

Morpheus – ServiceNow Integration

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TABLE OF CONTENTS

INTRODUCTION	3
MORPHEUS - SERVICENOW INTEGRATION	3
CMDB Integration	3
Approvals Integration	3
Incident Management Integration	3
Morpheus ServiceNow Plugin Integration	4
INTEGRATION DETAILS	4
Activating the CMDB Integration	7
Activating the Approvals Integration	11
Activating the Incident Management Integration	14
Activating the Morpheus ServiceNow Plugin Integration	18
SUMMARY	. 24

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 library items and application blueprints 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 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.

		EDIT SERVICENOW	
		NAME	HMSNDev47769-qa
		1 1	V ENABLED
		SERVICENOW HOST	https://dev47749.service-now.com
		USER	admin
	Administration	PASSWORD	[
s	(§) Plans & Pricing	CMDB CUSTOM MAPPING	1
1	2€ Roles		
	& Users		
	🔆 Integrations	CMDB BUSINESS OBJECT	Specify what CI class to use when creating the CMDR record. By
	Policies		default, Configuration - Base Items - All (cmb_d, vm_instance) is used.

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



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)
- USER/PASSWORD: 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. 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
- o catalog_admin
- o **itil**
- o rest_service
- import_transformer
- 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

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

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.

Configuration		
NAME	MKTG-PublicCloud	
CODE		
LOCATION		
 Advanced Option 	S	
DNS SERVICE	Please Select	~
CMDB	HMSNDev47749-qa	~
SERVICE REGISTRY	Please Select	~

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)	Ŷ
API PROXY		~
 Provisioning Corr 	imand	

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

ACTIVE	10	MMDMACT1001 MRTG-PublicCloud 04% AWSI	
Summary			
INSTANCE O	PTIONS		VOLUMES
	NAME:	MMDMACT1001	HOOT. 10 GB gp2
	GROUP.	MKTG-PublicCloud	
_	CLOUD:	HMAWS	NETWORKS
	TYPE:	ActiveMQ	LABS_APP_1A ISUBNET964389F2I: DHCP
	PLAN: Caree 1.8	Amazon T2 Nano - 1 Core, 0.5G8 Memory Memory 512M8	
1	VERSION:	5.11	
	LAYOUT	Amazon ActiveMQ	
	PRICE:	55.2456 / Month	
Dotions			

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

All Crowner Ad	All Clouds	All Clobinson			ADD	ACTIONS -	
 SUMMARY 		LOCATION	STATS				
Console: 10.226.12	2.244:8161	Group: MKTG-PublicCloud		\bigcirc	\sim	0	0
Version: 5 11		Clouds: HM-AWS		(\checkmark)	0	54	(15)
	All Groups ~ SUMMARY Console: 10.226.12 Version: 5.11	All Groups V All Clouds V SUMMARY Console: 10.226.12.244:8161 Version: 5.11	All Groups V All Clouds All Statuses V LOCATION Console: 10.226.12.244:8161 Group: MKTG-PublicCloud Version: 5.11 Clouds: HMAWS	All Groups All Clouds All Statuses	All Groups All Clouds All Statuses + SUMMARY LOCATION STATS Console: 10.226.12.244:8161 Group: MKTG-PublicCloud Version: 5.11 Clouds Clouds	All Groups All Clouds All Statuses + ADD + ADD SUMMARY LOCATION STATS Console: 10.226.12.244:8161 Group: MKTG-PublicCloud Version: 5 11 Clouds: HM-AWS	All Groups V All Clouds V All Statuses V + ADD ACTIONS V SUMMARY LOCATION STATS Console: 10.226.12.244:8161 Group: MKTG-PublicCloud Version: 511 Clouds: IMAMVS

The corresponding CMDB entry in ServiceNow is now available too!

