Configuring the VMware vRealize Automation ITSM Application for ServiceNow

Release 8.7

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vRealize Automation

vmware®

You can find the most up-to-date technical documentation on the VMware website at:

https://docs.vmware.com/

Contents

Release Notes

1

The vRealize Automation for ServiceNow ITSM application 8.7 is available on the ServiceNow store and the following are the highlights of the release.

Highlights

- User Portal is deactivated

- User can create additional custom fields for Day-0 catalog items

- Enhanced the support for the hide and unhide functionality.

Overview of VMware vRealize Automation ITSM Application for ServiceNow

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The VMware vRealize® Automation™ ITSM application for ServiceNow® is an integration between VMware vRealize Automation and the ServiceNow platform.

The VMware vRealize Automation ITSM Application imports the VMware vRealize Automation catalog items in the ServiceNow platform. The ServiceNow users can use these catalog items to perform various operations in ServiceNow including the deployment of the virtual machine to various other day 2 operations.

Installation Prerequisites

3

Before installing VMware vRealize Automation ITSM Application for ServiceNow, make sure that your environment meets the supported compatibility requirements and the Management, Instrumentation, and Discovery (MID) server is installed.

This chapter includes the following topics:

- Compatibility Matrix
- Installation of MID Server
- Install the User Criteria Scoped API Plug-In
- Create a Data Source Choice in ServiceNow
- Enable Application Access

Compatibility Matrix

The following table lists the version compatibility between the VMware vRealize Automation ITSM Application for ServiceNow, vRealize Automation, and ServiceNow releases.

Table 3-1. VMware vRealize Automation ITSM Application for ServiceNow Compatibility Matrix

VMware vRealize Automation ITSM Application	Supported vRealize Automation Version	Supported ServiceNow Releases
v8.7	vRA8.6, vRA 8.6.1, vRA8.6.2, vRA 8.7 and vRA Cloud	Quebec, Rome, San Diego

Note

- From vRealize Automation ITSM Application for ServiceNow, by default, the CMDB schedule job will run only once a day. The schedule period is configurable and you can configure it based on workload size.
- The VMware vRealize Automation ITSM Application for ServiceNow does not support the ServiceNow on-premise versions.
- The VMware vRealize Automation ITSM 7.x and 8.x applications for ServiceNow on a single ServiceNow instance are not supported.

Installation of MID Server

When you are using the VMware vRealize Automation on-premise version, prior to the installation of the VMware vRealize Automation ITSM Application for ServiceNow, you must configure a MID server. The configured MID Server acts as a communication bridge between the ServiceNow platform and the VMware vRealize Automation application.

Refer to the ServiceNow documentation to install a MID Server.

- For the Quebec release, see ServiceNow Quebec Release Documentation.

- For the Rome release, see ServiceNow Rome Release Documentation.

- For the San Diego release, see ServiceNow San Diego Release Documentation.

Note

- For better performance, use a dedicated MID Server for the VMware vRealize Automation ITSM Application for ServiceNow.

- The MID Server configuration is not required if you are using the VMware vRealize Automation Cloud version.

Install the User Criteria Scoped API Plug-In

The User Criteria Scoped API plug-in enables you to create, modify, or delete user criteria records using scripts. The User Criteria Scoped API plug-in is a paid ServiceNow plug-in and requires a subscription. Contact ServiceNow Support for more information.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1. Log in to ServiceNow as the system administrator.

2. Navigate to **System Definition > Plugins**.

3. In the **Search** box, enter **User criteria scoped API** to search the plug-in.

   The User Criteria Scoped API plug-in dialog box appears.

4. Click **Install**, and then click **Activate**.

   After the plug-in is installed, the success message appears.

Create a Data Source Choice in ServiceNow

The vRealize Automation ITSM Application for ServiceNow uses Identification and Reconcile Engine which requires to have discovery source element for the application.

Prerequisites

- You must be the system administrator in ServiceNow.

- Set the application scope to `Global`.

Procedure

1 Log in to ServiceNow as a system administrator.

2 From the left pane, go to **System Definition > Choice Lists**.

3 Click **New**.

4 Select the **Table** as **Configuration Item [cmdb_ci]**.

5 In the **Element** text box, enter the value as **discovery_source**.

6 In the **Label** and **Value** text boxes, enter **ITSM 8.x**.

7 Click **Submit** to create a data source choice.

Ensure you enter ITSM 8.x in the **Label** and **Value** text boxes for every ITSM release.

Enable Application Access

The VMware vRealize Automation ITSM Application for ServiceNow requires access to certain ServiceNow tables to perform operations. The ITSM application creates, reads, updates, and deletes the records in these tables using a script.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1 Log in to ServiceNow as a system administrator.

2 From the left pane, go to **System Definition > Tables**.

3 To provide `question_choice` table access:

   a In the **Search** box, search for **question_choice** table name.

   b Click the label name link to open table details.

   c On the **Application Access** tab, select the **can read**, **can create**, **can update**, and **can delete** check boxes.

   d Click **Update** to provide permission.

4 To provide `sc_cat_item_category` table access:

   a In the **Search** box, search for **sc_cat_item_category** table name.

   b Click the label name link to open table details.

    c   On the **Application Access** tab, select the **can read**, **can create**, **can update**, and **can delete** check boxes.

    d   Click **Update** to provide permission.

5   If by default `item_option_new` table access is not available, then provide table access:

    a   In the **Search** box, search for **item_option_new** table name.

    b   Click the label name link to open table details.

    c   On the **Application Access** tab, select the **can read**, **can create**, **can update**, and **can delete** check boxes.

    d   Click **Update** to provide permission.

6   If by default the `sc_cat_item_user_criteria_mtom` table access is not available, then provide table access:

    a   In the **Search** box, search for **sc_cat_item_user_criteria_mtom** table name.

    b   Click the label name link to open table details.

    c   On the **Application Access** tab, select the **can read**, **can create**, and **can update** check boxes.

    d   Click **Update** to provide the permission.

Install and Update the vRealize Automation for ServiceNow ITSM Application

<div style="text-align:right">4</div>

The ServiceNow System Administrator can install or update the vRealize Automation for ServiceNow ITSM application from the ServiceNow store.

This chapter includes the following topics:

- Installation of VMware vRealize Automation ITSM Application for ServiceNow
- Update the VMware vRealize Automation ITSM Application for ServiceNow 8.4, 8.5, 8.5.1 and 8.5.2
- Update the VMware vRealize Automation ITSM Application for ServiceNow 8.6

Installation of VMware vRealize Automation ITSM Application for ServiceNow

The ServiceNow system administrator can install the VMware vRealize Automation ITSM Application for the ServiceNow from the ServiceNow Store. The VMware vRealize Automation ITSM Application for ServiceNow is free, but you must have a valid VMware vRealize Automation product license. If you have previously installed the VMware vRealize Automation ITSM Application, then you can skip this section.

Prerequisites

- You must have access to the ServiceNow Store.
- You must be the system administrator in ServiceNow.
- The user criteria scoped API plug-in must be installed. For details, see Install the User Criteria Scoped API Plug-In
- A data source choice list must be created. See Create a Data Source Choice in ServiceNow.

Procedure

1 Log in to the ServiceNow Store https://store.servicenow.com/.

2 Search for **VMware vRealize Automation ITSM Application 8.7**.

3 Click the application to view the details. In the top-right corner of the form, click **Manage Entitlements**.

4   Select the ServiceNow instances to install the application. Click **OK**.

The application is now available on the selected ServiceNow instances for installation.

5   Log in to the ServiceNow instance as a system administrator.

6   From the left pane, click **System Applications > All Available Applications > All**.

7   Search for the VMware vRealize Automation for ServiceNow ITSM application for ServiceNow.

8   Click **Install**.

9   Select **Install with demo data**, and complete the installation.

The application is successfully installed message displays.

Note   Demo data is responsible for importing groups, table records, schedule jobs, and system properties related to an application. Selecting the demo date checkbox is mandatory. If the checkbox is not selected, then a new demo installation cannot be completed and affects the application flow.

Update the VMware vRealize Automation ITSM Application for ServiceNow 8.4, 8.5, 8.5.1 and 8.5.2

If you previously downloaded the vRealize Automation ITSM Application for ServiceNow version 8.4 from the ServiceNow store, you can update it to 8.7 in your instance.

Prerequisites

▪   You must be the system administrator in ServiceNow.

▪   Deactivate the following scheduled jobs that are specific to the vRealize Automation ITSM Application for ServiceNow:

  ▪   vRA Import Project

  ▪   vRA Import Catalog

  ▪   vRA Import Resources and CMDB

  ▪   vRA Delete Queue

  ▪   vRA Reconcile Actions

▪   You must ensure that no job queue data is running. If any job queue is running wait till it gets completed.

▪   The user criteria scoped API plug-in must be installed. For details, see Install the User Criteria Scoped API Plug-In.

▪   A data source choice list must be created. See Create a Data Source Choice in ServiceNow.

▪   Ensure that you set the following flag to `true` before you upgrade the plugin if there is any code customization else skip this step.

■ Set the application scope to `Global`.

Table 4-1. Setting the update flag

Table	Flag	Value
sys_update_xml	Replace on upgrade	true

Procedure

1 Log in to ServiceNow as a system administrator.

2 In the left pane, click **System Applications > All Available Applications > All**.

3 Search for **VMware vRealize Automation ITSM Application 8.7**.

4 Select version 8.7 and click **Update**.

5 Select the **Load Demo Data** checkbox and click **Update**.

The VMware vRealize Automation for ServiceNow ITSM application version is updated to 8.7.

Note The Service Portal is available as a default portal to view all the catalog items and all the existing entitlements for catalog items and day-2 actions for the users will be converted into user criteria.

