



SOAR-TVM Module

ServiceNow Integration Guide

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Solution Overview

Rsam's integration with ServiceNow allows customers to import assets, tickets and vulnerability data. The data imported from ServiceNow will be merged with records and objects in any of the Rsam modules.

The aggregation of this data gives context to your vulnerability results and other findings, drives prioritization of risk mitigation efforts and provides deeper insight into and a simplified way of reporting on overall organizational risk.

All API connections include an interface to directly connect to your ServiceNow console, allowing you to import data by selecting a ServiceNow table or view. Rsam offers this out-of-the-box configuration in the Rsam platform and provides an interface for customers to create their own imports.

Prerequisites for ServiceNow Integration

The following are the prerequisites for Rsam-ServiceNow integration:

1. The ServiceNow account used to access your console from Rsam must have the following roles:
 - rest_api_explorer
 - snc_platform_rest_api_access
 - web_service_admin
2. The Rsam instance must have the URL of the ServiceNow instance updated in the RSAM Options. Follow the steps given below to update the ServiceNow instance URL:
 - a. In the Administration module, navigate to **Options > RSAM Options**.
 - b. Select **Data Import Options** from the **Option Categories** drop-down list.
 - c. Update the instance-name text in the **Service Now Instance URL** field, with the name of your ServiceNow instance you wish to import data from. Please ensure `.service-now.com/api/now/v1/table` is included after your instance name.

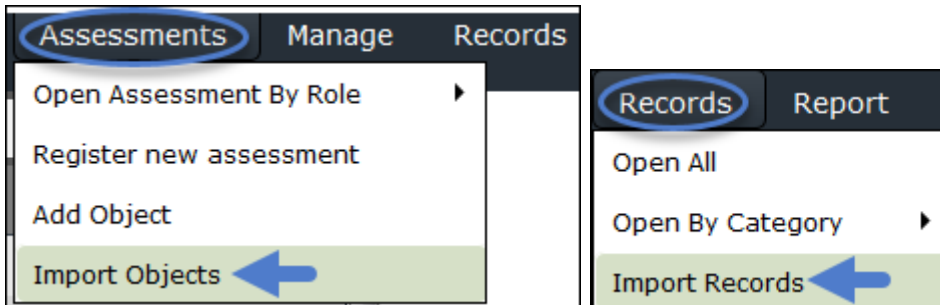
RSAM Options	
Option Categories	
Data Import Options	
Default Unique ID value (LDAP attribute)	
Default Unique ID value (Time attribute)	
Default Unique ID value (Currency attribute)	
Default Unique ID value (IPv4 attribute)	
Default Unique ID value (IPv6 attribute)	
Default Unique ID value (GeoLocation attribute)	
Security Center 5 URL	https://host_UH/rest
Nexpose Console URL	https://host-port/api/1.1/xml
Service Now Instance URL	https://instance-name.service-now.com/api/now/v1/table
Delimiter to use for export CSV	,
Qualys V2 API URL	https://qualysapi.qualys.com/

- d. Click **Save Options**. You may have to log out of Rsam and log back in for the change to take effect.

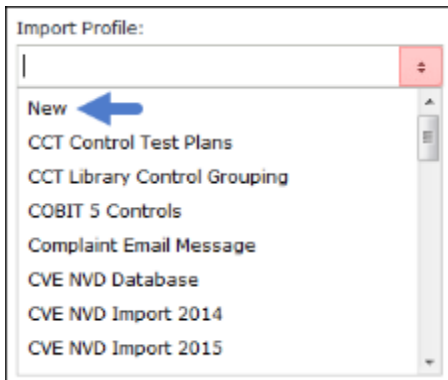
Accessing the ServiceNow API

To access the ServiceNow API, perform the following steps:

