



Morpheus – ServiceNow Integration

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INTRODUCTION

IT Service Management (ITSM) is an important area of focus. By and large most organizations I come across have an ITSM solution in place. ITSM solutions have evolved over the years beyond just Change Management Database (CMDB) and incident management (Incident, Problem, Change, and more). CMDB tools enable an effective IT Service delivery model. Most organizations expect significant value from their CMDB, which is why so much time and cost is invested in them.

This is no different for Morpheus clients. They have invested in ITSM and use Morpheus' unified orchestration and automation CMP to manage their hybrid IT. Morpheus ITSM integrations include leading technologies such as ServiceNow, Remedy, and Cherwell.

This document will focus specifically on leveraging the Morpheus – ServiceNow integration.

MORPHEUS – SERVICENOW INTEGRATION

The Morpheus – ServiceNow integration covers primarily four use cases that organizations may choose to take advantage of. Here's a short overview of each use case (we will dig deeper in later sections).

CMDB Integration

Organizations leveraging ITIL want to be able to track resources in their CMDB. When provisioning resources – regardless if this is done from Morpheus directly or by using the Morpheus Plugin for ServiceNow - Configuration Items (CI) are created in ServiceNow. When any updates are made to a resource in Morpheus the respective CI record is updated as well. This integration is turned on at the Group or the Cloud constructs in Morpheus.

Approvals Integration

In Morpheus, users can create Provisioning Approval Policies. Provisioning policies are configured to leverage native Morpheus approvals or ITSM-integrated approvals, in this case ServiceNow. This integration is activated by creating a Provisioning Approval Policy and selecting the configured ServiceNow instance that will manage the approval workflow process.

Incident Management Integration

If resources provisioned by Morpheus experience performance or health-related issues that lead to resource degradation or negatively impact resource availability, incidents are automatically raised in Morpheus. These incidents will automatically close once the degradation or health related issues have been resolved. The incidents can be modified and closed manually in Morpheus if desired. Organizations using ServiceNow would want these incidents to be visible in the ServiceNow portal. This integration is turned on in Morpheus by enabling the ServiceNow monitoring in Morpheus (in addition to the Morpheus monitoring).

Morpheus ServiceNow Plugin Integration

One of Morpheus' key strengths is Self-Service Orchestration and Automation. This is done in the Morpheus UI and can be consumed via CLI and API. Some ServiceNow users prefer to provision resources from the ServiceNow Service Catalog. Morpheus has released a plugin for ServiceNow. This can be installed from the ServiceNow Store. Once installed and configured, Morpheus Service Catalog Items can be presented in the ServiceNow Service Catalog for ordering. This integration is turned on by installing the Morpheus Plugin for ServiceNow and sharing the desired resources from Morpheus.

The Morpheus plugin supports both single and multi-domain ServiceNow environments. The multi-domain support is meant for one Morpheus instance with multi-tenants to integrate with one ServiceNow instance with multi-domains. Multiple Morpheus instances connecting to the same ServiceNow instance via the Morpheus plugin is not a supported model.

When ServiceNow is configured for multiple domains (companies), the Morpheus plugin will automatically detect this. Using the supplied service account credentials, Morpheus creates a link between a specific tenant and ServiceNow company (domain). In doing so, catalog items from a distinct Morpheus tenant are only shared with the associated company on the ServiceNow side.

The remainder of this document will focus on the 4 integration areas mentioned above and provide more details on their setup, configuration, and consumption. Let's jump into the details...

INTEGRATION DETAILS

In order to take advantage of any of the above-mentioned integration use cases with ServiceNow, the very first step is to connect Morpheus to the ServiceNow instance(s).

To do this you will need the ServiceNow instance details. In Morpheus go to the **Administration** menu option and select **Integrations**. Select **+New Integration** and scroll down to the **ITSM** section and choose **ServiceNow**. Provide the ServiceNow details and then **Save Changes**. Please see figures below.

The image shows two parts of the Morpheus interface. On the left is the 'Administration' sidebar menu with options: Plans & Pricing, Roles, Users, Integrations (highlighted), and Policies. On the right is the 'EDIT SERVICENOW INTEGRATION' dialog box. It contains the following fields: NAME (HMSNDDev47749-qa), ENABLED (checked), SERVICENOW HOST (https://dev47749.service-now.com), USER (admin), PASSWORD (masked with asterisks), CMDB CUSTOM MAPPING (empty text area), and CMDB BUSINESS OBJECT (Specify what CI class to use when creating the CMDB record. By default, Configuration - Base Items - All (cmdb_ci_vm_instance) is used.). A 'SAVE CHANGES' button is at the bottom right.

Again, this initial step simply connects Morpheus with ServiceNow. In the list of integrations, you will now see the integration entry available.

The image shows the 'INTEGRATIONS' list in Morpheus. It has a table with a 'NAME' header. The first entry is 'amazon Route 53' with the icon 'HM-AWS'. The second entry is 'servicenow' with the icon 'HMSNDDev47749-qa' and is highlighted with a red rectangle.

NAME
amazon Route 53 HM-AWS
servicenow HMSNDDev47749-qa

If you have multiple ServiceNow instances that you would like to connect you can simply repeat the instructions above.

Integration dialog field descriptions

- **NAME:** Friendly name you would like to describe your ServiceNow instance integration
- **ENABLED:** Enable or disable this integration. An integration entry can exist, but this integration can be disabled by unchecking ENABLE
- **SERVICENOW HOST:** The ServiceNow instance you are connecting to. (remember you can create multiple ServiceNow integrations if you have multiple ServiceNow instances)
- **API PROXY:** If necessary, select a configured proxy (Infrastructure > Networks > Proxies) to route traffic through to the ServiceNow API. If a proxy is not configured here, ServiceNow API traffic will be routed through the global proxy if one is configured on the appliance.
- **CREDENTIALS:** The User credentials that Morpheus will use to interact with ServiceNow. This is a ServiceNow user with the appropriate roles assigned in order

for these integration use cases to work properly. In a multi-tenant installation, this user must be a member of the company to which you intend to expose Morpheus catalog items later. Here's a list of the ServiceNow roles necessary:

- **x_moda_morpheus_ca.integration** (will be available if/when the Morpheus ServiceNow Plugin is installed from the ServiceNow Store)
- **catalog_admin**
- **itil**
- **rest_service**
- **web_service_admin**
- **import_transformer**

Additionally, if a Morpheus catalog item contains an Option List in the Catalog (via inputs), and is exposed to ServiceNow via the integration, please note the following permissions detail. For users in ServiceNow who are requesting that exposed catalog item(s) in the ServiceNow catalog, those users need to also be given access via '**x_moda_morpheus_ca_options**' – READ ACL in ServiceNow (see image below). Alternatively, add the '**x_moda_morpheus_ca_options_user**' role to the ServiceNow users requesting that catalog item.

