



Third-Party Integrations 1.2

ServiceNow Calm Plug-In User Guide

March 20, 2020

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NUTANIX CALM PLUG-IN FOR SERVICENOW

Nutanix Calm plug-in for ServiceNow enables you to launch Calm blueprints or MPIs in ServiceNow platform as service catalog items. The Calm plug-in helps to automate the application provisioning and life-cycle management of Calm product. The plug-in allows you to control the resources by using IT services management (ITSM) and IT operations management (ITOM) processes that are defined by the customers in ServiceNow to reduce the time in Nutanix Marketplace.

Note: To configure and use Calm plug-in, you must be familiar with the basic concepts of Nutanix Calm and ServiceNow platform.

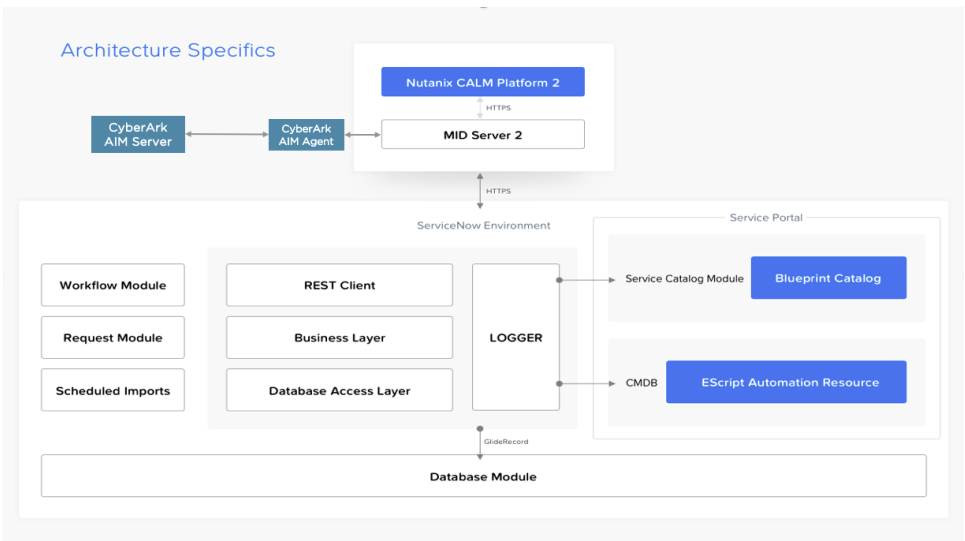


Figure 1: Architecture

Supported Versions

The following table shows the supported versions in this release.

Entity	Supported versions
ServiceNow	Madrid, and New York
Nutanix Calm	2.4.0, 2.5.0, 2.6.0, 2.7.0, 2.7.1, 2.9.1, and 2.9.7
Web-browser	Latest versions of Chrome and Firefox

Note: If you are upgrading the Calm plug-in from v1.1 to v1.2, click the **Save Properties** button in **Application Properties** page. The page automatically displays the calm version.

Roles and Responsibilities

You must have access privileges to perform certain actions. The following table describes the various roles and their respective responsibilities.

Table 1: Roles and Responsibilities

Role	Responsibility
System administrator	<ul style="list-style-type: none"> Assigns Calm administrator role to one of the LDAP imported users.
x_nuta2_nutanix_ca.calm_admin	<ul style="list-style-type: none"> Plug-in configuration Runtime configuration Importing Calm resources in ServiceNow platform Creating catalog items Entitling users or groups
catalog	<ul style="list-style-type: none"> Accesses and launches catalog items on ServiceNow Native UI.
x_nuta2_nutanix_ca.user	<ul style="list-style-type: none"> Launch catalog items Perform actions on applications Check logs <div> <p>Note: When the Calm administrator creates a catalog item in the ServiceNow application, the x_nuta2_nutanix_ca.user role is automatically allocated to either LDAP imported users or groups and local group if the Use Local Groups option is enabled on the Application property page.</p> </div>
mid_server	<ul style="list-style-type: none"> Connects Calm environment by using CyberArk integrations with ServiceNow actioj designer. <div> <p>Note: When the Calm administrator creates a catalog item by using CyberArk setup in the ServiceNow application, the mid_server role is automatically allocated to either LDAP imported users or groups and local group if the Use Local Groups option is enabled on the Application property page.</p> </div>
approval_admin	<ul style="list-style-type: none"> Approves or rejects approval requests.

