ServiceNow Change Management Synchronization PowerPack

Version 3.1.0

Table of Contents

Chapter

1

Introduction to the ServiceNow Change Management Synchronization PowerPack

Overview

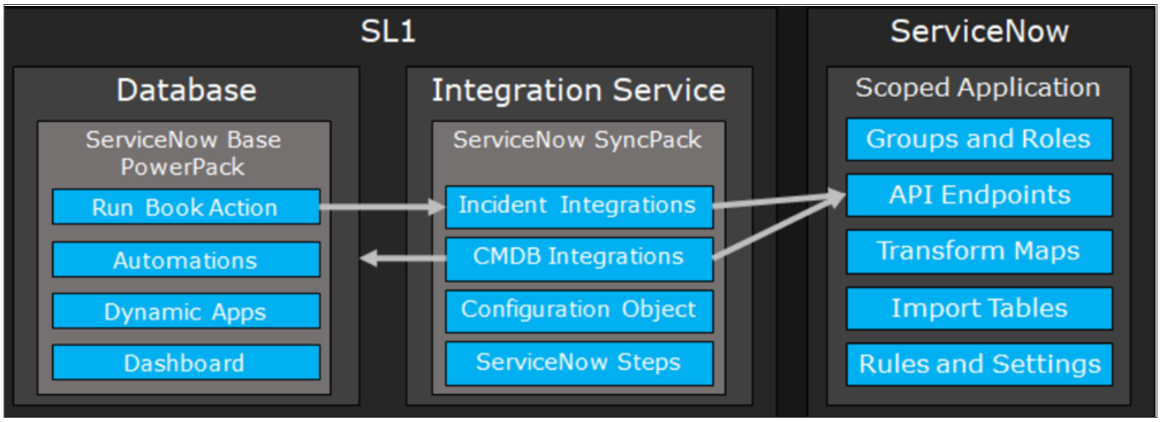
This chapter describes the *ServiceNow Change Management* Synchronization PowerPack, which is the ScienceLogic integration with the ServiceNow Change Management Module. You can use this Synchronization PowerPack to place SL1 devices into and out of maintenance mode.

NOTE: The label "SyncPack" is used in place of "Synchronization PowerPack" in the Integration Service user interface.

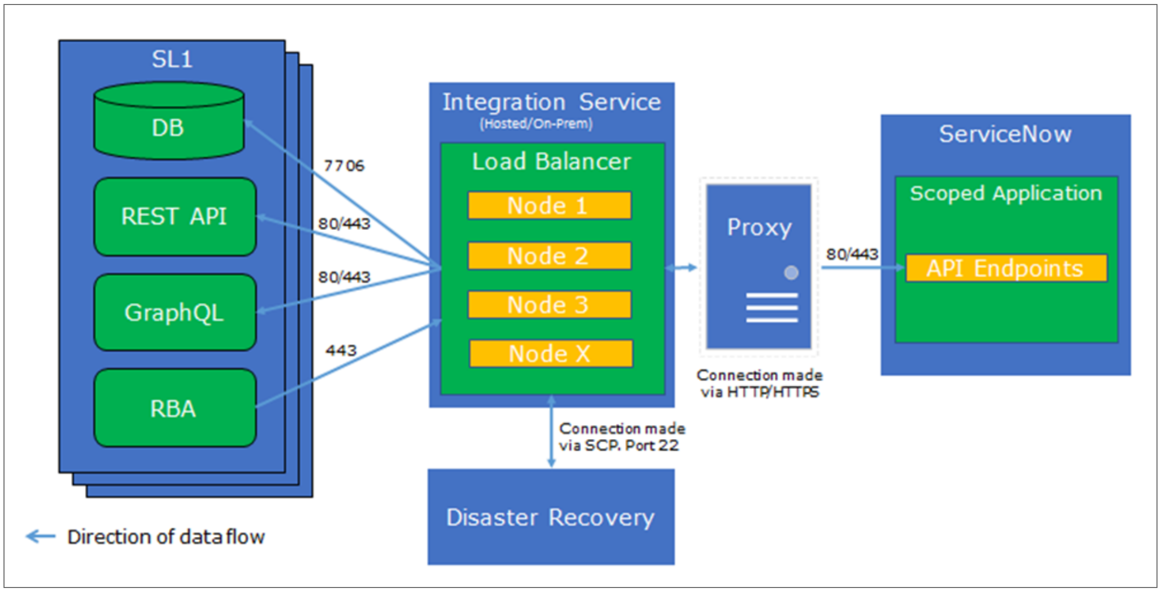
This chapter covers the following topics:

Architecture Overview for ServiceNow Synchronization PowerPacks

The following diagram details the various elements that are contained in SL1 and the Integration Service, and how the Integration Service sits between the core SL1 platform and an external data platform:



The following diagram provides an example of the high-level architecture of an Integration Service system with High Availability, Disaster Recovery, and a proxy configured:



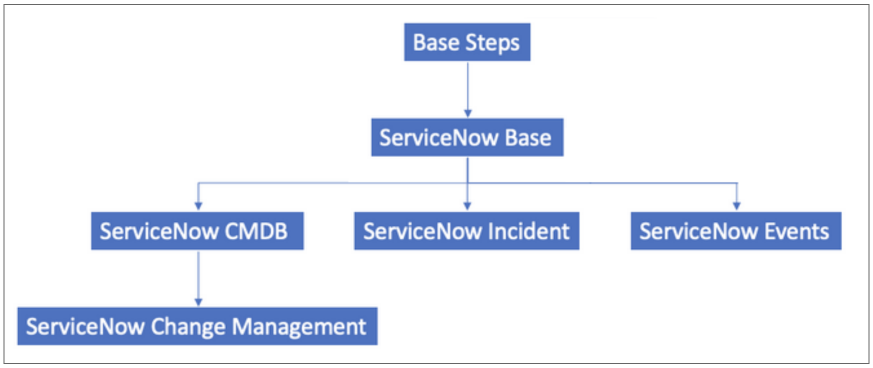
SL1 and ServiceNow Terminology

The following table lists the different names for the shared elements in SL1 and ServiceNow:

SL1	ServiceNow
Device	CI (Configuration Item)
Discovery Session	Service Catalog Request
Event	Incident
Organization	Company/Domain
Schedule	Maintenance Schedule
Topology	Dependency

Dependency Map for ServiceNow Synchronization PowerPacks

The following graphic describes which Synchronization PowerPacks depend on other Synchronization PowerPacks:



TIP: For more information about the Standard *Base Steps* Synchronization PowerPack, see the ***Integration Service Platform*** manual.

Prerequisites for ServiceNow Synchronization PowerPacks

This section describes the prerequisites for the ServiceNow Synchronization PowerPacks. For more information about the specific software versions required by a ServiceNow Synchronization PowerPack, see the release notes for that Synchronization PowerPack.

To install any of the ScienceLogic ServiceNow Synchronization PowerPacks, you must have administrator access to both SL1 and ServiceNow. Specifically, you will need:

- ScienceLogic root SSH access
- SSH access to the Integration Service
- ScienceLogic administrator access to the Administration Portal
- ServiceNow administrator access

Additional information related to uploading, installing, and upgrading the ServiceNow Synchronization PowerPacks:

- If you want to upload and install multiple ServiceNow Synchronization PowerPacks at the same time, you should upload *all* of the Synchronization PowerPacks first, and then install them to address any dependencies between the Synchronization PowerPacks.
- If you are upgrading from version 1.8.4 of the Integration Service, you can first move to version 2.5.0 of the *ServiceNow* Synchronization PowerPack, then upgrade to version 2.0 of the Integration Service, and finally move to version 3.0.0 or later of the relevant ServiceNow Synchronization PowerPacks.
- If you made customizations to version 2.5.0 or earlier of the *ServiceNow* Synchronization PowerPack, you must make a copy of that Synchronization PowerPack and save it as a new Synchronization PowerPack to keep your customizations. For more information, see the ***Integration Service for Developers*** manual.
- If you are starting out with version 2.0.0 of the Integration Service platform, you should skip version 2.5.0 of the *ServiceNow* Synchronization PowerPack and instead install version 3.0.0 of the relevant ServiceNow Synchronization PowerPacks.
- There is no backwards compatibility after you upgrade a ServiceNow Synchronization PowerPack from version 2.5.0 to 3.0.0.

NOTE: ScienceLogic highly recommends that you disable all firewall session-limiting policies. Firewalls will drop HTTPS requests, which results in data loss.

The following table lists the port access required by the Integration Service and this Synchronization PowerPack:

Source IP	Integration Service Destination	Integration Service Source Port	Destination Port	Requirement
Integration Service	SL1 API	Any	TCP 443	SL1 API Access
Integration Service	ServiceNow API	Any	TCP 443	ServiceNow API Access
Integration Service	SL1 Database	Any	TCP 7706	SL1 Database Access

Integration Applications Included in the Synchronization PowerPack

This section lists the contents of the *ServiceNow Change Management* Synchronization PowerPack.

Integration Applications

The following integration applications are included with the *ServiceNow Change Management* Synchronization PowerPack:

- ***Create or Update Maintenance Schedule from ServiceNow Trigger***. Handles scheduling and canceling maintenance schedules in SL1 using a trigger from a ServiceNow Management, Instrumentation, and Discovery (MID) Server. This integration application requires SL1 version 8.14.0 or later. For more information, see ***Creating or Updating Device Maintenance from a ServiceNow Trigger***.
- ***Sync Change Management Requirements***. Sends configuration data from the Integration Service to ServiceNow to use with change management and other processes. For more information, see ***Directly Enabling or Disabling Device Maintenance from ServiceNow***.
- ***Sync Maintenance Schedules from ServiceNow to SL1***. Performs maintenance of synced devices in ServiceNow and SL1. For more information, see ***Scheduling Device Maintenance***.
- ***Trigger Device Maintenance Updates via MID Server***. Lets you sync maintenance windows from ServiceNow to SL1 using a ServiceNow Management, Instrumentation, and Discovery (MID) Server. For more information, see ***Directly Enabling or Disabling Device Maintenance from ServiceNow***.

Integration Applications (Internal)

To view the internal integration applications, click the Filter icon ( ) on the **Integrations** page and select *Show Hidden Integrations*. Internal integration applications are hidden by default. The following integration applications are "internal" applications that should not be run directly, but are automatically run by applications from the previous list:

- ***Cancel Maintenance***. Cancels a scheduled maintenance in SL1.
- ***Create Maintenance***. Creates a scheduled maintenance in SL1.
- ***Modify Maintenance***. Updates a scheduled maintenance in SL1.
- ***Process Create Schedule Requests***. Schedules and posts maintenance tasks in ServiceNow.
- ***Remove Maintenance***. Removes a scheduled maintenance in SL1.
- ***Schedule Maintenance***. Creates a scheduled maintenance in SL1.

Chapter

2

Installing and Configuring the Change Management Synchronization PowerPack

Overview

This chapter describes the how to install the *ServiceNow Change Management* Synchronization PowerPack.

This chapter covers the following topics:

Downloading the Synchronization PowerPack

A Synchronization PowerPack file has the **.whl** file extension type. You can download the Synchronization PowerPack file from the ScienceLogic Support site.

WARNING: If you are *upgrading* to this version of the Synchronization PowerPack from a previous version, make a note of any settings you made on the **Configuration** pane of the various integration applications in this Synchronization PowerPack, as these settings are *not* retained when you upgrade.

To locate and download the Synchronization PowerPack:

1. Go to the ScienceLogic Support site at https://support.sciencelogic.com/s/.
2. Click the **Product Downloads** tab, select *PowerPacks*, and then click the "Synchronization" link. The **Synchronization PowerPack Downloads** page appears.
3. Click the name of the Synchronization PowerPack you want to install. The **PowerPack** page appears.
4. In the **Files** list, locate the Synchronization PowerPack **.whl** file, click the down arrow button, and select *Download*.

NOTE: Synchronization PowerPacks do not require a specific license. After you download a Synchronization PowerPack, you can import it to your Integration Service using the Integration Service user interface.

Importing the Synchronization PowerPack

NOTE: You must import and install the *ServiceNow Base* Synchronization PowerPack before uploading and installing any of the other ServiceNow Synchronization PowerPacks.

To import a Synchronization PowerPack in the Integration Service user interface:

1. On the **SyncPacks** page of the Integration Service user interface, click **[Import SyncPack]**. The **Import SyncPack** page appears.
2. Click **[Browse]** and select the **.whl** file for the Synchronization PowerPack you want to install.

TIP: You can also drag and drop a **.whl** file to the **SyncPacks** page.

3. Click **[Import]**. The Integration Service registers and uploads the Synchronization PowerPack. The Synchronization PowerPack is added to the **SyncPacks** page.

NOTE: You cannot edit the content package in a Synchronization PowerPack published by ScienceLogic. You must make a copy of a ScienceLogic Synchronization PowerPack and save your changes to the new Synchronization PowerPack to prevent overwriting any information in the original Synchronization PowerPack when upgrading.

Installing the Synchronization PowerPack

To install a Synchronization PowerPack in the Integration Service user interface:

1. On the **SyncPacks** page of the Integration Service user interface, click the **[Actions]** button (⋮) for the Synchronization PowerPack you want to install and select *Activate & Install*. The **Activate & Install SyncPack** modal appears.

TIP: By default, the **SyncPacks** page displays only activated and installed PowerPacks. If you do not see the PowerPack that you want to install, click the toggle icon (≡) on the **SyncPacks** page and select *Show All SyncPacks* to see a list of the uninstalled PowerPacks.

2. Click **[Yes]** to confirm the activation and installation. When the Synchronization PowerPack is activated, the **SyncPacks** page displays a green check mark icon (✓) for that Synchronization PowerPack. If the activation or installation failed, then a red exclamation mark icon (❗) appears.
3. For more information about the activation and installation process, click the check mark icon (✓) or the exclamation mark icon (❗) in the **Activated** column for that Synchronization PowerPack. For a successful installation, the "Activate & Install SyncPack" integration application appears, and you can view the Step Log for the steps. For a failed installation, the **Error Logs** window appears.

Allowing Cross-Scoped Access in ServiceNow

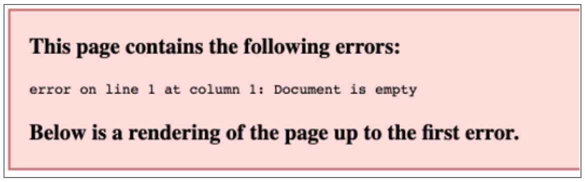
When using custom tables that are extended from the cmdb_ci table, you must configure cross-scope access for any custom tables created outside of the base ServiceNow deployment.

The following examples contain errors that might occur when cross-scope access is required.