Servicenow. Service Management			
Filter navigator	E Configuration Items New Search	Updated v Search	
▣ ★ ()	□ All ∅ ○ ■ Name	■ Manufacturer	≡ Location
Self-Service - Service Catalog	Search	Search	Search
Self-Service - Requested Items	(i) MMDMACT1001	(empty)	(empty)

Looking at the details of that record I see the following

Servicenow. Service Management			🅘 System Administrator 🔹 🔍 🗗
Filter navigator	<	P	🔁 000 Dashboard Form Update Delete
	Name MMDMACT1001	CPUs	1
Self-Service - Service Catalog Self-Service - Requested Items	State On T	Disks	1
E Self-Service - Incidents		Disks size (GB)	10
Self-Service - My Requests		Memory (MB)	512
E Configuration - All		Network adapters	
Morpheus Catalog	Object ID MMDMACT1001		

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.h tml

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.

	1					
	Name	MMDMACT1001			Fully qualified domain name	mm-hostname-1.localdomain
default	IP Address	10.226.12.244			Memory (MB)	
view called	State	Terminated	•		CPUs	
lorpheus	Operational status	Operational	•		Disks size (GB)	
many	Environment	None	•		Disks	
more fields	Domain	global	Q	G	MAC Address	
visible	Installed	2020-06-16 08:49:50	æ		Start date	
9	Server		Q		Status	Installed
	Serial number				Cost center	
	Updated by	admin			VM Instance ID	
	Created by	admin				
	Cost				Object ID	MMDMACT1001
	Description	Provisioned from Morpheus: https://qa.morpheusdata.com/pro /instances/108845/nodes/207176	ovisioning		Comments	Provisioned from Morpheus: https://ga.morpheusdata.com/provisioning

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

	Provision Approval	~
NAME	Provisioning Approval Policy	
DESCRIPTION	Must be approved by ServiceNow	
	V ENABLED	
Config		
APPROVAL INTEGRATION	HMSNDev47749-ga	~
WORKFLOW	Service Catalog Request	~
Filter		
SCOPE	Group	~

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 HNSNDev47749-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.

Search	Q All Groups	\sim	All Clouds \checkmark	All Statuses	\sim			
					(+	ADD	ACTIONS +	۰ م
NAME	 SUMMARY 	LO	CATION	STATS				
MMDMAPA1 001 Dev	Request: Waiting For Approval [RITM0010040 - REQ0010039] Version: 2.4 Virtual Machines: 1	Gr Clo	oup: MKTG-PublicClou ouds: HM-AWS	d 😳 STATUS	(?	O MAX CPU	0 MEMORY	O

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.

Servicenow. Service Management							6	System Ad	ministra	itor *
Filter navigator		m			Ø	^ :	•••	Follow		Update
Image: Service - Service Catalog Image: Service - Nequested Items Image: Service - Incidents Image: Service - My Requests Image: Configuration - All Morpheus Catalog Image: Properties Image: Contact Us	Number Item Request Requested for Due date Configuration item Watch list	RTM0010040 Morpheus Instance (Apache) EEQ0010039 System Administrator 2020-06-18 14:13:59	Q Q Q B B Q	0	Opened Opened by Stage State Quantity Estimated delivery Backordered Order Guide	2020- Syste Per Wo ✓ Clo Clo	06-16 14:1 m Adminis nding en rk in Prog sed Com sed incom	3:59 trator ress slete sed		
	Requested For									
					Q					
	Details Account: Marketin Requested By: Ma Instance Name: M Instance Type: Ap Link: https://qan Memory: JGB Storage: 20G8 Cores: 1	8 ketingAdmin MarketingAdmin MDMAPA1001 sche orpheusdata.com/instances/show/10	8854							

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.

Sea	rch	٩	All Groups	~	All Clouds	~	All Statuses	~	400	ACTIONS	
	NAME	Y SUMI	MARY	LO	CATION		STATS				
	MMDMAPA1 001 _{Dev}	Http: Versic Virtua	10.226.12.18:80 on: 2.4 Il Machines: 1	Gri Clo	oup: MKTG-Pu buds: HM-AW	iblicClou S	d D STATUS	HEALTH	O MAX CPU	33 MEMOBY	9 STOBAG

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.

Monitoring Settings	
APP DYNAMICS	
▶ service <mark>n⊍w</mark>	ENABLED
New Relic.	