Prerequisites for Nutanix Calm ServiceNow Plug-in

Before starting using the Nutanix Calm ServiceNow plug-in, ensure that the following prerequisites are completed.

- Nutanix Calm and ServiceNow both must be configured with the same AD or LDAP instance.
- ITSM license that includes incident management module. The license is used to create incidents to report blueprint and other events launch failures.

Note: Without ITSM license, installation of application from the store does not work as this dependency is bundled with the application.

- If you use connect to Calm option by using the ServiceNow credential store object with CyberArk as the external storage, the following components should be enabled.
 - External credential store plug-in
 - Discovery plug-ins
 - ServiceNow IntegrationHub Standard pack Installer if you are using New York version
 - ServiceNow IntegrationHub Installer if you are using Madrid version
- When we install the plug-in from the ServiceNow store, you must enable the user criteria scoped API plug-in (API ID: com.glideapp.user_criteria.scoped.api) as a dependency. This plug-in is used to create, modify, or delete user criteria records by using scripts.
- ServiceNow MID server must be installed and configured. For information on how to install and configure MID server, refer to the *MID Server* section in the *ServiceNow Documentation*. To refer to a video about setting up a MID server, [click here](#).
- Ensure that the MID server is running in your environment. Calm is reachable from the machine or environment where MID server is installed.
- The MID server user has administrator privileges.
- The MID server is up and validated.
- To activate the Calm plug-in on ServiceNow platform, contact your instance ServiceNow administrator.
- You must have administrator privileges to activate and configure the plug-in.
- When application is installed, the Calm administrator role and user roles get installed in the ServiceNow instance. System administrator needs to manually assign the Calm administrator role to one of the LDAP imported users.
- Nutanix Calm administrator user must have the following roles assigned.
 - mid_server: To access MID server
 - catalog
 - x_nuta2_nutanix_ca.calm_admin
 - x_nuta2_nutanix_ca.user
- All applications and operations must have access and permissions of the tables. ServiceNow plug-in provides default permissions to few tables. For more information about the table permissions, see [Default Table Permissions](#) on page v. If any of the table does not have the access permission, assign the access to the table. For more information about assigning access to table, see [Assigning Access to Tables](#) on page vi.
- Set glide.sc.guide.tab.validate System Property to true. For more information about assigning system property, see [Assigning System Property](#) on page vii.

Note: If you have log on by using the administrator credentials, then you need to be in the Global application scope. For information on how to select Global application scope, see *ServiceNow Documentation*. If you have not used the administrator credentials to log on, then the selection of scope is automatically taken care by the platform.

- To send and receive email notifications, email server must be enabled.

Default Table Permissions

The following table displays the table permissions for the applications and operations.

Note: By default, ServiceNow plug-in provides read, create, update, and delete permissions to few tables. If any of the following tables do not have the access permission, assign the access to the table. For more information about assigning access to table, see [Assigning Access to Tables](#) on page vi.

Table 2: Default Table Permission for ServiceNow Applications and Operations

Table name	Label	Permission			
		Read	Create	Update	Delete
sys_user_has_role	User Role	Yes	Yes	Yes	No
sys_user_grmember	Group Member	Yes	Yes	Yes	No
sys_group_has_role	Group Role	Yes	Yes	Yes	No
item_option_new	Variable	Yes	Yes	Yes	No
sys_user_group	Group	Yes	Yes	Yes	No
sc_category	Category	Yes	Yes	Yes	No
sc_catalog	Catalog	Yes	Yes	Yes	No
catalog_ui_policy	Catalog UI Policy	Yes	Yes	Yes	No
catalog_script_client	Catalog Client Scripts	Yes	Yes	Yes	No
user_criteria	User Criteria	Yes	Yes	Yes	No
question	Question	Yes	Yes	Yes	No
question_choice	Question Choice	Yes	Yes	Yes	No
sysapproval_approver	Approvals	Yes	Yes	Yes	No

Note:

- If the table permission is mentioned as *Yes*, you have to assign the permission for the table. For more information, see [Assigning Access to Tables](#) on page vi.
- If the table permission is mentioned as *No*, you do not require any permission to perform the operation.