6 Provide the required access for the `question_choice` table. See Enable Application Access.

Note From version 8.2.2 of VMware vRealize Automation ITSM Application for ServiceNow, the **ITIL** role is not required.

7 Delete all records from the day-2 action table, day-2 action catalog item client script, and day-2 action catalog item reference with variables:

a In the left pane, click **System definition > Fix Scripts**.

b On the **Fix Scripts** page, search for the **vRA- remove Duplicate** record.

c Open the **vRA- remove Duplicate record** script.

d Uncomment the script code and click **Save**.

e Click **Run Fix Script** then click **Proceed in Background** to run the script.

This script will remove all the records from the day-2 action table, day-2 action catalog item client script, and remove the day-2 action catalog item reference with variables resulting in orphan records. Depending upon the number of records, this operation can take some time.

f In the **Related Links** tab, click **Show Progress Workers**. Wait till the record State changes from Running to Complete.

g Comment the script code and click **Update**.

8 Run the scheduled jobs:

    a   In the left pane, click **vRealize Automation > Job Schedules**.

    b   Activate all the scheduled jobs.

    c   Run the **vRA Import Project** first then run the **vRA Import Catalog** schedule job.

    d   Run the **vRA Import Resources and CMDB** scheduled job.

Update the VMware vRealize Automation ITSM Application for ServiceNow 8.6

If you previously downloaded the vRealize Automation ITSM Application for ServiceNow 8.6 version from the ServiceNow store, you can update it to 8.7 in your instance.

Prerequisites

- You must be the system administrator in ServiceNow.

- Deactivate the following scheduled jobs that are specific to the vRealize Automation ITSM Application for ServiceNow:

  - vRA Import Project

  - vRA Import Catalog

  - vRA Import Resources and CMDB

  - vRA Delete Queue

  - vRA Reconcile Actions

- Ensure that no job queue data is running. If any job queue is running wait till it gets completed.

- The user criteria scoped API plug-in must be installed. For details, see Install the User Criteria Scoped API Plug-In.

- A data source choice list must be created. See Create a Data Source Choice in ServiceNow.

- Ensure that you set the following flag to true before you upgrade the plugin if there is any code customization else skip this step.

- Set the application scope to `Global`. Set the flags as follows:

Table 4-2. Setting the update flag

Table	Flag	Value
sys_update_xml	Replace on upgrade	true

Procedure

1 Log in to ServiceNow as a system administrator.

2 In the left pane, click **System Applications > All Available Applications > All**.

3   Search for **VMware vRealize Automation ITSM Application 8.7**.

4   Select version 8.7 and click **Update**.

5   Select the **Load Demo Data** checkbox and click **Update**. The VMware vRealize Automation for ServiceNow ITSM application version is updated to 8.7.

Note   The Service Portal is available as a default portal to view all the catalog items and all the existing entitlements for catalog items and day-2 actions for the users will be converted into user criteria.

6   Provide the required access for the `question_choice` table. See Enable Application Access.

Configuration of the VMware vRealize Automation ITSM Application for ServiceNow

<div style="text-align: right;">5</div>

After the VMware vRealize Automation ITSM Application for ServiceNow is installed, the system administrator is required to carry out the configuration steps described in this chapter.

This chapter includes the following topics:

- Managing the ServiceNow Users
- Configuration in the vRealize Automation on-premise Version
- Register with the vRealize Automation on-premise Version
- Configuration in vRealize Automation Cloud
- Register the vRealize Automation Cloud Version

Managing the ServiceNow Users

In the VMware vRealize Automation ITSM Application for ServiceNow, the system administrator must set up the groups, set up the users, and complete other required configuration tasks.

Setting Up the Users

Set up the ServiceNow users to manage the VMware vRealize Automation ITSM Application for ServiceNow configuration and the end users to use the VMware vRealize Automation Service Portal. If the VMware vRealize Automation ITSM Application for ServiceNow is previously configured on your ServiceNow, then you can skip this section.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1 Log in to ServiceNow as a system administrator.

2 In the left pane, click **System Security > Users and Groups > Users**.

3 Click **New**.

4 Complete the new user form.

> **Note** It is important to set up the users in both VMware vRealize Automation ITSM Application for ServiceNow and VMware vRealize Automation with the same email address to assign the ownership of deployments and resources.

5 Click **Submit** to create the user.

6 Repeat steps 3 to 5 to set up additional users.

Adding the ServiceNow User Roles

For the VMware vRealize Automation ITSM Application for ServiceNow, the system administrator is required to create two types of users.

- vRA ITSM application admin user

- vRA ITSM application end user

The categorization of users is achieved by assigning the required roles to each user. For the VMware vRealize Automation ITSM Application for ServiceNow, the **ITIL** role is not required.

Users	Description	Required Roles
vRA ITSM application admin-user	Responsible for all administrative tasks including application configuration, end-point registration, user entitlement management, and so on.	`catalog_admin` `agent_admin` `x_vmw_cloudservice.vra_catalog _admin` `x_vmw_cloudservice.vra_end_use r` `cmdb_read`
vRA ITSM application end user	Uses the VMware vRealize Automation Service Portal in ServiceNow.	`x_vmw_cloudservice.vra_end_use r` `cmdb_read`
vRA ITSM application approver user	Approves or rejects the catalog item requests.	`x_vmw_cloudservice.vra_end_use r` `cmdb_read` `approver_user`

Procedure

1 Log in to ServiceNow as a system administrator.

2 In the left pane, click **System Security > Users and Groups > Users**.

3 Select the user and open the user record.

4 In the **Roles** tab, click **edit**.

5   Add the roles for the users from the **Collection List** and move the role to the **Roles List**.

> **Note**   For the VMware vRealize Automation ITSM Application for ServiceNow, the **ITIL** role is not required.

6   Click **Save** to assign the role.

7   Click **Update** to save the user record.

8   Repeat steps from 2 to 6 for each user to assign roles.

Setting Up ServiceNow Groups

The ServiceNow system administrator can add users to the approval and support group. Users in the approval group are responsible for approving or rejecting the deployment requests made by the users. The incidents created on the failure of the catalog request submissions are assigned to users of the support group.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1   Log in to ServiceNow as a system administrator.

2   In the left pane, click **System Security > Users and Groups > Users**.

3   Select the user and open the user record.

4   In the **Groups** tab, click **edit**.

5   From the **Collection list**:

   a   To add a user to the approval group, select the **vRealizeAutomation-ApprovalGroup** and move it to the **Groups List**.

   b   To add a user to the support group, select the **vRealizeAutomation-SupportGroup** and move it to the **Groups List**.

6   Click **Save** to add the user to the selected group.

7   Click **Update**.

The user is added to the selected group.

8   Repeat steps from 2 to 6 to add more users to the required group.

> **Note**   If you do not add any users to the approval group, the requests get auto approved.

Configuration in the vRealize Automation on-premise Version

You must set up an administrative user in the vRealize Automation. The VMware vRealize Automation ITSM Application for ServiceNow connects to the vRealize Automation using the credentials of this user.

This user must have these roles in the vRealize Automation on-premise version, but does not require a role in ServiceNow:

- Project Administrator

- Service Broker Administrator

- Organization Owner

To assign these roles, see VMware vRealize Automation Documentation.

Note

- All catalog item requests from ServiceNow are serviced by this user in the vRealize Automation. In the vRealize Automation, the requests and corresponding deployments display this user as the owner. However, in the ServiceNow, requests, and corresponding deployments display the ServiceNow user who initiated the request. This is achieved by correlating the email address from the user records across two systems.

- You must add the integration user to each project as a project admin to use the project in vRealize Automation ITSM Application for ServiceNow.

Create Day 2 Policies

Create a day-2 action policy for the integration user. The integration user must be added to the deployment criteria using the created by condition to limit the policy to integration user. This policy can be used to limit the day-2 actions for the integration user.

To create policies, see VMware vRealize Automation Documentation.

Note   Use the Deployment Criteria option to limit the day-2 actions for the integration user.

Verify Email Address Mapping

The vRealize Automation and ServiceNow can have different Authentication Providers. It is important to set up the users in both systems with the same email address.

The correlation is required to assign the ownership of the deployments and resources.

Register with the vRealize Automation on-premise Version

To establish the connection between the vRealize Automation and the VMware vRealize Automation ITSM Application, the ServiceNow system administrator or application administrator must register the ITSM application to a vRealize Automation instance. To register the vRealize

Automation ITSM Application for ServiceNow with vRealize Automation on-premise, a MID server is required and its status must be Up and Validated.

Prerequisites

- You must be the system administrator or ITSM application admin in ServiceNow.

- MID Server must be configured and its status must be Up and Validated.

Procedure

1 Log in to ServiceNow as a system administrator or ITSM application admin user.

2 From the left pane, go to **Manage Endpoints > New**.

3 From the **Endpoint Type** drop-down menu, select **vRealize Automation (vRA)**.

4 Enter the details of your vRealize Automation instance.

Field	Description
Name	Name for the vRealize Automation instance.
MID Server	Name of the MID Server that you created for use with vRealize Automation.
Host Url	URL address for the vRealize Automation appliance.
Username	User name as configured in the vRealize Automation.
Password	User password.
Active	Import jobs run only if the Active box is checked.

5 Click **Save and Import** to register and import the vRealize Automation on-premise data in the vRealize Automation ITSM Application for ServiceNow.

6 Repeat steps from 2 to 5 to register additional vRealize Automation cloud endpoints.

Note If an endpoint is deactivated and reactivated again, then run the scheduled jobs again to reimport. Else, the user cannot perform any day 2 actions. See Configure and Run Import Jobs.

Quebec, Rome, and San Diego Support

In the ServiceNow Quebec, Rome, and San Diego releases, ServiceNow has enhanced security with the TLS MID Server certificate check policies. If the vRealize Automation on-premise version has an untrusted certificated connection, the connection will be refused. This procedure modifies the TLS MID Server certificate check policies and disables the check for untrusted certificates to connect them insecurely.