Example of an API response:

```
{"results":[{"error":
{"message":"com.glide.script.fencing.access.ScopeAccessNotGrantedException: read
access to ui_test_hardware not granted","detail":""},"status":"failure"}
```

Example of navigating to a URL directly from a web browser when cross-scope access is required:



This page contains the following errors:

```
error on line 1 at column 1: Document is empty
```

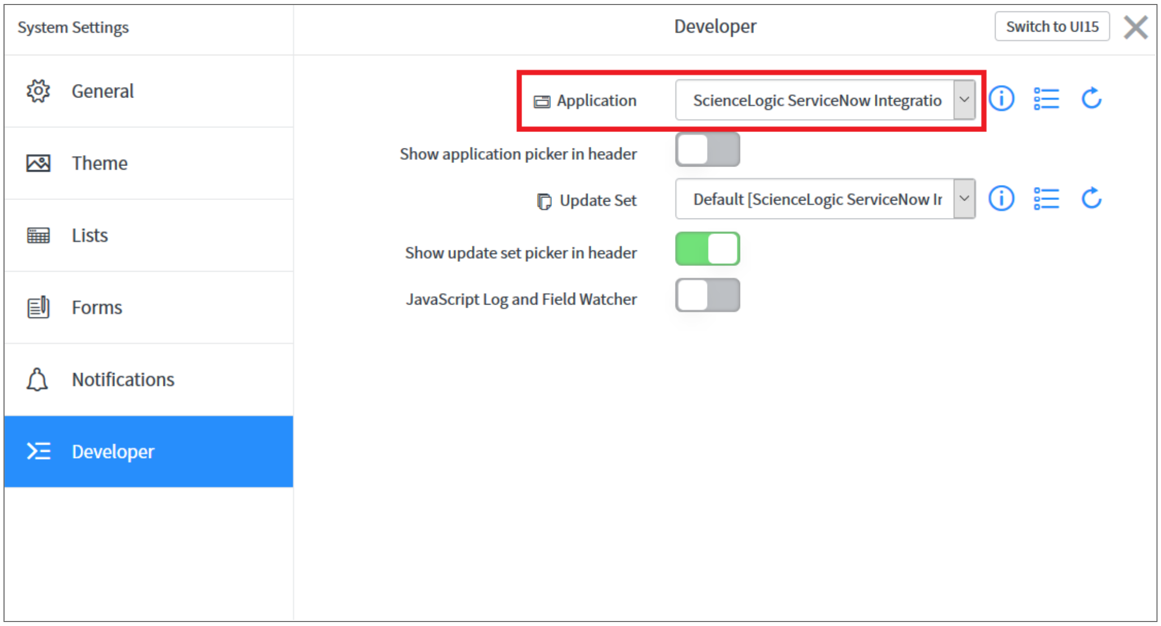
Below is a rendering of the page up to the first error.

In this example, the table requires that you grant access to the ScienceLogic Scope to allow the API call to run correctly. In the above example, the target table is **u_test_hardware**.

NOTE: A ServiceNow account with System Administrator is required.

To grant access to the ScienceLogic Scope in ServiceNow:

1. Log in to your ServiceNow instance.
2. Click the **Settings** icon (⚙) and select the **Developer** tab. The **Developer System Settings** window appears:



Application: ScienceLogic ServiceNow Integratio

Show application picker in header

Update Set: Default [ScienceLogic ServiceNow Ir

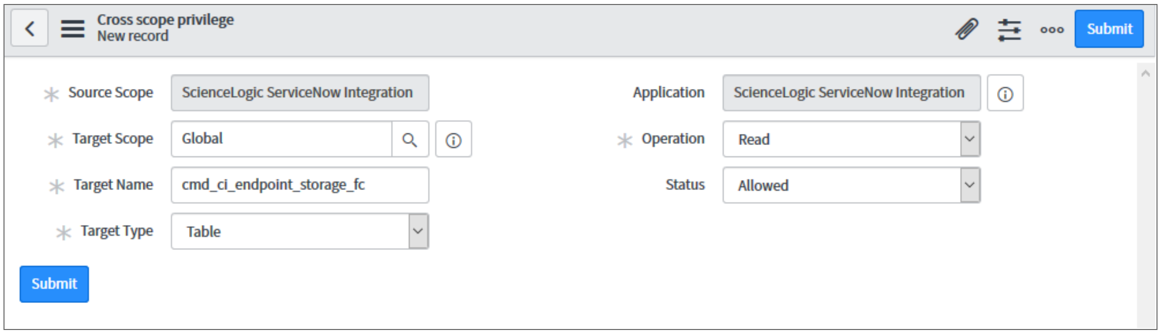
Show update set picker in header

JavaScript Log and Field Watcher

3. From the **Application** drop-down list, select *ScienceLogic ServiceNow Integration*.
4. Close the **Developer System Settings** window and navigate to the **Cross scope privileges** page (System Applications > Application Cross-Scope Access).

NOTE: Make sure you are in the ScienceLogic ServiceNow Application scope and track these updates in an update set.

5. Click the **[New]** button to create a new record on the **Cross scope privileges** page:



Cross scope privilege
New record

* Source Scope	ScienceLogic ServiceNow Integration	Application	ScienceLogic ServiceNow Integration
* Target Scope	Global	* Operation	Read
* Target Name	cmd_ci_endpoint_storage_fc	Status	Allowed
* Target Type	Table		

6. Verify that the ***Source Scope*** and ***Application*** fields are set to *ScienceLogic ServiceNow Integration*. If they are not, repeats steps 2-3.
7. Complete the following fields:
   - ***Target Scope***. Specify the scope of the target table, such as *Global*.
   - ***Operation***. Select *Read*.
   - ***Target Name***. Specify the name of the target table.
   - ***Status***. Select *Allowed*.
   - ***Target Type***. Select *Table*.
8. Click the **[Submit]** button.

For more information, see https://docs.servicenow.com/bundle/madrid-application-development/page/build/applications/reference/c_CrossScopePrivilegeRecord.html.

Chapter

3

Configuring Integrations for the Change Management Synchronization PowerPack

Overview

This chapter describes how to set up integrations for the *ServiceNow Change Management* Synchronization PowerPack. You can use this Synchronization PowerPack to place SL1 devices into and out of maintenance mode.

This chapter covers the following topics:

Creating and Aligning a Configuration Object

A ***configuration object*** supplies the login credentials and other required information needed to execute the steps for an integration application in the Integration Service. The **Configurations** page (⚙) of the Integration Service user interface lists all available configuration objects for that system.

You can create as many configuration objects as you need. An integration can only use one configuration object at a time, but you can use (or "align") the same configuration object with multiple integration applications.

To use the *ServiceNow CMDB* Synchronization PowerPack, you will need to create one or more configuration objects in the Integration Service user interface and align that configuration object to the integration applications that let you sync data between SL1 and ServiceNow.

NOTE: Depending on your SL1 and ServiceNow environments, you might be able to use the same configuration object with other *Integration Service: ServiceNow* Synchronization PowerPacks.

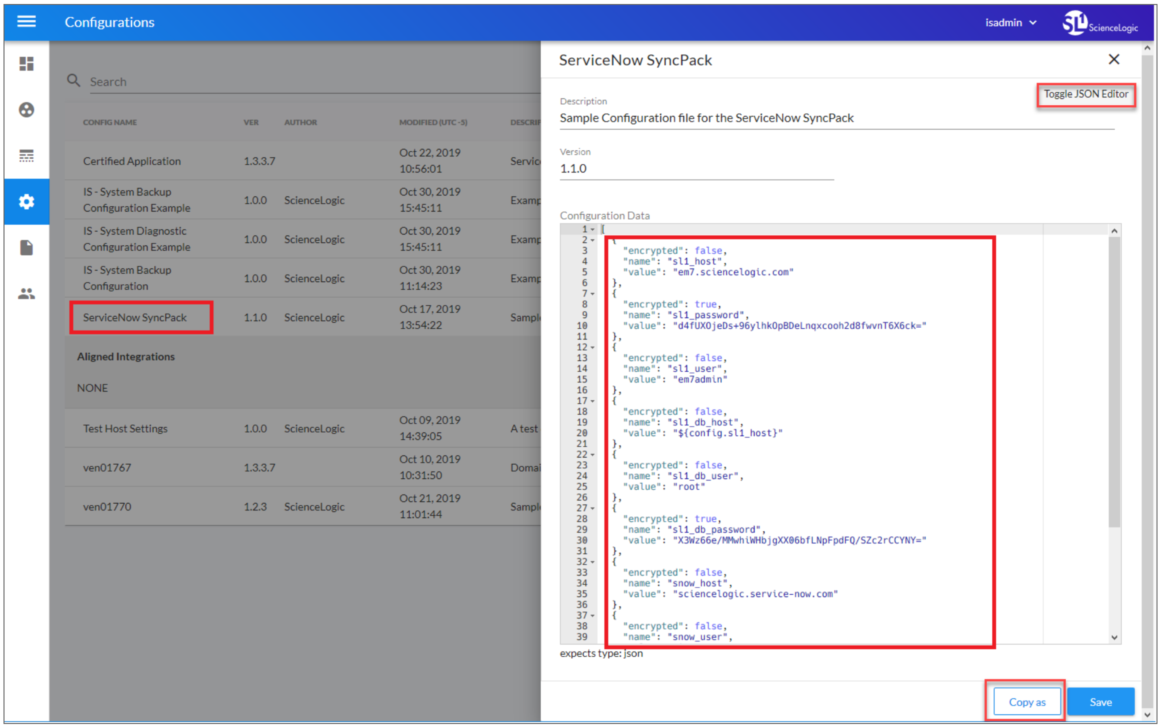
Creating a Configuration Object

For this Synchronization PowerPack, you can make a copy of the "ServiceNow SyncPack" configuration object, which is the sample configuration file that was installed with the *ServiceNow Base Synchronization PowerPack*.

To create a configuration object based on the "ServiceNow SyncPack" configuration object:

1. In the Integration Service user interface, go to the **Configurations** page (⚙).

2. Click the **[Actions]** button (⋮) for the "ServiceNow SyncPack" configuration object and select *Edit*. The **Configuration** pane appears:



CONFIG NAME	VER	AUTHOR	MODIFIED (UTC -5)	DESCRIP
Certified Application	1.3.3.7		Oct 22, 2019 10:56:01	Servic
IS - System Backup Configuration Example	1.0.0	ScienceLogic	Oct 30, 2019 15:45:11	Examp
IS - System Diagnostic Configuration Example	1.0.0	ScienceLogic	Oct 30, 2019 15:45:11	Examp
IS - System Backup Configuration	1.0.0	ScienceLogic	Oct 30, 2019 11:14:23	Examp
ServiceNow SyncPack	1.1.0	ScienceLogic	Oct 17, 2019 13:54:22	Sampl
Aligned Integrations NONE				
Test Host Settings	1.0.0	ScienceLogic	Oct 09, 2019 14:39:05	A test
ven01767	1.3.3.7		Oct 10, 2019 10:31:50	Domai
ven01770	1.2.3	ScienceLogic	Oct 21, 2019 11:01:44	Sampl

ServiceNow SyncPack

Description: Sample Configuration file for the ServiceNow SyncPack

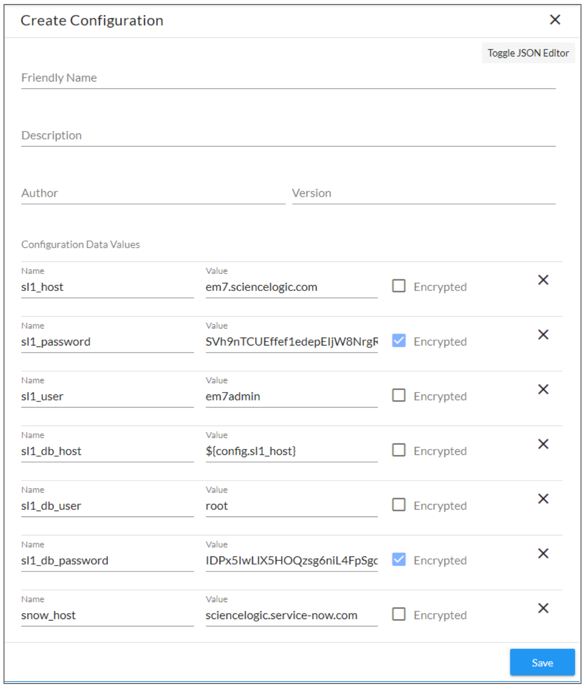
Version: 1.1.0

Configuration Data

```
[
  {
    "encrypted": false,
    "name": "sl1_host",
    "value": "em7.sciencelogic.com"
  },
  {
    "encrypted": true,
    "name": "sl1_password",
    "value": "d4fUXOjeDs+96ylhkOpBDeLnqxcooh2d8fwvnT6X6ck="
  },
  {
    "encrypted": false,
    "name": "sl1_user",
    "value": "em7admin"
  },
  {
    "encrypted": false,
    "name": "sl1_db_host",
    "value": "${config.sl1_host}"
  },
  {
    "encrypted": false,
    "name": "sl1_db_user",
    "value": "root"
  },
  {
    "encrypted": true,
    "name": "sl1_db_password",
    "value": "X3Wz66e/MMwhiWHbjgXX06bfLNpFpdFQ/SZc2rCCYNY="
  },
  {
    "encrypted": false,
    "name": "snow_host",
    "value": "sciencelogic.service-now.com"
  },
  {
    "encrypted": false,
    "name": "snow_user",
```

expects type: json

3. Click **[Copy as]**. The **Create Configuration** pane appears:


Create Configuration

Friendly Name

Description

Author

Version

Configuration Data Values

Name	Value	
sl1_host	em7.sciencelogic.com	☐ Encrypted
sl1_password	SVh9nTCUEffef1edepEIjW8NrgR	☑ Encrypted
sl1_user	em7admin	☐ Encrypted
sl1_db_host	${config.sl1_host}	☐ Encrypted
sl1_db_user	root	☐ Encrypted
sl1_db_password	IDPx5IwLIX5HOQzsg6niL4FpSgc	☑ Encrypted
snow_host	sciencelogic.service-now.com	☐ Encrypted

4. Complete the following fields:
   - ***Friendly Name***. Name of the configuration object that will display on the **Configurations** page.
   - ***Description***. A brief description of the configuration object.
   - ***Author***. User or organization that created the configuration object.
   - ***Version***. Version of the configuration object.
5. Click **[Toggle JSON Editor]** to show the JSON code.
6. In the ***Configuration Data*** field, be sure to include the required block of code to ensure that the integration applications aligned to this configuration object do not fail:

```
{
  "encrypted": false,
  "name": "sl1_db_host",
  "value": "${config.sl1_host}"
}
```

   For example:

```
{
  "encrypted": false,
  "name": "sl1_db_host",
  "value": "10.2.11.42"
}
```

NOTE: If you are using SL1 with an External Database (SL1 Extended architecture or a cloud-based architecture), update the `"value"` of that block of code to be the host of your database. This field accepts IP addresses. For example: `"value": "db.sciencelogic.com"`. If you are *not* using the SL1 Extended architecture or a cloud-based architecture, you do not need to make any changes to the block of code other than pasting the code into the configuration object.

7. In the ***Configuration Data*** field, update the default variable definitions to match your Integration Service configuration.

TIP: The "ServiceNow SyncPack" configuration object contains all of the required variables. Simply update the variables from that object to match your SL1 and ServiceNow settings.

NOTE: The ***region*** value is a user-defined variable that will identifies your SL1 instance within ServiceNow.

8. To create a configuration variable, define the following keys:
   - ***encrypted***. Specifies whether the value will appear in plain text or encrypted in this JSON file. If you set this to "true", when the value is uploaded, the Integration Service encrypts the value of the variable. The plain text value cannot be retrieved again by an end user. The encryption key is unique to each Integration Service system. The value is followed by a comma.

- ***name***. Specifies the name of the configuration file, without the JSON suffix. This value appears in the user interface. The value is surrounded by double-quotes and followed by a comma.
- ***value***. Specifies the value to assign to the variable. The value is surrounded by double-quotes and followed by a comma.

