

d. A success message box appears on the screen.

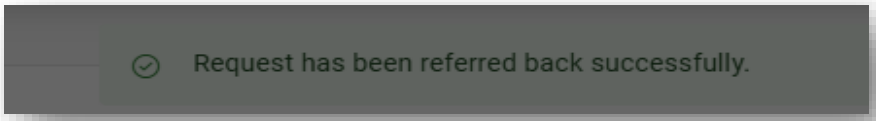


Figure 163 - Pending Approval (Cont.)

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

3.1.3.1.1.1.2 Approval History

This section details 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**.

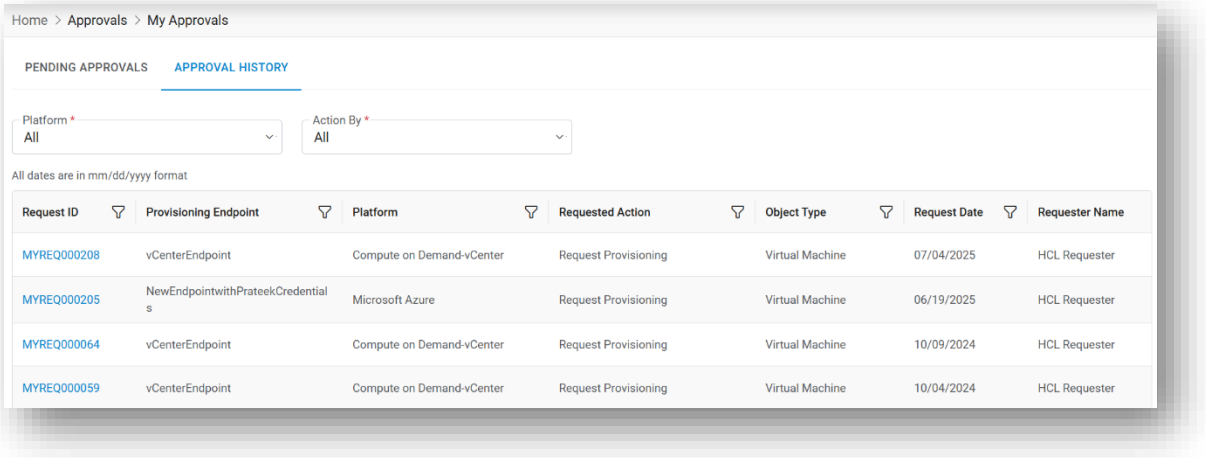


Figure 164 - Approval History

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

Table 36 - 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.

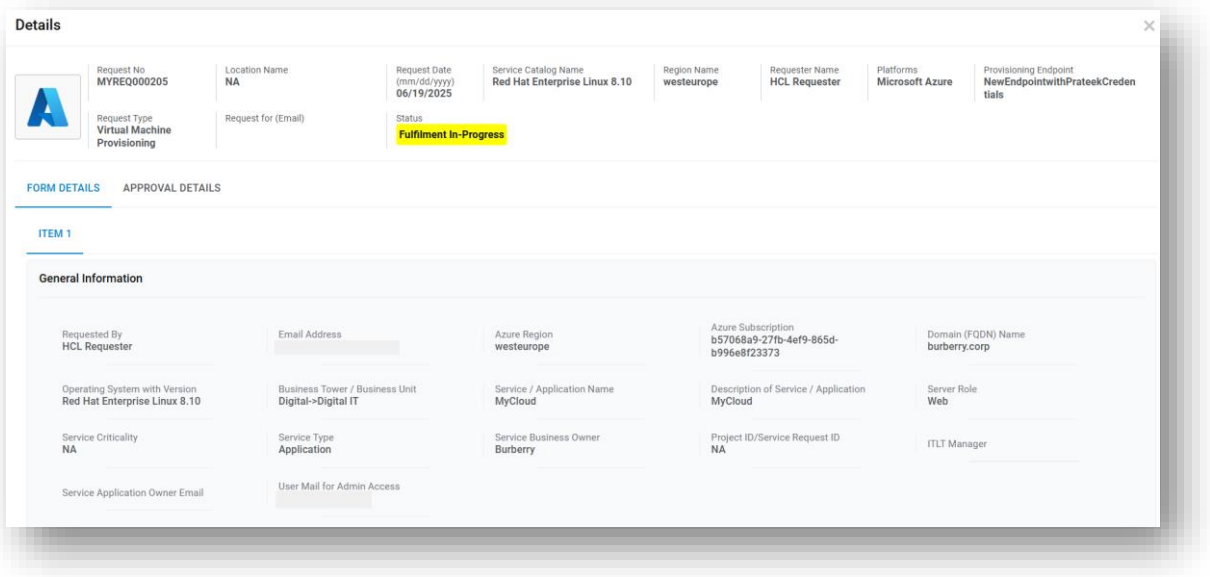


Figure 165 - My Approval History (Cont.)

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

Table 37 - My Approval History

Fields	Description
Request ID	Unique request ID
Date	Approval date (post approval)
Status	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 HCL BigFix CLM

Get the URL and user credentials for HCL BigFix CLM.

Reach out to the person who has configured HCL BigFix CLM or drop an email to bigfixclm-prodsupport-team@hcl-software.com

1. Launch a web browser (Chrome, Mozilla, or Edge) and use the HCL BigFix CLM URL and User credentials to login to the system.
2. Enter the **Email ID.**
3. Click **Next.**

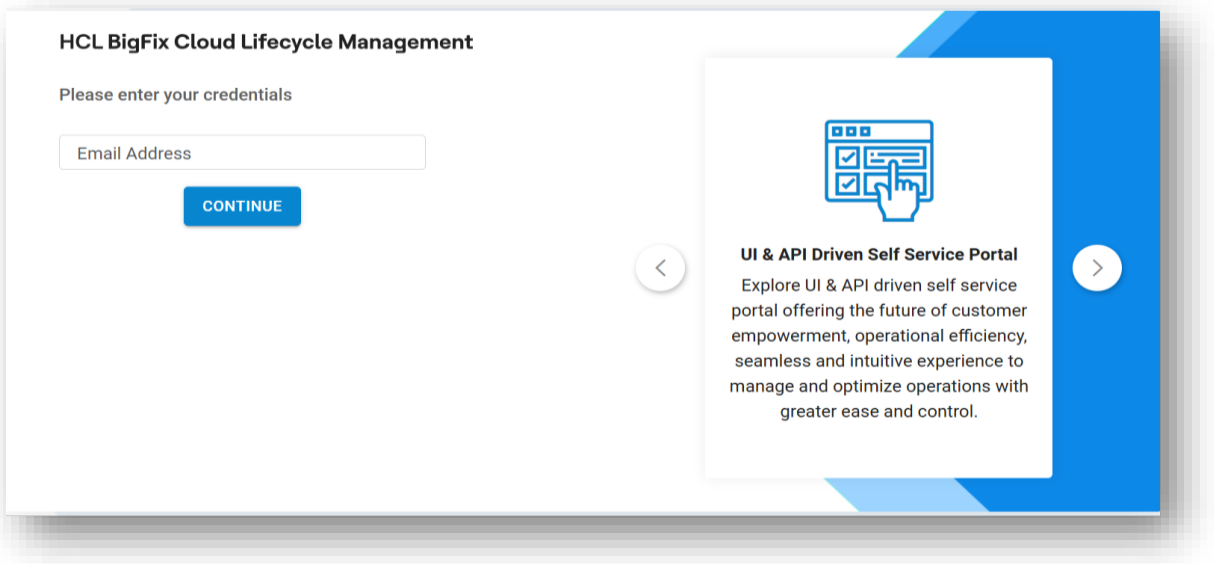


Figure 166 - HCL BigFix CLM Login Page

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 38 – 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 users through the third -party Identity Access Management (IAM) which supports SAML based authentication

If there are no login credentials, then drop an email to bigfixclm-prodsupport-team@hcl-software.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.

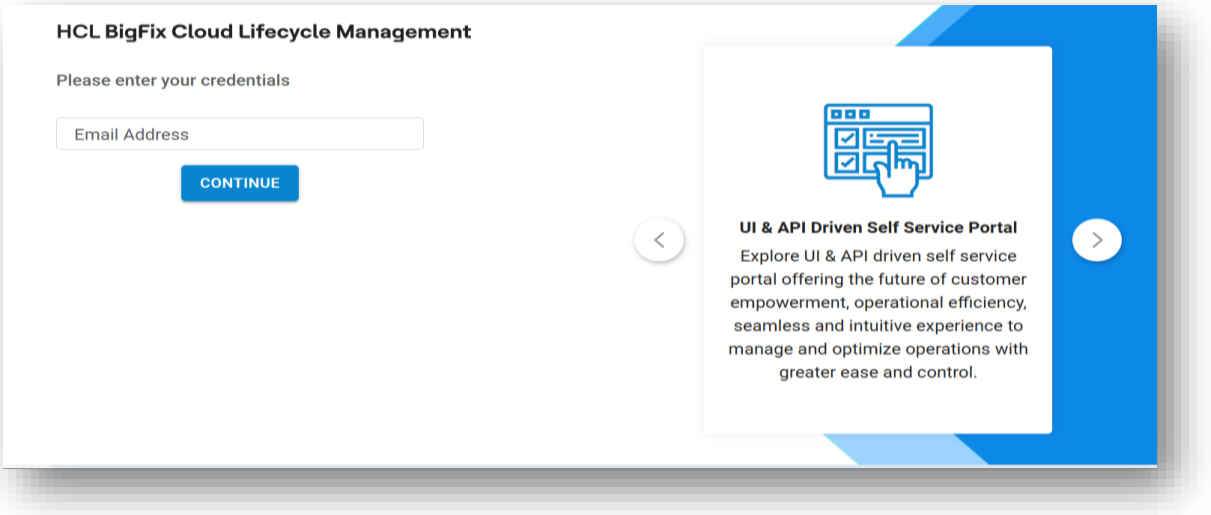


Figure 167 - HCL BigFix CLM Login Page (Cont.)

6. Click **Login**.
7. On successful login, HCL BigFix CLM homepage for technical approvers appears, as shown below.

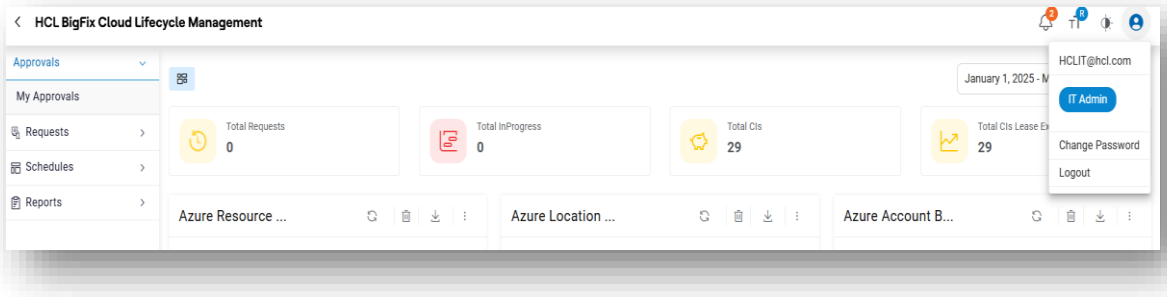


Figure 168 - Technical Approver

8. The following options are available for **Technical Approver**:
   - My Account
   - **Error! Reference source not found.**
   - 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.

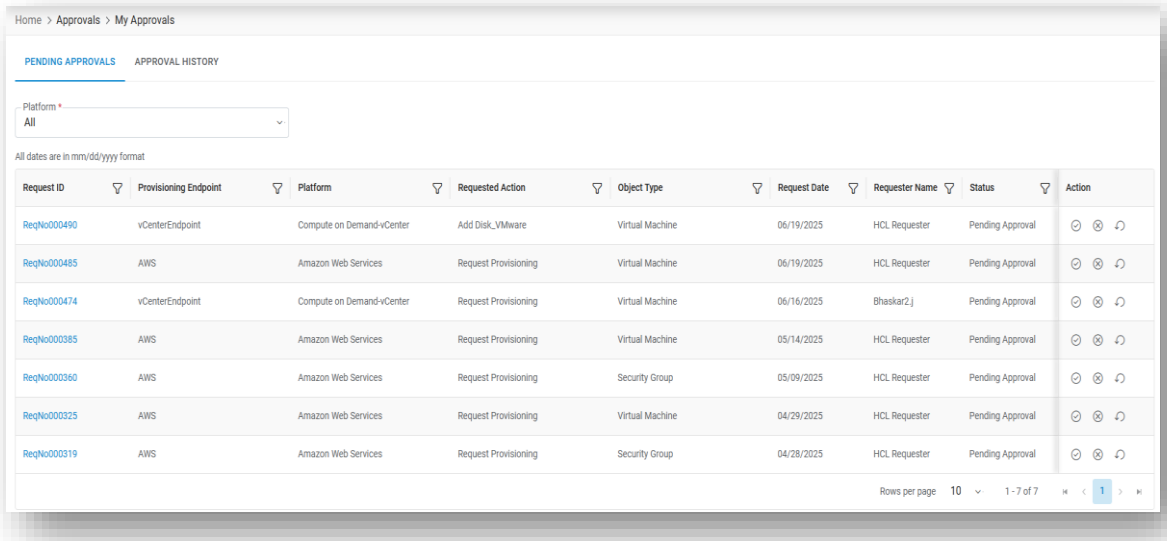


Figure 169 - My Approval

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

Table 39 – 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 status of the request placed
Action	It allows the user to take actions like mark as Complete, reject or refer the request.