For security considerations and detailed information, refer to the MID Server TLS or SSL certificate check policy Quebec upgrade information.

Configuration for ServiceNow Quebec, Rome and San Diego Release

This procedure modifies the TLS MID Server certificate check policies and disables the check for untrusted certificates to connect them insecurely. You do not need to perform steps provided in this section if the endpoint has CA signed certificate.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1   Log in to ServiceNow as a system administrator.

2   In the left pane, search for **MID security policy**.

3   In the Intranet record, set the **Certificate Chain Check** to **false**.

4   Register the vRealize Automation on-premises from the Manage Endpoint. See Register with the vRealize Automation on-premise Version.

Configuration in vRealize Automation Cloud

You must set up an administrative user in vRealize Automation Cloud. The VMware vRealize Automation for ServiceNow ITSM application connects to vRealize Automation using the credentials of this user. After the user is created, you must generate the refresh key to register the VMware vRealize Automation for ServiceNow ITSM application with the vRealize Automation cloud.

The user must have these roles in vRealize Automation Cloud but they do not require roles in ServiceNow:

- Project Administrator

- Service Broker Administrator

- Organization Owner

To assign these roles, see VMware vRealize Automation Cloud Documentation.

Note   All catalog item requests from ServiceNow are serviced by this user in vRealize Automation. In vRealize Automation, the requests and corresponding deployments display this user as the owner. However, in ServiceNow, requests and corresponding deployments display the ServiceNow user who initiated the request. This is achieved by correlating the email address from the user records across two systems.

Create Day 2 Policies

Create a day-2 action policy for the integration user. The integration user must be added to the deployment criteria using the created by condition to limit the policy to integration user. This policy can be used to limit the day-2 actions for the integration user.

To create policies, see VMware vRealize Automation Cloud Documentation.

Note Use the Deployment Criteria option to limit the day-2 actions for the integration user.

Verify Email Address Mapping

The vRealize Automation and ServiceNow can have different Authentication Providers. It is important to set up the users in both systems with the same email address.

The correlation is required to assign the ownership of the deployments and resources.

Generate the Refresh Key

After the user is configured in the vRealize Automation, users must generate the refresh key (API token). The refresh key is required to register the vRealize Automation for ServiceNow ITSM application with vRealize Automation Cloud.

To generate a refresh key, see Generating a Cloud Services Platform API Token.

Register the vRealize Automation Cloud Version

To establish the connection between the vRealize Automation and the VMware vRealize Automation for ServiceNow ITSM application, the ServiceNow system administrator or application administrator must register the ITSM application to a vRealize Automation instance. To register the VMware vRealize Automation for ServiceNow ITSM application with vRealize Automation Cloud a refresh key (API token) is required.

Prerequisites

- You must be the system administrator or ITSM application admin in ServiceNow.

- Make sure that you have the Refresh Key. See Generate the Refresh Key.

Procedure

1   Log in to ServiceNow as a system administrator or ITSM application admin user.

2   From the left pane, click **Manage Endpoints > New**.

3   From the **Endpoint Type** drop-down menu, select **vRealize Automation Cloud (vRA Cloud)**.

4   Enter the details of your vRealize Automation Cloud instance.

Field	Description
Name	Enter a name for the vRealize Automation instance.
Refresh key	Enter a refresh key for the vRealize Automation Cloud.

Field	Description
Base URL	Select the required region base URL from the drop-down menu.
	Note By default, three regions are added to the `x_vmw_cloudservice.cloud_API_endpoint_URL` system property. You can add more vRealize Automation Cloud regions in comma-separated values as required in this system property. Contact VMware Support for more information.
Active	Import jobs run only if the **Active** box is checked.

5 Click **Save and Import** to register and import the vRealize Automation Cloud data into the VMware vRealize Automation ITSM application.

6 Repeat steps from 2 to 5 to register additional vRealize Automation end-points for different regions.

Note If an endpoint is deactivated and reactivated again, then run the scheduled jobs again to reimport. Else, the user cannot perform any day 2 actions. See Configure and Run Import Jobs.

Configuring and Using the Service Portal

<div style="text-align: right">6</div>

From the VMware vRealize Automation ITSM Application for ServiceNow version 8.3, the Service Portal is available as a default portal for deployment. You can use the Service Portal to view Service Catalog, deployment, and resources. You can also perform various day-2 actions on associated deployments and resources.

This chapter includes the following topics:

- Create the User Criteria for Service Portal
- Setting Up the Service Portal Prefix
- Configuring the Deployment Widget
- Using the Service Portal
- Reconfiguring the Service Portal

Create the User Criteria for Service Portal

The user criteria control the accessibility of categories and catalog items in the Service Catalog. The ServiceNow system administrator can create user criteria for the Service Portal in the VMware vRealize Automation for ServiceNow ITSM application scope.

- You must create entitlement using the user criteria. To create the user criteria records in the Service Catalog, see Create User Criteria Record.
- To assign the user criteria to catalog items and projects in the Service Catalog, see Apply User Criteria to Items and Categories.

Note You must have `x_vmw_cloudservice.vra_end_user` to access catalog items on Service portal or Native UI in the VMware vRealize Automation for ServiceNow ITSM application.

Setting Up the Service Portal Prefix

The ServiceNow system administrator must ensure that the Service Portal prefix value in their instance is the same as the prefix value in the `x_vmw_cloudservice.servicePortalPrefix` system property.

Prerequisites

You must be the ServiceNow system administrator.

Procedure

1   Log in to ServiceNow as a system administrator.

2   From the left pane, click **vRealize Automation > System Properties**.

3   In **Search**, search for `x_vmw_cloudservice.servicePortalPrefix`.

4   In the **Value** text box, enter your Service Portal prefix.

The default value is **sp**.

5   Click **Update**.

Configuring the Deployment Widget

To view the VMware vRealize Automation deployments on the Service Portal, the ServiceNow system administrator must add the VMware vRealize Automation deployment widget on a Service Portal page.

Prerequisites

- You must be the system administrator in ServiceNow.

- The application scope must be set to Global.

- The VMware vRealize Automation ITSM Application for ServiceNow Service Portal Prefix value must be the same as the Service Portal prefix value on your instance. See Setting Up the Service Portal Prefix.

Procedure

1   Log in to ServiceNow as a system administrator.

2   In the left pane, click **Service Portal > Service Portal Configuration**.

3   Click **Designer**.

The Service Portal Designer page opens with a list of all the available pages.

4   Search for **index**, and then open the Service Portal page.

5   Select the required column to insert the widget.

6   On the top right, click **Edit**.

7   Ensure that the minimum width size for the column is as follows:

Screen	Size
xs	12
sm	12

Screen	Size
md	6
lg	6

8   Click **Save**.

9   On the left pane, in the **Filter Widgets** text box, search for **CAS_SP_deployments**.

10 Drag and drop the widget to the column.

    If the VMware vRealize Automation ITSM Application for ServiceNow is registered and VMware vRealize Automation required roles are assigned, the VMware vRealize Automation deployments will display. See Adding the ServiceNow User Roles.

    The **vRA Deployments** widget is displayed on the Service Portal home page with the five most recent deployments with their status.

Add the View and Modify Resource Widget on the Request Summary Page

The **View and Modify Resource** widget adds a button to the **Request Summary** page to allow users to go back to the deployment details page.

Prerequisites

▪   You must be the system administrator in ServiceNow.

▪   The application scope must be set to Global.

Procedure

1   Log in to ServiceNow as a system administrator.

2   In the left pane, click **Service Portal > Service Portal Configuration**.

3   Click **Designer**.

    The Service Portal Designer page opens with a list of all the available pages.

4   In **Search**, search for **order_status**.

5   Select and open the **Request Summary** page.

6   Select the bottom column to insert the widget.

    Note   If an empty column is not available then, you can insert a new column.

7   On the left pane, in the **Filter Widgets** text box, search for **CAS_SP_returnToDeployment**.

8   Drag and drop the widget to the column.

    The View and modify resources widget is added to the **Request Summary** page.

Configuring the Deployment Counts in the Deployment List

The ServiceNow system administrator or the application admin can configure the number of deployments that should display on a single page in the **Deployment List** widget. By default, users can view 5 deployments on one page.

Prerequisites

You must be the system administrator or ITSM application admin in ServiceNow.

Procedure

1 Log in to ServiceNow as a system administrator or ITSM application admin.

2 From the left pane, go to **vRealize Automation > System Properties**.

3 In **Search**, search for `x_vmw_cloudservice.deploymentWindowSize`.

4 In the **Value** field, enter the number of deployments you want to appear in the Deployment List widget.

    The entered number of deployments display on a single page in the **Deployment List** widget.

5 Click **Update**.

Configure the Deployment Counts in the Deployments Widget

By default, users can view five deployments in the Deployments widget on Service Portal. The ServiceNow system administrator or the application admin can configure the number of deployment entries that should display in the Deployments widget.

Prerequisites

You must be the system administrator or application admin in ServiceNow.

Procedure

1 Log in to ServiceNow as a system administrator or ITSM application admin.

2 From the left pane, go to **vRealize Automation > System Properties**.

3 In **Search**, search for `x_vmw_cloudservice.DeploymentLimit`.

4 In **Value**, enter the desired number.

    The entered number of deployments display in the **Deployments** widget.

5 Click **Update**.

Using the Service Portal

This chapter describes how to use the Service Portal for the VMware vRealize Automation ITSM Application for ServiceNow.

Viewing the Deployments

The Deployment List page displays the list of deployments entitled to the user. Users can view the status of the deployments they own. From the Deployment List page, the user can view the deployment status, expiry date, number of resources associated with deployment, a project associated with the deployment, owner, and so on.