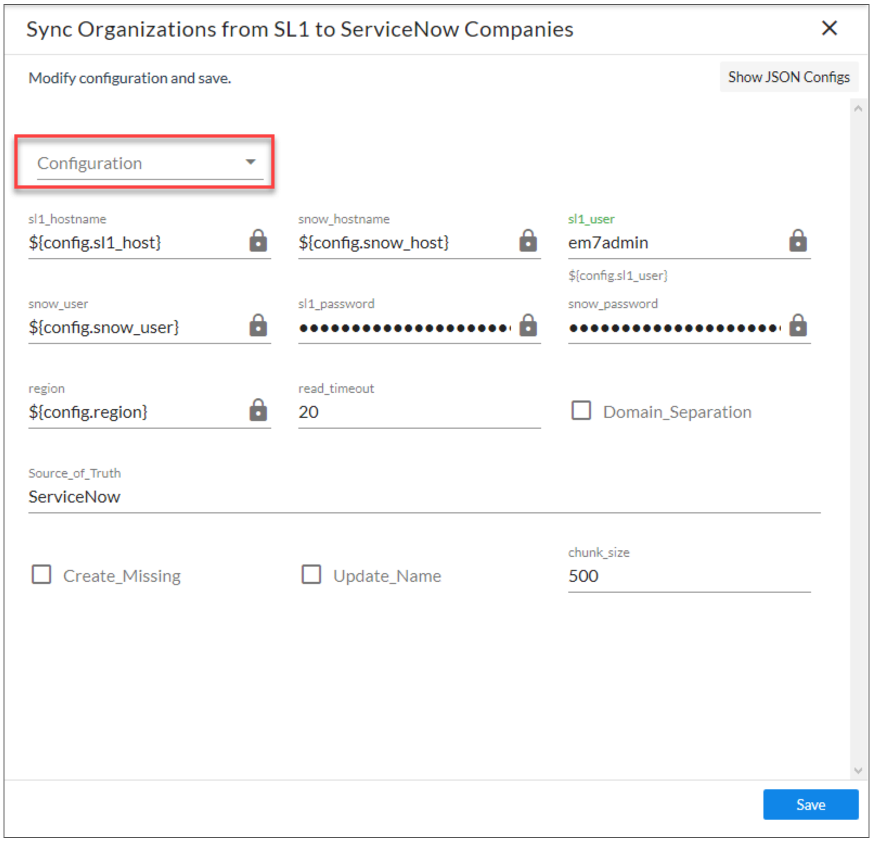
9. Click **[Save]**. You can now align this configuration object with one or more integration applications.

Aligning a Configuration Object

Before you can run the integration applications in this Synchronization PowerPack, you must first "align" a configuration object with the integration application you want to use.

To align a configuration object with an integration application:

1. From the **Integrations** page of the Integration Service user interface, open the relevant integration application and click **[Configure]** (⚙). The **Configurations** pane for that application appears:



Sync Organizations from SL1 to ServiceNow Companies ✕

Modify configuration and save.

Show JSON Configs

Configuration ▾

sl1_hostname: ${config.sl1_host}

snow_hostname: ${config.snow_host}

sl1_user: em7admin
${config.sl1_user}

snow_user: ${config.snow_user}

sl1_password: ••••••••••••••••••••

snow_password: ••••••••••••••••••••

region: ${config.region}

read_timeout: 20

□ Domain_Separation

Source_of_Truth: ServiceNow

□ Create_Missing

□ Update_Name

chunk_size: 500

Save

2. From the ***Configurations*** drop-down, select the configuration object you want to use.
3. Click **[Save]** to align that configuration with the integration application.
4. Wait for the "App & Config modifications saved" pop-up message to appear. The **Configuration** automatically closes after this message appears.
5. Repeat this process for every other integration application you want to use.

NOTE: The values for **eventDetails** and the other parameters that appear in the **Configuration** pane with a padlock icon (🔒) are populated by the configuration object. Do not modify these values.

Syncing Device Maintenance from ServiceNow to SL1

You can use the following methods to put one or more devices into maintenance mode from ServiceNow to SL1:

- Use the "Sync Maintenance Schedules from ServiceNow to SL1" integration application if you want to perform *scheduled* maintenance on a set of devices in SL1. For more information, see ***Scheduling Device Maintenance***.
- Use the "Trigger Device Maintenance Updates via MID Server" integration application if you want to *immediately* enable or disable maintenance on a device. For more information, see ***Directly Enabling or Disabling Device Maintenance from ServiceNow***.
- Use the "Create or Update Maintenance Schedule from ServiceNow Trigger" integration application to schedule and cancel maintenance schedules in SL1 from a ServiceNow MID Server trigger. For more information, see ***Creating or Updating Device Maintenance from a ServiceNow Trigger***.

Scheduling Device Maintenance

You create a change request to perform *scheduled* maintenance through a maintenance window in ServiceNow.

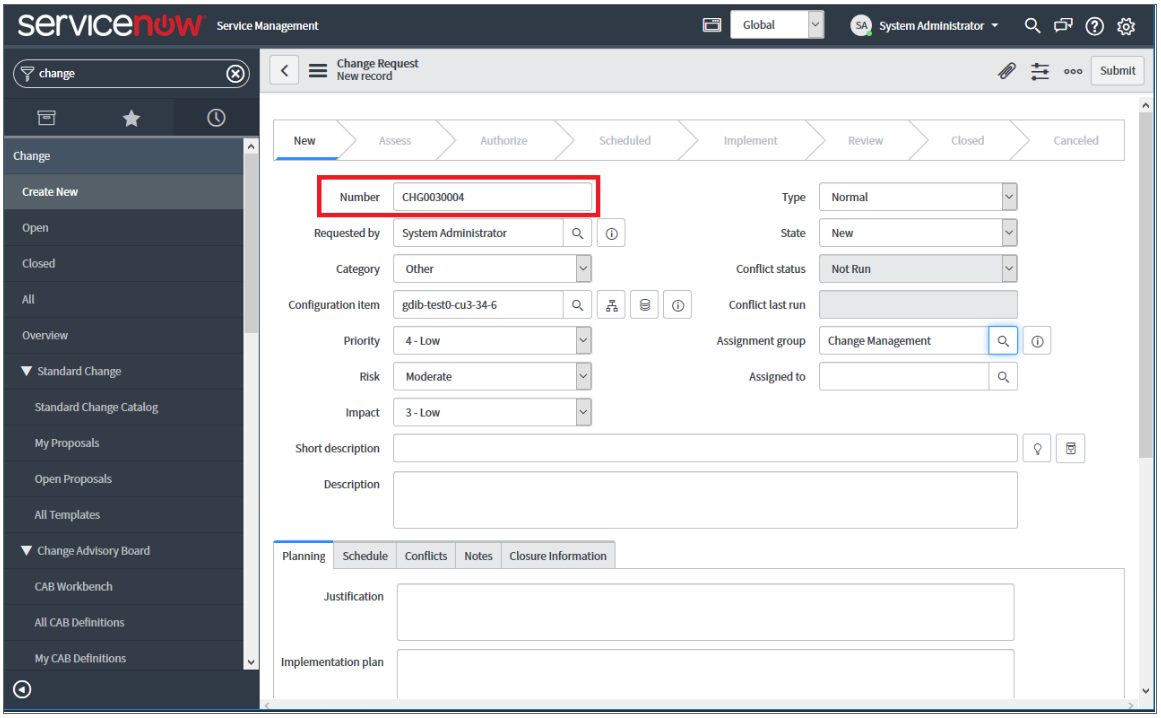
WARNING: The Integration Service only syncs maintenance schedules that are aligned with devices that are already synced with ServiceNow. Before setting up maintenance schedule sync, you must first sync devices between SL1 and ServiceNow.

The CI Maintenance Sync process (non-scheduled) syncs maintenance windows from ServiceNow change requests (CHG)s to SL1 devices to place the synced devices into maintenance mode for the scheduled change window.

NOTE: The SL1 Scheduler supports maintenance windows of at least one minute or more.

To set up maintenance sync:

1. In ServiceNow, type "change" in the filter navigator and navigate to **Change > Create New**.
2. Click **[New]** to create a new change request of type "Normal". A new Change Request record appears:



Number	CHG0030004	Type	Normal
Requested by	System Administrator	State	New
Category	Other	Conflict status	Not Run
Configuration item	gdib-test0-cu3-34-6	Conflict last run	
Priority	4 - Low	Assignment group	Change Management
Risk	Moderate	Assigned to	
Impact	3 - Low		
Short description			
Description			

Justification

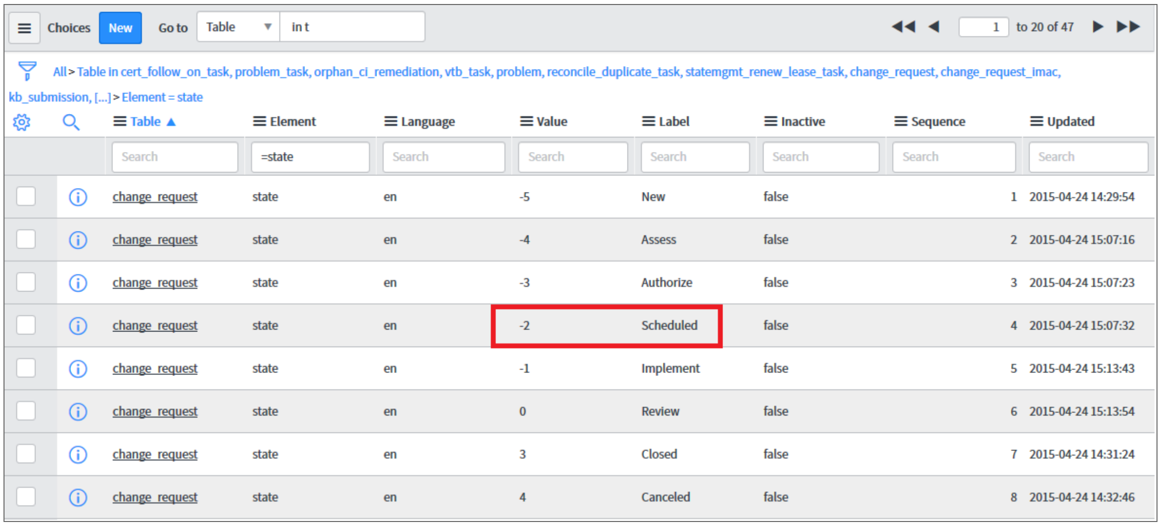
Implementation plan

3. Make a note of the change request number in the **Number** field. You will use this later to verify that the maintenance sync was created. In this example, the value is *CHG0030004*.
4. Update the following fields in the record:
   - ***Configuration Item***. Select the CI you want to configure for maintenance sync.
   - ***Assignment group***. Select the group for the CI.

NOTE: The aligned CI must have the ***SL1 Monitored*** field selected before the Integration Service can use the maintenance schedule for that CI.

5. Click the **[Submit]** button. The change request is saved, and you are returned to the **Change Requests** page.

6. Select the change request you just created, and in the change request record, right-click the **State** label and select *Show Choice List*. The Choices list displays a list of the configurable choices and values:



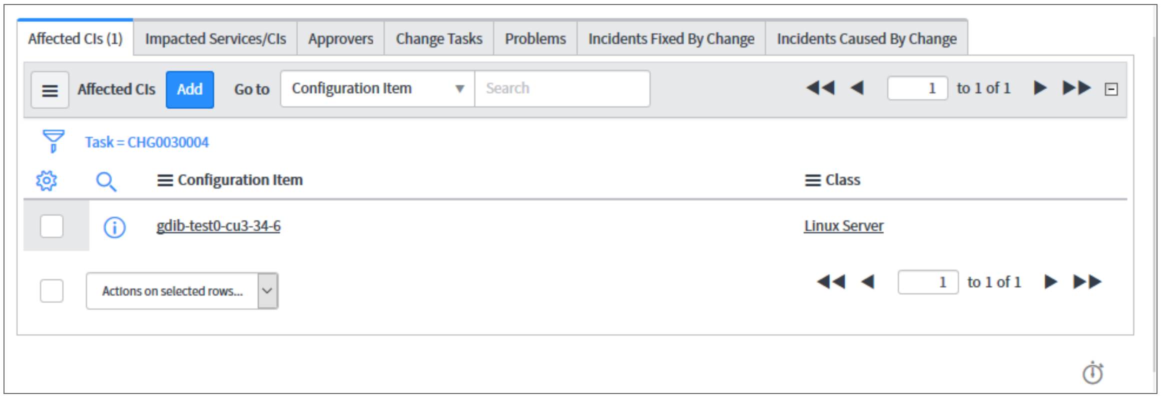
All > Table in cert_follow_on_task, problem_task, orphan_ci_remediation, vtb_task, problem, reconcile_duplicate_task, statemgmt_renew_lease_task, change_request, change_request_imac, kb_submission, [...] > Element = state

Table ▲	Element	Language	Value	Label	Inactive	Sequence	Updated
Search	=state	Search	Search	Search	Search	Search	Search
change_request	state	en	-5	New	false	1	2015-04-24 14:29:54
change_request	state	en	-4	Assess	false	2	2015-04-24 15:07:16
change_request	state	en	-3	Authorize	false	3	2015-04-24 15:07:23
change_request	state	en	-2	Scheduled	false	4	2015-04-24 15:07:32
change_request	state	en	-1	Implement	false	5	2015-04-24 15:13:43
change_request	state	en	0	Review	false	6	2015-04-24 15:13:54
change_request	state	en	3	Closed	false	7	2015-04-24 14:31:24
change_request	state	en	4	Canceled	false	8	2015-04-24 14:32:46

NOTE: You need Administrator privileges to access this list.

7. Make a note of the values in the ***Value*** and ***Label*** fields. These values map to the ***New_Change_Request_State*** and ***Canceled_Change_Request_State*** fields in the "Sync Maintenance Schedules from ServiceNow to SL1" integration application.

8. Return to your new change request and scroll down in the change request to the **[Affected CIs]** tab, where you can click the **[Add]** button to add additional synced CIs to the maintenance sync:

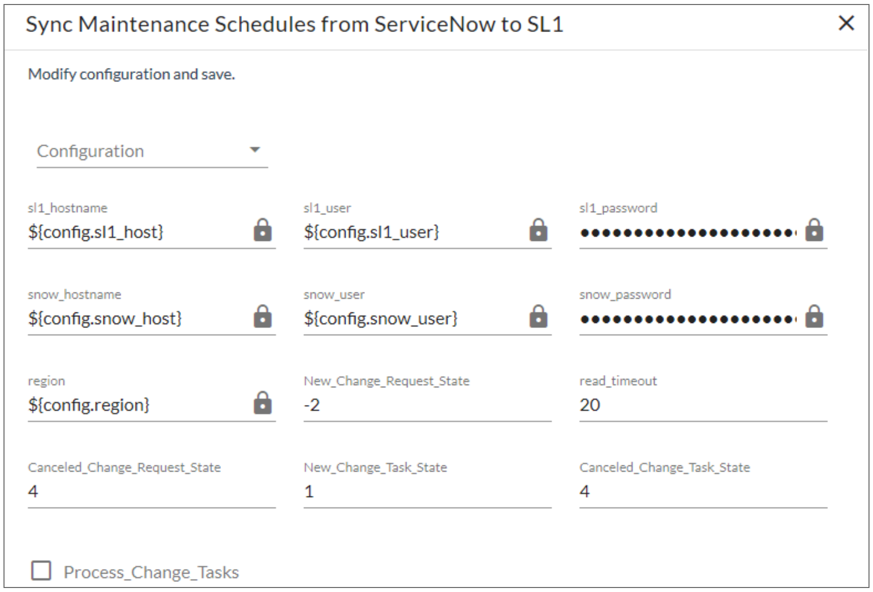


Task = CHG0030004

Configuration Item	Class
gdib-test0-cu3-34-6	Linux Server

9. In the Integration Service user interface, go to the **Integrations** page and select the "Sync Maintenance Schedules from ServiceNow to SL1" integration application.

10. Click **[Configure]** (⚙). The **Configuration** pane appears:



Sync Maintenance Schedules from ServiceNow to SL1

Modify configuration and save.