3.1.3.2.1.1.1.1 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.

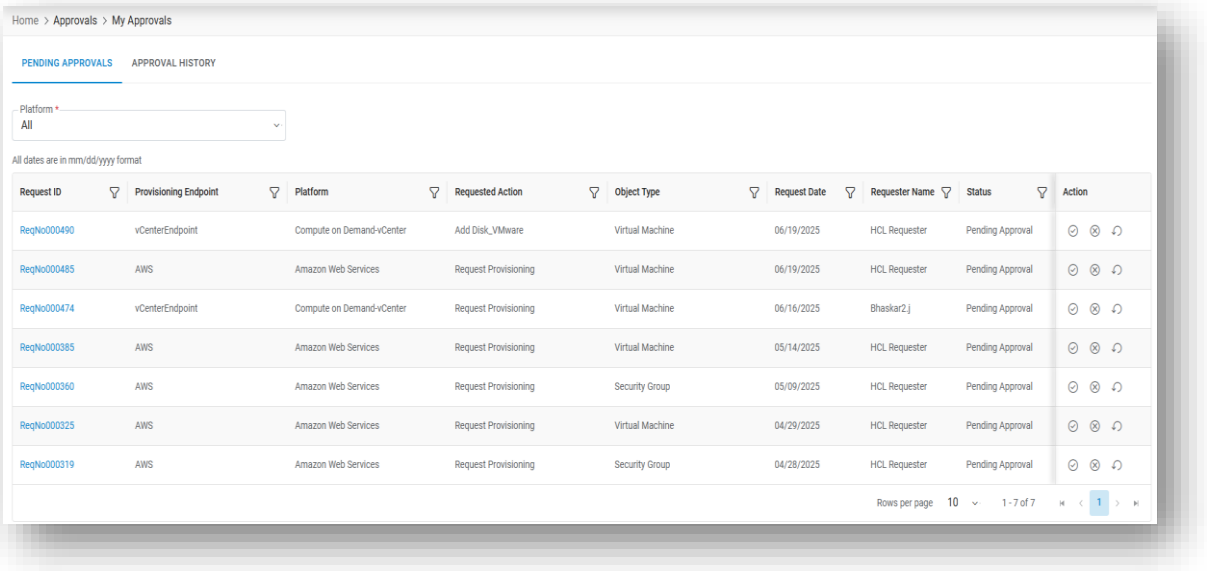


Figure 170 - My Pending Approval

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

- **Approve Requests:** To approve a request, the 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**.

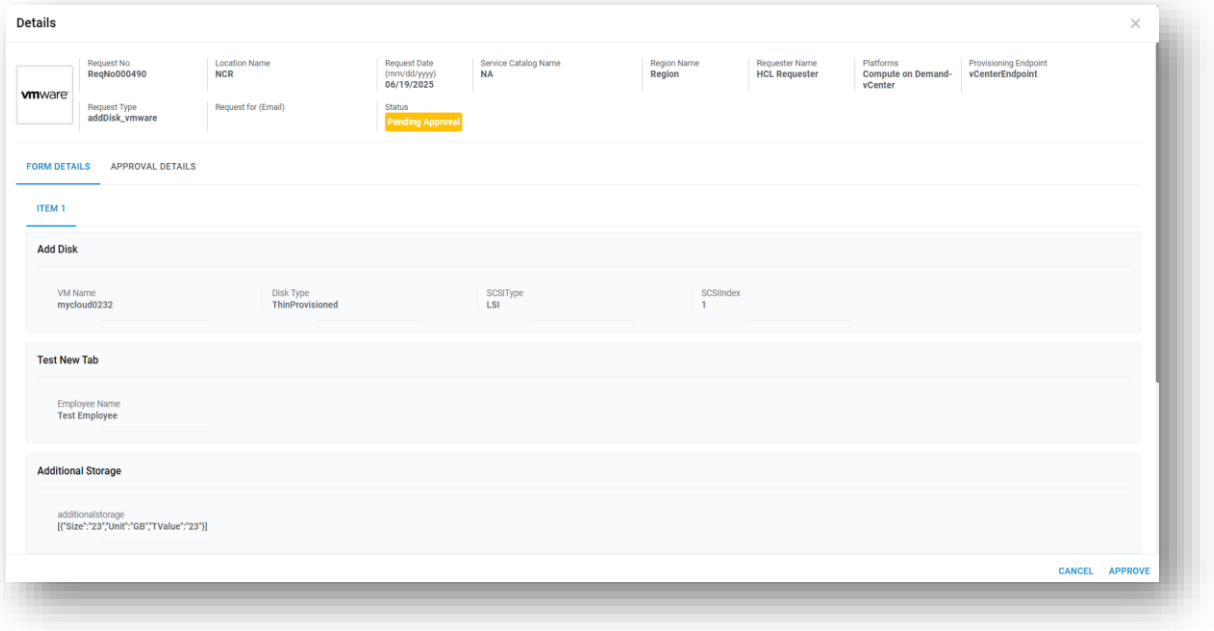


Figure 171 – Requester Approver Comments

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

Table 40 – 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 the size of requested resource
Cluster	List the vCenter cluster
Storage	List the data stores associated with clusters
Network	Lists of the network associated with cluster
Remarks	Provide the additional requests if any

2. The selected request ID has been approved and moved from **My Pending Approval** to **Approval History**.
3. A success message box appears on the screen.

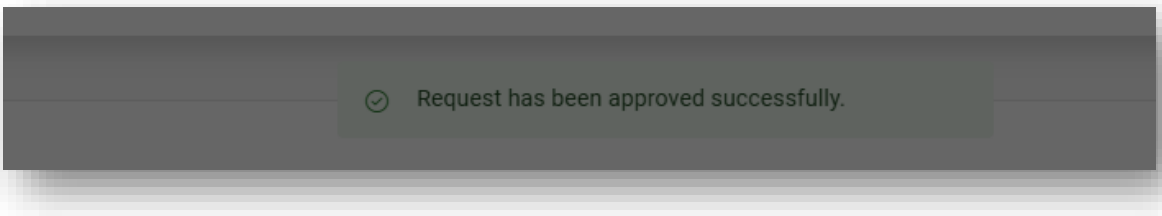


Figure 172 – My Pending Approval

– **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.

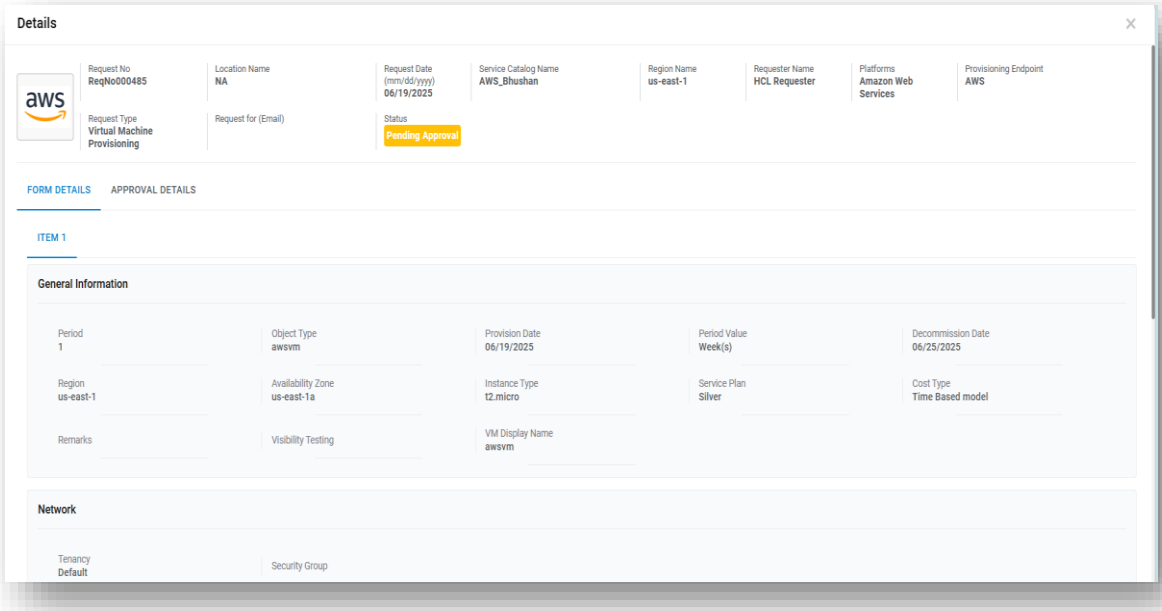


Figure 173 - My Pending Approval (Cont.)

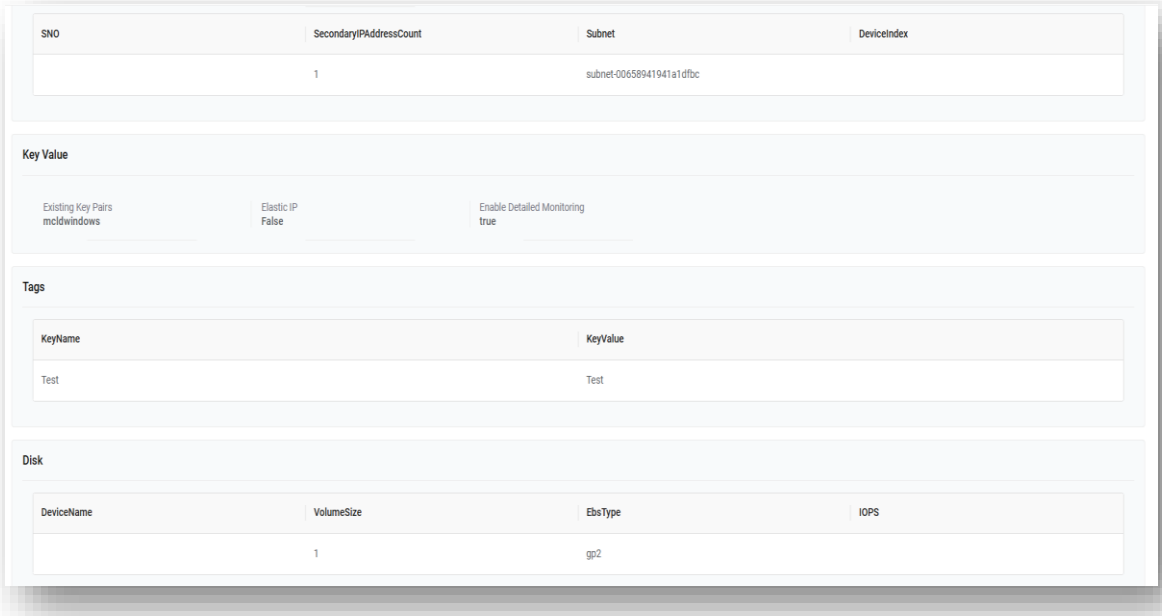


Figure 174 - My Pending Approval (Cont.)

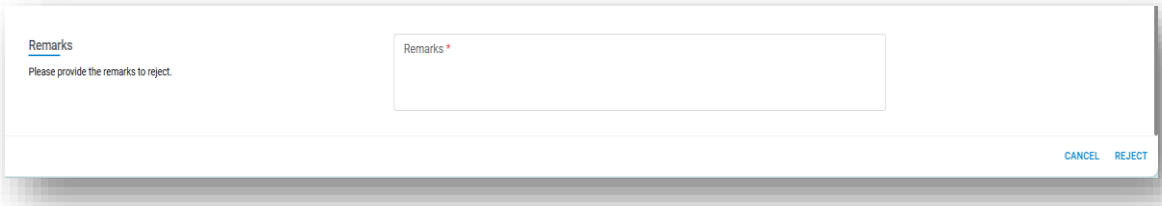


Figure 175 - My Pending Approval (Cont.)

c. A success message box appears on the screen.

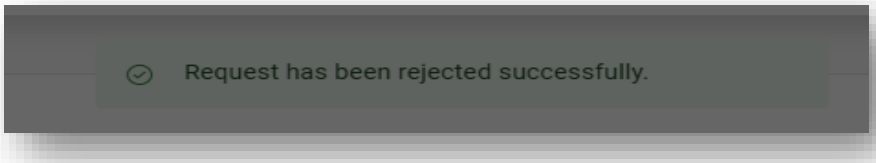


Figure 176 - My Pending Approval (Cont.)

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

a. Click **Refer back** ( ) against the request ID. A window pop-up with request details.

