



# INTEGRATION MODULE FOR SERVICENOW

*For Keverion Runbook Studio and Azure Automation*

## Release Notes

Version 3.6

November 2024



# Introduction

The **Kelverion Integration Module for ServiceNow** is an Integration Module for **Runbook Studio** and **Azure Automation** that lets you integrate your runbooks with ServiceNow. The Kelverion Integration Module for ServiceNow is Microsoft Azure Certified.

*The integration module includes the following activities:*

<b>Add-ServiceNowAttachmentContent</b>	Uploads an attachment to the specified ServiceNow record.
<b>Get-ServiceNowAttachmentContent</b>	Downloads the content BLOB from the specified ServiceNow attachment record.
<b>Get-ServiceNowAttachmentInfo</b>	Retrieves information about the attachments associated with the specified ServiceNow record.
<b>Get-ServiceNowRecord</b>	Retrieves records from a ServiceNow table.
<b>Get-ServiceNowRecordCount</b>	Gets the number of records in a ServiceNow table.
<b>Get-ServiceNowRefreshToken</b>	Get a refresh token for OAuth 2.0 authentication.
<b>Import-ServiceNowRecord</b>	Imports a record using a ServiceNow import set.
<b>New-ServiceNowRecord</b>	Inserts a new record into a ServiceNow table.
<b>Remove-ServiceNowRecord</b>	Removes the specified record from a ServiceNow table.
<b>Set-ServiceNowRecord</b>	Updates the values of one or more fields in the specified ServiceNow record.

## System Requirements

The Integration Module for ServiceNow requires the following software to be installed and configured prior to implementing the integration.

- Kelverion Runbook Studio 5.6
- Microsoft .NET Framework 4.7.2

*The integration module Supports the following versions of ServiceNow:*

- Xanadu
- Washington
- Vancouver

**Important:** The Kelverion Integration Module for ServiceNow requires the user, that is used to connect to ServiceNow, be configured to use the **English** language.

# Changes Affecting Backwards Compatibility

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Starting with version 3.0 connection asset and Smart Connection fields have been updated to support OAuth 2.0 authentication. As a result, **connection assets are not backwards compatible with previous versions.**

Before upgrading the module in Azure Automation, you must first remove all **Kelverion.ServiceNow** connection assets as well as the Kelverion.ServiceNow connection type. For more information, refer to Appendix A in the Kelverion Integration Module for ServiceNow User Guide. After you have upgraded the module, you can recreate your connection assets.

**Important:** Before removing connection assets, you should document the connection asset name(s) and field values so that they can be recreated. Using the same connection asset names, will save you from having to update your runbooks.

You must also update your Smart Connections in Runbook studio as some configuration property names have changed.

## Installing the Integration Module

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The easiest way to install and deploy the Integration Module for ServiceNow is from the PowerShell Gallery, but you can also download the module from Kelverion and perform the steps manually.

You must install and deploy the Integration Module to each Azure Automation Account and Hybrid Worker host system that you plan to use to run your runbooks. You must also install the Integration Module on any Runbook Studio host systems that you will be using to build and manage your runbooks.

### Using the PowerShell Gallery

Using the commands in the **PowerShellGet** module you can download the Kelverion Integration Module for ServiceNow from the PowerShell Gallery and install it on your local computer. You can also deploy the module directly from the PowerShell Gallery to any of your Azure Automation Accounts.

**Install the integration module on your local computer or hybrid runbook worker:**

1. Confirm that the PowerShellGet module installed.
2. Start a PowerShell window as an Administrator and run the command:  
**Install-Module -Name Kelverion.ServiceNow -Scope AllUsers**

**Upload the integration module to an Azure Automation account:**

1. Go to the [PowerShell Gallery](#).
2. On the **Azure Automation** tab, click **Deploy to Azure Automation**.
3. Select the **Automation Account** that you want to deploy the module to and click **OK**.

## Manual Installation

Alternatively, you can download the Integration Module package from Keverion and deploy it manually to your local computer, hybrid workers and Automation Accounts.

The download package from Keverion includes a **.zip** file containing the Integration Module as well as the User Guide and Release Notes. The following instructions assume that you have unzipped the download package and have access to the **.zip** file containing the Integration Module.

### *Install the integration module on your local computer or hybrid runbook worker:*

1. Copy the **Keverion.Servicenow.zip** file to your local computer.
2. Right-click on the file and select **Properties**.
3. Click the **General** tab. If necessary, click **Unblock**, and then click **OK**.
4. Unzip the **Keverion.Servicenow.zip** file.
5. Copy the **Keverion.Servicenow** folder to a location in the `%PsModulePath%` path.

**Important:** When installing the Integration Module on a Hybrid Worker, you must use a location that is accessible to all users of the computer.

### *Upload the integration module to an Azure Automation account:*

1. Sign into [Microsoft Azure](#).
2. Open the Automation Account that you want to upload the module to.
3. Click **Modules** under Shared Resources. The list of installed modules is displayed.
4. Click **Add a module** at the top of the list.
5. In the **Upload File** box, select the **Keverion.Servicenow.zip** file that you downloaded.
6. Click **OK**. Importing the module may take several minutes.

## Licensing the Integration Module

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Licenses for Keverion Integration Modules are managed and deployed using the *Keverion Runbook Studio* and *Automation Connection Assets*.

### *Register an Integration Module license with Runbook Studio:*

1. Open **Keverion Runbook Studio**.
2. On the **File** tab, click **About**.
3. Click **License Information**.
4. Click the **Integration Modules** tab, and then click **Add License**.
5. Select the integration module license file (.kaml) and click **Open**.
6. You should see your entitlements displayed in the list.
7. Click **OK**.