Configuration

sl1_hostname: ${config.sl1_host}

sl1_user: ${config.sl1_user}

sl1_password: ••••••••••••••••••••

snow_hostname: ${config.snow_host}

snow_user: ${config.snow_user}

snow_password: ••••••••••••••••••••

region: ${config.region}

New_Change_Request_State: -2

read_timeout: 20

Canceled_Change_Request_State: 4

New_Change_Task_State: 1

Canceled_Change_Task_State: 4

☐ Process_Change_Tasks

11. As needed, update the following options from the **Configuration** pane:

   - ***Configuration***. Select the relevant configuration object to align with this integration application. You cannot edit fields that are populated by the configuration object. Required.
   - ***New_Change_Request_State***. The State ID from ServiceNow of the scheduled change request that this integration application accesses to pull to schedule maintenance windows in SL1.The default is -2.
   - ***read_timeout***. Specify the maximum amount of time in seconds the integration application should wait for a response before timing out. The default is 20 seconds.
   - ***Canceled_Change_Request_State***: The State ID for a canceled change request that this integration application accesses to pull to schedule maintenance windows in SL1. The default is 4.
   - ***New_Change_Task_State***: The State ID of the scheduled change task that this integration application accesses to pull to cancel maintenance windows in SL1. The default is 1.
   - ***Canceled_Change_Task_State***: The State ID for a canceled change task that this integration application accesses to pull to cancel maintenance windows in SL1. The default is 4.
   - ***Process_Change_Tasks***: Select this option to enable change task processing. The default is unselected.

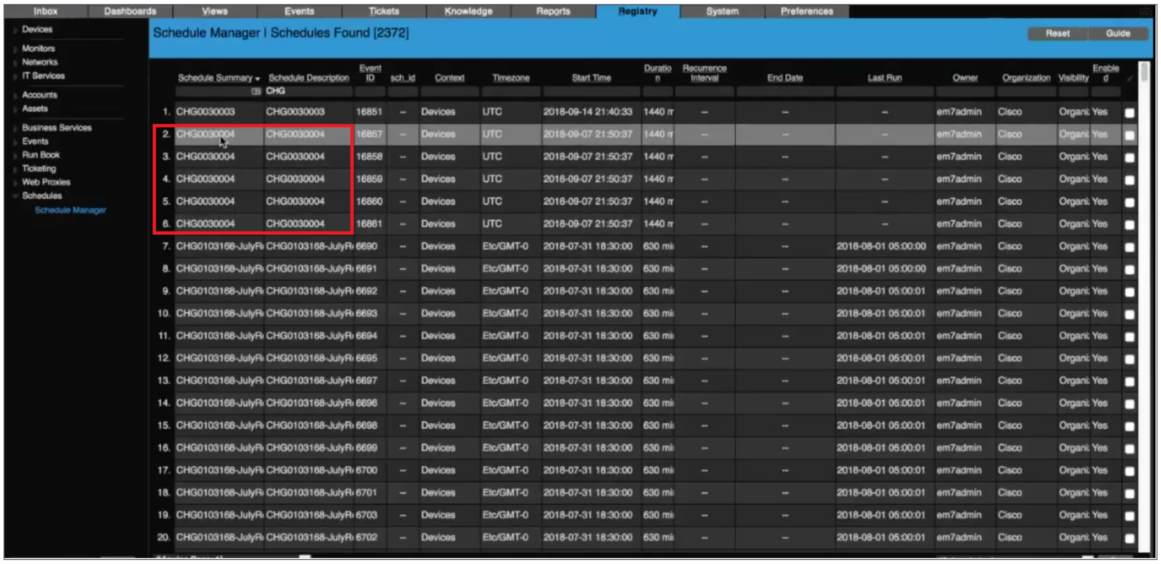
12. Verify that the value from the ***New_Change_Request_State*** field matches the value in the ***Value*** field from ServiceNow, and the value from the ***Canceled_Change_Request_State*** field matches the value from the ***Label*** field from ServiceNow. These values must match for the maintenance sync to work.

13. Click **[Save]** and wait for the "App & Config modifications saved" pop-up message to appear. The **Configuration** pane automatically closes after this message appears.

14. Click **[Run]** (▶) to run the integration application.

15. While the "Sync Maintenance from ServiceNow to SL1" integration application runs, you can monitor the status of the maintenance process by clicking the branch icon (⑂) on the "Schedule Maintenance" step. Click the triggered application's run ID in the pop-up window, and then click the branch icon on the "Create SL Maintenance" or "Modify Maintenance" steps for more information.

16. After the "Sync Maintenance from ServiceNow to SL1" integration application completes, navigate to the **Schedule Manager** (Registry > Schedules > Schedule Manager) in SL1 to view the change requests.



Schedule Manager | Schedules Found [2372]

	Schedule Summary	Schedule Description	Event ID	sch_id	Context	Timezone	Start Time	Duration	Recurrence Interval	End Date	Last Run	Owner	Organization	Visibility	Enabled	✓
		CHG														
1.	CHG0030003	CHG0030003	16851	–	Devices	UTC	2018-09-14 21:40:33	1440 m	–	–	–	em7admin	Cisco	Organi:	Yes	□
2.	CHG0030004	CHG0030004	16857	–	Devices	UTC	2018-09-07 21:50:37	1440 m	–	–	–	em7admin	Cisco	Organi:	Yes	□
3.	CHG0030004	CHG0030004	16858	–	Devices	UTC	2018-09-07 21:50:37	1440 m	–	–	–	em7admin	Cisco	Organi:	Yes	□
4.	CHG0030004	CHG0030004	16859	–	Devices	UTC	2018-09-07 21:50:37	1440 m	–	–	–	em7admin	Cisco	Organi:	Yes	□
5.	CHG0030004	CHG0030004	16860	–	Devices	UTC	2018-09-07 21:50:37	1440 m	–	–	–	em7admin	Cisco	Organi:	Yes	□
6.	CHG0030004	CHG0030004	16861	–	Devices	UTC	2018-09-07 21:50:37	1440 m	–	–	–	em7admin	Cisco	Organi:	Yes	□
7.	CHG0103168-JulyR	CHG0103168-JulyR	6690	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:00	em7admin	Cisco	Organi:	Yes	□
8.	CHG0103168-JulyR	CHG0103168-JulyR	6691	–	Devices	Etc/GMT-0	2018-07-31 16:30:00	630 mi	–	–	2018-08-01 05:00:00	em7admin	Cisco	Organi:	Yes	□
9.	CHG0103168-JulyR	CHG0103168-JulyR	6692	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
10.	CHG0103168-JulyR	CHG0103168-JulyR	6693	–	Devices	Etc/GMT-0	2018-07-31 16:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
11.	CHG0103168-JulyR	CHG0103168-JulyR	6694	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
12.	CHG0103168-JulyR	CHG0103168-JulyR	6695	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
13.	CHG0103168-JulyR	CHG0103168-JulyR	6697	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
14.	CHG0103168-JulyR	CHG0103168-JulyR	6696	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
15.	CHG0103168-JulyR	CHG0103168-JulyR	6698	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
16.	CHG0103168-JulyR	CHG0103168-JulyR	6699	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
17.	CHG0103168-JulyR	CHG0103168-JulyR	6700	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
18.	CHG0103168-JulyR	CHG0103168-JulyR	6701	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
19.	CHG0103168-JulyR	CHG0103168-JulyR	6703	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□
20.	CHG0103168-JulyR	CHG0103168-JulyR	6702	–	Devices	Etc/GMT-0	2018-07-31 18:30:00	630 mi	–	–	2018-08-01 05:00:01	em7admin	Cisco	Organi:	Yes	□

16. Verify that the **Schedule Summary** field contains the same value from the ServiceNow **Number** field. In this example, the value in SL1 matches the value from ServiceNow: *CHG0030004*.

17. You can also verify that the schedule was created for a device by navigating to the **Device Manager** (Registry > Devices), clicking the wrench icon for the device, and clicking the **[Schedule]** tab.

18. If you want to edit the scheduled time for the maintenance sync, open the change request in ServiceNow, click the **[Schedule]** tab, and update the **Planned start date** and **Planned end date fields** as needed. The next time the "Sync Maintenance from ServiceNow to SL1" integration application runs, the schedule is updated.

19. If you want to cancel the scheduled time for the maintenance sync, open the change request in ServiceNow, click the **Additional actions** menu button (☰), and select Cancel Change. The next time the "Sync Maintenance from ServiceNow to SL1" integration application runs, the application cancels that maintenance sync.

TIP: As a best practice, schedule the "Sync Maintenance from ServiceNow to SL1" integration application to run every hour or so, depending on your environment.

Directly Enabling or Disabling Device Maintenance from ServiceNow

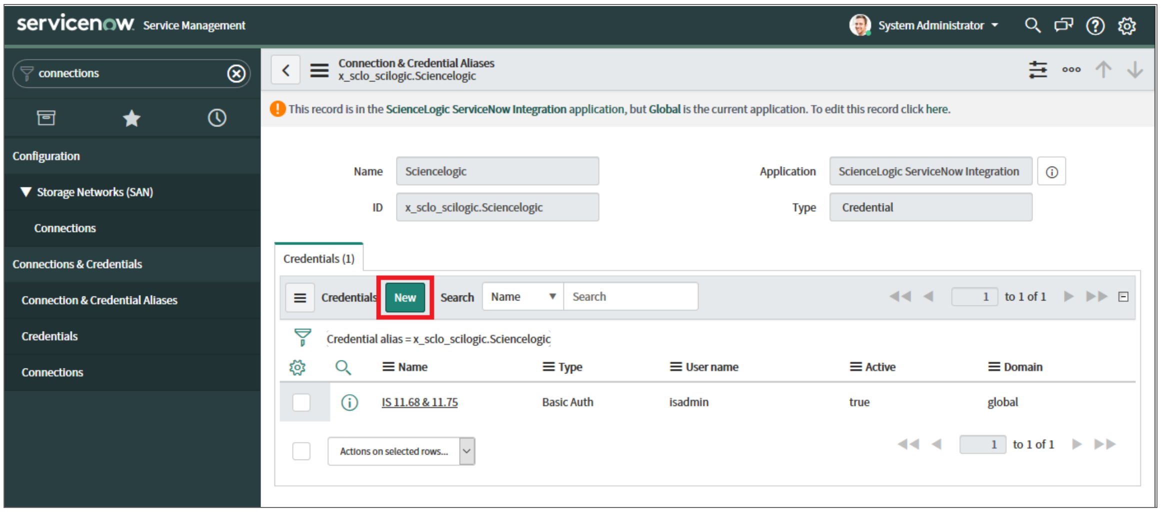
The "Trigger Device Maintenance Updates via MID Server" integration application receives a group of one or more synced devices from the ServiceNow Management, Instrumentation, and Discovery (MID) Server and checks for the *enable_maintenance* and *disable_maintenance* actions on those devices. If the application encounters devices with one of those actions, it will enable or disable the user maintenance status of those devices as needed.

You do *not* need to update any fields on the **Configuration** pane for the "Trigger Device Maintenance Updates via MID Server" integration application. You also do *not* need to run this integration application, as it is triggered by the MID Server, which is triggered first by a registered event in ServiceNow Event Management. For more information about registered events, including examples of other triggering events you can define in ServiceNow, see the *ServiceNow Registered Events* appendix.

Before you can set up maintenance sync with the MID Server, you need to create a credential for the MID Server. You should have access to the "Integration Services" section of the **Discovery Dependents** page in ServiceNow.

To create a credential to connect to the Integration Service:

1. In ServiceNow, go to **Connections & Credentials > Connection & Credential Aliases**.
2. From the **Connection & Credential Aliases** list, select **ScienceLogic**. This record is provided by the Integration Service Certified Application. The **Connection & Credential Aliases page** appears:


servicenow Service Management
System Administrator
connections
Configuration
Storage Networks (SAN)
Connections
Connections & Credentials
Connection & Credential Aliases
Credentials
Connections
Connection & Credential Aliases
x_sclo_scilogic.Sciencelogic
Credentials (1)
Credentials
New
Search
Name
Search
1 to 1 of 1
Actions on selected rows...

This record is in the ScienceLogic ServiceNow Integration application, but Global is the current application. To edit this record click here.

Name: Sciencelogic
ID: x_sclo_scilogic.Sciencelogic
Application: ScienceLogic ServiceNow Integration
Type: Credential

Credential alias = x_sclo_scilogic.Sciencelogic

Name	Type	User name	Active	Domain
IS 11.68 & 11.75	Basic Auth	isadmin	true	global

3. Click **[New]** to create a new credential. The **Credentials** page appears.
4. From the list of credentials, select **Basic Auth Credentials**. This is currently the only type of credential that is supported. The **Basic Auth Credentials** page appears.

5. Complete the fields related to the Integration Service on the **Basic Auth Credentials** page. Make sure that the ***Credential alias*** field is set to *x_sclo_scilogic.Sciencelogic*.
5. Click **[Submit]**. The credential is added to the **Connection & Credential Aliases** page.
6. Select the new credential. The **Basic Auth Credentials** page for that credential appears.
7. Click **[New]** to create a Discovery IP Affinity record. A new **Credential Affinity** page appears.
8. Complete the following fields:

   - ***MID server***. The name of the Mid Server you want to use.
   - ***IP address***. Use the Integration Service IP address that was listed in the ***IP*** field on the relevant record on the **Discovery Dependents** page in ServiceNow. To quickly find the relevant record on the **Discovery Dependents** page, right-click the **Type** column and select *Group By Type*, and then expand *Type: Integration Services*. Use the IP value from the record that matches the Region for the devices you want to use.
   - ***Credential ID***. This field should be completed for you.

9. Click **[Submit]**.

Creating or Updating Device Maintenance from a ServiceNow Trigger

The "Create or Update Maintenance Schedule from ServiceNow Trigger" integration application handles scheduling and canceling maintenance schedules in SL1 from a ServiceNow MID Server trigger. This integration application uses a similar workflow to the process used in ***Directly Enabling or Disabling Device Maintenance from ServiceNow***, but this integration application works with the schedules instead.

This integration application receives a group of one or more synced devices from the ServiceNow Management, Instrumentation, and Discovery (MID) Server and checks for the *schedule* and *cancel* actions on those devices. If the application encounters devices with one of those actions, it will enable or disable the user maintenance status of those devices as needed.

As a result, in ServiceNow you can bring change requests out of a scheduled state and update them, and all of the updates to those change requests are synced back to SL1 in real time, even if those change requests were already scheduled.

You do *not* need to update any fields on the **Configuration** pane for the "Create or Update Maintenance Schedule from ServiceNow Trigger" integration application. You also do *not* need to run this integration application, as it is triggered by the MID Server, which is triggered first by a registered event in ServiceNow Event Management. For more information about registered events, including examples of other triggering events you can define in ServiceNow, see the ***ServiceNow Registered Events*** appendix.

Before you can set up maintenance sync with the MID Server, you need to create a credential for the MID Server. You should have access to the "Integration Services" section of the **Discovery Dependents** page in ServiceNow. For more information about creating the credential, see ***Directly Enabling or Disabling Device Maintenance from ServiceNow.***

Chapter

4

Troubleshooting the Change Management Synchronization PowerPack

Overview

This chapter includes troubleshooting resources and procedures to use with the *ServiceNow CMDB* Synchronization PowerPack.

This chapter covers the following topics:

Initial Troubleshooting Steps

The Integration Service acts as a middle server between data platforms. For this reason, the first steps should always be to ensure that there are no issues with the data platforms with which the Integration Service is talking. There might be additional configurations or actions enabled on ServiceNow or SL1 that result in unexpected behavior. For detailed information about how to perform the steps below, see *Resources for Troubleshooting*.

Integration Service

1. Run the following command:

```
docker service ls
```

2. Note the Docker container version, and verify that the Docker services are running.
3. If a certain service is failing, make a note the service name and version.
4. If a certain service is failing, run `docker service ps <service_name>` to see the historical state of the service and make a note of this information. For example: `docker service ps iservices_contentapi`.
5. Make a note of any logs impacting the service by running `docker service logs <service_name>`. For example: `docker service logs iservices_couchbase`.