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

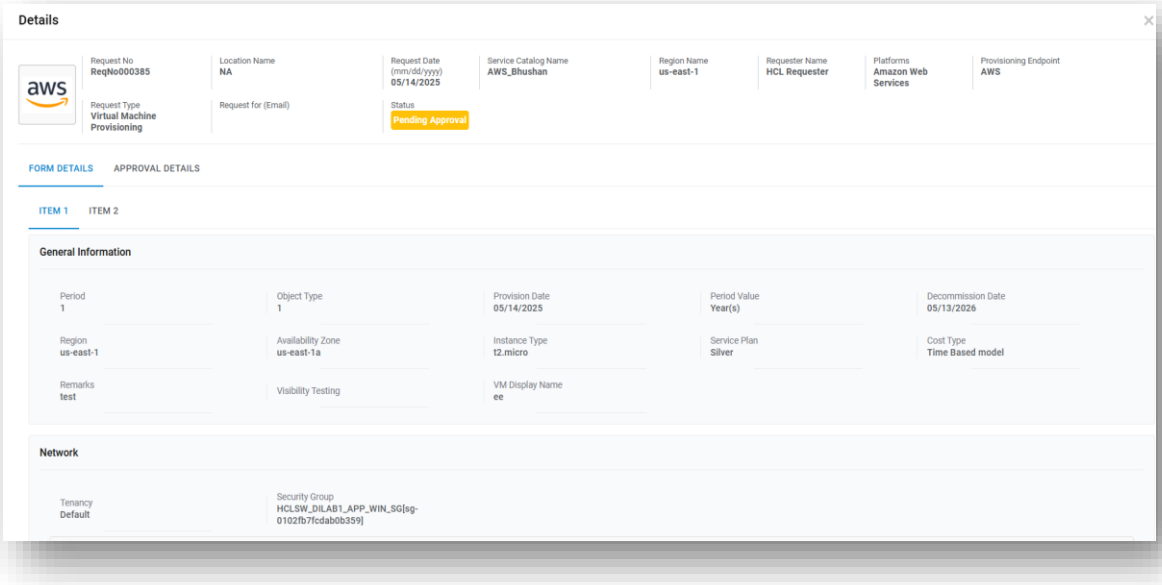


Figure 177 - My Pending Approval (Cont.)

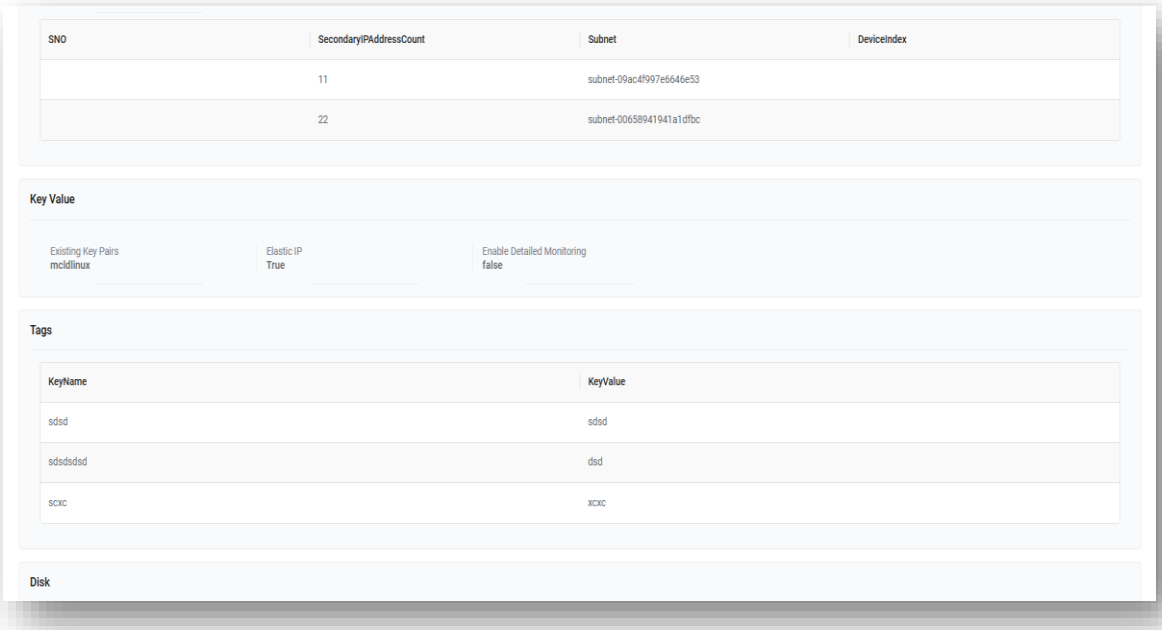


Figure 178 - My Pending Approval (Cont.)

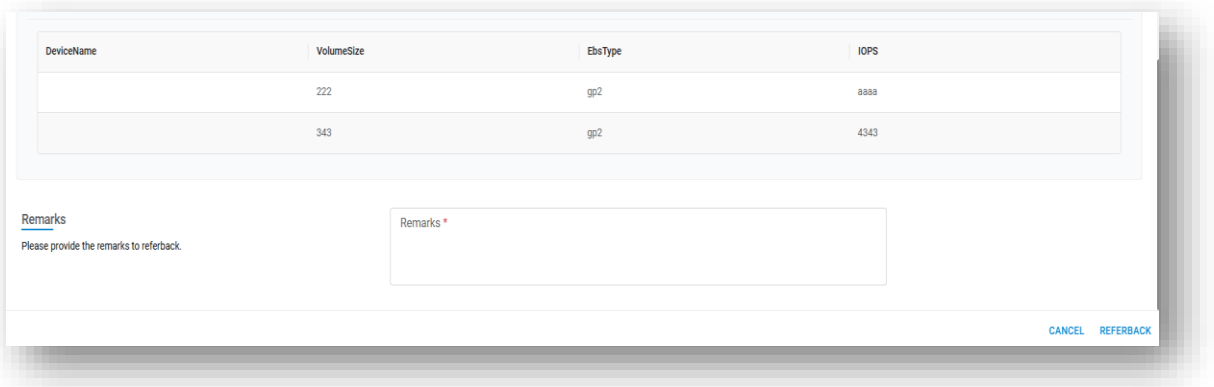


Figure 179 - My Pending Approval (Cont.)

4. Selected request Id has been referred to and the requester gets a notification with the remarks for further action to be taken on it.
5. A success message box appears.

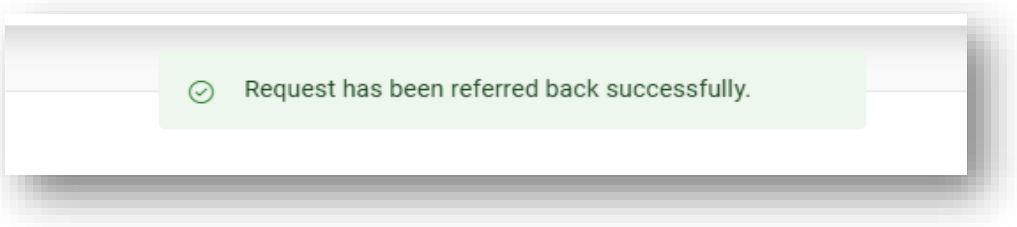


Figure 180 - My Pending Approval (Cont.)

All fields marked with asterisk (*) are mandatory. The above process is for VMware; Fields may vary in the 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.

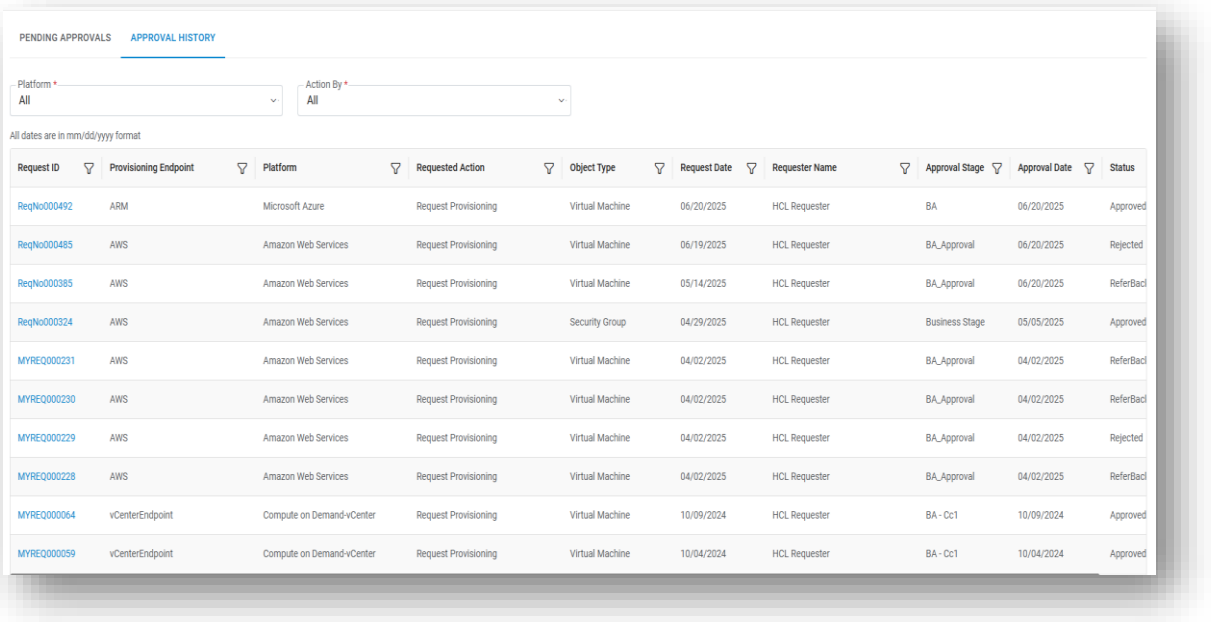


Figure 181 - My Approval History

2. It lists down all the approved requests approved by self or others.
3. Refer to the table below to understand the fields mentioned in the above figure.

Table 41 – 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 (username of approval)

4. Click on **Request ID**.
5. The **Order History** window appears.

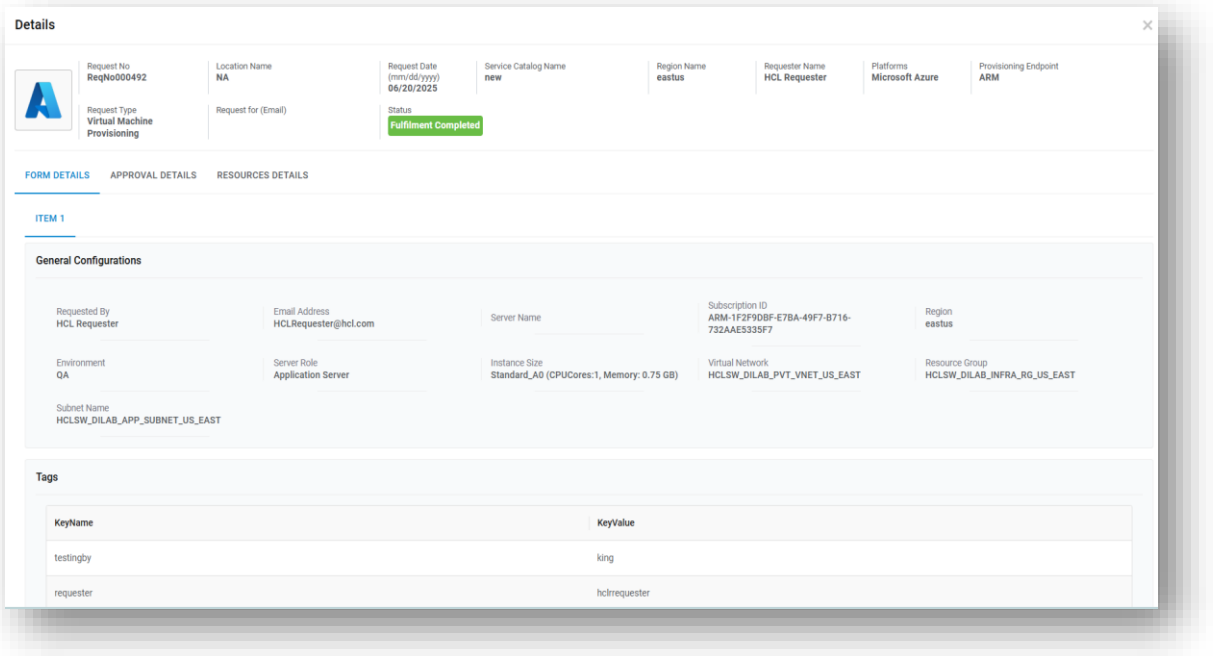


Figure 182 - My Approval History (Cont.)

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

Table 42 - My Approval History

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

3.1.3.2.1.1.2 IT Verification

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

Only those requests will be sent to IT Verification where Provider Admin has confirmed 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

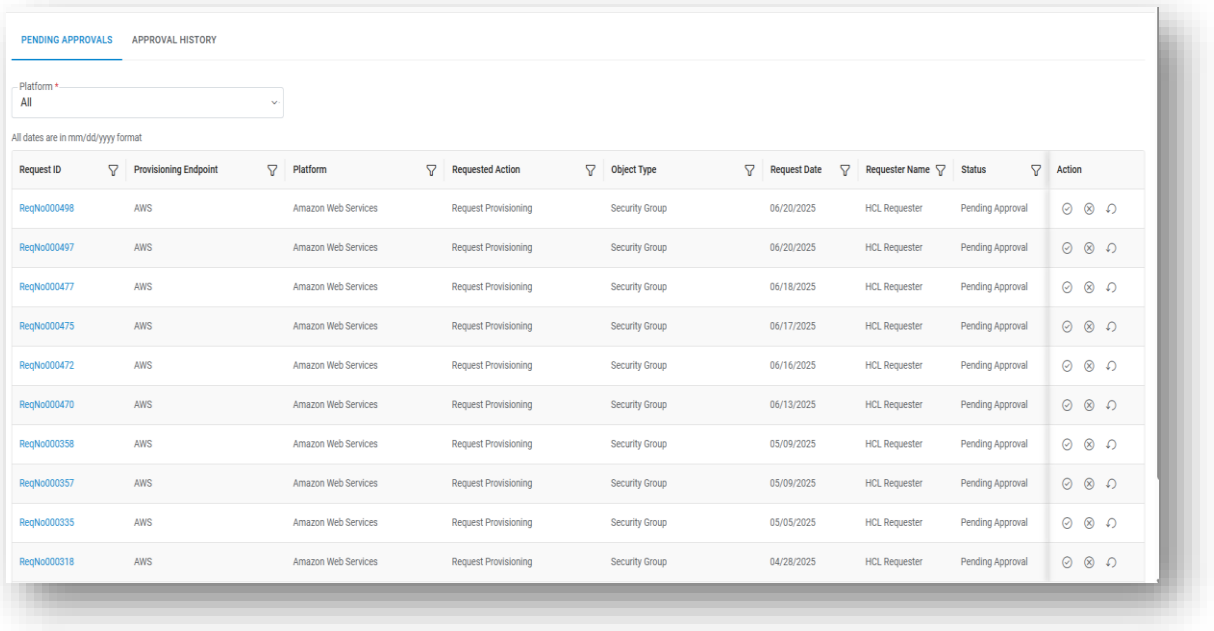


Figure 183 - IT Approval

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

Table 43 – 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.