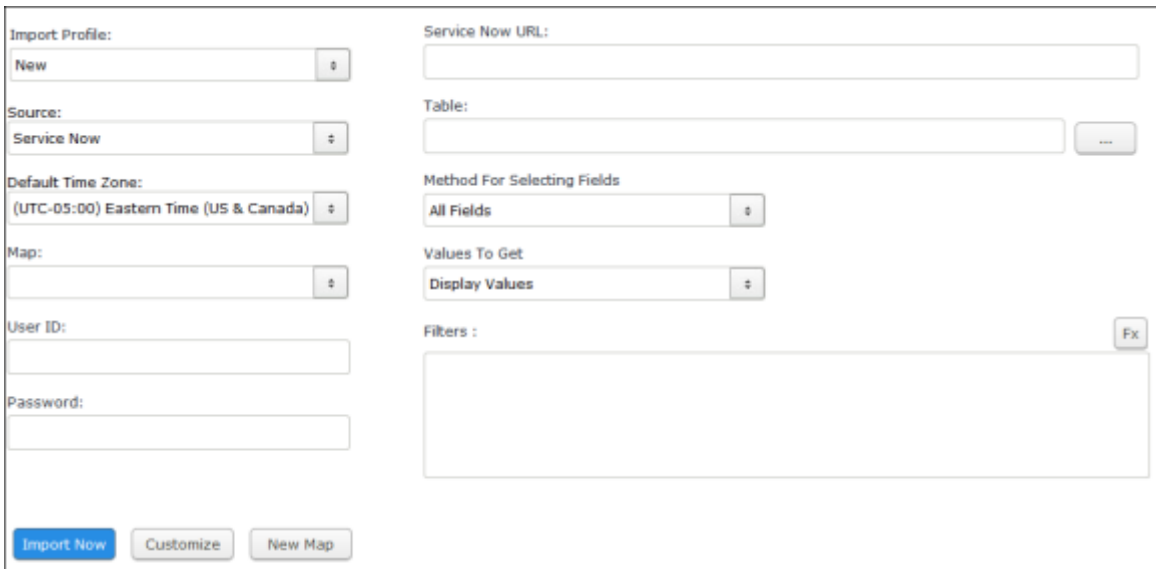
1. Log in to Rsam as an administrator, or a user account that has privileges to import objects and records.
2. To import asset data, navigate to **Assessments** > **Import Objects**. To import data such as vulnerabilities or tickets, navigate to **Records** > **Import Records**.



3. Select **New** from the **Import Profile** drop-down list. Initially, you need to configure a profile and save it to schedule imports in future, if required.

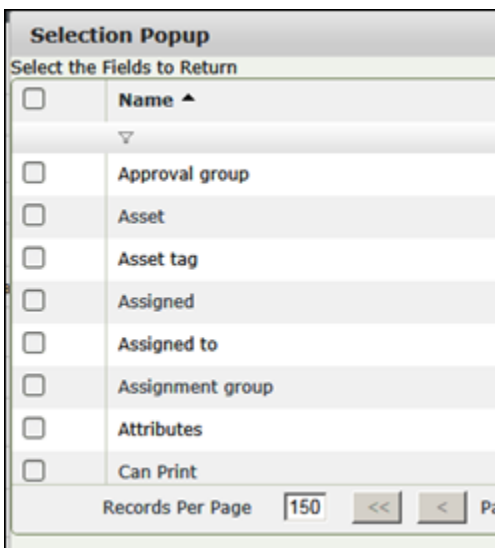


4. Select **ServiceNow** from the **Source** drop-down list. The API interface will be displayed.
5. Enter user credentials in the **User ID** and **Password** fields.



Note: The URL of the ServiceNow instance set in the **RSAM Options > Data Import Options** will appear in the Service Now URL field.

6. Click the [...] select icon on the right side of the **Table** field. In the pop-up that appears, select the table from where you want to import data.




Please see the [ServiceNow REST API Explorer](#) section for suggestions that will help you determine your table selection.


7. Select the option from the **Method for Selecting Fields** drop-down list.
 - a. **All Fields** – Returns all fields from the selected table.



Method For Selecting Fields

All Fields

- b. **Specific Fields** – Select the fields that you wish to import. Click the  select icon on the right side of the **Fields to Return** field. Select the check boxes for the desired fields and click **Select**.

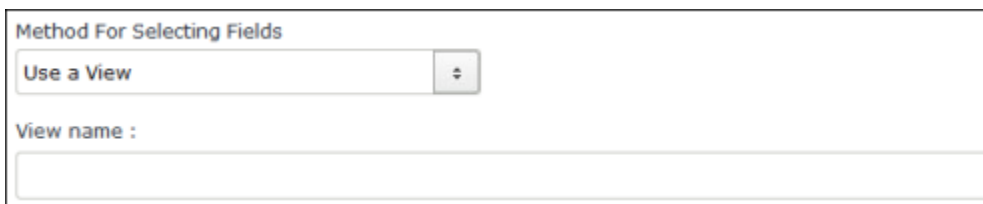


Method For Selecting Fields

Specific Fields

Fields To Return:

- c. **Use a View** – Returns fields defined in a specified UI view. Manually enter the name of the view.