ServiceNow

1. Make a note of the ServiceNow version and Synchronization PowerPack version, if applicable.
2. Make a note of whether the user is running an update set or the Certified Application (also called the "ScienceLogic SL1: CMDB & Incident Automation" application).
3. Make a note of the ServiceNow integration application that is failing on the Integration Service.
4. Make a note of what step is failing in the integration application, try running the application in debug mode, and capture any traceback or error messages that occur in the step log.

Resources for Troubleshooting

This section contains port information for the Integration Service and troubleshooting commands for Docker, Couchbase, and the Integration Service API.

Useful Integration Service Ports

- **http://<*IP of Integration Service*>:8081**. Provides access to Docker Visualizer, a visualizer for Docker Swarm.
- **https://<*IP of Integration Service*>:8091**. Provides access to Couchbase, a NoSQL database for storage and data retrieval.
- **https://<*IP of Integration Service*>:15672**. Provides access to the RabbitMQ Dashboard, which you can use to monitor the service that distributes tasks to be executed by Integration Service workers.

- **https://<*IP of Integration Service*>/flower**. Provides access to Flower, a tool for monitoring and administrating Celery clusters.

Helpful Docker Commands

The Integration Service is a set of services that are containerized using Docker. For more information about Docker, see the Docker tutorial.

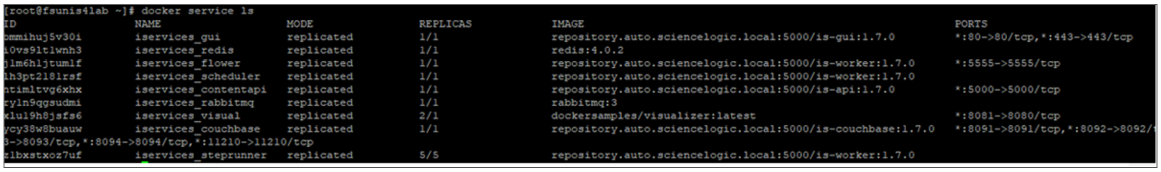
Use the following Docker commands for troubleshooting and diagnosing issues with the Integration Service:

Viewing Container Versions and Status

To view the Integration Service version, SSH to your Integration Service instance and run the following command:

```
docker service ls
```

In the results, you can see the container ID, name, mode, status (see the *replicas* column), and version (see the *image* column) for all the services that make up the Integration Service:



```
[root@fsunis4lab ~]# docker service ls
ID                  NAME                   MODE                REPLICAS            IMAGE                                                        PORTS
ommihuj5v30i        iservices_gui          replicated          1/1                 repository.auto.sciencelogic.local:5000/is-gui:1.7.0         *:80->80/tcp,*:443->443/tcp
i0vs9ltlwnh3        iservices_redis        replicated          1/1                 redis:4.0.2
jlm6hljtumlf        iservices_flower       replicated          1/1                 repository.auto.sciencelogic.local:5000/is-worker:1.7.0      *:5555->5555/tcp
lh3pt218lrsf        iservices_scheduler    replicated          1/1                 repository.auto.sciencelogic.local:5000/is-worker:1.7.0
ntimltvg6xhx        iservices_contentapi   replicated          1/1                 repository.auto.sciencelogic.local:5000/is-api:1.7.0         *:5000->5000/tcp
ryln9qgsudmi        iservices_rabbitmq     replicated          1/1                 rabbitmq:3
xlul9h8jsfs6        iservices_visual       replicated          2/1                 dockersamples/visualizer:latest                              *:8081->8080/tcp
ycy38w8buauw        iservices_couchbase    replicated          1/1                 repository.auto.sciencelogic.local:5000/is-couchbase:1.7.0   *:8091->8091/tcp,*:8092->8092/
3->8093/tcp,*:8094->8094/tcp,*:11210->11210/tcp
zlbxstxoz7uf        iservices_steprunner   replicated          5/5                 repository.auto.sciencelogic.local:5000/is-worker:1.7.0
```

Restarting a Service

Run the following command to restart a single service:

```
docker service update --force <service_name>
```

Stopping all Integration Service Services

Run the following command to stop all Integration Service services:

```
docker stack rm iservices
```

Restarting Docker

Run the following command to restart Docker:

```
systemctl restart docker
```

NOTE: Restarting Docker does not clear the queue.

Viewing Logs for a Specific Service

You can use the Docker command line to view the logs of any current running service in the Integration Service cluster. To view the logs of any service, run the following command:

```
docker service logs -f iservices_<service_name>
```

Some common examples include the following:

```
docker service logs –f iservices_couchbase

docker service logs –f iservices_steprunner

docker service logs –f iservices_contentapi
```

NOTE: *Application* logs are stored on the central database as well as on all of the Docker hosts in a clustered environment. These logs are stored at **/var/log/iservices** for both single-node or clustered environments. However, the logs on each Docker host only relate to the services running on that host. For this reason, using the Docker service logs is the best way to get logs from all hosts at once.

Clearing RabbitMQ Volume

RabbitMQ is a service that distributes tasks to be executed by Integration Service workers. This section covers how to handle potential issues with RabbitMQ.

The following error message might appear if you try to run an integration application via the API:

```
Internal error occurred: Traceback (most recent call last):\n File \"./content_
api.py\", line 199, in kickoff_application\n task_status = ... line 623, in _on_
close\n (class_id, method_id), ConnectionError)\nInternalError: Connection.open: (541)
INTERNAL_ERROR - access to vhost '/' refused for user 'guest': vhost '/' is down
```

First, verify that your services are up. If there is an issue with your RabbitMQ volume, you can clear the volume with the following commands:

```
docker service rm iservices_rabbitmq
docker volume rm iservices_rabbitdb
```

If you get a message stating that the volume is in use, run the following command:

```
docker rm <id of container using volume>
```

Re-deploy the Integration Service by running the following command:

```
docker stack deploy -c /opt/iservices/scripts/docker-compose.yml iservices
```

NOTE: Restarting Docker does not clear the queue, because the queue is persistent. However, clearing the queue with the commands above might result in data loss due to the tasks being removed from the queue.

Viewing the Process Status of All Services

Run the following command:

```
docker ps
```

Deploying Services from a Defined Docker Compose File

Run the following command:

```
docker stack deploy -c <compose-file> iservices
```

Dynamically Scaling for More Workers

Run the following command:

```
docker service scale iservices_steprunner=10
```

Completely Removing Services from Running

Run the following command:

```
docker stack rm iservices
```

Diagnosis Tools

Multiple diagnosis tools exist to assist in troubleshooting issues with the Integration Service platform:

- ***Docker PowerPack***. This PowerPack monitors your Linux-based Integration Service server with SSH (the Integration Service ISO is built on top of an Oracle Linux Operating System). This PowerPack provides key performance indicators about how your Integration Service server is performing. For more information on the Docker PowerPack and other PowerPacks that you can use to monitor the Integration Service, see the "Using SL1 to Monitor the Integration Service" chapter in the ***Integration Service Platform*** manual.
- ***Flower.*** This web interface tool can be found at the /flower endpoint. It provides a dashboard displaying the number of tasks in various states as well as an overview of the state of each worker. This tool shows the current number of active, processed, failed, succeeded, and retried tasks on the Integration Service platform. This tool also shows detailed information about each of the tasks that have been executed on the platform. This data includes the UUID, the state, the arguments that were passed to it, as well as the worker and the time of execution. Flower also provides a performance chart that shows the number of tasks running on each individual worker.
- ***Debug Mode***. All applications can be run in "debug" mode via the Integration Service API. Running applications in debug mode may slow down the platform, but they will result in much more detailed logging information that is helpful for troubleshooting issues. For more information on running applications in Debug Mode, see ***Retrieving Additional Debug Information***.
- ***Application Logs***. All applications generate a log file specific to that application. These log files can be found at /var/log/iservices and each log file will match the ID of the application. These log files combine all the log messages of all previous runs of an application up to a certain point. These log files roll over and will get auto-cleared after a certain point.

- ***Step Logs***. Step logs display the log output for a specific step in the application. These step logs can be accessed via the Integration Service user interface by clicking on a step in an integration application and bringing up the **Step Log** tab. These step logs display just the log output for the latest run of that step.
- ***Service Logs***. Each Docker service has its own log. These can be accessed via SSH by running the following command:

```
docker service logs -f <service_name>
```

Retrieving Additional Debug Information (Debug Mode)

The logs in the Integration Service use the following **loglevel** settings, from most verbose to least verbose:

- ***10***. Debug Mode.
- ***20***. Informational.
- ***30***. Warning. This is the default settings if you do not specify a loglevel.
- ***40***. Error.

WARNING: If you run integration applications with "loglevel": 10, those integration applications will take longer to run because of increased I/O requirements. Enabling debug logging using the following process is the only recommended method. ScienceLogic does not recommend setting "loglevel": 10 for the whole stack with the docker-compose file.

To run an application in Debug Mode, POST the following to the API endpoint:

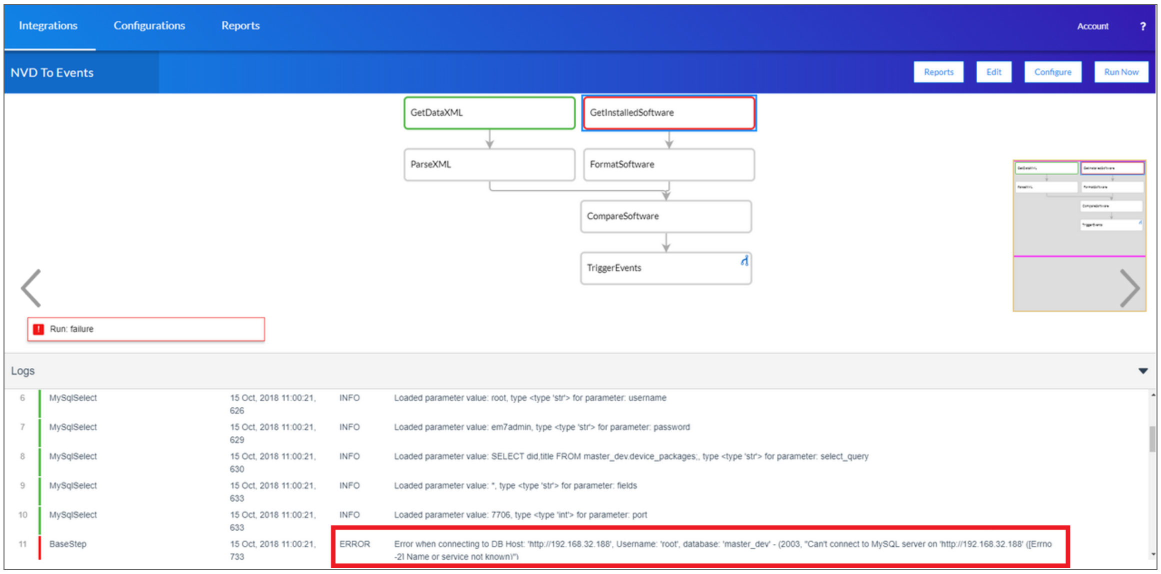
```
https://<integration_service>/api/v1/applications/run
```

Request body:

```
{
  "name": "<application_name>",
  "params": {
    "loglevel": 10
  }
}
```

After running the integration application in Debug Mode, go back to the Integration Service user interface and review the step logs to see detailed debug output for each step in the integration application. When run in Debug Mode, the step log output shows additional debug statements such as "Saved data for next step", which displays the data being sent from one step to the next.

This information is especially helpful when trying to understand why an integration application or step failed:



```
6   MySqlSelect   15 Oct, 2018 11:00:21,   INFO    Loaded parameter value: root, type <type 'str'> for parameter: username
                  626
7   MySqlSelect   15 Oct, 2018 11:00:21,   INFO    Loaded parameter value: em7admin, type <type 'str'> for parameter: password
                  629
8   MySqlSelect   15 Oct, 2018 11:00:21,   INFO    Loaded parameter value: SELECT did,title FROM master_dev.device_packages;, type <type 'str'> for parameter: select_query
                  630
9   MySqlSelect   15 Oct, 2018 11:00:21,   INFO    Loaded parameter value: *, type <type 'str'> for parameter: fields
                  633
10  MySqlSelect   15 Oct, 2018 11:00:21,   INFO    Loaded parameter value: 7706, type <type 'int'> for parameter: port
                  633
11  BaseStep      15 Oct, 2018 11:00:21,   ERROR   Error when connecting to DB Host: 'http://192.168.32.188', Username: 'root', database: 'master_dev' - (2003, "Can't connect to MySQL server on 'http://192.168.32.188' ([Errno
                  733                              -2] Name or service not known)")
```

You can also run an integration in debug using curl via SSH:

1. SSH to the Integration Service instance.
2. Run the following command:

```
curl -v -k -u isadmin:em7admin -X POST "https://<your_
hostname>/api/v1/applications/run" -H 'Content-Type: application/json' -H 'cache-
control: no-cache' -d '{"name": "interface_sync_sciencelogic_to_
servicenow","params": {"loglevel": 10}}'
```

Appendix

A

Certified Application Objects

Overview

This appendix describes the tables, endpoints, and roles that were created in ServiceNow as part of the "ScienceLogic SL1: CMDB & Incident Automation" application. This application is also known as the "Certified Application" or the "Scoped Application".

This appendix includes the following topics:

Roles

Two Roles were added with the ScienceLogic update set, Admin (x_sclo_scilogic.Admin) and User (x_sclo_scilogic.User). Both give access to SL1.

Role	Inherited Roles	Other Inherited Roles	Role Definition
x_sclo_scilogic.Admin			Role for ScienceLogic Service Accounts.
	itil		Can perform standard actions for an ITIL help desk technician. This is the default "Technician" role. Can open, update, close incidents, problems, changes, config management items. By default, only users with the itil role can have tasks assigned to them
		Dependency_view	A special role to be applied both on the $ngbsm UI page and on the BSMProcessor. This role is required to access the dependency views module. By default, ITIL includes this role to avoid regressions.
		cmdb_query_builder	Can access the CMDB Query Builder application to create, run, and save queries on the CMDB.
		template_editor	
		view_changer	Can switch active views.
		app_service_user	Can view and retrieve information using API from application service maps (cmdb_ci_service_discovered).
		certification	Can work on Certification tasks.
	import_transformer		Can manage Import Set Transform Maps and run transforms.
x_sclo_scilogic.User			General user account that allows read-only access to SL1.