The screenshot shows the ACL configuration for the resource 'x_moda_morpheus_ca_options'. The 'Type' is 'record' and the 'Operation' is 'read'. The 'Application' is 'Morpheus Catalog'. The 'Active' checkbox is checked. The 'Name' is 'x_moda_morpheus_ca_options' and the 'Description' is 'Default access control on x_moda_morpheus_ca_options'. The 'Definition' section contains the following text:

Access Control Rules allow access to the specified resource if all three of these checks evaluate to true:

1. The user has one of the roles specified in the Role list, or the list is empty.
2. Conditions in the Condition field evaluate to true, or conditions are empty.
3. The script in the Script field (advanced) evaluates to true, or sets the variable "answer" to true, or is empty.

The three checks are evaluated independently in the order displayed above.

More info

Requires role

Role

x_moda_morpheus_ca_options_user

Morpheus supports simple and OAuth 2.0 authentication with ServiceNow. See the next section for additional details on configuring the ServiceNow appliance for OAuth 2.0 authentication if you intend to use it. When supplying credentials to Morpheus users may opt to integrate with a saved set of username and password credentials, a saved set of OAuth 2.0 credentials, a new set of username and password credentials (not saved), or a new set of credentials (OAuth 2.0 or username/password) which will also be saved to the Morpheus credential store for later use. Once the credential type is selected, the fields in the modal will adjust to correspond to the chosen credential type. Once again, see the next section for more details on configuring OAuth 2.0 authentication.

- **CMDB CUSTOM MAPPING:** If there is a desire to populate some specific field in the ServiceNow table, specify the field mapping here. This is a JSON code snippet. In the example below we are mapping a field in ServiceNow which has a label of "object_id" and we are populating it with the value in the Morpheus variable "\${instance.name}"
- ```
{
```

```
"object_id": "<${instance.name}>"
}
```

- **CMDB BUSINESS OBJECT:** By default, Morpheus will populate the ServiceNow table using the following configuration item (CI) class "cmdb\_ci\_vm\_instance". Users wanting to populate a different CI class would simply enter that class in this field
- **DEFAULT CMDB BUSINESS CLASS:** Specify a default CI class to be used when creating the CMDB record. By default, Configuration – Base Items – All (cmdb\_ci\_vm\_instance) is used.

There are additional integration areas that will be discussed in the corresponding integration sections below.

## [Configuring ServiceNow for OAuth 2.0 Authentication](#)

Before configuring Morpheus to use OAuth 2.0 authentication with ServiceNow, ensure your ServiceNow appliance is configured correctly. OAuth must be set up and activated, you must also create a new endpoint for the client. See the following relevant parts of ServiceNow documentation to properly configure your appliance:

1. [Set up OAuth](#)
2. [Create a new application endpoint](#) for Morpheus to access the ServiceNow instance

With ServiceNow correctly configured, we can integrate ServiceNow using either a stored OAuth 2.0 credential set or we can create one on the fly during integration. When creating one on the fly Morpheus will save it as a stored credential set for later use. Whether storing one ahead (Infrastructure > Trust > Credentials) or storing one at integration time, configure your credentials as follows. Note that all fields are required for a ServiceNow Integration unless specifically mentioned otherwise:

**NOTE:** Some of the fields below may not be present if creating an OAuth credential set on the fly as opposed to the Infrastructure > Trust section of Morpheus.

- **Credential Store:** Select "Internal" or (if present) an external Cypher store
- **Name:** A name for the stored credential set in Morpheus
- **Description:** An optional description for the credential set
- **Enabled:** If enabled, this credential set will be selectable for creating various integrations in Morpheus
- **Grant Type:** Use "Password Credentials"
- **Access Token URL:** Should be the appliance domain with the path of "/oauth\_token.do". For example, "https://mydomain.service-now.com/oauth\_token.do"
- **Client ID:** The client ID (potentially auto-generated) set when the endpoint was created in ServiceNow
- **Client Secret:** The client secret set when the endpoint was created in ServiceNow
- **Username:** The username for a ServiceNow service account, note the required permissions this user must have in the section above
- **Password:** The password for the ServiceNow account

- **Scope:** Left empty
- **Client Authentication:** Use "Send client credentials in body"

If storing these credentials for later use, click the ADD CREDENTIALS button. If creating this credential set on the fly at the time of integration, continue on to complete the rest of the new integration modal as discussed in the prior section.

EDIT CREDENTIALS

CREDENTIAL STORE

Internal

NAME

ServiceNow OAuth

DESCRIPTION

☒ ENABLED

GRANT TYPE

Password Credentials

ACCESS TOKEN URL

https://d. /oauth\_token.do

CLIENT ID

CLIENT SECRET

.....

USERNAME

morpheusintegration

PASSWORD

.....