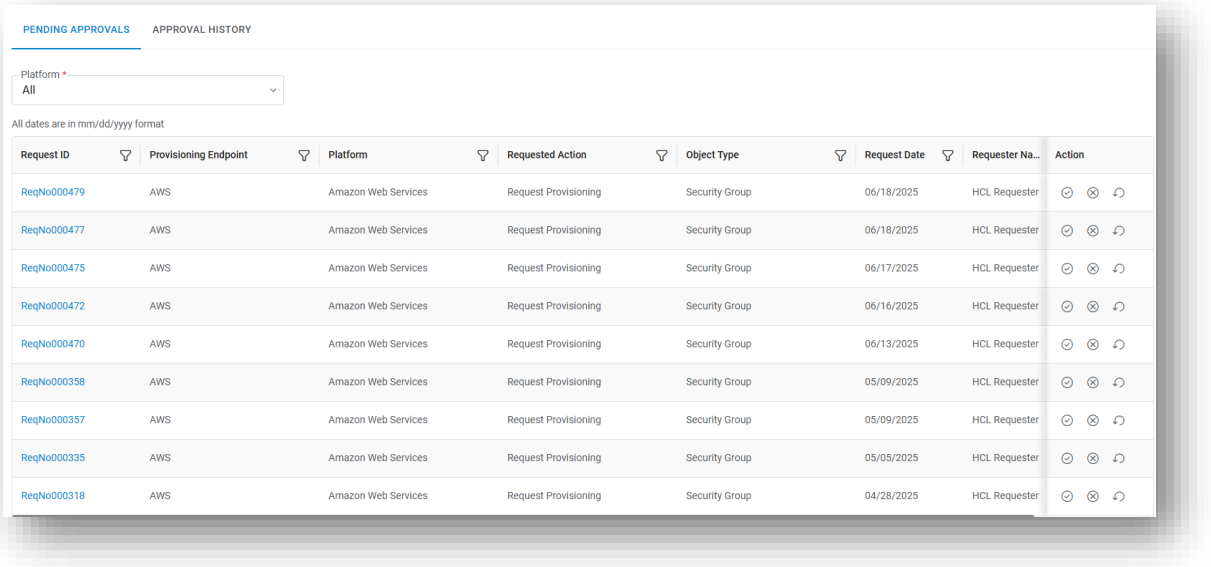


Figure 184 – IT Verification - My Pending Approval

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

– To approve a request, the 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**.

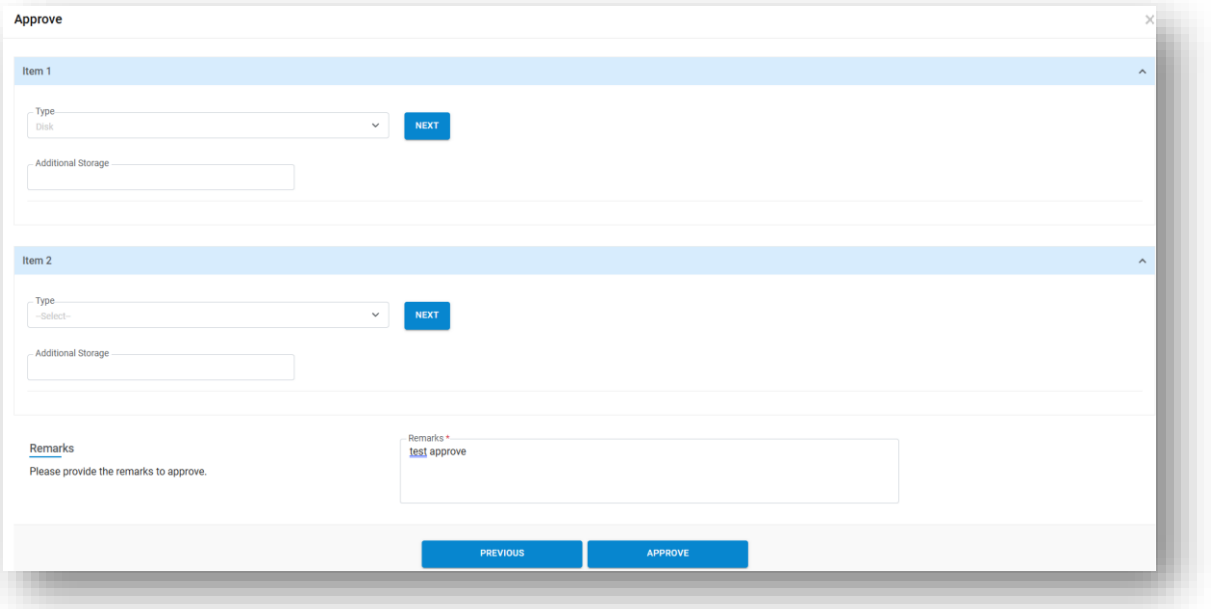


Figure 185 – IT Verification – Approval Popup

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

Table 44 – 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. The selected request ID has been approved and moved from **My Pending Approval** to **Approval History**.
3. A success message box appears on the screen.

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

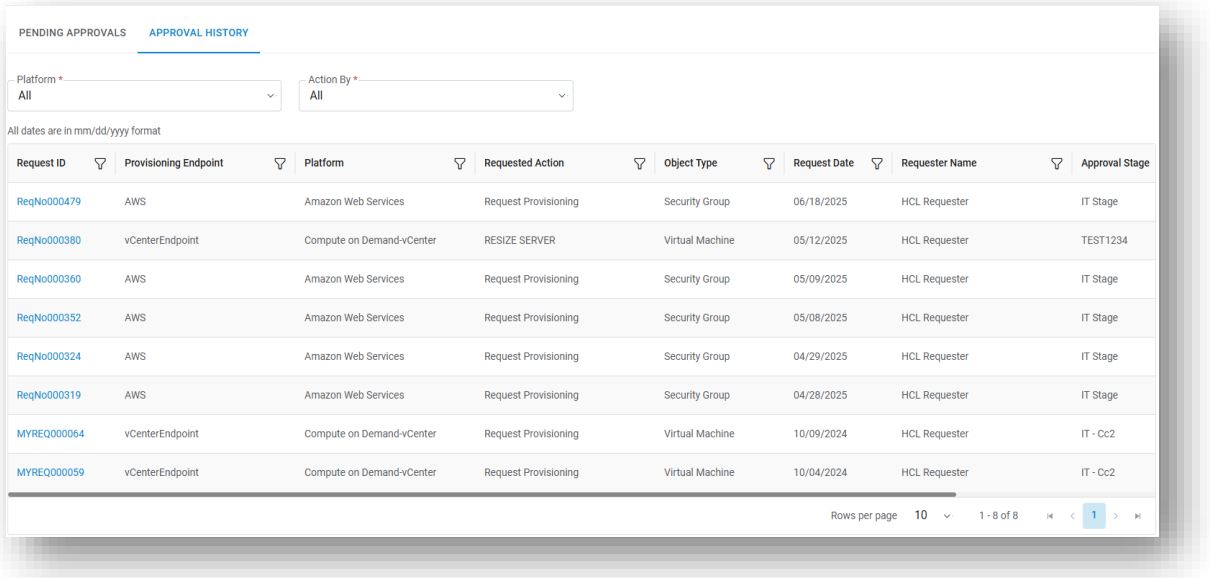


Figure 186 – IT Approval - My Approval History

2. It lists all the approved requests.
3. Refer to the table below to understand the fields mentioned in the above figure.

Table 45 – 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.

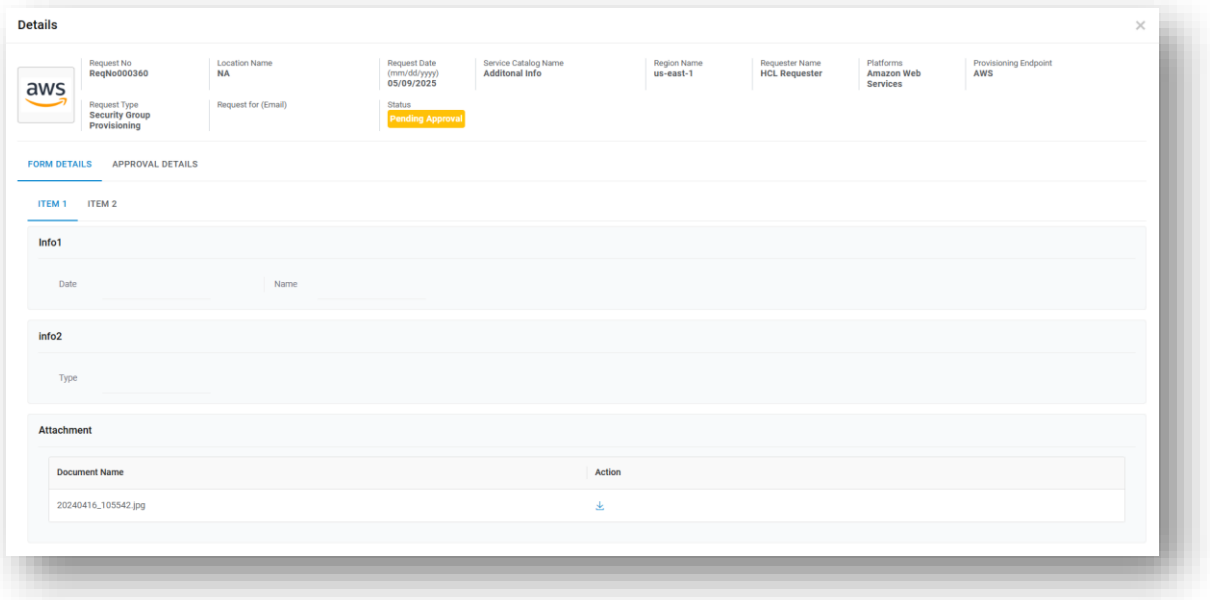


Figure 187 – IT Approval – Order History

3.1.3.2.1.2 My Reports

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

3.1.4 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 the following categories:

- Metering
- Node Utilizations
- Top Bottom Nodes
- My Bills
- Trend Analytical
- Trend Compare
- SLA 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

Reports are viewed based on the role of a person:

If the user cannot see the report as per the report below, 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 46 – 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

3.1.4.1 Metering

HCL BigFix CLM offers advanced monitoring features to keep track of Cloud Account usage with the help of metering reports. It creates daily data reports 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. The 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
- Five 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 in the details in the form to get a hierarchical level report:

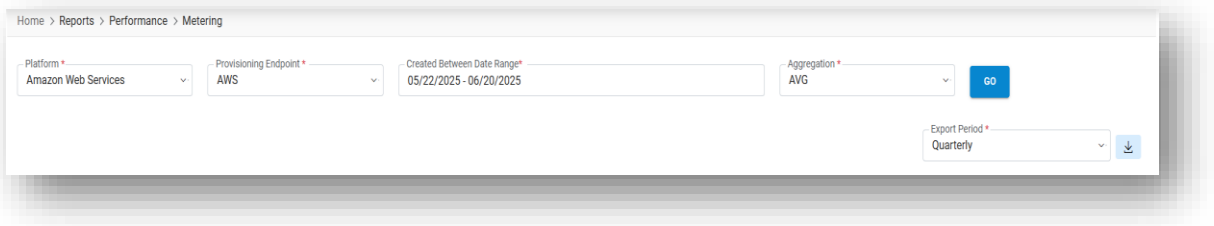


Figure 188 - Metering Report

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

Table 47 -Metering Report

Fields	Description
Period	The lease period for which a resource is required.
From Date	Started dating by 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**, the user needs to follow the steps below:

– **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.

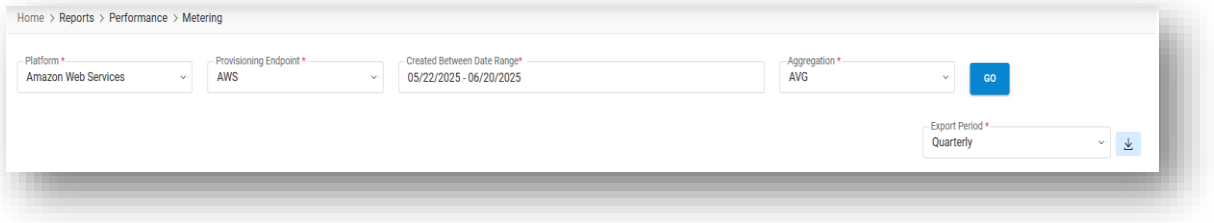


Figure 189 - Metering Report (Cont.)