Prerequisites

- You must have the required roles assigned to view the Service Portal. See Adding the ServiceNow User Roles.

- The Deployment widget must be added. See Configuring the Deployment Widget.

Procedure

1   Log in to the ServiceNow portal.

2   From the left pane, go to **Service Portal > Service Portal Home**.

3   On the **Deployments** widget, click **View All**.

    The **Deployment List** page opens with a list of all the available deployments.

4   Click the desired deployment to view the deployment details.

    On the Deployment List page, you can search deployment using the search bar only for the following fields:

    - Name

    - Status

    - Description

    - Project

    - Endpoint

    Note   For better consistency between requested item comments and the actual deployment status field can have one of the following values:
    - CREATE_SUCCESSFUL

    - CREATE_FAILED

    - CREATE_INPROGRESS

    - UPDATE_SUCCESSFUL

    - UPDATE_FAILED

Deployment Actions

You can perform actions that are associated with deployments and entitled to a user. You can perform one action at a time. If any deployment action is in progress, then a progress bar appears,

and all the other day-2 actions are hidden until the in-progress action is complete. The progress bar shows the status of in-progress action.

Prerequisites

You must have the required roles to view the vRealize Automation catalog items on Service Portal. See Adding the ServiceNow User Roles.

Procedure

1   Log in to the ServiceNow portal.

2   From the left pane, go to **Service Portal > Service Portal Home**.

3   On the **vRA Deployments** widget, click **View All**.

    The **Deployment List** page opens with a list of all the available deployments.

4   You can perform deployment action using one of the following methods:

    ■   From the **Deployments List** page: Click the three dots before the desired deployment name and select the action.

    ■   From the **Deployment details** page:

        a   Select the desired deployment.

        b   On the deployment header, from the **Actions** drop-down, select the required deployment action.

5   If the approval group is configured, the request will send for approval, and the status is updated to Request Approval.

    Note   If the approval group is not configured or the users are not added to the approval group the request will get auto-approved. The vRealize Automation ITSM Application for ServiceNow submits the request on the vRealize Automation instance.

Resource Actions

From the Deployments details page, you can view the details of resources. You can view the resource properties including, custom properties, network information, general properties, owner information, routes, and storage information. You can also perform all the entitled resource actions.

Prerequisites

You must have the required roles to view the vRealize Automation catalog items on Service Portal. See Adding the ServiceNow User Roles.

Procedure

1   Log in to the ServiceNow portal.

2   From the left pane, go to **Service Portal > Service Portal Home**.

3 On the **vRA Deployments** widget, click **View All**.

The **Deployment List** page opens with a list of all the available deployments.

4 Click the desired deployment to view the deployment details.

5 On the **Resources** pane, search and select the desired resource to view the details.

6 Click the **Actions** drop-down button next to the resource name and select the required resource action.

If the approval group is configured, the request will send for approval, and the status is updated to Request Approval.

Note If the approval group is not configured or the users are not added to the approval group the request will get auto-approved. The vRealize Automation ITSM Application for ServiceNow submits the request on the vRealize Automation instance.

Reconfiguring the Service Portal

If the ServiceNow service administrator has configured the User Portal they can go back to Service Portal.

Prerequisites

You must be either the ServiceNow system administrator or application admin.

Procedure

1 Log in to ServiceNow as a system administrator or application admin.

2 From the left pane, go to **vRealize Automation > System Properties**:

3 Set the Service Portal property to true:

 a In **Search**, search for `x_vmw_cloudservice.vRA Servicenow UI`.

 b Set the **Value** to `true`.

 c Click **Update**.

4 Update the parent category sys_id:

 a In the left pane, search for **sc_category.list**.

 b Right-click on the required category and select **Copy sys_id**.

 c From the left pane, go to **vRealize Automation > System Properties**:

 d In **Search**, search for `x_vmw_cloudservice.vra_parent_category`.

 e Open the record and in **Value**, delete the existing value, and paste the sys_id copied in the previous step.

 f Click **Update**.

5   Add the Service Catalog Sys ID:

    a   In the left pane, search for **sc_catalog.list**.

    b   Right-click on Service Catalog and select **Copy sys_id**.

    c   From the left pane, go to **vRealize Automation > System Properties**:

    d   In **Search**, search for `x_vmw_cloudservice.cas_catalog_sysid`.

    e   Open the record and in **Value**, delete the existing value, and paste the sys_id copied in the previous step.

    f   Click **Update**.

6   Run the scheduled job:

    a   From the left pane, go to **vRealize Automation > Job Schedules**.

    b   Run the**vRA Import Project** scheduled jobs.

Configuring and Using the Service Catalog on Native UI

<div style="text-align:right">7</div>

From the VMware vRealize Automation for ServiceNow ITSM application version 8.3, you can configure the Service Catalog on the Native UI.

This chapter includes the following topics:

- Configuring the Service Catalog on Native UI
- Using the Service Catalog

Configuring the Service Catalog on Native UI

The system administrator can create Service Catalog for catalog items to use the Native UI for the vRealize Automation for ServiceNow ITSM application.

Prerequisites

You must be the ServiceNow system administrator.

Procedure

1   Log in to ServiceNow as a system administrator.

2   Go to **Self Service > Service Catalog**.

3   Click the plus (+) icon.

4   Search for **vRA Items** category for vRealize Automation Catalog items and click **Add here**.

5   Search for **vRA Actions** category for deployment and resource day 2 actions and click **Add here**.

Using the Service Catalog

This chapter describes how to use the Service Catalog for the VMware vRealize Automation ITSM Application for ServiceNow.

Viewing and Requesting the Catalog Items

The vRA Items page displays the list of catalog items entitled to the user. User can create a request for catalog items.

Prerequisites

You must have the required roles assigned to view the Service Portal. See Adding the ServiceNow User Roles.

Procedure

1   Log in to ServiceNow.

2   Go to **Self Service > Service Catalog**.

3   Click **vRA Items**.

The vRA Items page opens with a list of all the available vRA Projects.

4   Click the desired Project to view the catalog items.

5   Select the required catalog item to request.

6   Fill in all mandatory fields and click **Order Now**.

Performing the Actions

From the vRA Actions page, you can perform deployment and machine actions entitled to you.

Prerequisites

You must have the required roles assigned to view the Service Portal. See Adding the ServiceNow User Roles.

Procedure

1   Log in to ServiceNow.

2   Go to **Self Service > Service Catalog**.

3   Click **vRA Actions**.

The vRA Actions page opens with a list of all the available vRA Action.

4   Click **Deployment Action**:

   a   Select the required deployment action.

       The deployment action form appears.

   b   Fill in all mandatory fields and click **Order Now**.

5   Click **Resource Action**:

   a   Select the required resource action.

       The resource action form appears.

   b   Fill in all mandatory fields and click **Order Now**.

   Note   For best practice, it is recommended to perform only one action at a time.

Advanced Configuration

<div style="text-align: right">8</div>

The ServiceNow system administrators can configure the additional features to enhance the VMware vRealize Automation ITSM Application for ServiceNow.

This chapter includes the following topics:

Enable the Two-Way Check-Out

Two-way check-out enables users to send multiple requests for catalog items at the same time.

Prerequisites

- You must be the ServiceNow system administrator.

- The scope must be selected as Global.

Procedure

1   Log in to ServiceNow as a system administrator.

2   In the left pane, click **Catalog Administration > Properties**.

    The **Service Catalog Configuration** page appears.

3   On the **Cart** tab, use the slider and turn on **Use the two step catalog checkout model (default false)**.

    The Two-way check-out is enabled.

Configure and Run Import Jobs

The Configure and Run Import Jobs section describes the jobs that are automatically scheduled at the time of installation. You can update the default schedule as required. You can also run these jobs manually (on-demand).

However, exercise caution while changing the default configuration or manually running the jobs as data corruption or loss can occur.

Note The Scheduled Jobs and System logs functionality will only be visible to ServiceNow system administrator.

Caution Import jobs must configure and run in the order they appear in the following table. Manual (on-demand) execution of these jobs must also follow this order. Failure to follow this order can cause the data corruption or loss.

This table describes the import jobs.

Scheduled Import Jobs	Description
vRA Generate API Token	Generates an authentication token when vRealize Automation is registered. This job gets auto-updated based on the defined schedule.
vRA Import Project	Imports projects from vRealize Automation into ServiceNow as projects.
vRA Import Catalog	Imports catalog items from vRealize Automation into ServiceNow as catalog items.
vRA Import Resources and CMDB	Imports deployments and resources from vRealize Automation into ServiceNow so that users can view the resources they own on the portal. By default, the job execution time is set to 23.59.00 PDT midnight. The system administrator can change the execution time as per their requirement. VMware recommends that you should not run this job frequently and always run it in off-peak hours.
vRA Delete Queue	Deletes the scheduled import queues that are older than the interval specified.
vRA Reconcile Actions	While importing the day-2 actions from the vRA, if any day-2 actions is removed from the vRA, then it will be removed from the ServiceNow.
vRA_Thread_Limit	Runs every second to process a limited number of topics from the Job Queue table. Note that the user need not activate, deactivate, or run this job manually. This job is automated to activate or deactivate based on certain conditions.

Email and Ticketing Properties

The ServiceNow system administrator or application admin can configure email notification properties and support tickets in the VMware vRealize Automation ITSM Application for ServiceNow.

The system administrator or ITSM application admin can configure the email notification for these functionalities:

- Manage Endpoint: An email is sent to the users responsible to create, update, and delete the endpoint.

- Approval request: If all the email settings are configured, then:

    - An email is sent to both requester and approval group once the request is created.

    - An email is sent to requester if the submitted request is approved or rejected.

    - An email is sent to requester if more information is required by the approval group.

- Deployment Requested Items (RITM) to vRA: If all the email settings are configured, then:

    - An email is sent to requester once the RITM is submitted.