SCOPE

CLIENT AUTHENTICATION

Send client credentials in body

SAVE CHANGES

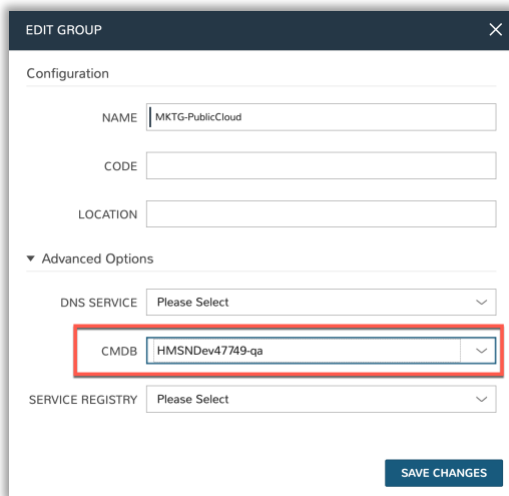


## Activating the CMDB Integration

As noted earlier, users wanting to update the ServiceNow CMDB with CI records of any services provisioned using the Morpheus CMP would enable this capability. Any updates made to a resource in Morpheus also have their respective CI record updated as well. To turn this on it's really a matter of assigning the ENABLED ServiceNow integration defined earlier to a Morpheus Group, or directly to a defined Cloud environment.

**GROUP definition:** A Group defines which resources a user has access to. This is defined by User Roles. Defined Clouds are then added to the group, and users can only access those assigned Cloud environments.

**CLOUD definition:** A cloud is a set of resources that reside in a private or public cloud or bare metal servers. These cloud integrations can belong to one or more groups.



EDIT GROUP

Configuration

NAME: MKTG-PublicCloud

CODE:

LOCATION:

▼ Advanced Options

DNS SERVICE: Please Select

CMDB: HMSNDev47749-qa

SERVICE REGISTRY: Please Select

SAVE CHANGES

Above, I have a group named **MKTG-PublicCloud** and I've assigned the CMDB integration to be the ServiceNow integration created earlier. From the Morpheus platform any resources deployed to the **MKTG-PublicCloud** group will now have CI entries created in the ServiceNow CMDB. Any updates in Morpheus to the resource will also be reflected in the ServiceNow CMDB. If there is a preference to do this at the Cloud level, you would simply assign the CMDB integration at the Cloud object. Here's an example of that below where one of the many options in a Cloud configuration is CMDB integration.

BACKUP PROVIDER: Internal Backups  
 REPLICATION PROVIDER: None  
 GUIDANCE: Manual  
 COSTING: Costing and Reservations  
 DNS INTEGRATION: Please Select  
 SERVICE REGISTRY: Please Select  
 CMDB: HMSNDev47749-qa  
 AGENT INSTALL MODE: Cloud Init / Unattend (when available)  
 API PROXY:   
 ▶ Provisioning Command  
 SAVE CHANGES

Below is an example of provisioning a resource from Morpheus and then having it create the CI record in the ServiceNow CMDB

CREATE INSTANCE

TYPE: GROUP CONFIGURE AUTOMATION REVIEW

ACTIVE MQ MMDMACT1001  
MKTG-PublicCloud (HM-AWS)

Summary

INSTANCE OPTIONS

NAME: MMDMACT1001  
GROUP: MKTG-PublicCloud  
CLOUD: HM-AWS  
TYPE: ActiveMQ  
PLAN: Amazon T2 Nano - 1 Core, 0.5GB Memory  
CORES: 1 Memory: 512MB  
VERSION: 5.11  
LAYOUT: Amazon ActiveMQ  
PRICE: \$5.2456 / Month

VOLUMES

ROOT: 10 GB gp2

NETWORKS

LABS\_APP\_1A (SUBNET96438F2): DHCP

Options

PREVIOUS COMPLETE

The instance I just created is alive and well (below)

INSTANCES

Search

All Groups

All Clouds

All Statuses

+ ADD

ACTIONS

NAME

MMDMACT1001

ACTIVE MQ

SUMMARY

Console: 10.226.12.244:8161

Version: 5.11

Virtual Machines: 1

LOCATION

Group: MKTG-PublicCloud

Clouds: HM-AWS

STATS

STATUS

HEALTH

0

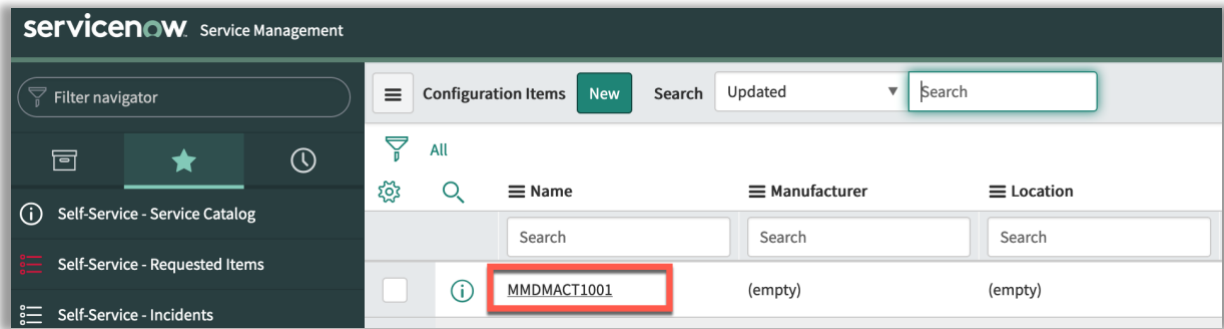
MAX CPU

54

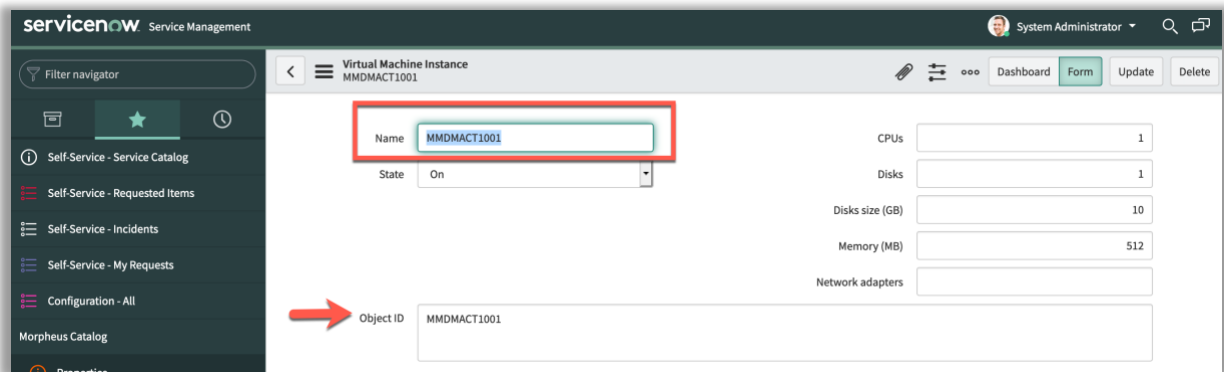
MEMORY

15

STORAGE



Looking at the details of that record I see the following



Please note that I added a CMDB CUSTOM MAPPING JSON snippet (below) in the integration record, we also see the **Object ID** field populated with the corresponding value from Morpheus as indicated by the red arrow in the figure above. One can also have multiple fields in ServiceNow populated from Morpheus, simply add the field mappings to the JSON code snippet in the CMDB CUSTOM MAPPING area.

```
CMDB CUSTOM MAPPING {
 "object_id": "<%=instance.name%>"
}
```