Assigning Access to Tables

The system administrator needs to assign access of different tables to the applications.

About this task

Note: If you have log on by using the administrator credentials, then you need to be in the Global application scope. For information on how to select Global application scope, see *ServiceNow Documentation*. If you have not used the administrator credentials to log on, then the selection of scope is automatically taken care by the platform.

Procedure

1. Log on to the ServiceNow.

2. Select **Global** as the application scope.
3. Click **System Definition > Tables**.
4. Enter the table name in the **Search** field.
5. Click **To edit this record click here**.
6. Under the **Application Access** tab, assign permissions for the required tables. If any of the table do not have the access permission, assign the access to the table. For more information about assigning access to table, see [Assigning Access to Tables](#) on page vi.
7. Click **Update**.

Similarly, you need to assign required permissions for the following tables.

- item_option_new
- user_criteria
- sc_category
- catalog_ui_policy
- sc_catalog
- catalog_script_client
- sys_user_has_role
- sys_group_has_role
- sys_user_group
- sys_user_grmember
- question
- question_choice
- sysapproval_approver

For more information about table permissions, see [Default Table Permissions](#) on page v.

Assigning System Property

The system administrator needs to assign system property to work with Calm-ServiceNow plug-in. Perform the following procedure to assign system property.

Procedure

1. In the left navigation pane, type `sys_properties.LIST` and press **Enter**.
2. Under the **Name** column, in the **Search** field, type `glide.sc.guide.tab.validate` and press **Enter**.
3. Set the value to `true`.

Plug-In Capabilities

The ServiceNow Calm plug-in enables you to order and provision applications into Calm and perform actions on these applications. This is possible with ServiceNow catalog items derived from Calm resource definitions.

Following functionalities are supported:

- Manage assigned catalog items
- Launch catalog items
- Incident tracking
- Perform actions on application
- Configuration Management Database (CMDB)
- Notifications
- Activity dashboard

User Operations

You can perform the following user operations.

Catalog Management

By using the catalog management menu, you can access catalog items, launch catalog items, orders, and incidents.

Note:

- If a catalog item is broken due to Calm-ServiceNow plug-in v1.0 issue (For example, Catalog Item is not correctly created in v1.0), then the catalog item remains broken on the Calm-ServiceNow plug-in v1.1. The administrator needs to delete and create new catalog item.
- If a Project is added to a remote Prism Central and the NIC is marked as runtime editable, the project cannot list the subnets during launch.
- A variable with multiple dependencies is not supported.

Launching Catalog Item

By using the launch blueprint window, you can access the list of assigned catalog item and launch the selected catalog item.

About this task

Procedure

1. Log on to the ServiceNow.
2. Click **Nutanix Calm** > **Catalog Management** > **Launch Blueprints** to launch blueprint.
The Launch Blueprint window is displayed.
3. Select a blueprint that you want to launch.
The selected blueprint detail is displayed.

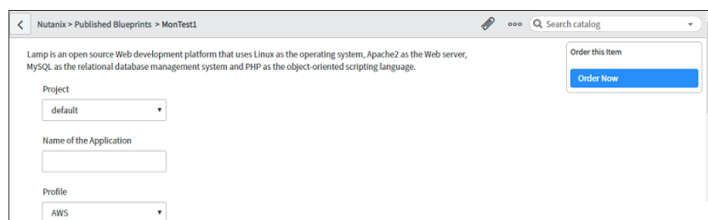


Figure 2: Blueprint Details

4. Optionally, update the fields.
5. Under the **Order this item**, select **Order Now**.

Note: Depending upon the approval workflow selected by the administrator, system process the request. You can track the progress of request by clicking **Catalog Item > Orders**.