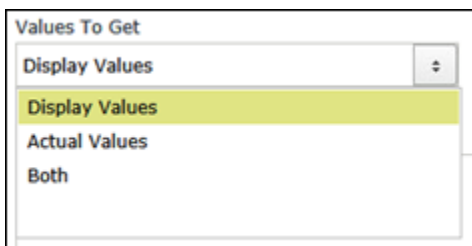
Method For Selecting Fields

Use a View

View name :

- 8. Select the format in which the data should be returned, from the **Values To Get** drop-down list.

- a. **Display Values** – Returns the user-friendly value for each field, as displayed to the end user in the ServiceNow GUI.
- b. **Actual Values** – Returns the value for each field in the format defined by the ServiceNow database schema.
- c. **Both** – Returns both the user-friendly value and value defined by the ServiceNow database schema. This may return data in an XML format that does not allow proper mapping.



Values To Get

Display Values

Display Values


Actual Values

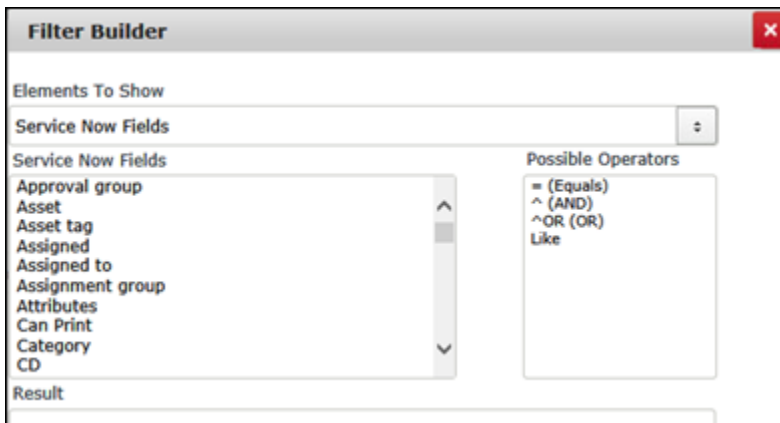
Both

For example, the Operational Status field is presented as drop-down list in the ServiceNow GUI. The user’s selection is stored as a numeric value in the ServiceNow database. Selecting ‘Display Value’ will return the text ‘Operational’, but the ‘Actual Value’ selection will return the number ‘1’.

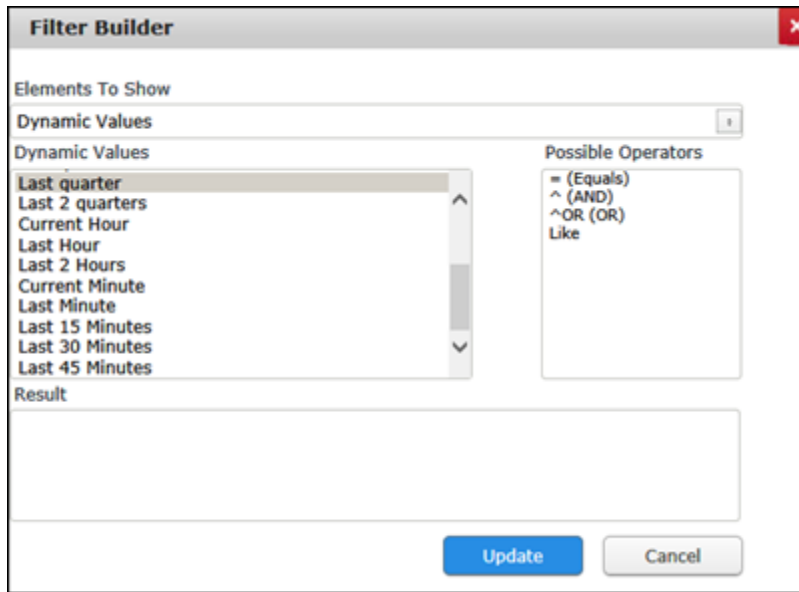
```
<operational_status>
  <display_value>Operational</display_value>
  <value>1</value>
```

9. (Optional). Apply filters to ServiceNow field(s) to limit the data returned using manually entered values and/or dynamic values.

- a. Click the  select icon on the right side of the Filter field.
- b. Select **ServiceNow Fields** from the Elements to Show drop-down list.
- c. Double-click the desired ServiceNow field in the Service Now Fields list box.
- d. Double-click the desired operator listed in the Possible Operators box.



- e. Manually enter the value to filter on, or use a dynamic filter. Select **Dynamic Values** from the Elements To Show drop-down list and double-click the desired filter in the Dynamic Values list box. Multiple filters can be applied by selecting the ^ (AND) or ^OR (OR) operators.




- f. When done, click **Update**.