    - If the approval group is configured, an email is sent to the approval group once the RITM is submitted.

    - An email is sent to requester if RITM is successful.

    - An email is sent to requester if RITM is failed and a support ticket is created.

- Day-2 actions: If all the email settings are configured, then:

    - An email is sent to requester if day-2 deployment or resource action is successful.

    - An email is sent to requester if day-2 deployment or resource action is failed and a support ticket is created.

    Note For native UI and service portal, for failed day-2 actions, incidents are not created and emails are not generated.

The system administrator or ITSM application admin can configure the properties to create support tickets:

- A support ticket is created if a RITM request is failed.

- A support ticket is created if a day-2 deployment or resource action is failed.

Configure the Email and Ticketing Properties

The system administrator or ITSM application admin can configure the system properties for email notification and support tickets if there is a failure of day-2 action and RITM request.

Prerequisites

You must be the system administrator or ITSM application admin in ServiceNow.

Procedure

1   Log in to ServiceNow as a system administrator or ITSM application admin.

2   From the left pane, go to **vRealize Automation > Advanced > Email Properties**.

3   On the **vRealize Automation Email and Ticketing Properties** screen, select or deselect the boxes to configure these properties:

Field	Default Values	Description
Trigger the email notifications on Manage Endpoints.	Yes	To receive emails updates from Manage Endpoints including create, update, and delete of endpoints.
Trigger the email notifications to group on the approval requests.	Yes	To send the email notification to the approval group for the approval of the request.
Trigger the email notifications on request approval.	No	To receive an email notification if the approval group, approves the request.
Trigger the email notifications on the reject of the approval request.	Yes	To receive an email notification if the approval group, rejects the request.
Trigger the email notification when more details need to be provided on approval requests.	Yes	To receive an email notification when the approval group requests more information.
Trigger the email notifications on the successful completion of catalog item requests.	Yes	To receive email notification on the successful completion of the catalog item request.
Trigger the email notifications on successful/failure of day-2 actions.	No	To receive email notification on the successful completion or failure of day 2 actions.
Create the incident on the failure of catalog item submission on vRA.	Yes	To create an incident (support ticket) if a catalog request submission is failed on the vRealize Automation.

4   Click **Save** to configure.

Note

- To receive the Out-of-Box (OOB) emails and not the plug-in emails then disable the email properties for the VMware vRealize Automation ITSM Application for ServiceNow. See Configure the Email and Ticketing Properties.

- To receive plug-in emails and not the OOB emails then apply the appropriate conditions at the places where OOB emails are initiated.

System Properties

The system properties chapter contains the most commonly used system properties in the VMware vRealize Automation ITSM Application for ServiceNow.

Configure the Support Group for Request Failure Incidents

If a deployment request initiated from the ServiceNow fails in vRealize Automation or if a day-2 action fails, the vRealize Automation ITSM Application for ServiceNow creates a support ticket and assigns it to the support group. The system administrator can configure the system properties for support groups.

Prerequisites

You must be the system administrator or application admin in ServiceNow.

Procedure

1   Log in to ServiceNow.

2   From the left pane, go to **vRealize Automation > System Properties**.

3   In **Search**, search for `x_vmw_cloudservice.support_group_for_ITSM_8.x`.

4   Open the record and in **Value**, enter the name of support group.

5   Click **Update**.

    The support group is configured for selected properties.

Retriggering Time for Catalog Item Request if MID Server is Down

The system administrator and application admin can configure a retriggering time for catalog requests. The system uses the configured time to resend the catalog request when the MID server is down. The system resends the request until the request is successfully submitted to vRealize Automation.

Prerequisites

You must be the system administrator or application admin.

Procedure

1   Log in to ServiceNow as a system administrator or application admin.

2   From the left pane, go to **vRealize Automation > System Properties**.

3   In **Search**, search for `x_vmw_cloudservice.TimetoRe-TriggerCatalogRequest`.

4   Open the record and in **Value**, enter the time in minutes.

    The default time is set to 60 minutes.

5   Click **Update**.

Cancel Time for Catalog Item Request if MID Server is Down

The ServiceNow system administrator and application admin can define a cancel time for catalog requests when the mid-server is down. It declines the catalog requests if, the request is not submitted to vRealize Automation before the defined cancel time.

Prerequisites

You must be the system administrator or application admin.

Procedure

1 Log in to ServiceNow as a system administrator or application admin.

2 From the left pane, go to **vRealize Automation > System Properties**.

3 In **Search**, search for `x_vmw_cloudservice.cancelCatalogRequest`.

4 Open the record and in **Value**, enter the time in hours.

The default time is set to 48 hours.

5 Click **Update**.

Re-triggering Time for Catalog Item Request Status Check

The ServiceNow system administrator and application admin can configure a time to automatically check the catalog request status. Once the catalog request is submitted to vRealize Automation, the system uses this configured time to automatically check the request status then update the status accordingly.

Prerequisites

You must be the system administrator or application admin.

Procedure

1 Log in to ServiceNow as a system administrator or application admin.

2 From the left pane, go to **vRealize Automation > System Properties**.

3 In **Search**, search for `x_vmw_cloudservice.vRACSWorkflowTimerToCheckRequestStatus`.

4 Open the record and in **Value**, enter the time in seconds.

The default time is set to 180 seconds.

5 Click **Update**.

Cancel Time for Catalog Item Request Status Check

The ServiceNow system administrator and application admin can define an end time to stop verifying the status of the request.

Prerequisites

You must be the system administrator or application admin.

Procedure

1 Log in to ServiceNow as a system administrator or application admin.

2 From the left pane, go to **vRealize Automation > System Properties**.

3   In **Search**, search for `x_vmw_cloudservice.vRACSTimeToCancelRequestWorkflow`.

4   Open the record and in **Value**, enter the time in seconds.

The default time is set to 14400 seconds.

5   Click **Update**.

Configure the Multi-Level Approval for Catalog Item Requests

The ServiceNow administrator can configure the multi-level approval for the ServiceNow catalog request.

Prerequisites

- You must be the system administrator in ServiceNow.

- The scope must be selected as the VMware vRealize Automation ITSM application.

Procedure

1   Log in to ServiceNow as a system administrator.

2   From the left pane, go to **Workflow > Workflow Editor**.

The Workflow Editor opens in the new browser tab.

3   Search for **vRA Approval SubWorkflow** then open the Workflow.

4   Check out the workflow to add more activities to sub-workflow.

5   From the **Core** tab, add the **Approval - Group** to the workflow.

6   In the **Approvers** section, select the groups.

7   Update the connecting arrows for **Accept** and **Reject**.

8   Click **Update**.

9   Click the **menu** icon and select **Publish** to save.

10 Repeat the steps to add more approval activities in the subworkflow.

Note

- By default, three approval activities are added in the subworkflow. Admin can add desired approval groups in these activities.

- System administrator must add all the approval group names in the `x_vmw_cloudservice.vRealizeAutomation-ApprovalGroup` system property.

Configure the Multi-Level Approval for Day-2 Action Catalog Item Request

The ServiceNow administrator can configure the multi-level approval for the day-2 action.

Prerequisites

- You must be the system administrator in ServiceNow.
- The scope must be selected as the VMware vRealize Automation ITSM application.

Procedure

1 Log in to ServiceNow as a system administrator.

2 From the left pane, go to **Workflow > Workflow Editor**.

   The Workflow Editor opens in the new browser tab.

3 Search for **vRA Day2 Action Approval SubWorkFlow** then open the Workflow.

4 Check out the workflow to add more activities to sub-workflow.

5 From the **Core** tab, add the **Approval - Group** to the workflow.

6 In the **Approvers** section, select the groups.

7 Update the connecting arrows for **Accept** and **Reject**.

8 Click **Update**.

9 Click the **menu** icon and select **Publish** to save.

10 Repeat the steps to add more approval activities in the subworkflow.

> **Note**
> - By default, three approval activities are added in the subworkflow. Admin can add desired approval groups in these activities.
> - System administrator must add all the approval group names in the `x_vmw_cloudservice.vRealizeAutomation-ApprovalGroup` system property.

Create Custom Workflow for Specific Catalog Items

By default, VMware vRealize Automation Request Workflow is assigned to each catalog item in the VMware vRealize Automation ITSM Application for ServiceNow. The ServiceNow system administrator can create their custom workflow and assign it to catalog items.

Create a Sub-Workflow

The system administrator requires to create a sub-workflow. This workflow contains the approval group activity and approval group information.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1   Log in to ServiceNow as a system administrator.

2   From the left pane, go to **Administration > Workflow Editor**.

The Workflow Editor opens in the new browser tab.

3   Select and open the **vRA Approval SubWorkflow**.

4   Click the **menu** icon and select **Copy**.

5   On the **Workflow Name** dialogue box, enter the new workflow name, and then click **OK**.

The New workflow is created.

6   Configure the required workflow activity.

> **Note**   The result of sub-workflow should be either Approve or Reject.

7   Click the **menu** icon and select **Publish** to save.

Create the Main Workflow

The workflow created in this section is assigned to the catalog items.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1   Log in to ServiceNow as a system administrator.

2   From the left pane, go to **Administration > Workflow Editor**.

The Workflow Editor opens in the new browser tab.

3   Select and open the **vRealize Automation Request Workflow**.

4   Click the **menu** icon and select **Copy**.

5   On the **Workflow Name** dialogue box, enter the new workflow name, and then click **OK**.

The New workflow is created. After you have created the main workflow and sub-workflow, link the main workflow with subworkflow.

