



# ServiceNow Integration

with Jamf



# **CONTENT**

- \* Why is Service Graph Connector Program**
- \* Service Graph Connector for Jamf**
- \* Data Mapping**
- \* Target Tables into ServiceNow**
- \* Configure Service Graph Connector for Jamf**
- \* Navigation Bar for Jamf**
- \* Steps for Jamf Integration**
- \* Configure the Properties for Jamf**
- \* Configure Credentials for Jamf**
- \* Test Connection**
- \* Scheduled the Data Imports of Jamf**

# Why is Service Graph Connector Program

Service Graph Connector is plug and play method to bring 3rd party data correctly and quickly into CMDB

With Service Graph, third-party data now powers an ever-expanding set of missioncritical capabilities—everything from application portfolio rationalization, DevOps pipeline automation, and autonomous cloud operations through to risk assessment and mitigation, service ROI assessment, and more. Because of this, data quality, timeliness, and ingestion scalability are more critical than ever.

The Service Graph Connector Program is designed to ensure this data quality, timeliness, and scalability. It does this by applying systematic use case validation,

CSDM governance, and design best practices to Service Graph Connector development. Some examples include:

- Consistently associating data with specific Configuration Item (CI) types—for instance, always assigning IP addresses to network interfaces rather than a mix of interfaces and servers. This ensures that client applications know where to find data.
- Using the ServiceNow® Identification and Reconciliation (IRE) engine to correctly identify and classify data before it is loaded into Service Graph. This prevents duplicate CIs and ensures that attribute values are consistent across multiple data sources.
- Using ServiceNow® integration Hub ETL functionality so that data is transformed and loaded in the fastest and most efficient manner.
- Using ServiceNow® Service Graph multisource engine which enables customers to understand the context of the CI, compare data from different sources and easily revert if data issues are encountered—leading to easier data and better data quality.

# Service Graph Connector for JAMF

Use the Service Graph Connector for Jamf to pull data from the Jamf into your ServiceNow instance.

The Service Graph Connector for Jamf pulls data from computers, disks, networks, and software into the ServiceNow® Configuration Management Database (CMDB) application.

ServiceNow provides : -

- Guided Setup
- CMDB Integration Dashboard
- Data Mappings

\*\*\*Bring macOS and iOS hardware and software application data into CMDB



# Data Mapping

Data from the Jamf data source is mapped and transformed into the ServiceNow CMDB Configuration Item (CI) class definitions using the Robust Transform Engine (RTE). Data is inserted into the ServiceNow CMDB using the Identification and Reconciliation Engine (IRE).

When you complete the guided setup, you can configure the integration to periodically pull data from Jamf.

The data is loaded into the following tables:

- SG-Jamf Computers [sn\_jamf\_integrate\_sg\_jamf\_computers] staging table
- SG-Jamf Lookup Mac Software Bundle Ids [sn\_cmdb\_int\_util\_mac\_software\_bundleid\_lookup] table. If you want to view the publisher information for applications installed on Mac devices, run this table before running SG-Jamf Computers or SG-Jamf Mobile Devices.
- SG-Jamf Mobile Devices [sn\_jamf\_integrate\_sg\_jamf\_mobile\_devices] table
- SG-Jamf Remove Computers Software [sn\_jamf\_integrate\_jamf\_remove\_software] table  
Note: Removes the imported computer software data that were later deleted from the source.
- SG-Jamf Remove Mobile Software [sn\_jamf\_integrate\_remove\_mobile\_software] table  
Note: Removes the imported mobile software data that were later deleted from the source.
- SG-Jamf Software Usage [sn\_jamf\_integrate\_jamf\_software\_usage] table

# Target Tables into ServiceNow

The data is then inserted into the following target tables:

- CI Relationship [cmdb\_rel\_ci]
- Computer [cmdb\_ci\_computer]
- Disk [cmdb\_ci\_disk]
- Handheld Computing device [cmdb\_ci\_handheld\_computing]
- IP Address [cmdb\_ci\_ip\_address]
- Network Adapter [cmdb\_ci\_network\_adapter]
- Printer [cmdb\_ci\_printer]
- Serial Number [cmdb\_serial\_number]
- Software [cmdb\_ci\_spkg]
- Software Installation [cmdb\_sam\_sw\_install]
- Software Instance [cmdb\_software\_instance]
- Software Usage [samp\_sw\_usage]

Note: For the Computer [cmdb\_ci\_computer] and Handheld Computing device [cmdb\_ci\_handheld\_computing] data sources, if you created multiple Jamf instances and want to know where the CIs originated from, you can identify the origins from the Key and Value columns. Additionally, you can view the Jamf Extension Attributes [sn\_jamf\_integrate\_extension\_attribute] and Most recent discovery [last\_discovered] fields in both data sources.