Reports appear in a tabular form, as shown below:

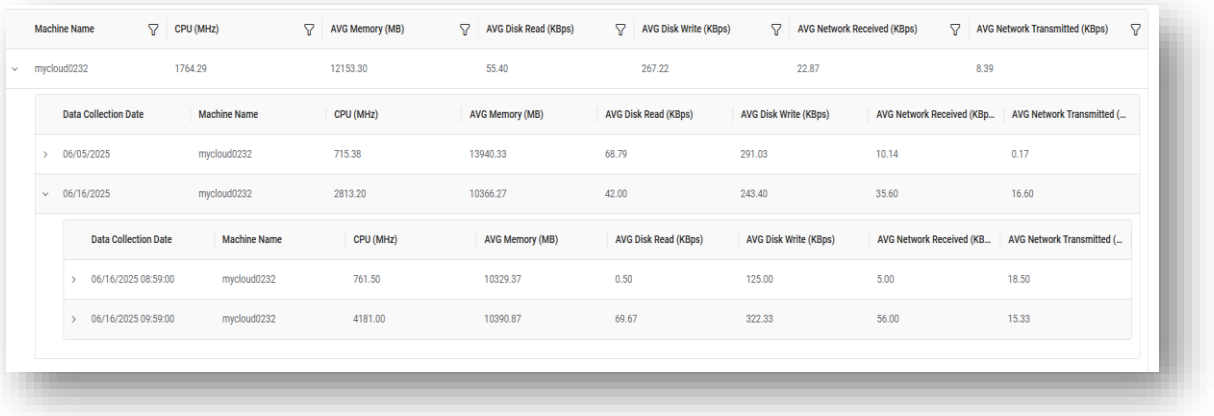


Figure 190 - Metering Report (Cont.)

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

Table 48 - 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 the user needs to follow the below steps:

– **Export and Segregation Filter:** This step enables the user to export a filtered report or complete HCL BigFix CLM 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**.

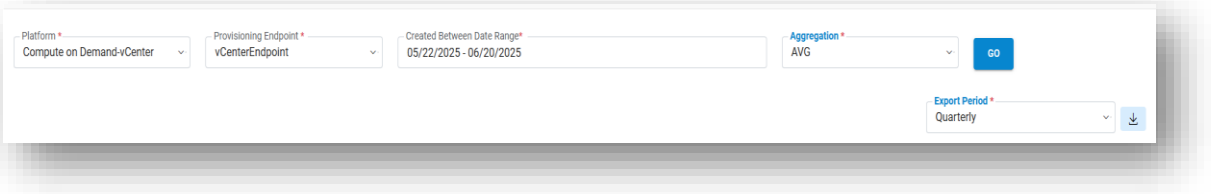


Figure 191 - Metering Report (Cont.)

d. The file gets downloaded.

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

3.1.4.2 Node Utilizations

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 the 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 in the details in the form to get the report:

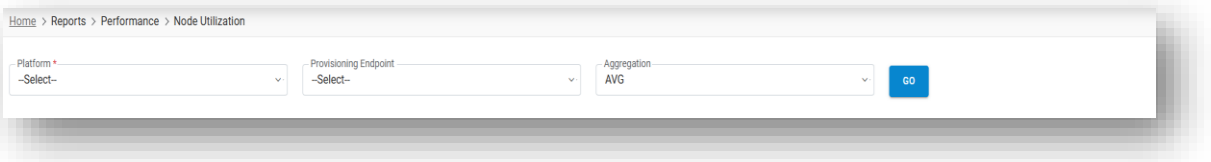


Figure 192 - Requester Dashboard

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

Table 49 - 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, users need 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.

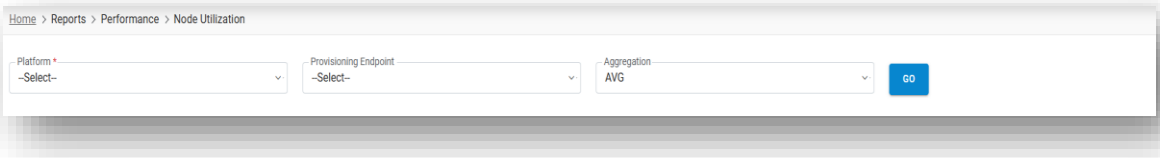
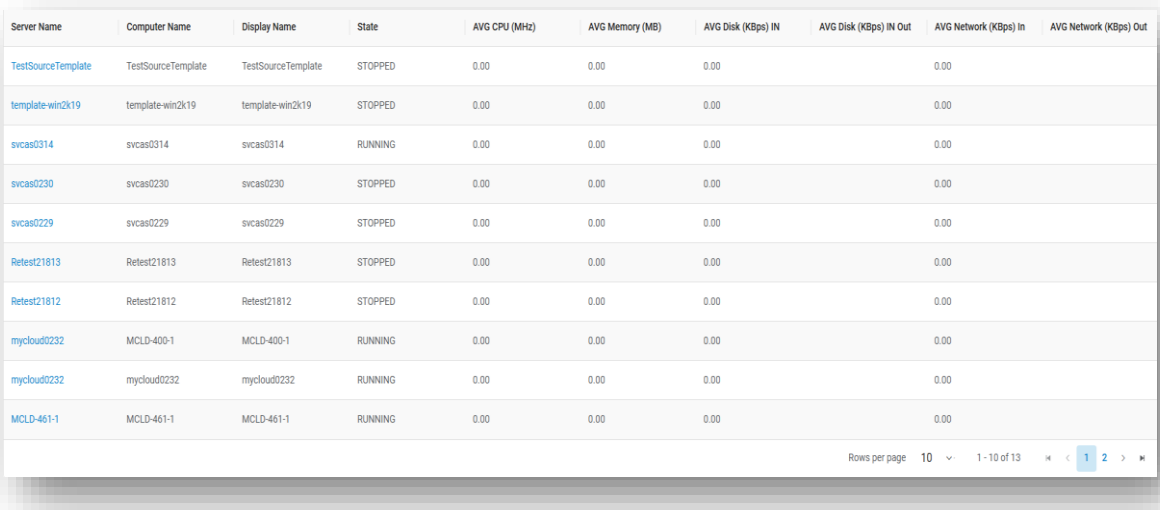


Figure 193 - Requester Dashboard

Reports appear in a tabular form, as shown below:

e. Click Server Name.



Server Name	Computer Name	Display Name	State	AVG CPU (MHz)	AVG Memory (MB)	AVG Disk (KBps) IN	AVG Disk (KBps) IN Out	AVG Network (KBps) In	AVG Network (KBps) Out
TestSourceTemplate	TestSourceTemplate	TestSourceTemplate	STOPPED	0.00	0.00	0.00		0.00	
template-win2k19	template-win2k19	template-win2k19	STOPPED	0.00	0.00	0.00		0.00	
svcas0314	svcas0314	svcas0314	RUNNING	0.00	0.00	0.00		0.00	
svcas0230	svcas0230	svcas0230	STOPPED	0.00	0.00	0.00		0.00	
svcas0229	svcas0229	svcas0229	STOPPED	0.00	0.00	0.00		0.00	
Retest21813	Retest21813	Retest21813	STOPPED	0.00	0.00	0.00		0.00	
Retest21812	Retest21812	Retest21812	STOPPED	0.00	0.00	0.00		0.00	
mycloud0232	MCLD-400-1	MCLD-400-1	RUNNING	0.00	0.00	0.00		0.00	
mycloud0232	mycloud0232	mycloud0232	RUNNING	0.00	0.00	0.00		0.00	
MCLD-461-1	MCLD-461-1	MCLD-461-1	RUNNING	0.00	0.00	0.00		0.00	

Figure 194 - Requester Dashboard (Cont.)

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

Table 50 – 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:

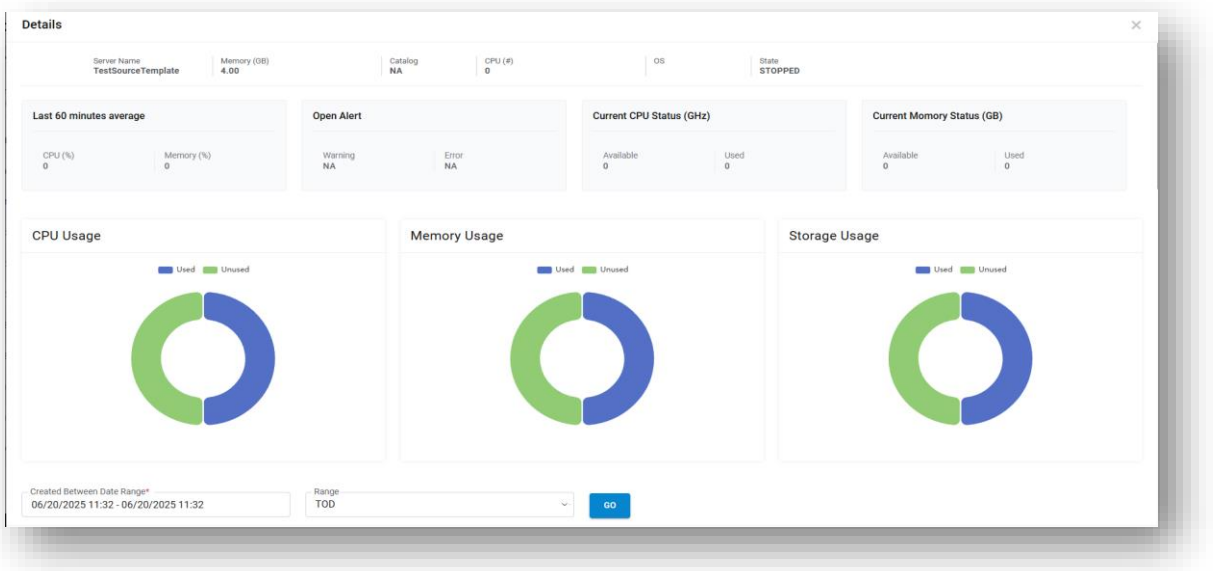


Figure 195 - Requester Dashboard (Cont.)

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

Table 51 – 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**.

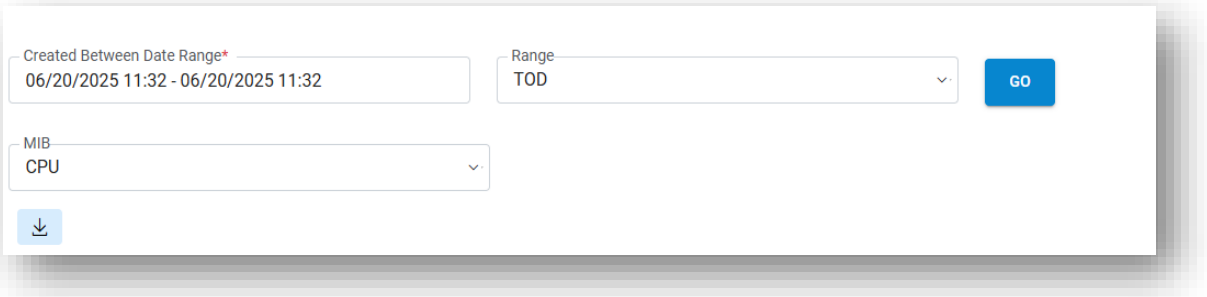


Figure 196 – Export Functionality

c. File gets downloaded on the system.

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

3.1.4.3 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, users need 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 the desired report.

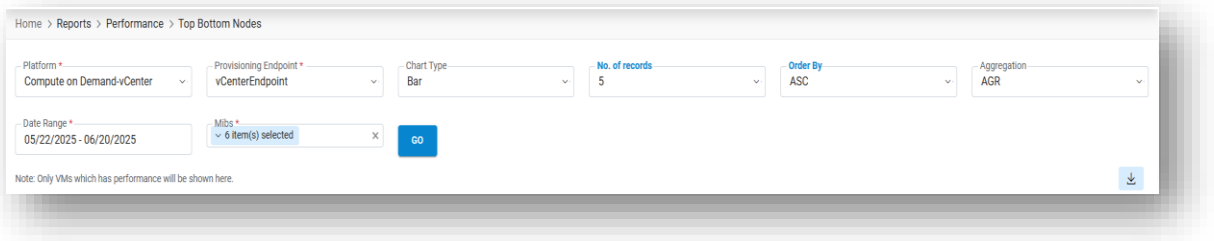


Figure 197 - Top-Bottom Nodes

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

Table 52 – 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 resources 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, users need to follow the following steps:

Cloud Filter: It allows the user to filter the results. Based on the requirement, users get 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.

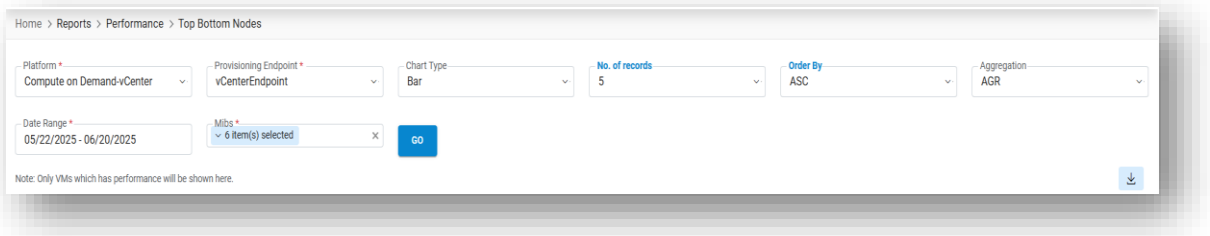


Figure 198 - Top-Bottom Nodes (Cont.)