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.

servicenuw			ENABLED
Enabled			
Integration	HMSNDev47749-qa		~
New Incident Action	Create new incident in Servi	ceNow	~
	The Service Now action to	take when a Morpheus incident is	created.
Close Incident Action	Resolve Incident in ServiceN	ow	~
	The Service Now action to	take when a Morpheus incident is	closed.
	MORPHEUS SEVERITY	SERVICE NOW IMPACT	
	Info	Low	
	Warning	Medium 💌	
	Critical	High 💌	

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

NSTANCES						Oops, I broke my Apache instance				
Sear	ch	All Groups	~	All Clouds	~	All Statuses	+	ADD	ACTIONS -	٥.
	NAME	 SUMMARY 	LC	CATION		STATS				
	MMDMAPA1 001	Http: 10.226.12.18:80 Version: 2.4	Gr	oup: MKTG-Put ouds: HM-AWS	olicClou		\otimes	0	34	9
	Dev APACHE HTTP SERVER	Virtual Machines: 1				STATUS	HEALTH	MAX CPU	MEMORY	STORAGE

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

Operations	Provi	sioning	Infrastructure	Backups	Logs	Monitorina	Tools	Adm
Status	EE Apps	Checks	Groups	A Incidents	() Contacts	Alert Rules	-	
[Incidents > 1 19496 MMDMA4 Critical	MMDMAPA1001 5: MMDMA PA1001	PA1001				MUTE EDIT	CLOSE
	Start 06/16/2020	0 06:06 PM	End		Duration 17 minutes	Status open		
	Issues	History Mer	nbers					

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.

Servicenow. Service M	lanagement	_					🥘 System Adri	ninistrator - Q
Filter navigator	\supset	=	Incidents	[Self Service view] New	Search Number 🔻 🏻	iearch	√ ≪	
▣ ★	0	7	All > Call	er = System Administrator >	Active = true		= Crosted	= Clored
Self-Service - Service Catalog		~~~	~	Search	Search	Search	Search	Search
Self-Service - Requested Items	в);		0	Jenen	Jearch	300101	-	June
≣ Self-Service - Incidents			0	INC0010012	2020-06-16 15:06:04	Morpheus Incident: MMDMAPA100	2020-06-16 15:06:04	(empty)

Expand this incident in ServiceNow to get additional details.

Servicenow. Service Management									(Syste	em Administr	rator 🝷
Filter navigator	< Incident	elf Service view]				Ø	. ∿	± •	oo Follow	•	Update	Resolve
	Number	INC0010012					Ope	ned	2020-06-16 15:0	6:04		8
Self-Service - Requested Items	* Caller	System Administrator	Q	ଖ୍ <mark>ଟ</mark>	0		Clo	sed				æ
🗮 Self-Service - Incidents	Watch list	8 2					Urge	ncy	1 - High			•
Self-Service - My Requests					_	_	> s	ate	New			•
Configuration - All	* Short description	Morpheus Incident: MMDMAPA	1001									1

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

MMDMAF Critical	: MMDMAP4	A1001		MUTE EDIT OPE
Start 06/16/2020 Issues	0 06:06 PM History Member	End 06/16/2020 06:31 PM s	Duration 25 minutes	Status closed
SEVERITY	AVAILABLE	TYPE	NAME	DATE CREATED
6	Ma	from to	101011001	20 minutes and

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

Servicenow. Service Management		🥘 System Administrator 👻
Filter navigator	< Incident	
 Self-Service - Requested Items Self-Service - Incidents Self-Service - My Requests Configuration - All 	Number INC0010012 * Caller System Administrator Watch list A * Short description Morpheus Incident: MMDMAPA1001	Opened 2020-06-16 15:06:04 Closed Urgency 1-High • State Resolved •
Morpheus Catalog		Related Search Results >
Contact Us	Additional comments (Customer visible) (Customer visible)	
		Post
	Activities: 5 System Administrator Incident is closed in Morpheus	Additional comments • 2020-06-16 15:31:23
	Resolution notes Closed/Resolved by Caller Incident state Resolved mass New	Field Changes + 2020-06-16 15:31:23

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. The plugin currently supports the following ServiceNow releases: New York, Orlando, and Paris. Once installed and setup, Morpheus Instances, application blueprints, and self-service catalog items can be presented in the ServiceNow Service Catalog for ordering.