# Configure Service Graph Connector for Jamf

Set up authentication credentials and a scheduled job to import Jamf data into your CMDB.

1.) Install Plugin of Service Graph Connector for Jamf (Id: **sn\_jamf\_integrate**)

2.) Navigate to All > Service Graph Connector > Jamf > Setup

## 2.a) Configure the Properties

**Configure transform JSON max partial length** - com.glide.transform.json.max-partial-length (value : 65536)

**Note** - You must add this system property to set the desired value.

When you synchronize third-party learning content with your ServiceNow instance, if the word count of the content being pulled into your instance exceeds the value set for this property, the synchronization will fail.

**Filter personal applications** - By default, SG-Jamf imports all applications records. To import only managed application records, set the sn\_jamf\_integrate.import\_managed\_apps\_only property value to true.

## 2.b) Configure the Connection

**i.) Select JAMF Pro version and API** - Select JAMF Pro version or Use JAMF Pro API

**ii.) Configure Jamf authentication credentials** - Use Jamf User Name & Password

**Note:** The Jamf user must have a role with read privileges for Computers so that the integration can pull computer data.

The Jamf user must have a role with read privileges for Mobile Devices so that the integration can pull mobile device data.

**iii.) Configure Jamf HTTP connection** - Update the Connection URL field with the base URL. The base URL is the hostname or IP address of your Jamf instance. The Connection URL field should follow the format https://<Insert Base URL>

3.) Test the connection to the JAMF

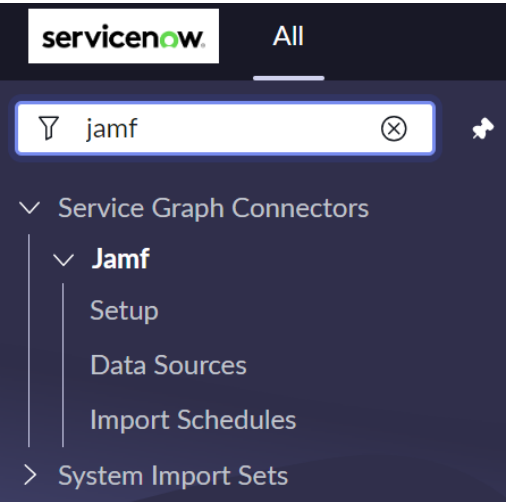
(Test the connection from guided setup or from Data Source by Click **Test Load 20 Records** related links from the Data Sources of Jamf)

4.) After successful connection, Run Scheduled Data Imports of Parent Data Source to load the data into ServiceNow CMDB.

**Note :** - Service Graph Connector provides OOTB Robust Transform Map functionality to populate data into multiple CMDB tables

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# Navigation Bar for Jamf



After Installation of the Plugin of Service Graph Connector for Jamf, Setup the properties & Credentials for the connection of ServiceNow and Jamf

All > Application = Service Graph Connector for Jamf		
<input type="checkbox"/>	Name <sup>▲</sup> name	Type type
	<input type="text" value="Search"/>	<input type="text" value="Search"/>
	<a href="#">SG-Jamf Computers</a>	Custom (Load by Script)
	<a href="#">SG-Jamf Mobile Devices</a>	Custom (Load by Script)
	<a href="#">SG-Jamf Remove Computers Software</a>	Custom (Load by Script)
	<a href="#">SG-Jamf Remove Mobile Software</a>	Custom (Load by Script)

## Data Sources

## Import Schedules

All > Application = Service Graph Connector for Jamf		
<input type="checkbox"/>	Name name	Run run_type
	<input type="text" value="Search"/>	<input type="text" value="Search"/>
	<a href="#">SG-Jamf Computer</a>	Daily
	<a href="#">SG-Jamf Mobile Devices</a>	After Parent Runs
	<a href="#">SG-Jamf Remove Mobile Software</a>	Daily
	<a href="#">SG-Jamf Remove Computers Software</a>	Daily
	<a href="#">SG-Jamf Lookup Mac Software Bundle Ids</a>	After Parent Runs





# Steps for Jamf Integration




## Configure the Properties

Configure transform JSON max partial length

<

≡

System Property  
com.glide.transform.json.max-partial-length | sys\_properties [scratchpad][table fields][toggle label]


   

\* Name | name

com.glide.transform.json.max-partial-lengt

Application |  
sys\_scope



Global

Description |   
description

Choices | choices

Type | type

string | string

Value | value  

65536

**i.) Configure transform JSON max partial length** - Switch to the 'global' scope.

Create or set System Property (sys\_properties) with name "com.glide.transform.json.max-partial-length" and set its value to "65536".