If you choose to have multiple field mappings, the code snippet will look like the following example. Lines 2 and 3 are just examples, please substitute the actual desired ServiceNow field labels, and Morpheus variables

```
CMDB CUSTOM MAPPING {
 "object_id": "<%=instance.name%>";
 "SN_field_id2": "<%=Morph.varname2%>";
 "SN_field_id3": "<%=Morph.varname3%>"
}
```

A list of the Morpheus variables can be found here:

[https://docs.morpheusdata.com/en/latest/troubleshooting/Variables\\_Examples.html](https://docs.morpheusdata.com/en/latest/troubleshooting/Variables_Examples.html)

When a provisioned resource is deleted in Morpheus, the corresponding CI record in ServiceNow will change from **On** to **Terminated**.

|       |            |
|-------|------------|
| State | Terminated |
|-------|------------|

**NOTE:** Morpheus does set quite a few more fields by default on the CI record. Fields like IP Address, FQDN, and more.

In ServiceNow you can edit or create a new view that has many more of these fields. Here's an example.

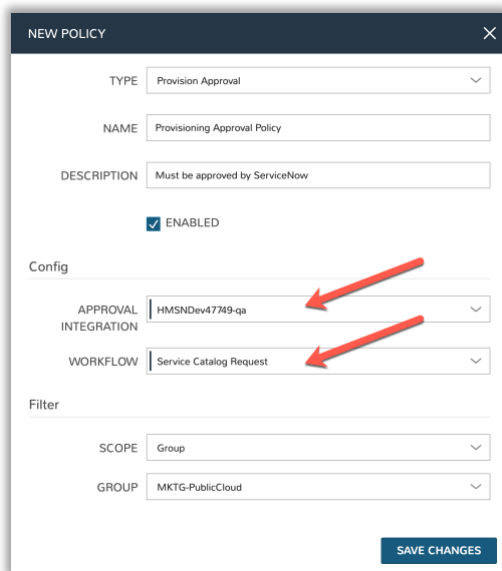
**New default view called Morpheus View with many more fields visible**

| Virtual Machine Instance    |                                                                                                                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MMDMACT1001 [Morpheus view] |                                                                                                                                                                                           |
| Name                        | MMDMACT1001                                                                                                                                                                               |
| IP Address                  | 10.226.12.244                                                                                                                                                                             |
| State                       | Terminated                                                                                                                                                                                |
| Operational status          | Operational                                                                                                                                                                               |
| Environment                 | -- None --                                                                                                                                                                                |
| Domain                      | global                                                                                                                                                                                    |
| Installed                   | 2020-06-16 08:49:50                                                                                                                                                                       |
| Server                      |                                                                                                                                                                                           |
| Serial number               |                                                                                                                                                                                           |
| Updated by                  | admin                                                                                                                                                                                     |
| Created by                  | admin                                                                                                                                                                                     |
| Cost                        |                                                                                                                                                                                           |
| Description                 | Provisioned from Morpheus:<br><a href="https://qa.morpheusdata.com/provisioning/instances/108845/nodes/207176">https://qa.morpheusdata.com/provisioning/instances/108845/nodes/207176</a> |
| Fully qualified domain name | mm-hostname-1.localdomain                                                                                                                                                                 |
| Memory (MB)                 | 512                                                                                                                                                                                       |
| CPUs                        | 1                                                                                                                                                                                         |
| Disks size (GB)             | 10                                                                                                                                                                                        |
| Disks                       | 1                                                                                                                                                                                         |
| MAC Address                 |                                                                                                                                                                                           |
| Start date                  |                                                                                                                                                                                           |
| Status                      | Installed                                                                                                                                                                                 |
| Cost center                 |                                                                                                                                                                                           |
| VM Instance ID              |                                                                                                                                                                                           |
| Object ID                   | MMDMACT1001                                                                                                                                                                               |
| Comments                    | Provisioned from Morpheus:<br><a href="https://qa.morpheusdata.com/provisioning/instances/108845/nodes/207176">https://qa.morpheusdata.com/provisioning/instances/108845/nodes/207176</a> |

## Activating the Approvals Integration

Approvals can be handled in Morpheus; however, some organizations choose to have ServiceNow be the approval authority and take advantage of the ServiceNow approval workflows. To enable this capability, one must create a **Provisioning Approval** policy in Morpheus and assign the ServiceNow instance that will manage the approval workflow process and choose the scope this policy will be applied to. Once activated approval checks take place every 1 minute.