Reports appear in a graphical form, as shown below:

Figure 199 - 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.

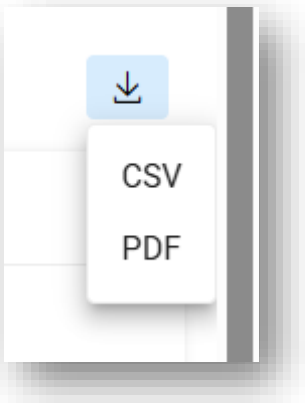


Figure 200 – Select file for Export

c. Click **Export Button**.

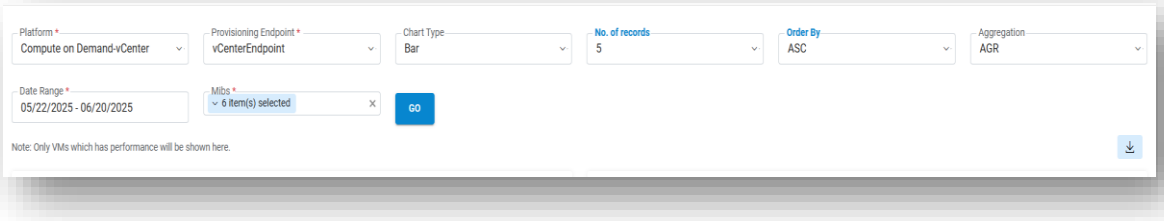


Figure 201 – Export Functionality

The file gets downloaded on the system.

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

3.1.4.4 My Bills

This step explains how to view the billing related information for virtual servers used in an organization on a 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, users need 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 in the details in the form to get billing related reports.

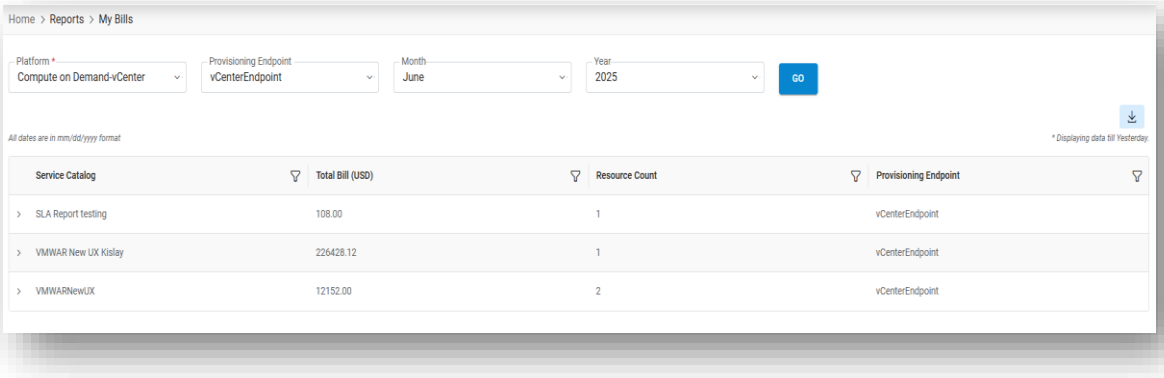


Figure 202 - My Bills

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

Table 53 – My Bills

Fields	Description
Provider	Lists the name of Cloud service providers
Organization	Lists the name of the 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, the user needs to follow the following 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.

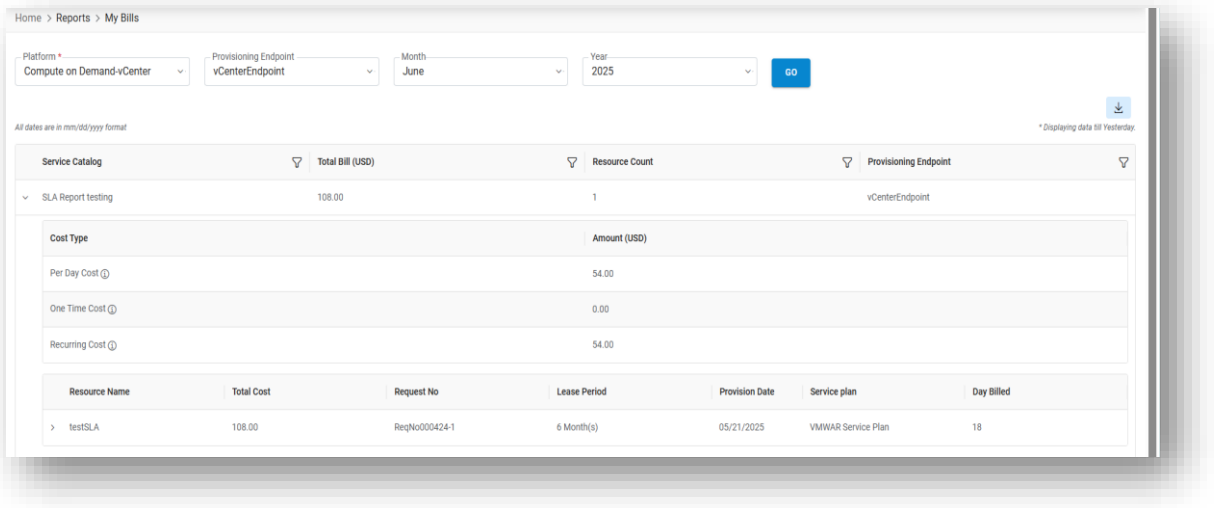


Figure 203 - My Bills (Cont.)

Report appears in the tabular form as shown below.

f. Click **Expand** > to view more details.

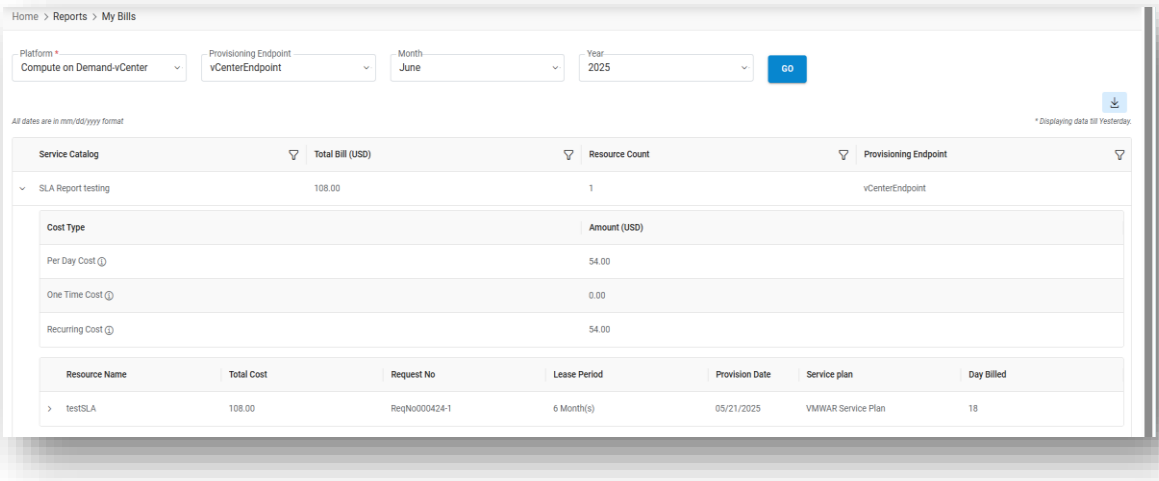


Figure 204 - My Bills (Cont.)

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

Table 54 – 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.

Figure 205 – Select file for Export

b. Click **Export**.

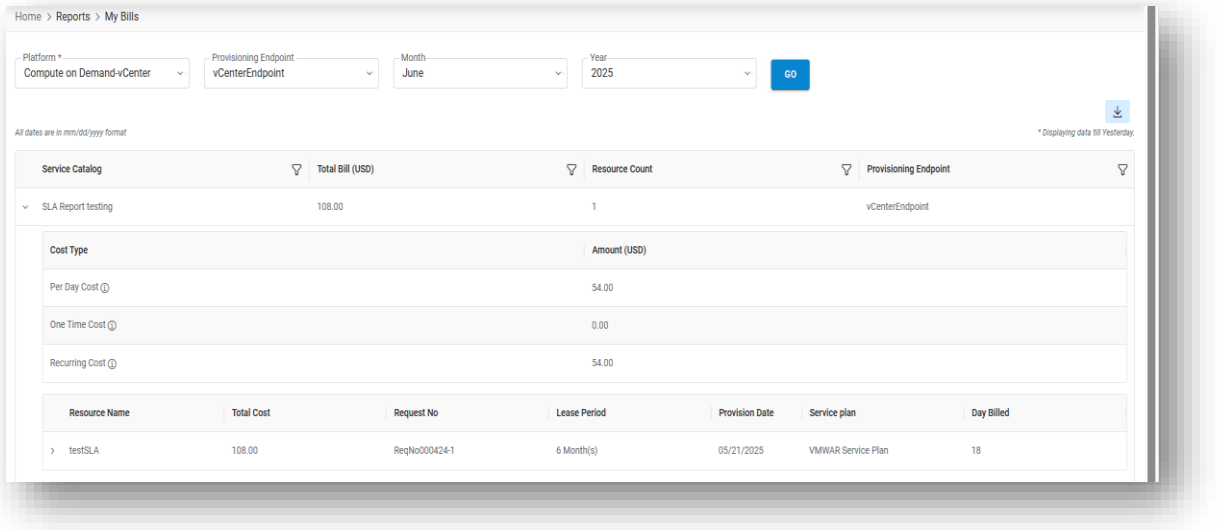


Figure 206 – Export Functionality

c. The file gets downloaded.

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

3.1.4.5 Trend Analytical

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, the user needs to follow the steps below:

1. On the main menu bar, click **My Reports**, and then click **Trend Analytics Report**.
2. The **Trend Analytics Report** screen appears and allows the user to fill in the details in the form to get request analytical report.

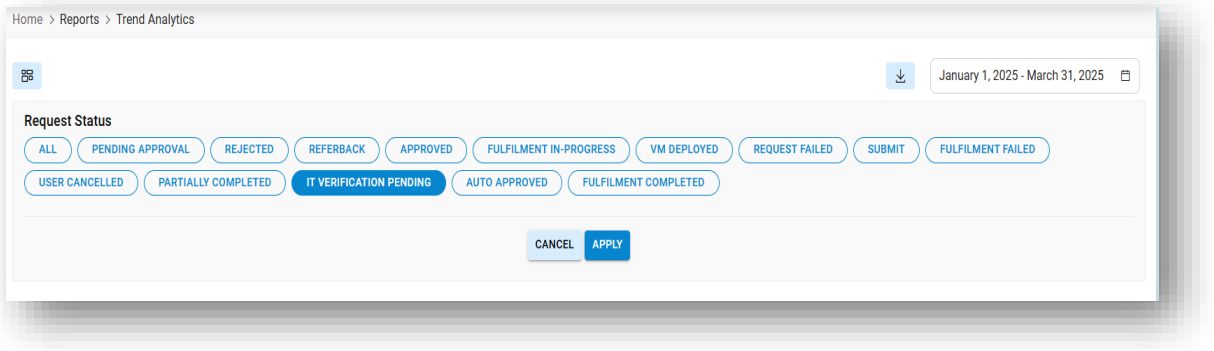


Figure 207 - Request Trend Analytics

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

Table 55 – Request Trend Analytics 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	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 fields marked with an asterisk (*) are mandatory.

f. Click **Apply** to get the results.

If a user wants to draw the next level report, then refer to organization filter.

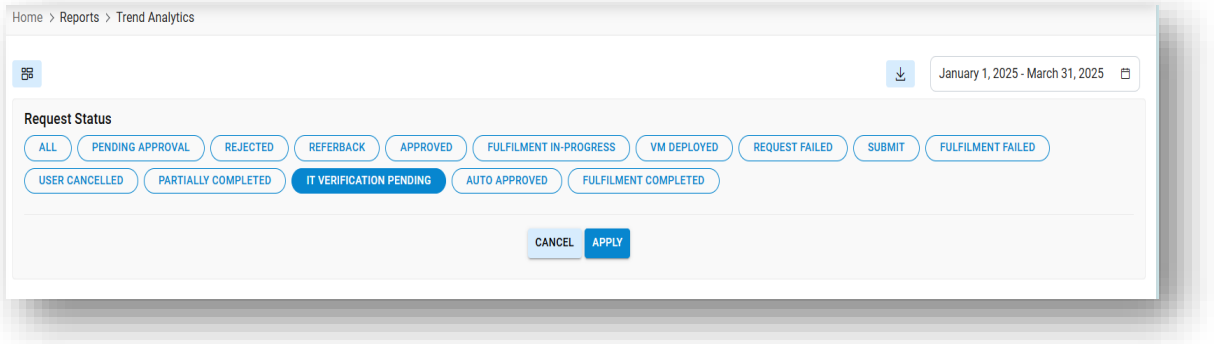


Figure 208 - Request Trend Analytics Report (Cont.)

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

Table 56 - Request Trend Analytics Report

Fields	Description
Request ID	HCL BigFix CLM 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 displays the details of selected VM.