Tables

Name	Label	Extends	Comments
x_sclo_scilogic_event	Event	(empty)	Event information
x_sclo_scilogic_event_severity	Event Severity Look Rules	Data Lookup Matcher Rules	Look up table for event Severity
x_sclo_scilogic_incident	Import Incident	Import Set Row	Import / staging events before transform to Event and Incident
x_sclo_scilogic_import_installed_software	Import Installed Software	Import Set Row	Import / staging events before transform to Software Instance
x_sclo_scilogic_org_ven_mfg	Import ORG VEN MFG	Import Set Row	Import / staging events before transform to core_company
x_sclo_scilogic_import_discovery_dependent	Import Discovery Dependent	Import Set Row	Import / staging events before transform to Discovery Dependent table
x_sclo_scilogic_discovery_dependent	Discovery Dependent	(empty)	Discovery Dependent Information
x_sclo_scilogic_catalog_item_templates	Catalog item Templates	(empty)	Templates use to fill out catalog items
x_sclo_scilogic_import_service_request	Import Service Request	Import Set Row	Import / staging events before transform to Service Requests

Table Columns (cmdb_ci)

Name	Label	Type	Comments
x_sclo_scilogic_id	SL1 ID	Integer	Unique ID
x_sclo_scilogic_region	SL1 Region	String	Unique String of SL1 Platform
x_sclo_scilogic_url	SL1 URL	URL	URL to SL1 Platform
x_sclo_scilogic_monitored	SL1 Monitored	True/False	Device currently synced with SL1 Platform

Table Columns (core_company)

Name	Label	Type	Comments
x_sclo_scilogic_id	SL1 ID	String	Unique ID
x_sclo_scilogic_region	SL1 Region	String	Unique String of SL1 Platform
x_sclo_scilogic_monitored	SL1 Monitored	True/False	Organization currently synced with SL1 Platform

Table Columns (cmdb_group)

Name	Label	Type	Comments
x_sclo_scilogic_id	SL1 ID	String	Unique ID
x_sclo_scilogic_region	SL1 Region	String	Unique String of SL1 Platform

Script Includes

Name	API Name	Comments
CatalogUtils	x_sclo_scilogic.catalogUtils	Catalog Script include scripts
ChangeUtils	x_sclo_scilogic.changeUtils	Change Script include scripts
DeviceUtils	x_sclo_scilogic.DeviceUtils	Device Script include scripts
EventUtils	x_sclo_scilogic.EventUtils	Event Script include scripts
GeneralUtils	x_sclo_scilogic.GeneralUtils	General Script include scripts

Event Registry

Suffix	Event name	Table	Comments
device_monitoring	x_sclo_scilogic.device_monitoring	Configuration Item [cmdb_ci]	Event for Device Monitoring
Remove_monitoring	x_sclo_scilogic.remove_monitoring	Configuration Item [cmdb_ci]	Event for Remove Monitoring

Scripted Actions

Name	Event name	Comments
Device Monitoring Catalog item	x_sclo_scilogic.device_monitoring	Action used to submit Catalog item via Event.
Device Removal Catalog item	x_sclo_scilogic.remove_monitoring	Action used to submit Catalog item via Event.

Data Lookup Definitions

Name	Source Table	Matcher Table	Comments
Event Severity	Import Incident [x_sclo_scilogic_incident]	Event Severity Lookup Rules [x_sclo_scilogic_event_severity]	Lookup for ScienceLogic Severity to Impact and Urgency

System Properties

Suffix	Name	Comments
CatalogItemDiscovery	x_sclo_scilogic.CatalogItemDiscovery	Unique value (sys_id)
CatalogItemRemove	x_sclo_scilogic.CatalogItemRemove	Unique value (sys_id)
closeCode	x_sclo_scilogic.closeCode	Value to use for Close Code for Incident Transform
Contact type	x_sclo_scilogic.Contact Type	Value to use for Contact type for Incident Transform
deviceLogging	x_sclo_scilogic.deviceLogging	Turn on Logging
deviceLoggingParam	x_sclo_scilogic.deviceLoggingParm	Add additional parameters beyond the default errors
discoverySource	x_sclo_scilogic.discoverySource	Discovery Source to be used by Integration Service
notResolved	x_sclo_scilogic.notResolved	Value of Reopened Incident
stateNew	x_sclo_scilogic.stateNew	Value of New Incident
StateResolved	x_sclo_scilogic.stateResolved	Value of Resolved Incident

Catalog Item

Name	Comments
Device Discovery	Role for ScienceLogic Service Accounts.
Monitoring Removal	General user account that allows read only access to ScienceLogic Application.

Catalog UI Policies

Catalog item	Short description	Comments
Device Discovery	Catalog Template	Updates form based on Select template
Device Discovery	Create Virtual Device	Updates form based on Request type
Device Discovery	Create Virtual Device (Retired)	
Device Discovery	Device Discovery	Updates form based on Request type
Device Discovery	Device Discovery (Retired)	
Monitoring Removal	Hide Overview variables not required	Hide variables not required for the Monitoring Removal request
Device Discovery	Port Scan	Hide scan ports that are not default
Device Discovery	Port Scan (Retired)	
Device Discovery	Region	Updates form based on Organization
Device Discovery	Region (Retired)	
Monitoring Removal	Region via Organization	Updates form based on Organization
Device Discovery	Save as Template	Updates form based on Save as template

Variable Sets

Title	Internal name	Comments
Create_virtual_device	create_virtual_device	
Discovery Overview	discovery_overview	

Title	Internal name	Comments
Discovery Sesion - Basic Settings	discovery_sesion_basic_settings	
Discovery Session - Detection and Scanning	discovery_session_detection_and_scanning	
Discovery Session - IP & Credentials	discovery_session_ip_credentials	
Monitoring Removal	monitoring _removal	
Service Catalog item Template	service_catalog_item_template	

Catalog Client Scripts

Name	Catalog item	Type	Comments
Hide Request Type Options	Monitoring Removal	onLoad	Shared variable hide options that don't apply
Hide Request Type Options	Device Discovery	onLoad	Shared variable hide options that don't apply
Region	Monitoring Removal	onChange	Update Region field based on Company Region
Region	Monitoring Removal	onChange	Update Region field based on Company Region

Workflows

Name	Table	Comments
SL1 Monitoring Removal	Requested Item [sc_req_item]	Workflow for Removal of devices from SL1 process
SL1 Discovery Session	Requested Item [sc_req_item]	Workflow for Discovery session process

Scripted REST Resources

Name			Comments
Business Services	/api/x_sclo_ scilogic/v1/sciencelogic/business_service	GET	This GET api will pull all ScienceLogic monitored Configuration items specific to Business Services class from the CMDB. It will be ordered via the sys_id field to ensure the same order every time.
CMDB Group	/api/x_sclo_scilogic/v1/sciencelogic/cmdb_ group	POST	Use this API to create cmdb_groups & add a CI to them.
Change Requests	/api/x_sclo_ scilogic/v1/sciencelogic/change_requests	GET	This GET api will pull Active Change Requests or Change Tasks based on the record_type supplied that have ScienceLogic monitored CI attached. It will be ordered via the sys_id field to ensure the same order every time.
Classification	/api/x_sclo_ scilogic/v1/sciencelogic/classification	GET	This GET api will pull all required CMDB information to build JSON payloads.
Companies	/api/x_sclo_ scilogic/v1/sciencelogic/companies	GET	This GET api will pull all Active Companies that are ScienceLogic monitored. It will be ordered via the sys_id field to ensure the same order every time.
Configuration Items	/api/x_sclo_ scilogic/v1/sciencelogic/configuration_Items	GET	This GET api will pull all ScienceLogic monitored Configuration items from the CMDB. It will be ordered via the sys_id field to ensure the same order every time.
Device IdentificationEngine	/api/x_sclo_ scilogic/v1/sciencelogic/IdentificationEngine	POST	Use this API to create or update configuration items within the CMDB via ScienceLogic.

Name			Comments
File Systems	/api/x_sclo_scilogic/v1/sciencelogic/file_ systems	GET	This GET api will pull all ScienceLogic monitored Configuration items specific to File systems class from the CMDB. It will be ordered via the sys_id field to ensure the same order every time.
Import Set	/api/x_sclo_ scilogic/v1/sciencelogic/import_set	POST	This POST API will post to the target import set table and create a record for each cmdb_ci.
Incidents	/api/x_sclo_ scilogic/v1/sciencelogic/incidents	GET	This GET api will pull all incidents. It will be ordered via the sys_id field to ensure the same order every time.
Installed Software	/api/x_sclo_ scilogic/v1/sciencelogic/installed_software	GET	This GET api will pull all Servicenow Software packages and installed instances from the CMDB. It will be ordered via the sys_id field to ensure the same order every time.
Manufacture	/api/x_sclo_ scilogic/v1/sciencelogic/manufactures	POST	This POST API will pull all Manufactures.
Model	/api/x_sclo_scilogic/v1/sciencelogic/models	POST	This POST API will pull all Model.
Network Adapters	/api/x_sclo_ scilogic/v1/sciencelogic/network_adapters	GET	This GET api will pull all ScienceLogic monitored Configuration items specific to Network Adapter class from the CMDB. It will be ordered via the sys_id field to ensure the same order every time.
Service Request	/api/x_sclo_ scilogic/v1/sciencelogic/service_request	GET	This GET api will pull all ServiceRequest items from the CMDB associated with Device Discovery Catalog item. It will be ordered via the sys_id field to ensure the same order every time.
Classification	/api/x_sclo_ scilogic/v2/sciencelogic/classification	GET	This GET api will pull all required CMDB information to build JSON payloads.

Transform Maps

Name	Source Table	Target Table	Comments
ScienceLogic Discovery Dependent	Import Discovery Dependent	Discovery Dependent	Import / staging table for Catalog Dependents
ScienceLogic Event	Import Incident	Event	Import / staging table for Events.
ScienceLogic Incident	Import Incident	Incident [incident]	Import / staging table for Incident
ScienceLogic Organization	Import ORG VEN MFG []	Company [core_company]	Import / staging table for Organization
ScienceLogic Service Request	Import Service Request []	Request Item [sc_req_item]	Import / staging table for Request item

Transform Scripts

Name	Transform Map	Order	Comments
onBefore	ScienceLogic Event	100	Check Action
onAfter	ScienceLogic Event	100	Check Action; Get Resolved Validation script include
onBefore	ScienceLogic Incident	100	Check Action, event workflow script include
onAfter	ScienceLogic Incident	100	Check Action, Affected CI script include

Appendix

B

ServiceNow API Endpoints

Overview

This appendix describes the customized ServiceNow API Endpoints that were created for the Integration Service ServiceNow Synchronization PowerPacks. These scripted endpoints reduce the amount of REST calls that the Integration Service makes to ServiceNow.

Please note that for pagination, the following Query parameters are not required: `sysparm_offset` and `sysparm_limit`. The default settings are:

- `sysparm_offset=0`
- `sysparm_limit` = ServiceNow defines the default upper limits for data export. It will check the following properties at *System Properties* > *Import Export*: `glide.json.export.limit`, `glide.ui.export.limit`, and then `glide.ui.export.war.threshold`.

For example, if you have 200 total records and you want to pull the records in 100-record chunks, then the first pull would be `sysparm_offset=0 & sysparm_limit=100` and the second pull would be `sysparm_offset=100 & sysparm_limit=100`. For more information, see the ServiceNow documentation for Export Limits.

This appendix includes the following topics:

Business Services

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/business_service
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/business_service
```

This operation pulls all the fields from just the Business Service (**cmdb_ci_service**) table. The return is ordered by **sys_id**, so the results display in the same order every time. The results are filtered by the ***SL1 monitored*** and ***SL1 ID*** field on the ServiceNow side. This operation requires the region to be supplied by the requester, and it will only return region-supplied configuration items.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region (required)	ScienceLogic
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

Example (Request URL)

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/ sciencelogic/business_
service
```

Example (Response)

```
{
    "results": [
        {
            "operational_status": "1",
            "sys_updated_on": "2019-02-06 19:32:34",
            "discovery_source": "Other Automated",
            "first_discovered": "2019-02-06 19:31:19",
            "sys_updated_by": "admin",
            "sys_created_on": "2019-02-06 19:31:19",
            "sys_domain": "global",
            "used_for": "Production",
            "sys_created_by": "is4user1",
            "sys_domain_path": "/",
            "install_status": "1",
            "name": "One Service to rule them",
            "subcategory": "Service",
            "busines_criticality": "1 - most critical",
            "last_discovered": "2019-02-06 19:31:19",
            "sys_class_name": "cmdb_ci_service",
            "sys_id": "52da95dcdb6323009f7dd7a0cf961918",
            "sys_class_path": "/!!/#C",
            "comments": "Postman",
            "sys_mod_count": "1",
            "x_sclo_scilogic_id": "1570",
            "model_id": "e8aaeb3f3763100044e0bfc8bcbe5d20",
            "cost_cc": "USD",
            "x_sclo_scilogic_monitored": "true",
            "category": "Business Service",
            "service_classification": "Technical Service",
            "x_sclo_scilogic_region": "ScienceLogic"
        }
    ],
    "sysparm_offset": 0,
    "sysparm_limit": 100,
    "return_count": 1,
    "total_count": 1
}
```

Change Requests

HTTP Method

GET

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/change_requests?record_type=change_
request&state=1&region=ScienceLogic
```

Default Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/change_requests?record_type=change_
request&state=1&region=ScienceLogic
```

This scripted API was built for pulling Change Requests or Change Tasks and formatting a JSON object response with the required information to create a maintenance schedule in SL1. The GET queries the **task_ci** table to find configuration items that are monitored by SL1 and are the correct record type. The GET operation returns all records with their configuration items in formatted JSON strings that include planned start and end time.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
record_type (required)	change_request
state	-5
region (required)	ScienceLogic
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

HTTP Status

Code	*Value*
200	OK
400	Query parameter \'region\' is not defined and is required.

Fixed Internal Query

State:

```
'task.sys_class_name=' + recordType + 'task.state=' + state + '^ci_item.x_sclo_scilogic_monitored=true^ci_item.x_sclo_scilogic_region=' + region
```

Non-State:

```
'task.active=true^task.sys_class_name=' + recordType + 'ci_item.x_sclo_scilogic_monitored=true^ci_item.x_sclo_scilogic_region=' + region
```

Example

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/change_requests?record_type=change_request&state=-5&region=ScienceLogic
```

Example (Response)

```
{
    "results": [
        {
            "sys_id": "48ebaba0db962f00dc44f00fbf961961",
            "number": "CHG0030001",
            "state_value": "-5",
            "state": "New",
            "short_description": "Test Change",
            "planned_start_date": "2019-01-01 06:00:01",
            "planned_end_date": "2019-01-01 18:00:01",
            "device": [
                {
                    "sys_id": "d83dac0adb4dab00dc44f00fbf961919",
                    "name": "Postman Test Server 11",
                    "id": "11",
                    "region": "ScienceLogic"
                }
            ]
        }
    ]
}
```

Classification version 1

NOTE: This API Endpoint has been deprecated. The last version of the "ScienceLogic SL1: CMDB & Incident Automation" application" (also called the Certified or Scoped application), that used this endpoint was version 1.0.18.

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/classification
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/classification
```

To support the identification and reconciliation framework, SL1 requires a large amount of information to know how to correctly fill out the JSON formatted string defined by the Identification Engine documentation. This operation uses the **getTableExtension()** function to find all the tables extended from the **cmdb_ci** table and then goes through each table one by one. This operation collects information about each class, such as which fields are required to identify and if it is considers another class to help find uniqueness. This operation then finds all the associated metadata. Finally, the operation pulls a list of all field names from the table. By default the **criterion_attributes** and **attributes** are not included and require "action=attributes" as a parameter in the API call to be passed.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
action	attributes

Attributes require x_sclo_scilogic.Admin be added to **sys_dictionary.*** (read) ACL to allow the API to access field names on each class table.

Fixed Internal Query

Example

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/sciencelogic/
classification
```

Example (Response)

```
{
  "results": [
    {
      "class_label": "Storage Area Network",
      "class_table": "cmdb_ci_san",
      "criterion_attributes": [
        ""
      ],
      "independent": "false",
      "containment_rule": [

      ],
      "hosting_rule": [

      ],
      "reference_rule": [

      ],
      "attributes": [
        "asset",
        "asset_tag",
        "assigned",
        "assigned_to",
        "assignment_group",
        "attributes",
        "can_print",
        "category",
        "change_control",
        "checked_in",
        "checked_out",
        "comments",
        "company",
        "correlation_id",
        "cost",
        "cost_cc",
        "cost_center",
        "delivery_date",
        "department",
        "discovery_source",
        "dns_domain",
        "due",
        "due_in",
        "fault_count",
        "first_discovered",
        "fqdn",
        "gl_account",
        "install_date",
        "install_status",
        "invoice_number",
        "ip_address",
        "justification",
        "last_discovered",
        "lease_id",
        "location",
        "mac_address",
        "maintenance_schedule",
        "managed_by",
        "manufacturer",
        "model_id",
        "model_number",
        "monitor",
        "name",
        "operational_status",
        "order_date",
        "owned_by",
        "po_number",
        "purchase_date",
        "san_id",
        "schedule",
        "serial_number",
        "short_description",
        "skip_sync",
        "start_date",
        "subcategory",
        "supported_by",
        "support_group",
        "sys_class_name",
        "sys_class_path",
        "sys_created_by",
        "sys_created_on",
        "sys_domain",
        "sys_domain_path",
        "sys_id",
        "sys_mod_count",
        "sys_updated_by",
        "sys_updated_on",
        "unverified",
        "vendor",
        "warranty_expiration",
        "x_sclo_scilogic_id",
        "x_sclo_scilogic_monitored",
        "x_sclo_scilogic_region",
        "x_sclo_scilogic_url"
      ]
    }
  ]
}
```

Classification version 2

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v2/sciencelogic/classification
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/classification
```

To support the identification and reconciliation framework, SL1 requires a large amount of information to know how to correctly fill out the JSON formatted string defined by the Identification Engine documentation. This operation uses the **getTableExtension()** function to find all the tables extended from the **cmdb_ci** table and then goes through each table one by one. This operation collects information about each class, such as which fields are required to identify and if it is considers another class to help find uniqueness. This operation then finds all the associated metadata. Finally, the operation pulls a list of all field names from the table. By default the **criterion_attributes** and **attributes** are not included and require "action=attributes" as a parameter in the API call to be passed.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
action	attributes
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

Attributes require x_sclo_scilogic.Admin be added to **sys_dictionary.*** (read) ACL to allow the API to access field names on each class table.