From the **Administration** menu navigate to **Policies**, and then select **+ADD POLICY**



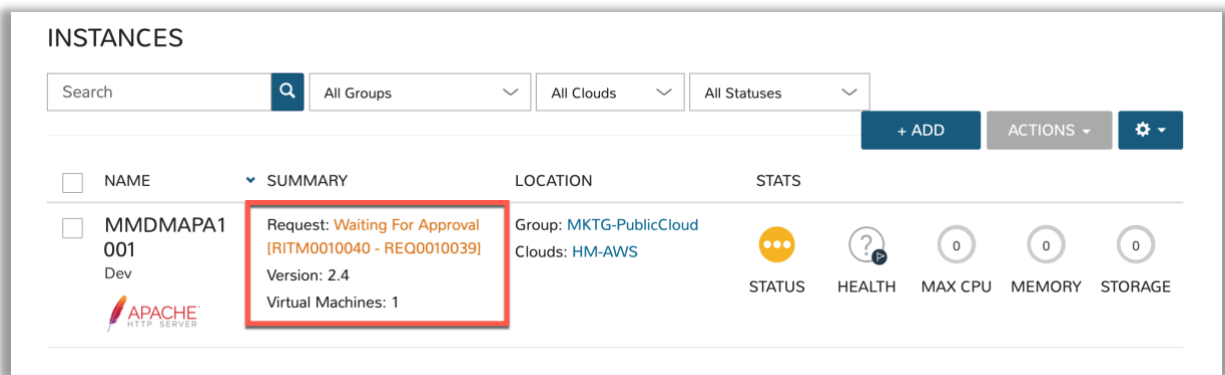
For the **TYPE**, select the **Provision Approval** from the dropdown. Provide the **Name** and **Description**.

The **Config** and **Filter** sections are the important sections.

For **APPROVAL INTEGRATION**, select the dropdown and change it from **Internal Approvals** to the ServiceNow Integration you desire (in this case it's **HMSNDev47749-qa**). The ServiceNow approval workflow you will want to use is **Service Catalog Request** (unless you have some other desired workflow).

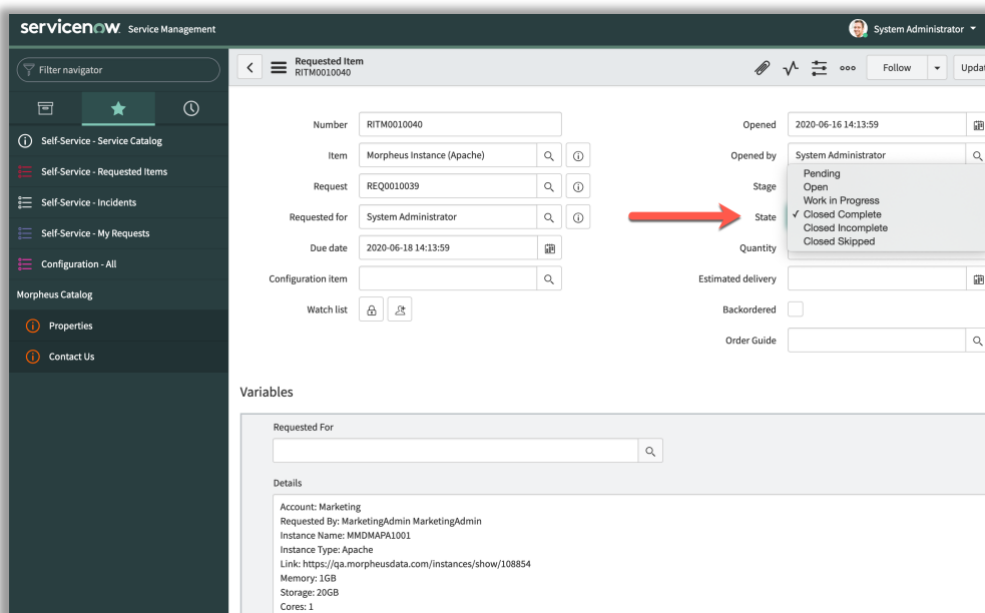
The **Filter** is how we decide what portion of the environment this policy applies to. The **SCOPE** has 5 options to choose from: **Global, Group, Cloud, Role, User**. We have selected **Group** and chose **MKTG-PublicCloud**. By doing so, anything provisioned in Morpheus to the **MKTG-PublicCloud** group must be approved in ServiceNow.

Let's demonstrate what this will look like now that we have an approval policy in place.



Upon provisioning an instance or application from Morpheus, the instance is now added to the instances list, but in a **Waiting for Approval** state. We are also presented with the ServiceNow Request Number and Request Item Number. Go to ServiceNow to approve (or reject) this service request.

In ServiceNow go to the **My Requests** page, and then find the request **REQ0010039**. From the request we will open the request item **RITM0010040** to approve it.



Change the State from **Open** to **Closed Complete** is the equivalent of approving this for request. You must then update this request item by clicking the **Update** button.

Now in the Morpheus UI we will see the instance transition to a blue **Provisioning** state, and eventually to a green **Running** state.

INSTANCES


All Groups

All Clouds

All Statuses

+ ADD

ACTIONS

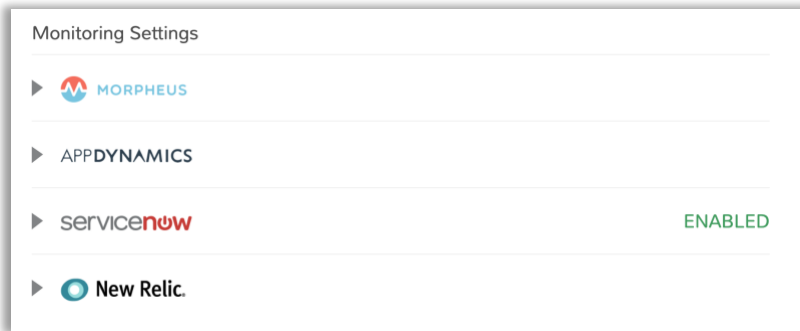
| <input type="checkbox"/> | NAME                                                                                                    | SUMMARY                                                      | LOCATION                                  | STATS                                                                                                                                                                                                                        |
|--------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | MMDMAPA1001<br>Dev<br> | Http: 10.226.12.18:80<br>Version: 2.4<br>Virtual Machines: 1 | Group: MKTG-PublicCloud<br>Clouds: HM-AWS | <div> <div></div> <div>STATUS</div> </div> <div> <div></div> <div>HEALTH</div> </div> <div> <div>0</div> <div>MAX CPU</div> </div> <div> <div>33</div> <div>MEMORY</div> </div> <div> <div>9</div> <div>STORAGE</div> </div> |

**Note:** In the example above the resource request was initiated from Morpheus. If you are provisioning resources from the ServiceNow Service Catalog by using the Morpheus Plugin for ServiceNow (discussed later), this approval process will function the same way. A ServiceNow user would request the service from the ServiceNow Service Catalog. Morpheus would present the instance or application in a **Waiting for Approval** state. A ServiceNow approver would have to approve the request before the provisioning would proceed in Morpheus.