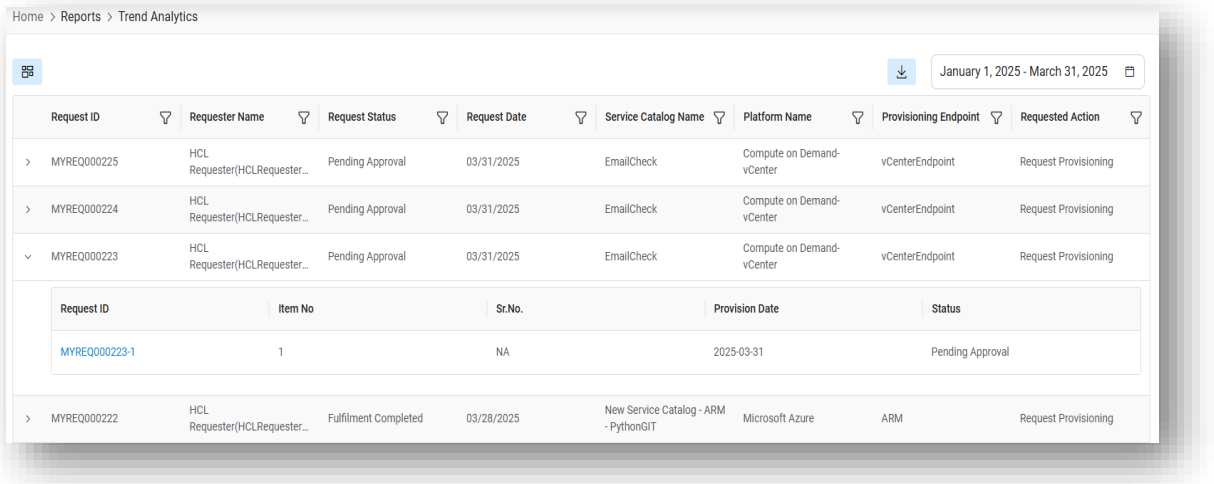


Figure 209 - Request Trend Analytics Report (Cont.)

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

Table 57 - Request Trend Analytics Field

Fields	Description
Request ID	HCL BigFix CLM 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**.

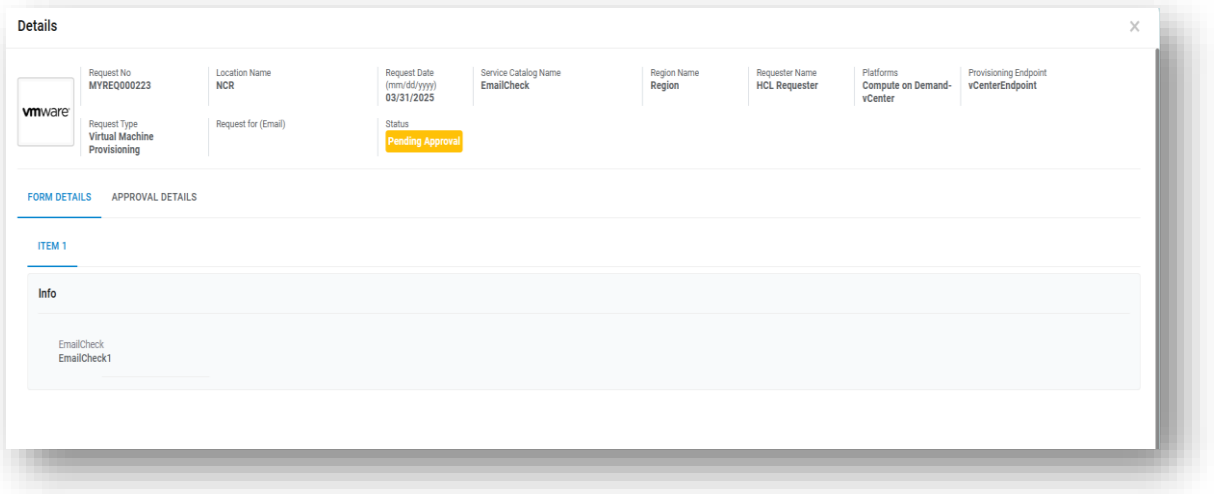


Figure 210 - Request Trend Analytics Report (Cont.)

If a user want to export the file, follow the below steps:

a. Select file output as **PDF, Excel, or CSV**.

b. Click .

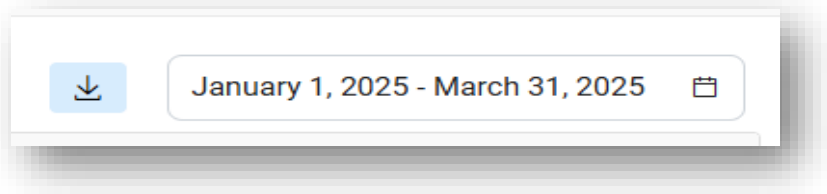


Figure 211 - Request Trend Analytics Report (Cont.)

The file gets downloaded on the system.

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

3.1.4.6 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 in the form to get a request trend report:

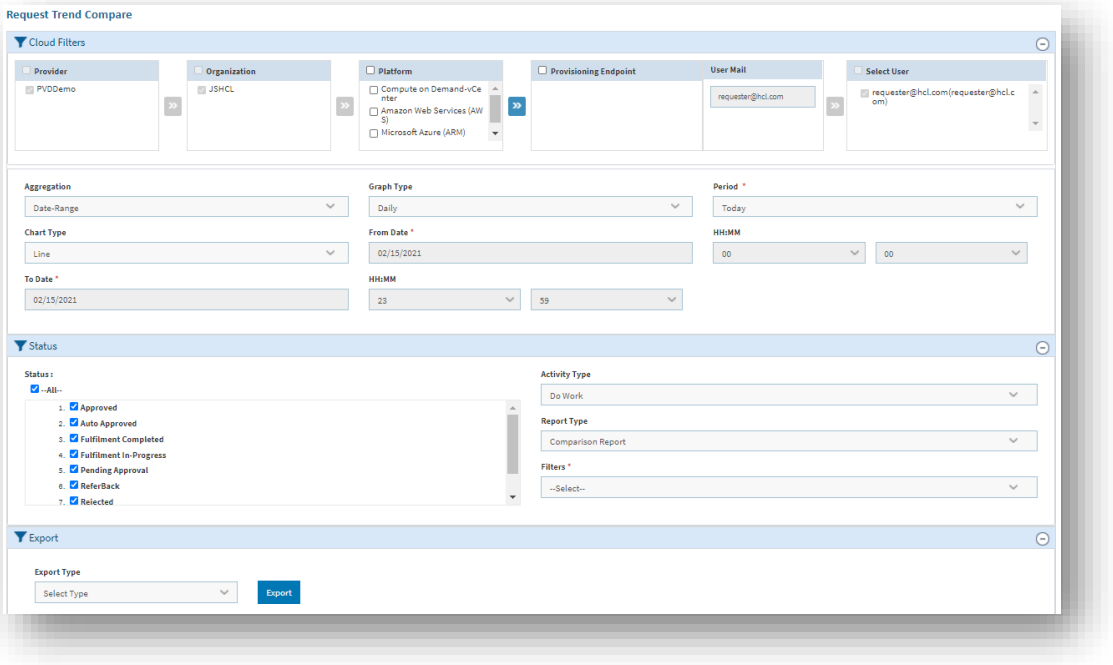


Figure 212 - Request Trend Compare

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

Table 58 - 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 types of requests
Filters	List all available filters like status, platform, organization
Export – Select Type	List of Export Types

To view the request trend, and compare the report, users need to follow the steps below:

Cloud Filter - It allows the user to get the filtered result. Based on the requirement, the 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.

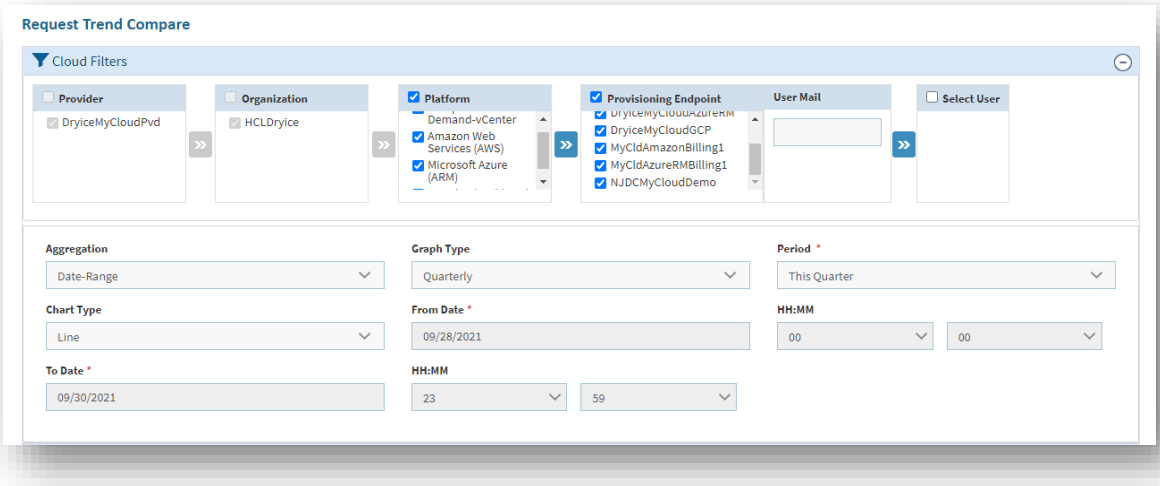


Figure 213 - Request Trend Compare (Cont.)

To view the Status, the user needs to follow the below steps,

a. Select the Report Status.

b. Select Activity Type.

c. Select Report Type.

d. Select **Filters**.

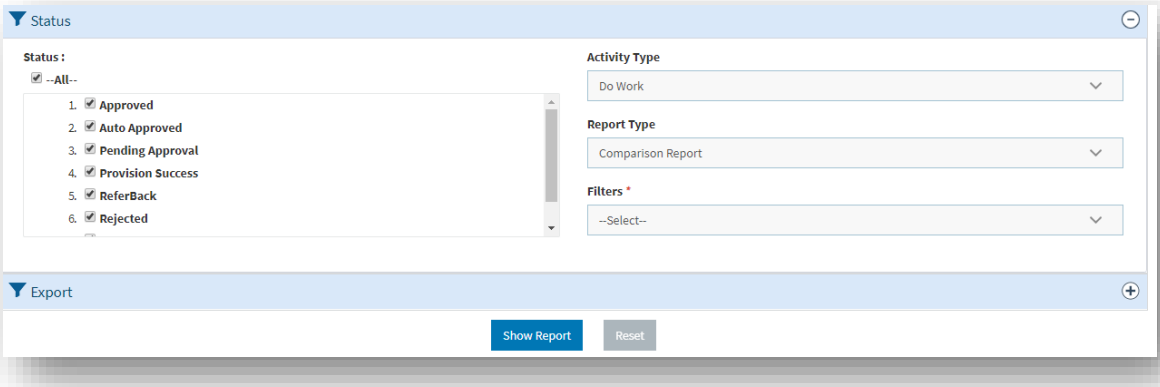


Figure 214 - Request Trend Compare (Cont.)

e. Click **Show Report** to get the report based on the status selected.