6   In the **Workflow Activity Properties** section, update the workflow created in Create a Sub-Workflow.

7   Click **Update** to link.

8   Click the **menu** icon and select **Publish** to save.

Update the Approval Group System Property

In the `x_vmw_cloudservice.vRealizeAutomation-ApprovalGroup` system property has a default value as vRealizeAutomation-ApprovalGroup. The ServiceNow system administrator is required to update the approval group system property to add more approval groups used in the subworkflow.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1   Log in to ServiceNow as a system administrator.

2   From the left pane, go to **vRealize Automation > System Properties**.

3   Search for `x_vmw_cloudservice.vRealizeAutomation-ApprovalGroup`.

4   Open the system property and in **Value**, enter the approval group name.

> **Note**   Use the comma-separated values to add multiple approval groups.

5   Click **Update** to save.

Configure the Custom Sub-Workflow

The ServiceNow system administrator can update the existing vRA Approval Sub-Workflow with their custom workflow to send approvals to specific approval groups.

The ServiceNow system administrator can set conditions or criteria using javascript in ServiceNow to achieve the following type of context:

A custom workflow can be created to ensure that the requester belongs to either entitlement A or entitlement B or entitlement C. If the user is in entitlement A, the request must go to approval group A. If the user is in entitlement B, the request must go to approval group B. If the user is in entitlement C, the request must go to approval group C.

Prerequisites

You must be the ServiceNow system administrator.

Procedure

1   Log in to ServiceNow as a system administrator.

2   From the left pane, go to **Administration > Workflow Editor**.

The Workflow Editor opens in a new browser tab.

3   Search for **vRA Approval SubWorkflow** then open the Workflow.

4   Check out the workflow to add more approval group activities to subworkflow.

5   In the **Approval group activity** section, select the **Advance** check box.

6 On the **Additional groups script** box, add the appropriate conditions or criteria in javascript.

Note For this JavaScript code use Manage Entitlement table system name that is `x_vmw_cloudservice_cas_catalog_entitlement`.

7 Save and publish the workflow.

Update the System Property of the Workflow Activity

The ServiceNow system administrator requires to update the workflow turnstile activity sys_ids for the system properties if the system administrator checks out or publishes the vRealize Automation Request Workflow.

Prerequisites

You must be the ServiceNow system administrator.

Procedure

1 Log in to ServiceNow as a system administrator.

2 From the left pane, go to **vRealize Automation > System Properties**.

3 In **Search**, search for `x_vmw_cloudservice.Request re-trigger turnstile activity sys_id`.

4 Update `sys_id` and then click **Update** to save.

For more information on accessing the `sys_ids`, see Access the Sys IDs.

5 In **Search**, search for `x_vmw_cloudservice.Request Iteration turnstile activity sys_id`.

6 Update the `sys_id` and then click **Update** to save.

For more information on accessing the `sys_ids`, see Access the Sys IDs.

Access the Sys IDs

Each turnstile activity has a unique sys_id and a new turnstile activity is created when the system administrator updates the vRealize Automation Request Workflow. This section provides information to view the required sys_ids in the VMware vRealize Automation ITSM application.

Prerequisites

You must be the system administrator in ServiceNow.

Procedure

1 Log in to ServiceNow as a system administrator.

2 In the left pane search for **wf_activity.LIST**.

The Workflow activity window opens in a new tab.

3 In the **Name** column, search for **Check for iterations**.

The list of available activities is displayed.

4 Select the activity for which **Published** is set to **True**.

5 Right-click on the activity and select **Copy sys_id**.

Note: Update this sys_id for `x_vmw_cloudservice.Request Iteration turnstile activity sys_id` system property. See Update the System Property of the Workflow Activity.

6 In the **Name** column, search for **Check for Request re-trigger**.

The list of available activities is displayed.

7 Select the activity for which **Published** is set to **True**.

8 Right-click on the activity and select **Copy sys_id**.

Note: Update this sys_id for `x_vmw_cloudservice.Request re-trigger turnstile activity sys_id` system property. See Update the System Property of the Workflow Activity.

Supported and Unsupported Functionality

<div style="text-align:right">9</div>

This section provides information for supported and unsupported functionalities for the VMware vRealize Automation ITSM Application for ServiceNow.

Catalog Item Support and Limitation

- A single ServiceNow instance supports multiple VMware vRealize Automation instances. The Catalog Items from the multiple instances are consolidated.

- Minimum and maximum validation are not supported for the **Multi-select** and **Dual list** field types in ServiceNow.

- Approval groups to approve or reject the deployment requests are supported.

- Value Picker only supports Properties Array as the return type when the value is fetched from the VMware vRealize Automation Orchestrator Actions.

- Under **Custom Resources**, for **Add Action**, the **Requires condition** should be disabled.

- For **Custom** forms, field properties such as the **Match** field are not supported in the Constraints.

- For the Service Portal and Native UI, the placeholder functionality is not supported.

- The VMware vRealize Automation ITSM Application for ServiceNow supports only the following field types in Cloud Template (YAML):

  - String

  - Integer

  - Number

  - Boolean

- The VMware vRealize Automation ITSM Application for ServiceNow does not support the **Multi-value Picker** field type. When the Import catalog job runs, it skips the catalog items with the **Multi-value Picker** field type.

- In the vRealize Automation ITSM application for ServiceNow, the dependent fields having minimum and maximum values with the VMware vRealize Automation action are not supported.

- In the vRealize AutomationITSM Application for ServiceNow, the stepwise increment option (stepper) is not supported for decimal and integer data type constraints.

- The vRealize Automation ITSM Application for ServiceNow does not support the Text Element if fetched from External Source.

- Configurator field type is not supported in catalog items.

- The vRealize Automation for ServiceNow 8.x application does not support the Deployment Count feature.

- For Native UI, the **Password** field type does not support the Minimum and Maximum values.

- The vRealize Automation ITSM Application for ServiceNow supports the dependent field data types for text field, text area, and drop-down list.

- The Data grid designed using Cloud Template (YAML) is not supported in VMware vRealize Automation ITSM Application for ServiceNow.

- If you have created the following fields in the vRealize Automation ITSM Application then while performing import in ServiceNow, these fields will not be created:

  - Field ID: description

    Field ID: project

- **Show or hide** fields and tabs support:

  - You can show or hide fields and tabs for the vRealize Automation ITSM Application for ServiceNow catalog items.

  - The show or hide fields and tabs can be set in vRealize Automation using the drop-down and text field value selection for Equals/NotEqual/Within the condition.

  - The ITSM application supports Constant and Conditional values as value sources to show or hide the fields and tabs and does not support External source values.

  - The `hide/unhide` fields/tabs can be set using multiple conditions.

  - You need to enter or click outside area of the text field after entering word which matches to hide/unhide the field/tab.

  - Empty Space will not work on the Service portal for within condition to `hide/unhide` the `field/tab`.

  - `Hide/unhide` functionality is not supported for custom Day-2 actions.

- Additional custom fields for Day-0 catalog item:

  - The container for custom fields facilitates you to create a custom field with orders ranging from conditions 10002-10099 under variables.

  - You can also change the name of the custom container if required.

  - You can create customized client scripts for custom fields.

- You can create a new custom field by clicking the **New** button under variables, on catalog items in the VMware vRealize Automation ITSM application.

- While creating new custom fields, if the user changes global scope to VMware Automation ITSM application on catalog items, then the **New** button under variables will not be visible to create new custom fields.

- Custom fields can be created only on the Day-0 catalog item.

- You can view the Custom fields on RITM. The reference of RITM number is displayed under requested items by navigating to deployments and vice versa.

- While creating a client script, in **UI type**, you should select **All** so that the script works on both the Native UI and Service Portal.

- Custom fields cannot be sent to vRA/vRAc.

- Deployment Name field support:

  - You can view the **Deployment Name** field in the ITSM application for both custom form and non-custom form catalog items. The **Deployment Name** field displays as a Read-only field and can be enabled or disabled from vRealize Automation.

  - For the custom form catalog items, the deployment name field displays in the General section else it displays after the Version field.

  - The vRealize Automation ITSM Application for ServiceNow supports the Deployment name field for external source and default values.

- The **Data Grid** designed using Cloud Template (YAML) is not supported in the VMware vRealize Automation ITSM Application for ServiceNow.

- The following types of data sources for the **Dual List** field type are supported:

  - Default and External source

  - Default and Constant

  Note Configuring the data sources together in the **Dual List** field type is not supported.

- ITSM plugin support:

  - `Complex` datatype and `display` objectfield are not supported in the ITSM plugin.

- By default, the following vRealize Automation field types are supported:

Field Types	Part of vRO Workflow	External Source vRO Action	Placeholder	Hidden Fields (Visibility = No)	Conditional Value
Array input	X	X	X	X	X
Check box	X	X	X	✔	✔
Combo box	X	X	X	X	X
Data grid	X	X	X	✔	✔

Field Types	Part of vRO Workflow	External Source vRO Action	Placeholder	Hidden Fields (Visibility = No)	Conditional Value
Date time	✔	X	X	✔	✔
Decimal	✔	✔	X	✔	✔
Drop down	✔	✔	X	✔	✔
Dual list	✔	✔	X	✔	✔
File upload	X	X	X	X	X
Image	X	X	X	X	X
Integer	✔	✔	X	✔	✔
Link	X	X	X	X	X
Multi select	✔	✔	X	✔	✔
Multi value picker	X	X	X	X	X
Object field	X	X	X	X	X
Password	✔	X	X	✔	✔
Radio group	X	X	X	✔	✔
Text area	✔	✔	✔	✔	✔
Text field	✔	✔	✔	✔	✔
Text	✔	X	X	✔	✔
Tree picker	X	X	X	X	X
Value picker	✔	✔	X	✔	✔

Note The following operations are not supported on any field types:

- Bind fields

- Concatenate

- Computed value

- Supported vRealize Automation field types for default values are as follows:

Field Types	Constant	External Source
Array input	X	X
Check box	✔	X
Combo box	X	X
Data grid	✔	X