Importing Sample Data

Customers can import data from various ServiceNow tables that they have access to. In this section, we will walk you through the steps on how to import asset data from the Computer and Business Applications tables. Additional tables that contain valuable asset information are: `cmdb_ci_server`, `cmdb_ci_application` and `cmdb_ci_database`.


Importing Assets

The following steps walk you through the procedure to import asset data from the `cmdb_ci_computer` table.

1. Navigate to the Import Objects interface.
2. Select **New** from the **Import Profile** drop-down list.
3. Select **ServiceNow** from the **Source** drop-down list.
4. Select **V: ServiceNow_API (v.1 – cmdb_ci_computer)** from the **Map** drop-down list.
5. Enter user credentials in the **User ID** and **Password** fields.
6. Click the  select icon on the right side of the **Table** field and select the **Computer** table from the pop-up that appears.
7. Select **All fields** from the **Method for Selecting Fields** drop-down list.
8. Select **Display Values** or **Actual Values** from the **Values to Get** drop-down list.
Note: Predefined maps will not work for this import when the **Both** option is selected.
9. (Optional). Select any filters that you want to apply to the data.
10. Click **Import Now** to start the import with current selections. If you want to modify other settings, click **Customize**.

Importing Business Applications

The following steps walk you through the procedure to import asset data from the `cmdb_ci_business_applicable` table.

1. Navigate to the Import Objects interface.
2. Select **New** from the **Import Profile** drop-down list.
3. Select **ServiceNow** from the **Source** drop-down list.
4. Select **V: ServiceNow_API (v.1 – cmdb_ci_business_application)** from the **Map** drop-down list.
5. Enter user credentials in the **User ID** and **Password** fields.
6. Click the  select icon on the right side of the **Table** field and select the **Computer** table from the pop-up that appears.
7. Select **All fields** from the **Method for Selecting Fields** drop-down list.
8. Select **Display Values** or **Actual Values** from the **Values to Get** drop-down list.
Note: Predefined map will not work for this import when the **Both** option is selected.
9. (Optional). Select any filters that you want to apply to the data.
10. Click **Import Now** to start the import with current selections. If you want to modify other settings, click **Customize**.

For more detailed import steps, refer to the [Accessing the ServiceNow API](#) section. For information on predefined import maps, refer to the [Appendix 1: Predefined Import Maps](#) section.

Managing Import Maps

Refer to the [Appendix 1: Predefined Import Maps](#) section for the list of predefined maps available for each import mode.

For more information on reviewing and/or updating the predefined maps, refer to the document titled *Supplemental Integration Guide – Managing TVM Import Mappings*.

Appendix 1: Predefined Import Maps

V: SERVICENOW_API (v.1 – cmdb_ci_computer)

Unique ID: Object Name

Rsam Attribute	Path
Object Name	/SERVICE_NOW/result/name
SYS: Last Scanned Date	/SERVICE_NOW/result/last_discovered
SYS: Make/Model	/SERVICE_NOW/result/model_id
SYS: Party Responsible for Support	/SERVICE_NOW/result/supported_by
SYS: Serial Number	/SERVICE_NOW/result/serial_number
SYS: System ID	/SERVICE_NOW/result/sys_id
SYS: System Type	/SERVICE_NOW/result/category
U: Object Description	/SERVICE_NOW/result/short_description
VM: Asset Tags	/SERVICE_NOW/result/attributes
VM: Host Asset Label	/SERVICE_NOW/result/asset_tag
VM: Host Device Class	/SERVICE_NOW/result/sys_class_name
VM: Host Domain	/SERVICE_NOW/result/os_domain
VM: Host Family	/SERVICE_NOW/result/manufacturer
VM: Host IP Address	/SERVICE_NOW/result/ip_address
VM: Host Location	/SERVICE_NOW/result/location
VM: Host MAC Address	/SERVICE_NOW/result/mac_address
VM: Host Name - DNS	/SERVICE_NOW/result/fqdn

Rsam Attribute	Path
VM: Host OS	/SERVICE_NOW/result/os
VM: Host Status	/SERVICE_NOW/result/operational_status
VM: Host Vendor	/SERVICE_NOW/result/vendor
VM: Host Version	/SERVICE_NOW/result/os_version
VM: Vulnerability Manager	/SERVICE_NOW/result/owned_by
VM: Vulnerability Owner	/SERVICE_NOW/result/assigned_to

V: SERVICENOW_API (v.1 – cmdb_ci_business_application)