## Activating the Incident Management Integration

As noted earlier, incidents in Morpheus will open and close based on the health of their respective resource services. Organizations using ServiceNow may prefer to have these incidents be visible in the ServiceNow portal. This integration must be enabled in Morpheus.

From the **Administration** menu navigate to Monitoring. Note there are other integrations possible.



Expand the ServiceNow section to enable and choose the desired configuration and behavior. Select **Enabled**. From the Integration dropdown select the desired ServiceNow instance (remember you can have multiple ServiceNow instances configured for integration in Morpheus).

For the **New Incident Action** selection there are two options, **No Action** or **Create new incident in ServiceNow**. I always choose the later - **Create new incident in ServiceNow**.

For **Close Incident Action** there are three options, **No Action**, **Add Activity to Incident in ServiceNow**, or **Resolve Incident in ServiceNow**. Again, I choose the later - **Resolve Incident in ServiceNow**.

The ServiceNow Impact can also be modified against the Morpheus severity levels. These are mostly left at the default levels.



servicenow ENABLED

Enabled ☒

Integration HMSNDev47749-qa

New Incident Action Create new incident in ServiceNow

The Service Now action to take when a Morpheus incident is created.

Close Incident Action Resolve Incident in ServiceNow

The Service Now action to take when a Morpheus incident is closed.

| MORPHEUS SEVERITY | SERVICE NOW IMPACT  |
|-------------------|---------------------|
| Info              | <span>Low</span>    |
| Warning           | <span>Medium</span> |
| Critical          | <span>High</span>   |

APPLY

To demonstrate the behavior, I will purposely break an instance to cause an incident creation to trigger in Morpheus and then in ServiceNow.

INSTANCES

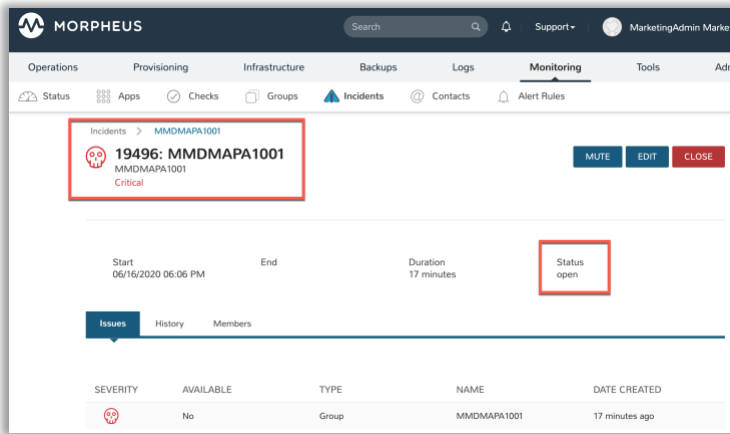
Q All Groups All Clouds All Statuses + ADD ACTIONS ⚙

| <input type="checkbox"/> | NAME               | SUMMARY                                                      | LOCATION                                  | STATS                                                                                                    |
|--------------------------|--------------------|--------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | MMDMAPA1001<br>Dev | Http: 10.226.12.18:80<br>Version: 2.4<br>Virtual Machines: 1 | Group: MKTG-PublicCloud<br>Clouds: HM-AWS | <div> <div>STATUS</div> <div>HEALTH</div> <div>MAX CPU</div> <div>MEMORY</div> <div>STORAGE</div> </div> |

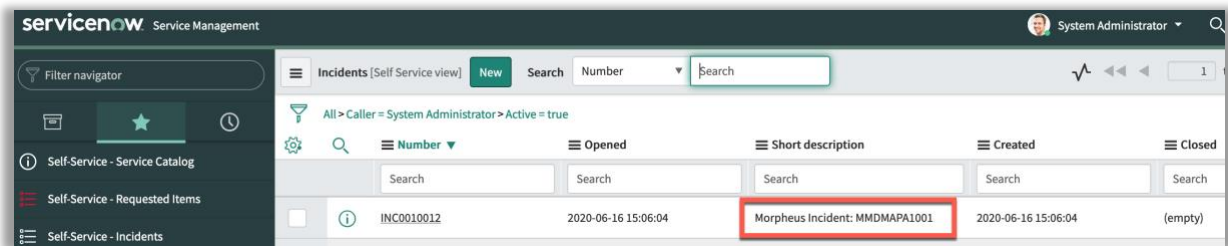
*Oops, I broke my Apache instance*

APACHE HTTP SERVER

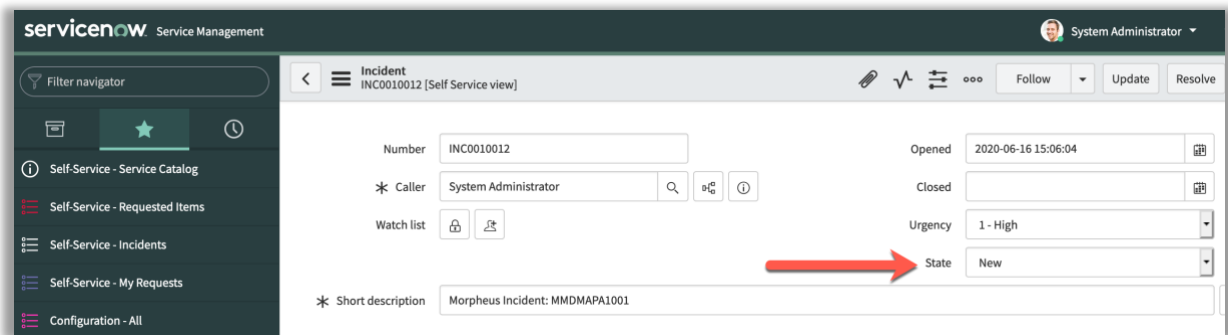
In Morpheus the incident looks like the following. Its severity is critical, and the status is open.



In ServiceNow navigate to the **Self-Service – Incidents** page to see the new incident. The description will indicate that it was a Morpheus Incident and the resource name.