Viewing Nutanix Applications

The applications window displays the list of applications available in the Nutanix Calm plug-in.

About this task

Note: If you have log on by using the administrator credentials, then you need to be in the Nutanix Calm application scope. For information on how to select Nutanix Calm application scope, see [ServiceNow Documentation](#). If you have not used the administrator credentials to log on, then the selection of scope is automatically taken care by the platform.

Procedure

1. Log on to the ServiceNow.
2. Click **Nutanix Calm > Inventory Sync > Applications** to view the deployed applications.
3. Click the application name to view the application details.

You can view the list of available actions, recovery points, and audit logs.

Note:

- Recovery Points tab is only available for single VM applications running on Nutanix and VMware cluster for Calm v2.9.7.
- AMIs tab is only available for single VM applications running on AWS cluster for Calm v2.9.7.

Accessing Actions

After the request is approved, an API call is triggered to Calm to create the application instance.

About this task

- If the application instance is created successfully, the newly created application is immediately synced into ServiceNow and displays under the Nutanix Calm Application.
- If the application instance fails, an incident is created in the ServiceNow instance and assigned to the assignment group defined by the Calm administrator.

Procedure

1. Log on to the ServiceNow.
2. Click **Nutanix Calm > Applications**.
The list of available applications is displayed.
3. Select an application that you want to access.
The application details are displayed.

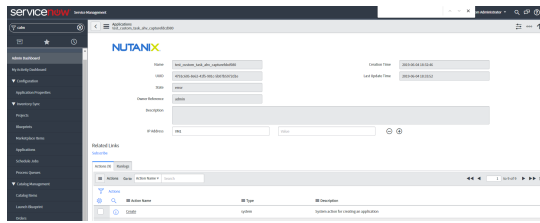


Figure 3: Application Details

4. Under the **Actions** tab, do one of the following.

- a. Right-click on the action that you want to perform and click **Perform Action**.

Note: For the single VM blueprints running on the Nutanix cluster, you can do the following advanced actions.

- Taking snapshots
- Restoring an application from the snapshot
- Deleting a snapshot
- Cloning an application
- Installing or uninstalling NGT
- Editing an application

Advanced actions are available for Calm v2.7.

5. Click **App Runlogs** to view the action status.

If there is a failure, system creates an incident.

Tracking Orders

You can track your orders by performing the following procedure.

About this task

Procedure

1. Log on to the ServiceNow.
2. By using the **Order** window, you can track the progress of your orders.

Requested Items [Nutanix view] New Go to Updated Search 1 to 2 of 2										
	Number	Item	Stage	Request	Requested for	Opened by	Approval	State	Active	Updated
<input type="checkbox"/>	RITM0010382	MonTest1	✔ ✔	REQ0010147	System Administrator	System Administrator	Requested	Closed Complete	false	2018-11-28 02:12:58 2h ago
<input type="checkbox"/>	RITM0010377	MonTest2	✔ ✔	REQ0010145	System Administrator	System Administrator	Requested	Closed Complete	false	2018-11-27 02:08:46 a day ago
<input type="checkbox"/> Actions on selected rows... 1 to 2 of 2										

Figure 4: My Orders

You can view all the failure incidents of the assigned blueprints, update, and change the incident details or status.

Procedure

1. Log on to the ServiceNow.
2. Click **Nutanix Calm > Catalog Management > Incidents**.

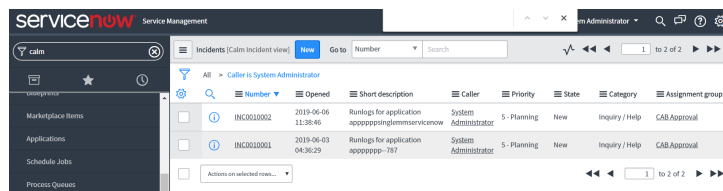


Figure 5: Incident

3. Click the incident that you want to update.
4. Optionally, update the required information and click **Update**.
5. Optionally, if the issue gets resolved, click **Resolve**.

Viewing Logs

Logs module is visible to both Calm administrator and end user. From the Logs menu, user can access the following options:

- **Emails:** To view the various notifications sent or received.
- **User Logs:** To view the error details.