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, library instances and blueprints. If using a MID server, you can also specify the name here and Morpheus will utilize it.

In the **EXPOSED CLOUDS** section, the name of the exposed cloud is **HM-AWS**, and it's assigned to the group **MKTG-PublicCloud**. Also notice that I've only exposed 2 Morpheus library instances here. More clouds and library items can be added if needed.

HMSNDev4774	9-qa				EDIT DELET
ost: https://dev47749.servic	ce-now.com				
Instances Blueprints	Catalog Items			Expose more Clouds to ServiceNow	
First, select which clouds y	ou would like to have exp	oosed to ServiceN	low for provisioning.	*	+ ADD CLOUD
TYPE		NAME	GROUP	LOCATION	
EXPOSED LIBRAF	RIES	HM-AWS	MKTG-PublicCloud	Expose more Library Instances to ServiceNow	
Next, select which library it	erns you would like to ha	ive exposed to Se	erviceNow as Catalog Items.	••	DD LIBRARY ITEN
TYPE	CLOUD	NAME		VERSION	
APACHE	8	Amazon Ap	ache on Ubuntu 14.04	2.4	

Application blueprints are exposed in the **Blueprints** tab. More application blueprints can be added if needed.

HMSNDev47749-qa ervicenew	а			EDIT DELETE
ost: https://dev47749.service-no	w.com			
Instances Blueprints EXPOSED BLUEPRIN Select which blueprints you wou	Catalog Items ITS Id like to have exposed to	ServiceNow for provisioning.	Expose more application blueprints to ServiceNow	+ ADD BLUEPRINT
		DITIEDDINY	GROUP	
NAME	TYPE	DEOL/ HINK		

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

			and the second second
VICENUW			
t: https://ven01434.service-now.com	Last Update: 11/19/2020 11:34 AM		
nstances Blueprints Catal	sg items		
POSED CATALOG ITEN	IS		
KPOSED CATALOG ITEM lect which catalog items you would li	1S ise to have exposed to ServiceNow for provisioning.		+ ADD CATALOG ITEM
KPOSED CATALOG ITEM lect which catalog items you would li YPE	1S ke to have exposed to ServiceNow for provisioning. NAME	ENABLED	+ ADD CATALOG ITEM
KPOSED CATALOG ITEM lect which catalog items you would li YPE @ CentOS	IS ke to have exposed to ServiceNow for provisioning. NAME Centos	ENABLED	+ ADD CATALOG ITEM
RPOSED CATALOG ITEM lect which catalog items you would if YPE CentrOS ACTIVE MO	IS ke to have exposed to ServiceNow for provisioning. NAME Centos HM-ActiveMQ	ENABLED	+ ADD CATALOG ITEM
KPOSED CATALOG ITEM lect which catalog items you would il YPE © CentOS	IS ke to have exposed to ServiceNow for provisioning. NAME Centos HM-ActiveMQ HM-Apache	ENABLED	+ 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.



Let's demonstrate ordering a library item (service instance) first, and then a blueprint second. I'll choose the Apache-Amazon on Ubuntu instance to order. All the mandatory fields marked with an asterisk (*) must be selected and populated.

	ne on obunto 14.	04-2.4				
ision Apache on Amazon						Order this Item Quantity
FromSN-ApacheOnAmazon01						Delivery time
* Group						Add to Cart
MKTG-PublicCloud	Q,	٢				Shanning Cart
* Cloud						Empty
HM-AWS	Q	©				
* Service Plan						
Amazon T2 Micro - 1 Core, 1G8 Memory	Q	©				
* Disk Size (GB)						
20						
Skip Agent Install				When provis nstance (libr quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone			<	When provis nstance (libr quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone		Q		When provis nstance (libr quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone *: Security Group		Q		When provis nstance (libi quired fields	ioning a s ary item), must be j	service all the provided
Skip Agent Install Amazon Zone Security Group Gefault	Q	Q		When provis nstance (libr quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone Security Group default Public IP	Q	Q		When provis nstance (libr quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone Security Group default Public IP.	٩	Q. (1)		When provis nstance (libr quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone Skip Agent Install Amazon Zone default Public IP MM Profile	٩	Q Q		When provis nstance (libr quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone Skip Agent Install Amazon Zone default Public IP MM Profile	Q	Q 0 0		When provis nstance (libi quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone Skip Agent Install Amazon Zone default Public IP MM Profile X* Resource Pool	٩	Q Q Q		When provis nstance (lib quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone Skip Agent Install Amazon Zone default Public IP MAM Profile XResource Peol labs	Q	Q Q Q		When provis nstance (lib quired fields	ioning a s ary item), must be j	service , all the provided
Skip Agent Install Amazon Zone Skip Agent Install Amazon Zone Gefault Public IP UM Profile MM Profile Isbs X: Network	Q.	Q Q Q		When provis nstance (lib quired fields	ioning a s ary item), must be j	service , all the provided