Expand this incident in ServiceNow to get additional details.



Resolving the health condition on the Apache server will cause the incident to close in Morpheus and therefore ServiceNow.

Incidents > MMDMAPA1001

**19496: MMDMAPA1001**  
MMDMAPA1001  
Critical

MUTE EDIT OPEN

Start: 06/16/2020 06:06 PM    End: 06/16/2020 06:31 PM    Duration: 25 minutes    **Status: closed**

Issues History Members

| SEVERITY | AVAILABLE | TYPE  | NAME        | DATE CREATED   |
|----------|-----------|-------|-------------|----------------|
|          | No        | Group | MMDMAPA1001 | 28 minutes ago |

In ServiceNow this will be indicated as **Resolved**.

servicenow Service Management

System Administrator

Incident INC0010012 [Self Service view]

Filter navigator

- Self-Service - Service Catalog
- Self-Service - Requested Items
- Self-Service - Incidents
- Self-Service - My Requests
- Configuration - All
- Morpheus Catalog
  - Properties
  - Contact Us

Number: INC0010012    Opened: 2020-06-16 15:06:04

\* Caller: System Administrator    Closed:    Urgency: 1 - High

Watch list:    **State: Resolved**

\* Short description: Morpheus Incident: MMDMAPA1001

Related Search Results >

Additional comments (Customer visible):

Activities: 5

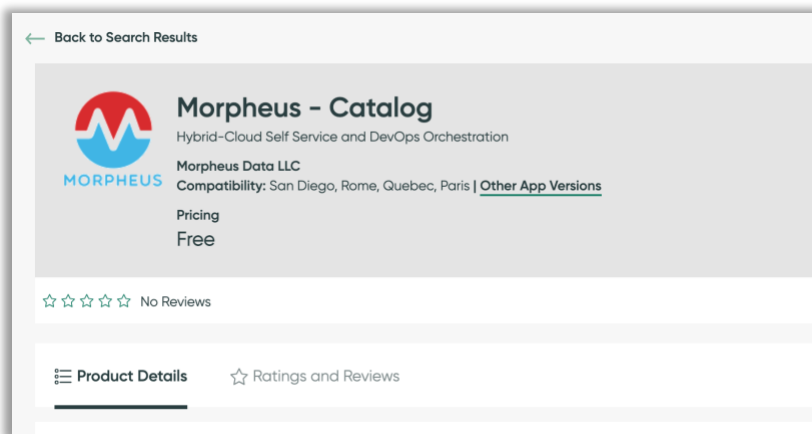
- System Administrator: Incident is closed in Morpheus
- System Administrator:
  - Resolution code: Closed/Resolved by Caller
  - Resolution notes: Closed by Caller
  - Incident state: Resolved was New

## Activating the Morpheus ServiceNow Plugin Integration

ServiceNow users that prefer to provision resources from the ServiceNow Service Catalog can do so by installing the free Morpheus Plugin for ServiceNow. This can be installed from the ServiceNow Store. It does require you have your HI Credentials to get this plugin. Once installed and setup, Morpheus self-service catalog items can be presented in the ServiceNow Service Catalog for ordering.

The Morpheus plugin supports integration with ServiceNow whether it's configured for a single tenant or for multiple domains. When both Morpheus and ServiceNow are configured for multiple Tenants, we can create ServiceNow integrations in any relevant Morpheus Tenant and map those to specific companies in ServiceNow. Any exposed catalog items would only be shared with users in the relevant ServiceNow company. The Morpheus plugin will automatically detect whether the ServiceNow Domain Support – Domain Extensions Installer plugin has been installed and respond accordingly. Additionally, ***the User Criteria Scoped API plugin must also be enabled on the ServiceNow instance for multi-tenant use.*** Depending on the scenario, setup steps for the Morpheus plugin will be slightly different. Setup steps for both single and domain-separated ServiceNow environments are included below.

### Single Tenant Configuration



Once installed in ServiceNow, the Morpheus environment details must be configured in the Properties section. In ServiceNow go to **Morpheus Catalog** and select **Properties**. On this page provide the URL to the Morpheus appliance and the user credentials. This user in Morpheus must have the necessary Morpheus privileges to provision to the exposed clouds and catalog items. If necessary, configure the MID server name. Finally, indicate whether Morpheus should manage workflows on synced catalog items (checked for yes, unchecked for no). When Morpheus is managing workflows (checked), the workflow on all exposed Catalog Items (see next section) will be set to “Morpheus (Internal) Catalog Item Provision Instance” on each sync. If unchecked, Morpheus will not overwrite the indicated workflow (unless the field is empty). This way customers can update the default workflows without having them overwritten on the nightly sync.

## Multi-Tenant Configuration

Once the ServiceNow plugin is installed, Morpheus environment details are configured in the Multi-Tenant Credentials section. Selecting the Properties section, where these details would be configured in a single tenant installation, will simply link you through to the Multi-Tenant Credentials section when Multitenancy is detected.