1. Log on to the ServiceNow.
2. Click **Nutanix Calm > Logs > Emails or User Logs.**

The logs detail is displayed.

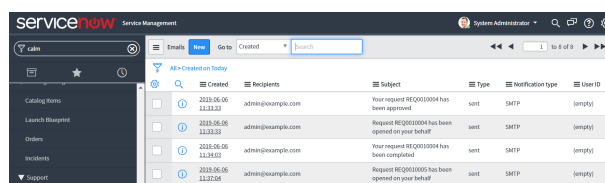


Figure 6: Email Logs

Viewing Support Details

Calm administrator and end-user can access the Nutanix Calm support contact details.

Procedure

1. Log on to the ServiceNow.
2. Click **Nutanix Calm** > **Support** > **Contact Support**.

The contact support details is displayed.

Contact Support	
Nutanix	
Your Role	Action
Non-Admin Users	Report to Admin Users.
Admin Users	Check The Error Logs and Consult The Documentation. If issue is not Resolved or not mentioned in the Document Contact us by visiting The Portal at Nutanix ServiceNow Plugin support website
Note:- Use This Option Only When Required.	

Figure 7: Support Details

Accessing the User Dashboard

The user dashboard window displays a summarized view of assigned blueprints, opened request, request status, performed executions, execution status, incidents, and incident status.

About this task

Procedure

1. Log on to the ServiceNow.
2. Click **Nutanix Calm** > **User Dashboard**.

The user dashboard is displayed.

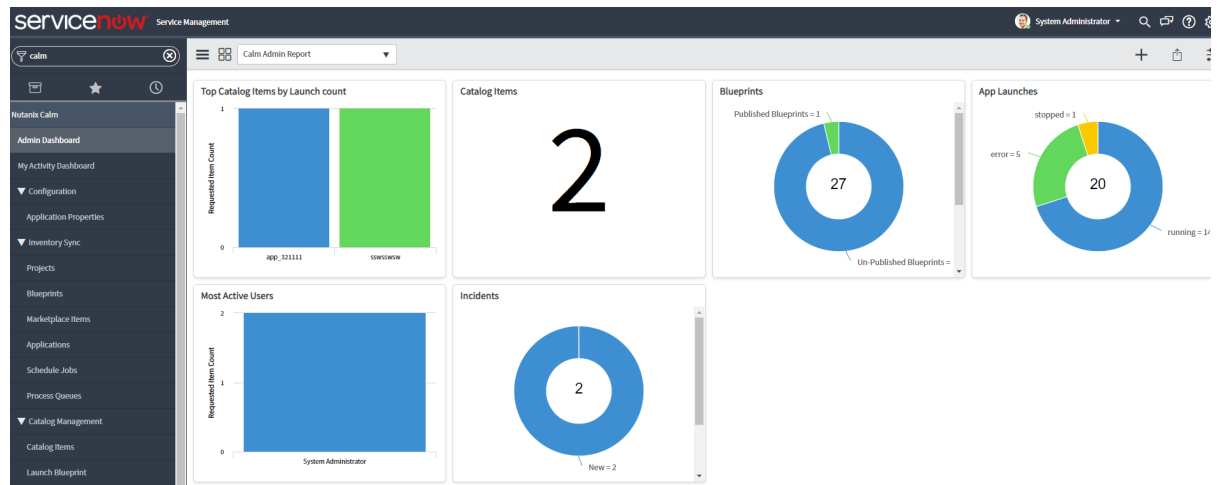


Figure 8: User Dashboard



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Conventions

Convention	Description
<code>variable_value</code>	The action depends on a value that is unique to your environment.
<code>ncli> command</code>	The commands are executed in the Nutanix nCLI.
<code>user@host\$ command</code>	The commands are executed as a non-privileged user (such as nutanix) in the system shell.
<code>root@host# command</code>	The commands are executed as the root user in the vSphere or Acropolis host shell.
<code>> command</code>	The commands are executed in the Hyper-V host shell.
<code>output</code>	The information is displayed as output from a command or in a log file.

Version

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