NOTE: This property is required for transform to work.

**ii.) Filter personal applications** - By default, SG-Jamf imports all applications records. To import only managed application records records, set the sn\_jamf\_integrate.import\_managed\_apps\_only property value to true.

NOTE: Enabling this property will import only managed application.

## Configure the Connection

Select JAMF Pro version and API

**JAMF Connections**  
 Created 2021-06-21 07:28:55 | `sn_jamf_integrate_connections` [\[scratchpad\]](#) [\[table fields\]](#) [\[toggle label\]](#)

✱ Connection Alias | `connection_alias`

Use JAMF Pro API | ☒  
`use_jamf_pro_api`

Jamf Pro 10.35 or higher | ☒  
`use_token_auth`

### Select JAMF Pro version

Set the value of 'Jamf Pro 10.35 or higher' to true if your JAMF instance is version v10.35 or higher.

### Use JAMF Pro API

- Set the value of 'Use JAMF Pro API' to true in order to enable use of Jamf Pro API for querying Computer records. This new Jamf Pro API supports pagination of response data and is expected to provide significant performance improvement over Jamf Classic API.
- In order to setup the endpoint URI for the new Jamf Pro API, please ensure that the Base Path field is clear when configuring Jamf HTTP Connection in the following step.

For more information about the Jamf API, see the Jamf Developer documentation.

## Configure the Connection

### i.) Configure Jamf authentication credentials

#### Configure Jamf authentication credentials

< ≡ Basic Auth Credentials | Jamf Credential | basic\_auth\_credentials [scratchpad][table fields][toggle label]

Name | name Jamf Credential Order | order

User name | user\_name jamfexample

Password | password .....

#### Configure Jamf HTTP connection

< ≡ HTTP(s) Connection | http\_connection [scratchpad][table fields][toggle label]

\* Name | name

Credential | credential Jamf Credential

A connection alias resolves your connection and credential at runtime. Only one Connection is active per Connection Alias at a time. [More Info](#)

\* Connection alias | connection\_alias sn\_jamf\_integrate.SG\_Jamf\_Connection

Manually enter your connection URL or use the URL builder to build the connection string. [More Info](#)

URL builder | url\_builder ☒

Connection URL | connection\_url https://<base\_url>  
Auto populate from Host <base\_url>

Mutual authentication | mutual\_auth ☐

\* Protocol | protocol https

Use MID server | use\_mid ☐

Active | active ☒

Domain | sys\_domain global

\* Host | host <base\_url>

Override default port | port

Base path | base\_path

### ii.) Configure Jamf HTTP connection

## Test Connection

Data Source  
SG-Jamf Computers | sys\_data\_source [scratchpad][table fields][toggle label]

\* Name | name SG-Jamf Computers

Application | sys\_scope Service Graph Connector for Jamf

Import set table label | SG-Jamf Computer

import\_set\_table\_label

\* Import set table name | sn\_jamf\_integrate\_sg\_jamf\_computers

import\_set\_table\_name

\* Type | type Custom (Load by Script) | CUSTOM

Data in single column | ☒

data\_in\_single\_column

Use Batch Import | use\_batch\_import ☐

Data Loader | data\_loader



```
1 (function loadData(import_set_table) {
2   var connectionAlias = new GlideRecord("sys_alias");
3   connectionAlias.get("c0d869400fd55010d041436eef767e7e"); ***when need to check Jamf Credentials
4   new JAMFDataSourceUtil().loadComputerData(import_set_table, connectionAlias);
5 })(import_set_table);
```

Update ?

Delete ?

Related Links

[Add to Update Set?](#)

[Test Load 20 Records?](#)

[Load All Records?](#)

Test the Connection - Test Load 20 Records only test connection, doesn't load data into ServiceNow.

[Add to Update Set?](#)

Run the following imports when complete   scheduled_data_import			⚙️ — Actions on selected rows...   x	New
<input type="checkbox"/>	Name name	Active active	Order ▲ order	
	SG-Jamf Mobile Devices	true	2	
	SG-Jamf Lookup Mac Software Bundle Ids	true	4	

Execute Now for on demand Run of Data Import. Run the Parent Data import, After completion of Parent Data Import, other chaining Data Import Set will automatically run.



# THANK YOU