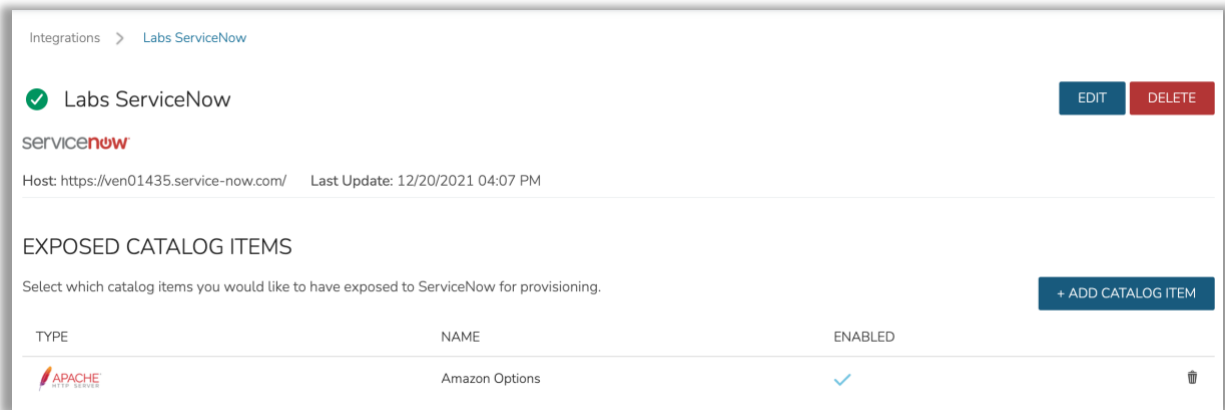
On this page, click “New” to start a new Tenant-Company association, then provide the URL to the Morpheus Appliance, the Morpheus Tenant ID and user credentials. You must provide credentials to a Morpheus user in the same Tenant as the ServiceNow integration was created on the Morpheus side. That Morpheus user should have Tenant Admin role associated with it. Next, select the ServiceNow Company. This must be a company that includes the ServiceNow user you integrated with on the Morpheus side. If necessary, configure the MID server name. Finally, indicate whether Morpheus should manage workflows on synced catalog items (checked for yes, unchecked for no). This is a global setting for all Tenants so it appears on the main properties page even when you are using a multi-tenant configuration. When Morpheus is managing workflows (checked), the workflow on all exposed Catalog Items (see next section) will be set to “Morpheus (Internal) Catalog Item Provision Instance” on each sync. If unchecked, Morpheus will not overwrite the indicated workflow (unless the field is empty). This way customers can update the default workflows without having them overwritten on the nightly sync.

Note, in Morpheus, for each tenant ID that is configured on the ServiceNow side, you will need to create a ServiceNow integration in the corresponding Morpheus Subtenant. In that ServiceNow integration in the Morpheus sub-tenant, the ServiceNow credentials must be of a user from the Company of the corresponding multi-tenant setup in ServiceNow. That ServiceNow user must have all the roles assigned from the above Credentials section.

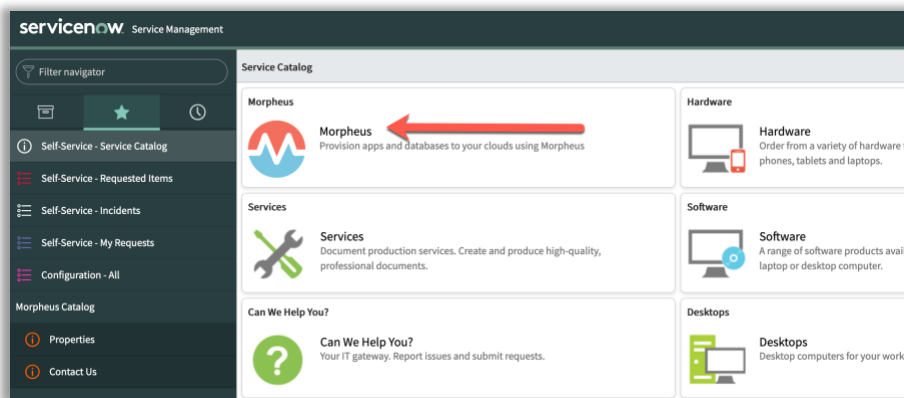
Continue on to the next section to expose catalog items from this Tenant to the now-associated ServiceNow company.

## Exposing Catalog Items to ServiceNow

Self-Service Catalog Items are shared from the **Exposed Catalog Items** tab. New Catalog Items are built by accessing **Catalog Items** from within the Library > Blueprints menu. New Catalog Items can be exposed in ServiceNow by clicking **+ADD CATALOG ITEM**.



The Morpheus catalog items are made available in the **ServiceNow Self-Service – Catalog**



Selecting **Morpheus** will then show the exposed Morpheus items. From here a ServiceNow user would order any of the exposed services. Where possible, default values for custom options (Inputs) and help blocks will appear in the ServiceNow catalog as they would when provisioning in Morpheus. We support populating default Input values for text, number, checkbox, and hidden field-type Inputs. Select List and single Typeahead defaults are also supported when the default value matches one of the possible values in the Option List.

**NOTE:** The Morpheus service catalog can be renamed by updating the title field in Service Catalog > Catalog Definitions > Maintain Catalogs.

If a customized Catalog in ServiceNOW is required instead of the 'Service Catalog' or if the 'Service Catalog' is renamed, users can select the customized catalog and have exposed items routed to it. Please update the catalog name value in the properties of "x\_moda\_morpheus\_ca.service\_catalog\_name" in the Morpheus Catalog under Applications.

The screenshot shows the Morpheus Data console interface for configuring a service catalog. The top bar indicates the application is 'Morpheus Catalog'. The main form fields are:

- Suffix:** service\_catalog\_name
- Name:** x\_moda\_morpheus\_ca.service\_catalog\_name
- Description:** (empty)
- Choices:** (empty)
- Type:** string
- Value:** Service Catalog (highlighted with a red arrow)
- Ignore cache:** ☒
- Private:** ☐
- Read roles:** ☒
- Write roles:** ☒

At the bottom, there are 'Update' and 'Delete' buttons, and a search bar with the text 'Property=x\_moda\_morpheus\_ca.service\_catalog\_name'.

## SUMMARY

We've discussed the integration between Morpheus and ServiceNow; we dove into the details of the four areas of integration, and how they are setup, configured and consumed. I hope you found this information helpful and take advantage of these capabilities.

Morpheus Data is the market leader in unified and persona-based multi-cloud management. The Morpheus software platform gives enterprise organizations and service providers the ability to present a simple self-service catalog to users which can span dozens of on-premises and public clouds. As part of delivering on the promise of open and agnostic self-service, the Morpheus platform provides cost optimization, complete role-based access controls, and continuous automation for DevOps teams modernizing applications comprised of bare metal, VMs, containers, and public cloud PaaS services. With more built-in integrations and native functionality than any other platform, customers can standardize workflows, reduce tool sprawl, and unify existing teams and technologies.

To get started with Morpheus today, please visit [www.morpheusdata.com](http://www.morpheusdata.com)  
Request a demo of Morpheus at [www.morpheusdata.com/demo/](http://www.morpheusdata.com/demo/)