Fixed Internal Query

Example

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v2/sciencelogic/
classification
```

Example (Response)

```
{
  "results": [
    {
      "class_label": "Storage Area Network",
      "class_table": "cmdb_ci_san",
      "criterion_attributes": [
        ""
      ],
      "independent": "false",
      "containment_rule": [

      ],
      "hosting_rule": [

      ],
      "reference_rule": [

      ],
      "attributes": [
        "asset",
        "asset_tag",
        "assigned",
        "assigned_to",
        "assignment_group",
        "attributes",
        "can_print",
        "category",
        "change_control",
        "checked_in",
        "checked_out",
        "comments",
        "company",
        "correlation_id",
        "cost",
        "cost_cc",
        "cost_center",
        "delivery_date",
        "department",
        "discovery_source",
        "dns_domain",
        "due",
        "due_in",
        "fault_count",
        "first_discovered",
        "fqdn",
        "gl_account",
        "install_date",
        "install_status",
        "invoice_number",
        "ip_address",
        "justification",
        "last_discovered",
        "lease_id",
        "location",
        "mac_address",
        "maintenance_schedule",
        "managed_by",
        "manufacturer",
        "model_id",
        "model_number",
        "monitor",
        "name",
        "operational_status",
        "order_date",
        "owned_by",
        "po_number",
        "purchase_date",
        "san_id",
        "schedule",
        "serial_number",
        "short_description",
        "skip_sync",
        "start_date",
        "subcategory",
        "supported_by",
        "support_group",
        "sys_class_name",
        "sys_class_path",
        "sys_created_by",
        "sys_created_on",
        "sys_domain",
        "sys_domain_path",
        "sys_id",
        "sys_mod_count",
        "sys_updated_by",
        "sys_updated_on",
        "unverified",
        "vendor",
        "warranty_expiration",
        "x_sclo_scilogic_id",
        "x_sclo_scilogic_monitored",
        "x_sclo_scilogic_region",
        "x_sclo_scilogic_url"
      ]
    }
  ]
}
```

CMDB Group

HTTP Method

POST

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/cmdb_group
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/cmdb_group
```

This operation handles the intake of groups of devices from SL1 and converts the device groups to CMDB groups. This operation uses a standard formatted JSON string, and it checks for a ***sys_id*** of the group first by searching for a matching group. This process creates a group if a group is not supplied or found, and then it passes the JSON object to the ServiceNow CMDBGroupAPI, which sets the manual CI list of the group.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Example (Request URL

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/cmdb_group
```

Example (Body)

```
[
  {
    "items": [
      {
        "name": "test",
        "description": "",
        "group": "",
        "manualCIList": "d83dac0adb4dab00dc44f00fbf961919,2e6b7046db8dab00dc44f00fbf
        961929,7fb39667dba12380dc44f00fbf961901,77b39667dba12380dc44f00fbf961917,7bb
        39667dba12380dc44f00fbf96191c",
        "region": "Cisco",
        "id": "1"
      }
    ]
  }
]
```

Example (Response)

```
{
  "result": [
    {
      "idList": [

      ],
      "partialCIListDueToACLFlag": false,
      "nextBatchStart": 0,
      "result": true
    },
    {
      "idList": [

      ],
      "partialCIListDueToACLFlag": false,
      "nextBatchStart": 0,
      "result": true
    }
  ]
}
```

Companies

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/companies
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/companies
```

This operation supports Domain Separation enabled or not enabled. This operation pulls all the fields for from the company table that are not NULL values. The return is ordered by ***sys_id***, so the results display in the same order every time. The results are filtered by the ***SL1 Monitored*** and ***region*** values. The region mus be supplied by the requester, and it will only return region-specific companies.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region (required)	ScienceLogic
domainSep	false
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

HTTP Status

Code	*Value*
200	OK
400	Query parameter \'region\' is not defined and is required.

Fixed Internal Query

Domain:

```
'x_sclo_scilogic_region=’ + region + ‘^x_sclo_scilogic_monitored=true^sys_
domain!=global'
```

Non-Domain:

```
'x'_sclo_scilogic_monitored=true^x_sclo_scilogic_idISNOTEMPTY^x_sclo_scilogic_region'’
+ region
```

Example

```
https://<your instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/
companies?region=ScienceLogic&sysparm_offset=0&sysparm_limit=100
```

Example (Response)

```
{
  "results": [
    {
      "country": "USA",
      "notes": "What's on your digital horizon?",
      "city": "San Jose",
      "sys_updated_on": "2018-11-30 16:03:45",
      "sys_class_name": "core_company",
      "sys_id": "1ac84f95dbce2700dc44f00fbf9619c8",
      "sys_updated_by": "is4user1",
      "market_cap": "0",
      "street": "170 West Tasman Dr.",
      "sys_created_on": "2018-11-27 16:32:33",
      "state": "CA",
      "sys_created_by": "admin",
      "zip": "95134",
      "profits": "0",
      "revenue_per_year": "0",
      "sys_mod_count": "4",
      "x_sclo_scilogic_id": "1",
      "x_sclo_scilogic_monitored": "true",
      "phone": "18005532447",
      "name": "Cisco Systems, Inc.",
      "x_sclo_scilogic_region": "Cisco"
    }
  ],
  "sysparm_offset": 0,
  "sysparm_limit": 1,
  "return_count": 1,
  "total_count": 1
}
```

Device Identification Engine

HTTP Method

POST

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/IdentificationEngine
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/IdentificationEngine
```

This operation handles all creates and updates to the CMDB. This operation incorporates Identification Engine and uses the Identification and Reconciliation framework to properly import devices into the CMDB as a configurable discovery source. SL1 uses the classification GET to populate the JSON object.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
test	true

Example (Request URL)

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/
IdentificationEngine?test=true
```

Example (Body)

```
[
  {
    "items": [
      {
        "className": "cmdb_ci_linux_server",
        "values": {
          "name": "Postman Test Server 1",
          "serial_number": "9876EFGH",
          "mac_address": "BF:D4:D6:6E:56:F1",
          "ip_address": "10.10.10.4",
          "ram": "16000",
          "x_sclo_scilogic_region": "ScienceLogic",
          "x_sclo_scilogic_id": "1"
        }
      }
    ]
  },
  {
    "items": [
      {
        "className": "cmdb_ci_linux_server",
        "values": {
          "name": "Postman Test Server 2",
          "serial_number": "HGFE6789",
          "mac_address": "87:54:3C:8C:2A:A3",
          "ip_address": "10.10.10.5",
          "ram": "16000",
          "x_sclo_scilogic_region": "ScienceLogic",
          "x_sclo_scilogic_id": "2"
        }
      }
    ]
  }
]
```

Example Business Service (Body)

```
[
{
"items": [
{
"className": "cmdb_ci_service",
"values": {
"name": "Integration Service",
"busines_criticality": "1 - most critical",
"used_for": "Production",
"operational_status": "1",
"service_classification": "Technical Service",
"comments": "Postman",
"x_sclo_scilogic_region": "ScienceLogic",
"x_sclo_scilogic_id": "1570"
}
},
{
"className": "cmdb_ci_linux_server",
"values": {
"name": "Postman Test Server",
"serial_number": "7MDvqrSNyd",
"manufacturer": "ScienceLogic, Inc.",
"model_id": "",
"mac_address": "EE:D6:0B:79:32:C7",
"ip_address": "10.10.10.224",
"ram": "16000",
"x_sclo_scilogic_region": "ScienceLogic",
"x_sclo_scilogic_id": "10"
}
}
],
"relations": [
{
"type": "Depends on::Used by",
"parent": 0,
"child": 1
}
]
}
]
```

Example (Response)

```
{
  "result": [
    {
      "items": [
        {
          "className": "cmdb_ci_linux_server",
          "operation": "NO_CHANGE",
          "sysId": "7fb39667dba12380dc44f00fbf961936",
          "identifierEntrySysId": "fb27f69cc3000200d8d4bea192d3ae67",
          "identificationAttempts": [
            {
              "identifierName": "Hardware Rule",
              "attemptResult": "SKIPPED",
              "attributes": [
                "serial_number",
                "serial_number_type"
              ],
              "searchOnTable": "cmdb_serial_number"
            },
            {
              "identifierName": "Hardware Rule",
              "attemptResult": "MATCHED",
              "attributes": [
                "serial_number"
              ],
              "searchOnTable": "cmdb_ci_hardware"
            }
          ]
        }
      ],
      "relations": [

      ]
    }
  ]
}
```

Discovery Dependents

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/discovery_dependent
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/discovery_dependent
```

This operation pulls all Discovery-dependent records that are tied to the ***region*** value, which is used for the catalog request process. Based on the request type, this operation returns a formatted JSON object. This operation pulls all the required information for both SL1 processes: Discovery Session and Create Virtual Device. Both requests require different information and are formatted accordingly.

The basic catalog item Device Discovery is set up as information collection to support the process within SL1. The Service Catalog has been simplified to its most basic form. The Service Catalog moves the request into the correct state to be picked up by the GET Request and then waits for its return before completing the workflow.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region (required)	ScienceLogic
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

HTTP Status	
Code	*Value*
200	OK
400	Query parameter \'region\' is not defined and is required.

Fixed Internal Query

Region Specific: 'region=' + region

Example

```
https://<your instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/discovery_
dependent?region=del_test&sysparm_offset=0&sysparm_limit=100
```

Example (Response)

```
{
    "results": [
        {
            "sys_updated_on": "2019-08-28 18:03:50",
            "type": "credential",
            "type_label": "Credentials",
            "sys_id": "0491aae51b273f0045c8db1dcd4bcbc2",
            "hostname": "example.com",
            "sys_updated_by": "is4user1",
            "sys_created_on": "2019-08-28 18:03:50",
            "name": "AppDynamics Example",
            "id": "93",
            "category": "soapCredentials",
            "region": "del_test",
            "sys_created_by": "is4user1"
        }
    ],
    "sysparm_offset": 0,
    "sysparm_limit": 1,
    "return_count": 1,
    "total_count": 150
}
```

File Systems

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/file_systems
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/file_systems
```

This operation pulls all the fields from the File System table. The return is ordered by **sys_id**, so the results display in the same order every time. The results are filtered by the ***SL1 monitored*** and ***SL1 ID*** field on the ServiceNow side. This operation requires the region to be supplied by the requester, it returns only region-supplied configuration items.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region (required)	ScienceLogic
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

HTTP Status	
Code	***Value***

200	OK
400	Query Parameter \'region\' is not defined and is required.

Fixed Internal Query

```
'x_sclo_scilogic_monitored=true^x_sclo_scilogic_idISNOTEMPTY^x_sclo_scilogic_region='
+ region
```

Example

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/file_
systems?region=ScienceLogic&sysparm_offset=0&sysparm_limit=100
```

Example (Response)

```
{
  "results": [
    {
      "operational_status": "1",
      "sys_updated_on": "2018-11-12 21:59:52",
      "media_type": "fixed",
      "sys_created_by": "admin",
      "sys_domain_path": "/",
      "sys_class_name": "cmdb_ci_file_system",
      "computer": "d83dac0adb4dab00dc44f00fbf961919",
      "x_sclo_scilogic_monitored": "true",
      "x_sclo_scilogic_region": "ScienceLogic",
      "sys_updated_by": "admin",
      "sys_created_on": "2018-11-12 21:59:06",
      "sys_domain": "global",
      "install_status": "1",
      "name": "/root",
      "subcategory": "File Share",
      "sys_id": "afd30ba0dbf5a380dc44f00fbf961951",
      "file_system": "ntfs",
      "sys_class_path": "/!!/!K/!!",
      "mount_point": "/root",
      "sys_mod_count": "3",
      "x_sclo_scilogic_id": "31",
      "label": "/root",
      "cost_cc": "USD",
      "category": "Resource"
    }
  ],
  "sysparm_offset": 0,
  "sysparm_limit": 100,
  "return_count": 1,
  "total_count": 1
}
```

Import Set

HTTP Method

POST

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/import_set
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/import_set
```

This operation handles the custom intake of import sets before it reaches the transform map staging table, such as x_sclo_scilogic_import_installed_software. This operations is currently only used for importing installed software (x_sclo_scilogic_import_installed_software).