Once complete select Order Now.

Order Status			Back to Catalog	Continue Shopping	Home
Thank you, your request has been submitted					×
Order Placed: 2020-06-16 17:19-51 Request Number: 8E(2003)0040 ch Estimated Delivery Date of 2020-06-17 Complete Order: Description	Delivery Date	Stage	Price (ea.)	Quantity	Total
Provision Apache on Amazon	2020-05-17	• 0		1	
				Total	•
Back to Catalog Continue Shopping					Home
			Besponse time(ms): 5422, Network: 4660	, server: 628, browser: 134	•

Because the Approval Policy is still in place, this instance will be waiting for Approval. It must be approved in ServiceNow. Just before I approve it, I'll show what it will look like in Morpheus. After approval it will provision and move to a green running status.

NSTANCES				
Search Q All Gro	ups 🗸	All Clouds \sim	All Statuses \checkmark	
NAME	 SUMMARY 	_	LOCATION	STAT
FromSN-ApacheOnAmazon 01	Request: Waiting Fo [RITM0010042 - REI Version: 2.4 Virtual Machines: 1	or Approval Q0010041]	Group: MKTG-PublicCloud Clouds: HM-AWS	STATU

Let's demonstrate ordering an application **Blueprint** item from the ServiceNow Service Catalog. Provide the application name and select **Order Now**.



Once approved in ServiceNow, Morpheus will provision the application, and it will transition from waiting for approval to provisioning to a green status of running.

Search Q 20							+ AD
FromSN-MySQL-Blueprint01	Instances: 1	Group: MKTG-PublicCloud		0	~	~	-
Production	Containers: 0	Clouds: HM-AWS	0	\oslash	(\circ)	(34)	()
	 		and the second second	1.			

NOTE: When provisioning a library item (service instance) one must populate all the mandatory fields. When provisioning the application Blueprint, we only populated the application name. When exposing an application blueprint from Morpheus there are some requirements that must be met.

Exposed Blueprint Requirements

• Instance Group/Cloud/Environment configuration. When adding an instance to a blueprint, you MUST populate all 3 fields, Group, Cloud and Environment.



• Instance Configuration. All the fields in the Instance Info section, AND the Configuration Options section must be populated and locked. This is what also allows for the simplified application ordering from ServiceNow, as only the application name needs to be provided.

STRUCTURE	CONFIGURATION
🛃 MKTG-BP-mySQL +	ALLOW EXISTING INSTANCES
- 800 App + X	▼ Instance Info
- ⊞ My <mark>SQL</mark> + ×	NAME \${userInitials.toUpperCase()}DM\${type.take(3).toUpper
Environment: Production, Group: MKTG- X PublicCloud, Cloud: HM-	DESCRIPTION MySQL Application
AWS	▼ Configuration Options
	LAYOUT Amazon Master
	PLAN Amazon T2 Small - 1 Core, 2GB Memory
	Cores: 1 Memory: 2 GB Price: 518.830 / Month 6
	RESOURCE POOL labs
	VOLUMES root 20 : GB
	NETWORKS labs_app_1a (subnet-9f ~ DHCP
	SECURITY GROUPS default
	ROOT PASSWORD
	USERNAME admin
	PASSWORD 6
	PUBLIC IP Subnet Default

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 <u>www.morpheusdata.com</u> Request a demo of Morpheus at <u>www.morpheusdata.com/demo/</u>