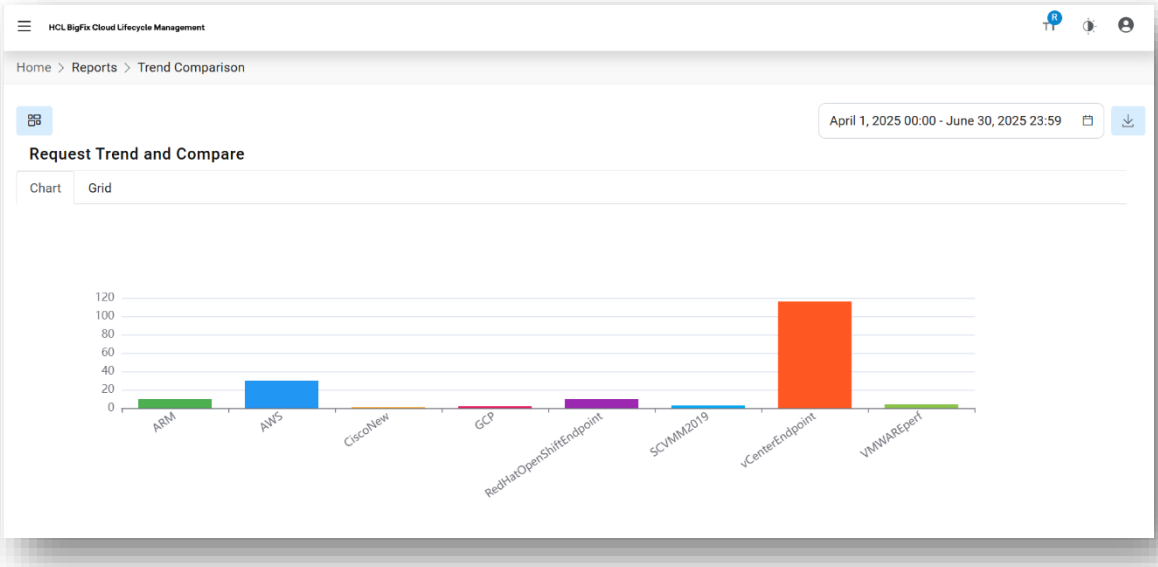
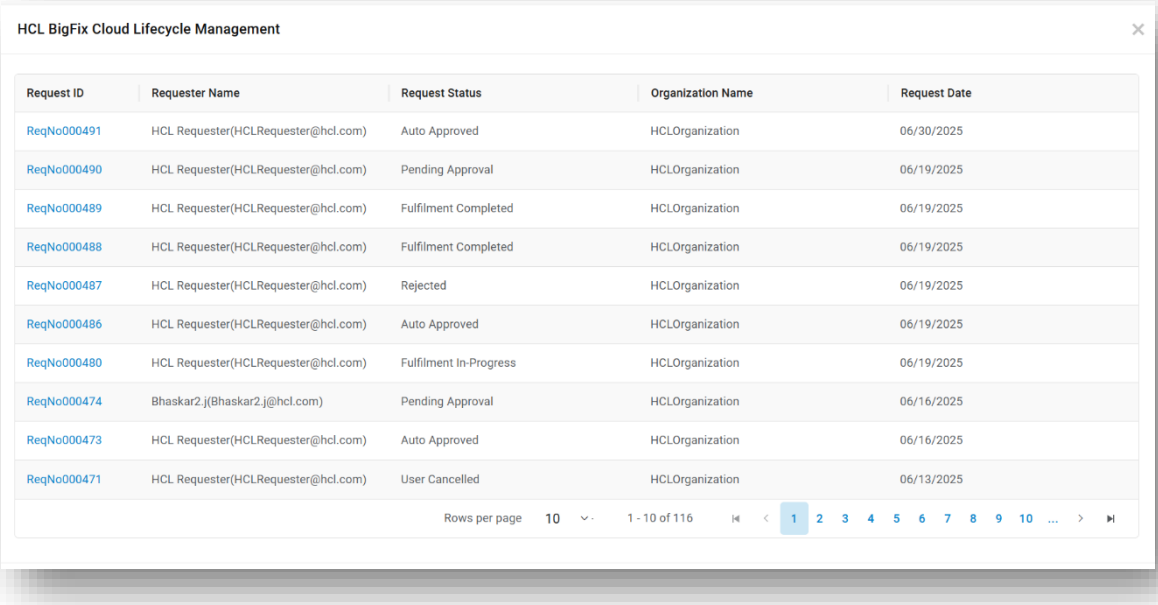


Figure 215 - Request Trend Compare (Cont.)

f. Rollover, on the pie chart, to get additional information.



Request ID	Requester Name	Request Status	Organization Name	Request Date
ReqNo000491	HCL Requester(HCLRequester@hcl.com)	Auto Approved	HCLOrganization	06/30/2025
ReqNo000490	HCL Requester(HCLRequester@hcl.com)	Pending Approval	HCLOrganization	06/19/2025
ReqNo000489	HCL Requester(HCLRequester@hcl.com)	Fulfilment Completed	HCLOrganization	06/19/2025
ReqNo000488	HCL Requester(HCLRequester@hcl.com)	Fulfilment Completed	HCLOrganization	06/19/2025
ReqNo000487	HCL Requester(HCLRequester@hcl.com)	Rejected	HCLOrganization	06/19/2025
ReqNo000486	HCL Requester(HCLRequester@hcl.com)	Auto Approved	HCLOrganization	06/19/2025
ReqNo000480	HCL Requester(HCLRequester@hcl.com)	Fulfilment In-Progress	HCLOrganization	06/19/2025
ReqNo000474	Bhaskar2.j(Bhaskar2.j@hcl.com)	Pending Approval	HCLOrganization	06/16/2025
ReqNo000473	HCL Requester(HCLRequester@hcl.com)	Auto Approved	HCLOrganization	06/16/2025
ReqNo000471	HCL Requester(HCLRequester@hcl.com)	User Cancelled	HCLOrganization	06/13/2025

Rows per page 10 1 - 10 of 116 1 2 3 4 5 6 7 8 9 10 ...

Figure 216 - Request Trend Compare (Cont.)

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

Table 59 - Request Trend Compare Fields

Fields	Description
Request ID	HCL BigFix CLM request unique identifier
Request Date	Date on which request is created
Requester Name	Requester name
Organization Name	Name of organization of user
Request Status	Displays the status of the request

g. Click **Request ID** to get the **Order Detail**.

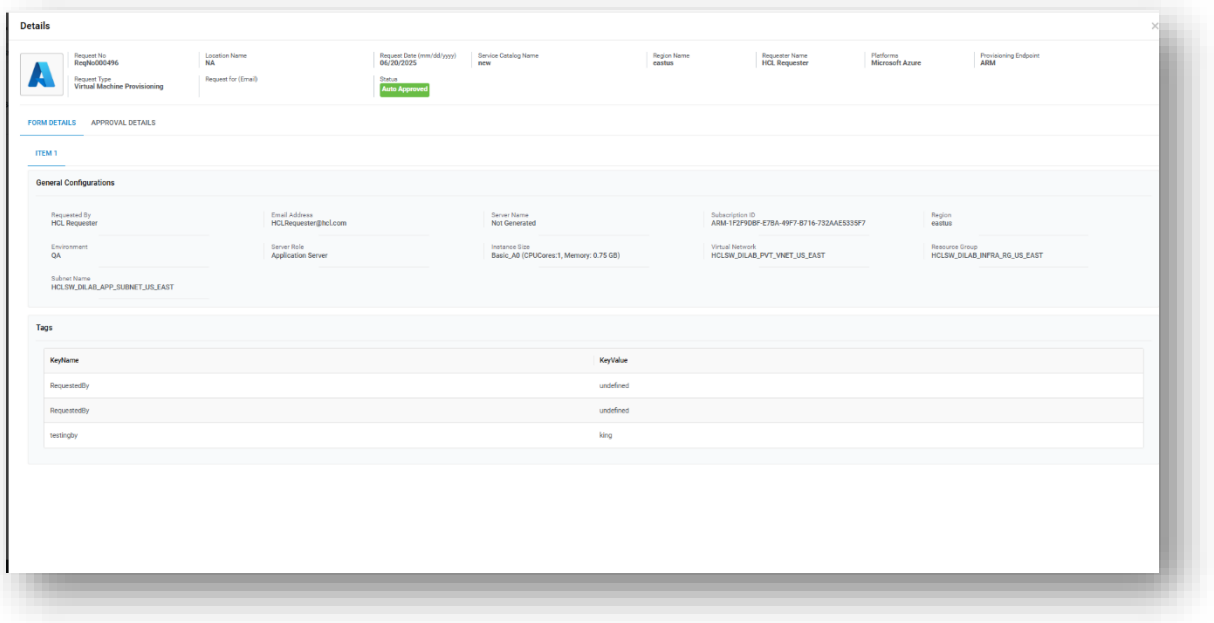


Figure 217 - Request Trend Compare (Cont.)

If a user wants to export the file, follow the below steps:

a. Select file output as **CSV**.

b. Click **Export**.

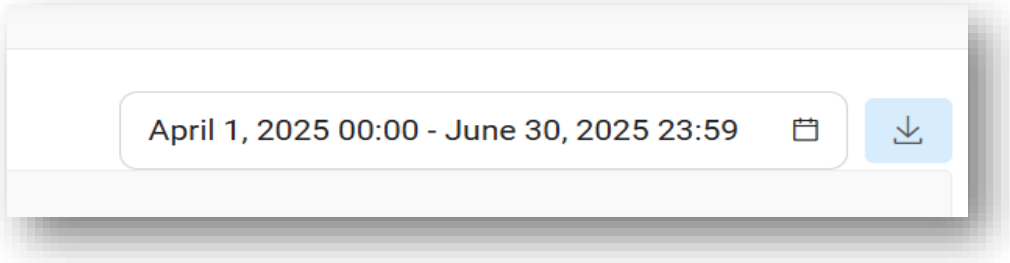


Figure 218 - Request Trend Compare (Cont.)

c. The file gets downloaded on the system.

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

3.1.4.7 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 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.

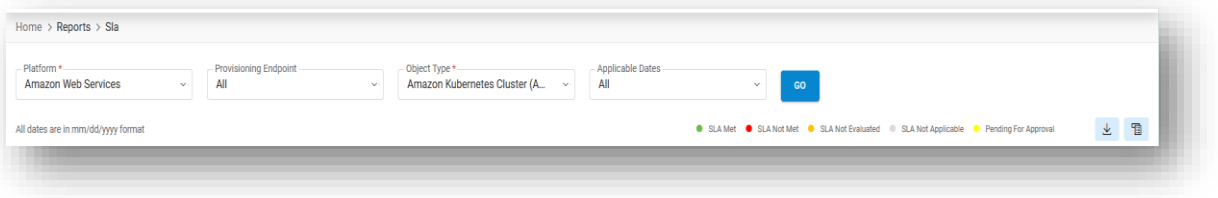


Figure 219 - SLA Report

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

Table 60 – 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, the user gets the result only from cloud environment.

a. Select Organization, Platform and Provisioning Endpoint.
b. Select **Status**.
c. Only enter **Request No**. for which the user requires a report.

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

d. Click **Show Report** and the report appears in a tabular view.

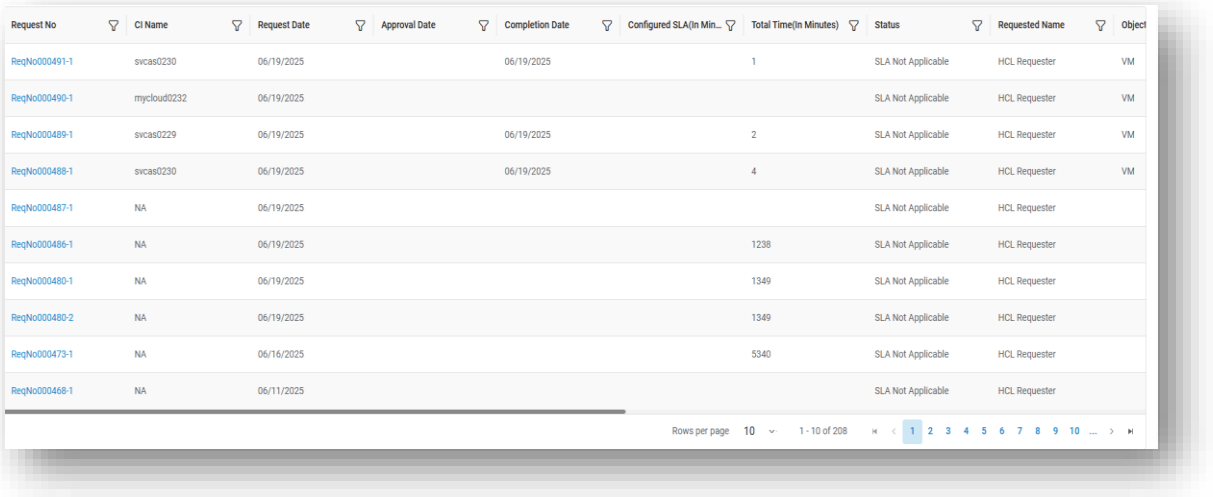


Figure 220 - SLA Report

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

Table 61 – 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 .

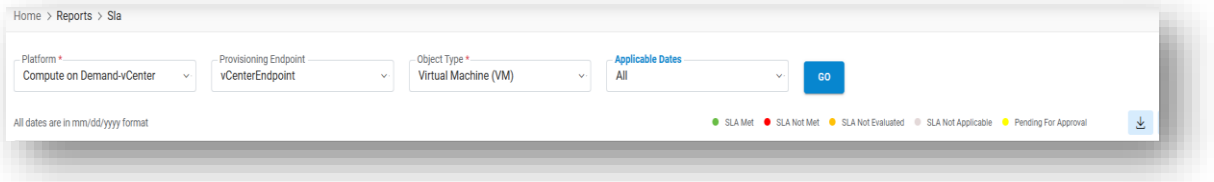


Figure 221 - SLA Reports (Cont.)

c. The file gets downloaded on the system.

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

3.1.4.8 Public Cloud Billing

This report gives the list of Billed usage details. Users can drill down the data up to Resource level.

To get in-depth details of Public Cloud Billing. Kindly refer to the ***HCL BigFix CLM Configuration Guide - Provider Module***.

3.1.4.9 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 ***HCL BigFix CLM Configuration Guide - Provider Module***.

3.1.4.10 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 ***HCL BigFix CLM Configuration Guide - Provider Module***.

3.1.4.11 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 ***HCL BigFix CLM Configuration Guide - Provider Module***.

3.1.4.12 Amazon Service Report

This Report provides Service Wise Billing for All Amazon Accounts or specific Amazon accounts.

To get in depth details of Amazon Service Report. Kindly refer to the ***HCL BigFix CLM Configuration Guide - Provider Module***.

3.1.4.13 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 ***HCL BigFix CLM Configuration Guide - Provider Module***.

3.1.4.14 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 ***HCL BigFix CLM Configuration Guide - Provider Module***.

3.1.4.15 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 the lowest level of performance information.

To get in depth details of vCenter Performance Dashboard. Kindly refer to the ***HCL BigFix CLM Configuration Guide - Provider Module***.

3.1.4.16 vCenter Performance Report

This Report provides the nested Visualization of vCenter. Starting from the 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 ***HCL BigFix CLM Configuration Guide - Provider Module***.

4 Support

To get support for this product, please drop an email to bigfixclm-prodsupport-team@hcl-software.com

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