Unique ID: System ID

Rsam Attribute	Path
Object Name	/SERVICE_NOW/result/name
SYS: Architecture Type	/SERVICE_NOW/result/architecture_type
U: Areas Used By	/SERVICE_NOW/result/apm_business_process
SYS: Audience Type	/SERVICE_NOW/result/audience_type
U: Description	/SERVICE_NOW/result/short_description
SYS: Install Status	/SERVICE_NOW/result/install_status
SYS: Install Type	/SERVICE_NOW/result/install_type
SYS: Name	/SERVICE_NOW/result/name
SYS: Platform	/SERVICE_NOW/result/platform
SYS: Respondent	/SERVICE_NOW/result/it_application_owner
SYS: System ID	/SERVICE_NOW/result/sys_id
SYS: System Type	/SERVICE_NOW/result/application_type
SYS: Technology Stack	/SERVICE_NOW/result/technology_stack
SYS: User Base	/SERVICE_NOW/result/user_base
VM: Web URL	/SERVICE_NOW/result/url

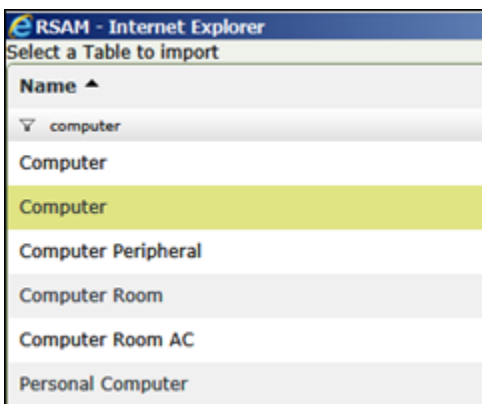
Rsam Criticality Factor	Path
SNOW: Business Criticality	/SERVICE_NOW/result/business_criticality
SNOW: Data Classification	/SERVICE_NOW/result/data_classification
SNOW: Emergency Tier	/SERVICE_NOW/result/emergency_tier

Appendix 2: ServiceNow REST API Explorer

ServiceNow offers a feature in the ServiceNow console that allows you to simulate the API call executed by Rsam. This will help you to validate the selections you make in Rsam and help understand the data that will be returned by Rsam based on these selections.

1. Open the ServiceNow console.
2. Under **System Web Services**, expand **REST** and select **REST API Explorer**.
3. Select the drop-down box next to the `tableName` field and enter a table name.

Note: Some tables start with the same name. The order the tables listed in the REST API Explorer match the order shown in the pop-up.



- You can also use the Query Parameters to simulate the data returned using the options offered in the Rsam interface, such as the display values, fields and views.

Query parameters		
Name	Value	Description
sysparm_display_value	<input type="text"/>	Return field display values (true), actual values (false), or both (all) (default)
sysparm_fields	<input type="text"/>	A comma-separated list of fields to return in the response
sysparm_view	<input type="text"/>	Render the response according to the specified UI view (overridden by sysparm_fields)

- Under the **Request Headers** section, select **application/xml** in the Request format and Response format fields.

Request headers		
Name	Value	Description
Request format	application/xml	Format of REST request body
Response format	application/xml	Format of REST response body
Authorization	Send as me	Send the request as the current user. To send the request with another user's credentials use the provided code samples, such as cURL.

- Click **Send** and review the **Response Body** returned.

Status code	200 OK
Headers	
Cache-control	no-cache, no-store, must-revalidate, max-age=1
Content-encoding	gzip
Content-type	application/xml; charset=UTF-8
Date	Tue, 06 Feb 2018 19:33:49 GMT
Expires	0
Link	<https://dev27395.service-now.com/api/now/table/cmdb_ci_computer?sysparm_limit=10&sysparm_offset=0>;rel="first", <https://dev27395.service-now.com/api/now/table/cmdb_ci_computer?sysparm_limit=10&sysparm_offset=10>;rel="next", <https://dev27395.service-now.com/api/now/table/cmdb_ci_computer?sysparm_limit=10&sysparm_offset=650>;rel="last"
Pragma	no-store, no-cache
Server	ServiceNow
Strict-transport-security	max-age=63072000; includeSubDomains
Transfer-encoding	chunked
X-is-logged-in	true
X-total-count	656
X-transaction-id	08221ba040
Response Body	
<pre><?xml version="1.0" encoding="UTF-8"?><response><result><os_address_width></os_address_width><skip_sync>false</skip_sync><operational_status>1</operational_status></result></response></pre>	

Appendix 3: Help and Support

To get familiar with specific Rsam features or to read in-depth information about any topic, access the following documentation:

- End-User Help
- Administrator Help
- Platform Step-by-Step Tutorials
- SOAR-TVM Step-by-Step Tutorial

If you still have any questions, contact **Rsam Technical Support**.