Headers	
Key	***Value***
Accept	application/json
Content-Type	application/json

Parameters	
Key	***Value***
record_type (required)	x_sclo_scilogic_import_installed_software

Example (Request URL)

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/import_set
```

Example (Body)

```
[
  {
  "records": [
    {
      "name": "acl-2.2.51-12.el7",
      "software": "671bafd8dba13700dc44f00fbf961953",
      "cmdb_ci": [
        "ff01a81edb1df300dc44f00fbf961947",
        "4011a81edb1df300dc44f00fbf961958",
        "f301a81edb1df300dc44f00fbf96193d",
        "7b01a81edb1df300dc44f00fbf961942",
        "c411a81edb1df300dc44f00fbf96195d",
        "7701a81edb1df300dc44f00fbf961922",
        "7b01681edb1df300dc44f00fbf9619e7",
        "fb01a81edb1df300dc44f00fbf961927"
      ],
      "active": true
    }
    ]
  }
]
```

Incidents

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/incidents
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/incidents
```

This operation pulls all records from the incident table that are created by a specific **user_id** and its related events. The results are ordered by the **sys_id** of the incident, so the results display in the same order every time. This operation is also based on the incident being in an active state. This operation returns a pre-set of data and does not return everything on the Incident and Event (x_sclo_scilogic_event) tables.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
user_id (required)	is4user1
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

HTTP Status	
Code	***Value***

200	OK
400	Query Parameter \'user_id\' is not defined and is required.

Fixed Internal Query

```
‘sys_created_by=’ +  user_id + ‘active=true’
```

Example

```
https://<your Instance>.service-now.com/api/x_sclo_
scilogic/v1/sciencelogic/incidents?user_id=is4user1&sysparm_offset=0&sysparm_limit=100
```

Example (Response)

```
{
  "results": [
    {
      "sys_id": "0141807bdbb16300dc44f00fbf9619fc",
      "number": "INC0010135",
      "state": "2",
      "state_label": "In Progress",
      "events": [
        {
          "event_id": "16908",
          "device": {
            "sys_id": {

            }
          }
        },
        {
          "event_id": "16874",
          "device": {
            "sys_id": {

            }
          }
        },
        {
          "event_id": "16865",
          "device": {
            "sys_id": {

            }
          }
        }
      ]
    }
  ],
  "sysparm_offset": 0,
  "sysparm_limit": 1,
  "return_count": 1,
  "total_count": 44
}
```

Installed Software

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/installed_software
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/installed_software
```

This operation pulls all the fields from the software (cmdb_ci_spkg) table. The return is ordered by **sys_id**, so the results display in the same order every time. The results are filtered by the ***SL1 monitored*** field on the ServiceNow side. This operation requires the ***region*** to filter the installed software on devices.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region	ScienceLogic
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

HTTP Status	
Code	***Value***
200	OK

400	Query parameter \'region\' is not defined and are required.

Fixed Internal Query

'x_sclo_scilogic_monitored=true'

Example (Request URL)

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/installed_
software?sysparm_offset=0&sysparm_limit=100&region=ScienceLogic
```

```
Example (Response){
"results": [
{
"operational_status": "1",
"operational_status_label": "Operational",
"sys_updated_on": "2019-05-01 06:00:09",
"install_count": "2",
"sys_updated_by": "system",
"sys_created_on": "2019-03-29 19:42:58",
"sys_domain": "global",
"sys_created_by": "admin",
"sys_domain_path": "/",
"install_status": "1",
"install_status_label": "Installed",
"name": "Test_31",
"subcategory": "Package",
"sys_class_name": "cmdb_ci_spkg",
"sys_class_name_label": "Software",
"sys_id": "1e9608fcdb2cb740dc44f00fbf961949",
"sys_class_path": "/!!/#$",
"key": "Test_31_:::_NULL",
"license_available": "-2",
"sys_mod_count": "1",
"x_sclo_scilogic_id": "31",
"model_id": "2c146728dbe8b740dc44f00fbf9619c6",
"model_id_label": "Unknown",
"cost_cc": "USD",
"cost_cc_label": "USD",
"x_sclo_scilogic_monitored": "true",
"package_name": "Test_31",
"category": "Software",
"x_sclo_scilogic_region": "AutoGenerateClass",
"installed_on": [
{
"sys_id": "5a271407dbfe6300dc44f00fbf96190f",
"id": "10",
"region": "ScienceLogic",
"monitored": "true"
},
{
"sys_id": "5a271407dbfe6300dc44f00fbf96190f",
"id": "10",
"region": "ScienceLogic",
"monitored": "true"
}
]
}
],
"sysparm_offset": 0,
"sysparm_limit": 100,
"return_count": 4,
"total_count": 4
}
```

Manufacturer

HTTP Method

POST

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/manufacture
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/manufactures
```

This operation does not populate any data into ServiceNow. Instead, this operation takes an array of manufacturer names and attempts to line them up with manufacturers already in ServiceNow. Then the operation returns the sys_id of manufacturers it was able find based on matching name. If the Normalization Data Services Client is active on the target instance, this operation uses those tables to find a matching company record; otherwise the operation will match on whether name and manufacturer is true on the core_company table.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region (required)	ScienceLogic

Example (Request URL)

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/
manufacture
```

Example (Body)

```
{
"manufactures": [
"Cisco Systems Inc",
"Cisco Systems, Incorporated",
"CiscoSystems",
"American Power Conversion Inc.",
"APC Corp",
"Apc",
"IBM",
"IBM CORP",
"International Business Machines",
"Juniper Systems",
"Juniper Networks,Inc",
"Juniper Solutions"

]
}
```

Example (Response)

```
{
"result": {
"Cisco Systems Inc": "",
"Cisco Systems, Incorporated": "",
"CiscoSystems": "",
"American Power Conversion Inc.": "",
"APC Corp": "",
"Apc": "",
"IBM": "",
"IBM CORP": "",
"International Business Machines": "",
"Juniper Systems": "",
"Juniper Networks,Inc": "",
"Juniper Solutions": ""
}
}
```

Model

HTTP Method

POST

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/model
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/models
```

This operation does not populate any data into ServiceNow. Instead, this operation takes an array of model names and attempts to line them up with models already in ServiceNow and returns the sys_id of models it was able to find based on matching name.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region (required)	ScienceLogic

Example (Request URL)

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/models
```

Example (Body)

```
{
"models": [
"4331 ISR",
"7206VXR",
"7609S",
"AS5300",
"ASR5000",
"Catalyst 3560G-24TS",
"Catalyst 4948",
"Catalyst 6509-CatOS",
"BIG-IP Viprion B4300",
"F5 BIG-IP DNS",
"BIG-IP Wide IP Container",
"BIG-IP Data Center Container"
]
}
```

Example (Response)

```
{
"result": {
"4331 ISR": "",
"7206VXR": "",
"7609S": "",
"AS5300": "",
"ASR5000": "",
"Catalyst 3560G-24TS": "",
"Catalyst 4948": "",
"Catalyst 6509-CatOS": "",
"BIG-IP Viprion B4300": "",
"F5 BIG-IP DNS": "",
"BIG-IP Wide IP Container": "",
"BIG-IP Data Center Container": ""
}
}
```

Network Adapters

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/network_adapters
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/network_adapters
```

This operation pulls all the fields from the network adapter table. The return is ordered by **sys_id**, so the results display in the same order every time. The results are filtered by the ***SL1 monitored*** and ***SL1 ID*** field on the ServiceNow side. This operation requires the region to be supplied by the requester, and it only returns region-supplied configuration items.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region (required)	ScienceLogic
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

HTTP Status	
Code	***Value***

200	OK
400	Query Parameter \'region\' is not defined and is required.

Fixed Internal Query

```
‘x_sclo_scilogic_monitored=true^x_sclo_scilogic_idISNOTEMPTY^x_sclo_scilogic_region=’
+ region
```

Example (Request URL)

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/network_
adapters?region=ScienceLogic&sysparm_offset=0&sysparm_limit=100
```

Example (Response)

```
{
  "results": [
    {
      "operational_status": "1",
      "sys_updated_on": "2018-11-12 21:29:23",
      "sys_updated_by": "admin",
      "sys_created_on": "2018-11-12 21:27:48",
      "sys_domain": "global",
      "sys_created_by": "admin",
      "cmdb_ci": "d83dac0adb4dab00dc44f00fbf961919",
      "sys_domain_path": "/",
      "install_status": "1",
      "name": "eth0",
      "subcategory": "Network",
      "sys_class_name": "cmdb_ci_network_adapter",
      "sys_id": "33ac36acdbb5a380dc44f00fbf961963",
      "netmask": "255.255.255.0",
      "sys_class_path": "/!!/!8",
      "mac_address": "BF:D4:D6:6E:56:F1",
      "sys_mod_count": "3",
      "x_sclo_scilogic_id": "20",
      "ip_address": "10.10.10.4",
      "cost_cc": "USD",
      "x_sclo_scilogic_monitored": "true",
      "category": "Hardware",
      "x_sclo_scilogic_region": "ScienceLogic"
    }
  ],
  "sysparm_offset": 0,
  "sysparm_limit": 1,
  "return_count": 1,
  "total_count": 5
}
```

Service Requests

HTTP Method

GET

Pagination

Enabled

Resource Path

```
/api/x_sclo_scilogic/v1/sciencelogic/service_request
```

Default Resource Path

```
/api/x_sclo_scilogic/sciencelogic/service_request
```

This operation pulls all service requests that are tied to specific catalog item. Based on the request type it returns a formatted JSON object. It pulls all the required information for an SL1 Discovery session and creating a virtual device in SL1. Both requests require different information and are formatted accordingly.

The basic catalog item Device Discovery is set up as information collection to support the process within SL1. The Service Catalog has been simplified to its most basic form. The workflow moves the request into the correct state to be picked up by the GET request and then waits for its return before completing the workflow.

Headers	
Key	***Value***
Content-Type	application/json
Accept	application/json

Parameters	
Key	***Value***
region (required)	ScienceLogic
state	2
sysparm_offset	0
sysparm_limit	glide.json.export.limit, glide.ui.export.limit, glide.ui.export.war.threshold

HTTP Status	
Code	*Value*
200	OK
400	Query Parameter \'region\' is not defined and is required.

Fixed Internal Query

State:

```
‘request_item.active=true^request_item.cat_item=’ + catalog + ‘^sc_item_option.item_
option_new.name=Region^sc_item_option.value=’ + region
```

Non-State:

```
‘request_item.active=true^request_item.cat_item=’ + catalog + ‘^sc_item_option.item_
option_new.name=Region^sc_item_option.value=’ + region + ‘^request_item.state=’ +
state
```

Example

```
https://<your Instance>.service-now.com/api/x_sclo_scilogic/v1/sciencelogic/ service_
request?region=Cisco
```

Example (Response)

```
{
  "results": [
    {
      "number": "RITM0010018",
      "sysid": "00365de2db1a2340dc44f00fbf961941",
      "state": "2",
      "request_type": "Discover Device",
      "region": "Cisco",
      "log_all": "false",
      "ip_hostname_list": "167.132.14.15",
      "credentials": [
        {
          "Category": "Linux",
          "ID": "1"
        }
      ],
      "discover_non_snmp": "false",
      "model_devices": "true",
      "dhcp": "false",
      "device_model_cache_ttl_h": "2",
      "collection_server": "1",
      "organization": "1",
      "add_devices_to_device_groups": [
        "test"
      ],
      "device_template": "1",
      "initial_scan_level": "System Default (Recommended)",
      "scan_throttle": "System Default (Recommended)",
      "scan_ports": "21,22,23,25,80",
      "port_scan_all": "System Default (Recommended)",
      "port_scan_timeout": "System Default (Recommended)",
      "interface_inventory_timeout": "600000",
      "maximum_allowed_interfaces": "10000",
      "bypass_interface_inventory": "false"
    },
    {
      "number": "RITM0010016",
      "sysid": "194447e8db162f00dc44f00fbf96195b",
      "state": "2",
      "request_type": "Discover Device",
      "region": "Cisco",
      "log_all": "false",
      "ip_hostname_list": "192.168.1.1",
      "credentials": [
        {
          "Category": "Linux",
          "ID": "1"
        }
      ],
      "discover_non_snmp": "false",
      "model_devices": "false",
      "dhcp": "false",
      "device_model_cache_ttl_h": "2",
      "collection_server": "1",
      "organization": "1",
      "add_devices_to_device_groups": [

      ],
      "device_template": "1",
      "initial_scan_level": "System Default (Recommended)",
      "scan_throttle": "System Default (Recommended)",
      "scan_ports": "21,22,23,25,80",
      "port_scan_all": "System Default (Recommended)",
      "port_scan_timeout": "System Default (Recommended)",
      "interface_inventory_timeout": "600000",
      "maximum_allowed_interfaces": "10000",
      "bypass_interface_inventory": "false"
    },
    {
      "number": "RITM0010014",
      "sysid": "250dae2cdbd22f00dc44f00fbf961954",
      "state": "2",
      "request_type": "create_virtual_device",
      "region": "Cisco",
      "collection_server": "1",
      "virtual_device_class": "1"
    }
  ]
}
```

Appendix C

ServiceNow Registered Events

Overview

This appendix describes the commands and data you can use to generate registered events in ServiceNow that are queued to ServiceNow Event Management. These events can trigger actions in the Integration Service, such as specifying one or more CIs for monitoring, or putting a CI into maintenance.

These events use the `gs.eventQueue` command, using the following format:

```
eventQueue(String name, Object instance, String parm1, String parm2)
```

You can use examples found in the following ServiceNow update sets to help you customize the `gs.eventQueue` command to specify which ServiceNow events can trigger Integration Service actions:

- ScienceLogic ServiceNow Integration (Catalog UI)
- ScienceLogic ServiceNow Integration (Maintenance Mode)
- ScienceLogic ServiceNow Integration (Maintenance Schedule) Example

You will need to install these update sets in ServiceNow.

> **NOTE:** This appendix is recommended for advanced ServiceNow administrators.

This appendix includes the following topics:

Catalog Item Events

The following events are available through the "ScienceLogic ServiceNow Integration (Catalog UI)" update set in ServiceNow.

x_sclo_scilogic.device_monitoring

This event takes the selected Configuration Items in ServiceNow, files a catalog request using the template selected by the user, and submits the catalog request.

Trigger

Custom requirement supplied by ScienceLogic implementation or the Customer directly.

Command

```
gs.eventQueue('x_sclo_scilogic.device_monitoring', region, ip_list.toString(),
region.getUniqueValue() + "," + region.x_sclo_scilogic_region + "," + silo_template);
```

Event Fields

Field	***Description***
`x_sclo_scilogic.device_monitoring`	Unique name of the event.
`region`	The table to which the event applies.
`ip_list.toString()`	Parm1: The IP, or a comma-separated list of IP addresses, that is pulled from the `ip_address` field on the **cmdb_ci** table.
`getCompany.getUniqueValue(), silo_template`	Parm2: List of three requirements that the `sys_id` of the company associated with the Configuration Item and the catalog template selected through the user interface action.

Example

The UI action / UI page is available through the "ScienceLogic ServiceNow Integration (Catalog UI Action)" update set.

x_sclo_scilogic.remove_monitoring

This action takes the selected Configuration Item or Items and submits a request through the ServiceNow service catalog for each Configuration Item.

Trigger

Custom requirement supplied by ScienceLogic implementation or the Customer directly.

Command

```
gs.eventQueue('x_sclo_scilogic.remove_monitoring',current, current.getUniqueValue(),
current.company);
```

Event Fields

Field	*Description*
`x_sclo_scilogic.remove_monitoring`	Unique name of the event.
`current`	The table to which the event applies.
`current.getUniqueValue()`	Parm1: The `sys_id` of the Configuration Item that needs to be removed
`current.company);`	Parm2: The `sys_id` of the company that is associated with the Configuration Item.

Example

The UI action / UI page is available through the "ScienceLogic ServiceNow Integration (Catalog UI Action)" update set.

Maintenance Mode Events

The following event is available through the "ScienceLogic ServiceNow Integration (Maintenance Mode)" update set in ServiceNow.

x_sclo_scilogic.device_maintenance

This event submits a list of devices to be put in to Maintenance via the Mid Server.

Trigger

Custom requirement supplied by ScienceLogic implementation or the Customer directly.

Command

```
gs.eventQueue('x_sclo_scilogic.device_maintenance',current, action, affected_ci);
```

Event Fields

Field	***Description***
`x_sclo_scilogic.device_maintenance`	Unique name of the event.
`current`	The table to which the event applies.
`action`	Parm1: An array that includes action to be performed (enable_maintenance or disable_maintenance) and the `sys_id` of the task. Task is not required, but the action is.
`affected_ci`	Parm2: An array of device sys_ids that need to be enable or disabled maintenance mode.

Example

Business rule (ScienceLogic ServiceNow Integration (Maintenance Mode Business rule)).

Maintenance Schedule Events

The following event is available through the "ScienceLogic ServiceNow Integration (Maintenance Schedule) Example" update set in ServiceNow.

x_sclo_scilogic.device_maintenance_skd

This event submits a list of devices and creates or cancels scheduled maintenance via the Mid Server.

Trigger

Custom requirement supplied by ScienceLogic implementation or the Customer directly.

Command

```
gs.eventQueue('x_sclo_scilogic.device_maintenance_skd',current, 'schedule',
current.getUniqueValue());
```

Event Fields

Field	***Description***
`x_sclo_scilogic.device_maintenance_skd`	Unique name of the event.
`current`	The table to which the event applies.
`'schedule'`	Parm1: Accepts two variables: *schedule* or *cancel*. - **[schedule]**. Creates a schedule in SL1. - ***cancel***: Deletes any currently scheduled maintenance.
`current.getUniqueValue())`	Parm2: An array of device `sys_id` values that need to be enabled or disabled for maintenance mode.

Example

The UI action / UI page is available via the "ScienceLogic ServiceNow Integration (Maintenance Schedule) Example" update set.

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ScienceLogic

800-SCI-LOGIC (1-800-724-5644)

International: +1-703-354-1010