Field Types	Constant	External Source
Date time	✔	✔
Decimal	✔	✔
Drop down	✔	✗
Dual list	✔	✗
File upload	✗	✗
Image	✗	✗
Integer	✔	✔
Link	✗	✗
Multi select	✔	✗
Multi value picker	✗	✗
Object field	✗	✗
Password	✔	✔
Radio group	✔	✗
Text	✔	✗
Text area	✔	✔
Text field	✔	✔
Tree picker	✗	✗
Value picker	✔	✗

- The following vRealize Automation field types are supported for Constraints:

Field Types	Required	Regular Expression	Minimum Values	Maximum Values
Array input	✗	✗	✗	✗
Check box	✔	✗	✗	✗
Combo box	✗	✗	✗	✗
Data grid	✔	✗	✗	✗
Date time	✗	✗	✗	✗
Decimal	✔	✗	✔	✔
Drop down	✔	✗	✗	✗
Dual list	✔	✗	✔	✔

Field Types	Required	Regular Expression	Minimum Values	Maximum Values
File upload	X	X	X	X
Image	X	X	X	X
Integer	✔	X	✔	✔
Link	X	X	X	X
Multi select	✔	X	✔	✔
Multi value picker	X	X	X	X
Object field	X	X	X	X
Password	✔	✔	✔	✔
Radio group	X	X	X	X
Text	X	X	X	X
Text area	✔	✔	✔	✔
Text field	✔	✔	✔	✔
Tree picker	X	X	X	X
Value picker	✔	X	X	X

Day 2 Action Support and Limitation

- Configuration of email notification for endpoint, entitlement, approval request, RITM request on vRealize Automation, day 2 actions, and resource sharing are available.

- A support ticket is created within ServiceNow on the failure of catalog request submission and day 2 action.

- After you have removed the disk from a machine, it takes time to reflect the same in the VMware vRealize Automation ITSM Application for ServiceNow.

- The following day 2 actions are available from the VMware vRealize Automation ITSM Application for ServiceNow:

Resource Actions	Deployment Actions
Add Disk	Change Lease
Compute Relocate	Delete
Create Snapshot	Power Off
Delete	Power On
Delete Snapshot	Update

Resource Actions	Deployment Actions
Power Off	
Power On	
Reboot	
Remove Disk	
Reset	
Resize	
Resize Boot Disk	
Resize Disk	
Restart	
Revert to Snapshot	
Shutdown	
Suspend	

- On the Puppet deployments, the Run Puppet Task day 2 action is not supported.

- Custom Day-2 Actions and Custom Resources are supported.

- Custom Day-2 Action is supported for:

  - Built-in Resources

  - Custom Resources

  - Form-based day-2 actions

  - Formless day-2 actions

- The vRealize Automation ITSM Application for ServiceNow supports the following field types for custom resources and custom day-2 actions:

Field Types	Custom Resource	Custom Day-2 Actions		
		Direct Binding	In Request	Binding Action
Text area	✔	✔	✔	✗
Text field	✔	✔	✔	✗
Text	✔	✔	✔	✗
Password	✔	✗	✔	✗
Decimal	✔	✔	✔	✗
Integer	✔	✔	✔	✗

Field Types	Custom Resource	Custom Day-2 Actions		
		Direct Binding	In Request	Binding Action
Drop down	✔	✔	✔	✗
Check box	✔	✔	✔	✗
Value picker	✔	✔	✔	✗
Date time	✔	✗	✗	✗

- The vRealize Automation ITSM Application for ServiceNow does not support multi tab option for custom day-2 actions.

- Datatype as Complex and display as Objectfield is not supported in the ITSM for Day-0 and Day-2 catalog items.

- The vRealize Automation ITSM Application for ServiceNow does not support the Update day 2 action for:

  - Custom Resources

  - Built-in resources in the Native UI

Supported endpoints

- VMware vSphere[®], Amazon Web Services™ (AWS), Google Cloud Platform™, and Microsoft[®] Azure[®] Cloud are supported.

Other Supported Functionality and Limitation

- Defining the permissions for Admin, Catalog Admin, and User are supported.

- Reconciliation of CMDB to keep the CI item updated is supported.

- If the ServiceNow users are not able to view deployments, ensure that the user is using the email address as username in the vRealize Automation and it must be the same as the email address of the user in ServiceNow.

The VMware vRealize Automation ITSM Application for ServiceNow is tested on the following web-browsers and versions:

Web Browser	Minimum Supported Version
Google Chrome	99.0.4844.82
Microsoft Edge	99.0.1150.39
Mozilla Firefox	98.0.1

Known Issues

10

The following issues are known in the VMware vRealize Automation ITSM Application for ServiceNow:

- The VMware vRealize Automation ITSM Application for ServiceNow displays Boolean type fields as checkboxes in catalog items.

- If there are multiple catalog items with the same name, then the VMware vRealize Automation ITSM Application for ServiceNow displays the latest created catalog item and earlier created catalog items are removed.

- While deleting an endpoint make sure that data is in the VMware application scope. If not, an error message displays for the cross scope data deletion post endpoint is deleted and data is removed successfully.

- In VMware vRealize Automation, if a Cloud Template is having a property group or property definition defined in the input, then the same Cloud Template will fail in ServiceNow.

- The vRealize Automation Configure Items for the catalog items does not support VMware vRealize Automation ITSM Application for ServiceNow.

- The Resource name is not visible in the Service Portal for AWS CFT deployments.

- On Service Portal, the font on the Catalog Page enlarges automatically when the user opens the catalog which has the data grid `field/variable`.

- In the Native UI, if a day-2 action catalog item contains the checkbox or label fields then ServiceNow displays the cross-scope info messages while loading the day-2 catalog items. This is a ServiceNow known issue.

- On the Service Portal, duplicate data type fields are displayed in the RITM if the catalog item has multiple versions.

Troubleshoot

11

The troubleshooting topics provide solutions to potential problems that you might encounter when using VMware vRealize Automation ITSM Application for ServiceNow.

This chapter includes the following topics:

- Unable to perform Day-2 Action
- Complete Hover Message or Field Name is not Displayed
- Deployments and Resources are not displayed
- ServiceNow Users are not able to View Deployments
- Tooltip message is getting truncated
- End user of vRealizeAutomation-ApprovalGroup is not able to approval functionality on other's request
- ServiceNow Users facing string limit issues when exceeded to the max

Unable to perform Day-2 Action

ServiceNow users are not able to perform day-2 actions.

Problem

From the deployment and resource actions, ServiceNow users are not able to perform day-2 operations.

Cause

The registered endpoint is activated after deactivation in ServiceNow.

Solution

Run the import jobs for the deployment and resources. See Configure and Run Import Jobs.

Complete Hover Message or Field Name is not Displayed

Large hover messages or field names are getting truncated.

Problem

Not able to see the full value of translated text and Question text.

Cause

By default field length of the `translated_text` and `question_text` is 250 and 255 respectively. If the length is greater than the desired length, the field length will be truncated.

Solution

The ServiceNow system administrator must increase the field length for translated_text and question_choice. You must import the catalog items again after updating the length.

Deployments and Resources are not displayed

The deployments and resources are not visible in ServiceNow.

Problem

Even after running the scheduled job, deployments and resources are not displayed in ServiceNow.

Cause

This problem occurs as some fields in the `CMDB_ci_appl` table have mandatory conditions.

Solution

1   Right-click on the header bar, navigate to configure and open the `CMDB_ci_appl` table.

2   Check if the following mandatory field is set to `true`:

   a   Locate the mandatory fields that are set `true`, make them non-mandatory, and save them.

   b   Check if you are allowed to make any changes in the `CMDB_ci_appl` table. If not, then you need to make changes in the `x_vmw_cloudservice_deployments` table.

3   To make changes, perform the following:

   a   In the `x_vmw_cloudservice_deployments` table, locate the mandatory field that is set `true`.

   b   Navigate to **Dictionary Override** > **Create new record** in the selected `x_vmw_cloudservice_deployments` table.

   c   Select the **Override mandatory** checkbox and click **Submit**.

   Note   If there is a mandatory condition in the `x_vmw_cloudservice_deployments` column that does not have any condition set, then update it to mandatory `false` or create dictionary override.

ServiceNow Users are not able to View Deployments

Deployments and resources owner is not able to view their deployments and resources.

Problem

ServiceNow end users are not able to view their deployments and resources.

Cause

User name and email id of the user are not the same in vRA.

Solution

Ensure that the user is using the email address as the user name in the vRealize Automation and it must be the same as the email address of the user in ServiceNow.

Tooltip message is getting truncated

In the VMware vRealize Automation ITSM Application for ServiceNow, larger tooltip messages are getting truncated.

Problem

Not able to see the full text of tooltip messages.

Cause

By default, in ServiceNow, the tooltip length is limited to 40 characters. If the length is greater than the desired length, the tooltip message will be truncated.

Solution

The ServiceNow system administrator must increase the tooltip character length from the dictionary record.

End user of vRealizeAutomation-ApprovalGroup is not able to approval functionality on other's request

The VMware vRealize Automation ITSM Application end users are not able to approve/reject/ comment to other users ITSM requests as a part of approval functionality. These end users are already added to the Approval group to use approval functionality.

Problem

End user of vRealizeAutomation-ApprovalGroup is not able to approval functionality on other's request

Cause

This problem occurs due to a change in the ServiceNow certification process. Now user requires to manually create the ACL records.

Solution

1   Create a read ACL in Global scope on the `sc_req_item` OOTB table for `x_vmw_cloudservice.vra_end_user` (application end user) role.

2   Create a read ACL in Global scope on the `sysapproval_approver` OOTB table for `x_vmw_cloudservice.vra_end_user` (application end user) role.

ServiceNow Users facing string limit issues when exceeded to the max

ServiceNow users may face string limit issues when the maximum limit is exceeded. For such cases, change the system property as follows.

Problem

ServiceNow users can face issues when the string limit exceeds 32MB.

Cause

This problem occurs when the string limit exceeds the max, the user will get an error log "`String object would exceed the maximum permitted size of 33554432`".

Solution

The user should change the system Property "`x_vmw_cloudservice.apiPageSize`" value from `200` to `100`.

Appendix

This chapter contains a list of the available custom tables, CMDB tables, and system properties used in VMware vRealize Automation ITSM Application for ServiceNow.

ServiceNow Custom Table used in VMware vRealize Automation ITSM Application for ServiceNow

These custom tables are used in ServiceNow.

Label	Name	Extended Table
Project	x_vmw_cloudservice_cas_project	Categories
Catalog Items	x_vmw_cloudservice_cas_catalog_items	Catalog Item
Deployments	x_vmw_cloudservice_deployments	Application
Resources	x_vmw_cloudservice_machines	Virtual Machine Instance
Deployments Import Set	x_vmw_cloudservice_vra_deployments_import_set	Import Set Row
Resources Import Set	x_vmw_cloudservice_vra_machines_import_set	Import Set Row
Job Queue	x_vmw_cloudservice_cas_queue	
Manage Endpoints	x_vmw_cloudservice_register_cas_organization	
Day-2 Actions	x_vmw_cloudservice_vra_cloud_actions	

ServiceNow CMDB Tables in VMware vRealize Automation ITSM Application for ServiceNow

These custom tables are used in ServiceNow.

Table	Custom Field	Label
x_vmw_cloudservice_deployments	• blueprint_version	• Blueprint Version
	• bluprint_id	• Bluprint Id
	• code	• Code
	• deployment_id	• Deployment Id
	• last_update_time	• Last Update Time
	• message name	• Message Name
	• project_id	• Project Id
	• catalog_id	• Catalog Id
	• hostname	• Host Url
	• organization_id	• Organization Id
	• catalog_version	• Catalog Version
	• operational_status	• Operational status
	• servicenow_owner	• ServiceNow Owner
	• entitled_groups	• Entitled Groups
	• vra_owner	• vRA Owner
	• entitled_users	• Entitled Users
	• unit	• Unit
	• created_at	• Created At
	• expired	• Expired
	• expires_on	• Expires On
	• last_updated_at	• Last Updated At
	• last_updated_by	• Last Updated by
	• message status	• Message Status
	• stimulated	• Stimulated
	• u_catalog_item	• Catalog Item
	• u_project	• Project
x_vmw_cloudservice_machines	• createdat	• CreatedAt
	• deploymentid	• DeploymentId
	• entitled_users	• Entitled Users
	• instance_protocol	• Instance Protocol
	• instance_port	• Instance Port
	• machine_id	• Resource Id
	• machine_name	• Resource Name
	• name	• Name
	• memory	• Memory(MB)
	• network_schema	• Network Schema
	• operational_status	• Operational status
	• organization_id	• Organization Id
	• port	• Port
	• protocol	• Protocol
	• project	• Project
	• storage	• Storage Schema
	• sync_status	• SyncStatus
	• status	• Status
	• vra_owner	• vRA Owner

Table	Custom Field	Label
	■ resource_name	■ Resource Name
	■ encrypted	■ Encrypted
	■ attachment_status	■ Attachment status
	■ address	■ Address
	■ endpointtype	■ endpointType
	■ account	■ Account
	■ volumetype	■ volumeType
	■ node_uuid	■ Node UUID
	■ enviornment	■ Environment
	■ workflow_name	■ Workflow name
	■ started_on	■ Started on
	■ id	■ Id
	■ account_region	■ Account/Region
	■ network_type	■ Network Type
	■ network	■ Network
	■ internet_facing	■ Internet facing
	■ capacity_gb	■ Capacity(GB)
	■ zone	■ Availability Zone
	■ region	■ Region
	■ externallink	■ externalLink
	■ role	■ Role
	■ workflow_id	■ Workflow ID
	■ workflow_run_id	■ Workflow run ID
	■ completed_on	■ Completed on
	■ u_type	■ Type
	■ stack_name	■ Stack Name
	■ custom_properties_schema	■ Custom Properties Schema
	■ servicenow_owner	■ ServiceNow Owner
	■ shared_groups	■ Entitled Groups
	■ inputs	■ Inputs
	■ outputs	■ Outputs
	■ resources	■ Resources
	■ host_schema	■ Host Schema
	■ attached_disks	■ attached Disks
	■ computehostref	■ computeHostRef
	■ computehostType	■ computeHostType
	■ count	■ Count
	■ countIndex	■ countindex
	■ cpucount	■ cpuCount
	■ deployment_sys	■ Deployment Sys
	■ environment	■ Environment
	■ flavor	■ Flavor
	■ flavorref	■ flavorRef
	■ hassnapshots	■ hasSnapshots
	■ image	■ Image

Table	Custom Field	Label
	- os_type - outputs - primarymac - resourcepool - routes_schema - softwareName - Status	- OS Type - Outputs - primaryMAC - resourcePool - Routes Schema - softwarename - status

System Properties in VMware vRealize Automation ITSM Application for ServiceNow

The catalog admin or system administrator of VMware vRealize Automation ITSM Application for ServiceNow can update the system properties:

System Properties	Description	Updated by
x_vmw_cloudservice.cancelCatalogRequest	Update the value in hours to cancel the catalog request if mid server is down.	Application admin or System administrator
x_vmw_cloudservice.CAS.log.header	Contains header for the log file.	Application admin or System administrator
x_vmw_cloudservice.CAS.logging.verbosity	Contains log verbosity for the VMware vRealize Automation ITSM Application for ServiceNow.	Application admin or System administrator
x_vmw_cloudservice.cloud_API_endpoint_URL	The API URL for different geographical locations can be different.	Application admin or System administrator
x_vmw_cloudservice.Request Iteration turnstile activity sys_id	Add Request Iteration turnstile activity sys_id	Application admin or System administrator
x_vmw_cloudservice.Request re-trigger turnstile activity sys_id	Add Request re-trigger turnstile activity sys_id	Application admin or System administrator
x_vmw_cloudservice.Request re-trigger turnstile activity sys_id	Create the support group for the VMware vRealize Automation ITSM Application for ServiceNow when an incident is created from RITM assign it to them.	Application admin or System administrator
x_vmw_cloudservice.TimetoRe-TriggerCatalogRequest	Time in minutes to retrigger the catalog request if the MID server is down.	Application admin or System administrator
x_vmw_cloudservice.vra_itsm_application_version	Version of the VMware vRealize Automation for ServiceNow ITSM application.	Application admin or System administrator
x_vmw_cloudservice.vRealizeAutomation-ApprovalGroup	Contains the name for the Approval group.	Application admin or System administrator

System Properties	Description	Updated by
x_vmw_cloudservice.SetApiVersionDate	Allows you to lock the API at a given point in time and control when you upgrade to a new API version. Update the API version date in the yyyy-mm-dd format. For example: 2019-01-15.	Application admin or System administrator
x_vmw_cloudservice.deploymentWindowSize	Allows you to update the number of Deployments in Deployment List Widget of the Service Portal. The default value is 20.	Application admin or System administrator
x_vmw_cloudservice.DeploymentLimit	Allows you to update the number of Deployments in the Deployment Widget of the Service Portal. The default value is 5.	Application admin or System administrator
x_vmw_cloudservice.servicePortalPrefix	Allows you to update the customized Service Portal prefix. The default value is sp.	Application admin or System administrator
x_vmw_cloudservice.vRA Servicenow UI	Allows you to select the choices to see UI specific Module in Servicenow.	Application admin or System administrator
x_vmw_cloudservice.deploymentCategory	Allows you to set parent category of Deployment day 2 Action Catalog Items.	Application admin or System administrator
x_vmw_cloudservice.machineCategory	Allows you to set parent category of Resource day 2 Action Catalog Items.	Application admin or System administrator
x_vmw_cloudservice.vra_parent_category	It contains the sys_id of the category for Service Portal. User needs to update the sys_id of category in use or sys_id category created.	Application admin or System administrator
x_vmw_cloudservice.apiPageSize	This system property is used to set the page size of the API call to retrieve records from vRA. The default value for the page size is 20.	Application admin or System administrator
x_vmw_cloudservice.resourceActionResource	This system property contains the deployment field sysId of the Resource Day2 Action.	Application admin or System administrator
x_vmw_cloudservice.deploymentActionDeployment	This system property contains the deployment field sys Id of the Deployment Day2 Action.	Application admin or System administrator
x_vmw_cloudservice.cas_valuepicker_ui_macro_sysid	This property contains default sysId of the UI Macro CAS_Valuepicker_UI_Macro.	Application admin or System administrator
x_vmw_cloudservice.cas_valuepicker_widget_sysid	This property contains default sysId of the widget CAS_SP_valuePicker.	Application admin or System administrator
`x_vmw_cloudservice.apiPageSize`	The default value is 200. You can reduce the default value. vRA API supports pagination a maximum of 200 pages only.	System administrator

System Properties	Description	Updated by
`x_vmw_cloudservice.vRAThread`	The default value is 8 and can be configured based on the requirements. Ensure that the utilization is 50% usage of the threads configured in the system property. The utilization can go up to 100%. Specified threads will be used to process the job queue (data parsing).	System administrator
`x_vmw_cloudservice.API Timeout`	The default value is 8000 milliseconds. Sets API call timeout. All API calls wait for the provided time (in milliseconds) to receive the response.	System administrator
`x_vmw_cloudservice.catalogLoader`	System property checks for the value. If the value is set to `true`, the loader displays. For `false`, the loader is not displayed. The loader is displayed only on Catalog items during form load.	System administrator