**Important:** Entitlements will not display until after the Integration Module has been installed on the Runbook Studio computer.

**Create a Connection Asset with a license key and upload it to Azure:**

1. On the **Home** tab, click **Sign In**. The Sign In dialog appears.
2. Sign into your account.
3. In the **Active Azure Automation Account** box, select the account that you want to add the connection asset to.
4. Click **New Asset** and then click **Connection**. The New Connection dialog appears.
5. In the **Name** field, enter a name to identify the connection.
6. In the **Connection Type** field, select the desired connection type.
7. Enter the appropriate connection information in the provided fields.
8. Click **OK**.

**Update all Connection Assets license keys and upload them to Azure:**

1. On the **Home** tab, click **Sign In**. The Sign In dialog appears.
2. Sign into your account.
3. In the Explorer panel, click the **Azure (Online)** group.
4. Right-click the Azure Automation Account that contains the connection assets you want to update, and then and then click **Update License Keys**. A summary is displayed.

## Known Issues

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- Creating a filter in Runbook Studio to search using a journal field may return unexpected results when using the *Equals* operator and the *Empty String* data source.
- Creating a filter in Runbook Studio to search using some reference fields may return unexpected result when using a *Constant Value* data source and the references *Display Name*. In this case, it is recommended that you use the references *Sys ID* when building the filter in Runbook Studio.
- This version of the integration module is not backwards compatible with previous versions. Before upgrading your Automation accounts to this version you must first remove all Kelverion.ServiceNow connection assets as well as the Kelverion.ServiceNow connection type.
- As of the publication of this document both the **Set-AzAutomationConnectionFieldValue** and **Set-AzureRmAutomationConnectionFieldValue** cmdlets fail due to some internal defect. So, if you want to use automation to periodically update the OAuth refresh token used by your connection assets your only recourse is to retrieve the connection asset, update the **RefreshToken** field, remove the connection asset and finally recreate it using the updated field values.

# Version History

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## Version 3.6

- Added support for ServiceNow Xanadu.

## Version 3.5

- Added support for ServiceNow Washington.

## Version 3.4

- Added support for ServiceNow Vancouver.

## Version 3.3

- Added support for ServiceNow Utah.

## Version 3.2

- Added support for ServiceNow Tokyo.
- Fixed an issue where HTTP 408 Request errors may be observed when the connecting to instances of ServiceNow Tokyo.

## Version 3.1

- Added support for ServiceNow San Diego.

## Version 3.0

- Added support for OAuth 2.0 authentication. **Note: Connection assets are not backwards compatible with previous versions.** Please see "Changes Affecting Backwards Compatibility"

## Version 2.9

- Added support for ServiceNow Rome.
- Fixed issue with uploading runbooks to Azure when the runbook contains a **Get-ServiceNowRecord** activity configured to retrieve a specific record by its **Sys ID**.

## Version 2.8

- Added support for ServiceNow Quebec.
- Fixed issue with publishing empty date and time values from ServiceNow. The output is now a **null** value, instead of January 1, 0001 00:00:00.0000000 UTC.
- Added an **ActualValues** switch to the **Get-ServiceNowRecords** activity, that when present will cause the activity to retrieve actual values from ServiceNow instead of display values. You can use this feature in situations where you must obtain the **Sys ID** for a reference field

instead of the display value. Note that this switch affects all fields, which means Choice fields will output their internal values and DateTime fields will output UTC.

## Version 2.7

- Added support for ServiceNow Paris.
- Fixed issue in Set-ServiceNowRecord in which empty Sys ID values were being output.

## Version 2.6

- Added support for ServiceNow Orlando.
- Added ability to search by Sys ID to the Get-ServiceNowRecord activity.
- Added ability to retrieve all records in a table to the Get-ServiceNowRecord activity.
- Added ability to count all the records in a table to the Get-ServiceNowRecordCount activity.
- Simplified the Get-ServiceNowAttachmentContent activity so that it just returns an array of bytes instead of custom data object.

## Version 2.5

- Fixed a problem with Get-ServiceNowRecord ignoring the optional fields OrderBy, Limit, Offset and Ascending when converting to PowerShell or when uploading graphical runbooks to Azure Automation.

## Version 2.4

- Added support for ServiceNow New York.
- Added Get-ServiceNowRecordCount activity.
- Improved notification when no valid licenses can be found.

## Version 2.3

- Added support for ServiceNow Madrid.
- Added support for TLS 1.2
- Fixed problem that can occur when retrieving table information from the ServiceNow Dictionary table.

## Version 2.2

- Added support for ServiceNow London.
- Fixed issue with Get-ServiceNowRecord that caused the activity to fail if a value was not specified for the optional Limit (Record Limit) parameter. The Limit now defaults to 250 records if no value is specified.

## Version 2.1

- Removed remote NTP server dependency.

## Version 2.0

- Removed requirement for Keverion Management Server. License files and entitlements are now managed in Keverion Runbook Studio.
- **This version is not backwards compatible with previous versions due to changes to the fields of the connection type used by this module. It is in effect a new integration module with a new name and module identifier.**

## Version 1.2

- Add an Import-ServiceNowRecord activity to support importing data into ServiceNow using import sets.
- Added support for TLS 1.2
- Added new connection properties **UserDateFormat** and **UserTimeFormat** for specifying ServiceNow user date and time formats. If you cannot see these properties after importing the new module, you will have to remove the Keverion.ServiceNow connection type and re-import the module. For details, see [Removing Azure Automation Connection Type](#)

## Version 1.1

- Support for Runbook Studio v2.0
- Update License Agreement

## Version 1.0

- The Keverion Integration Module for ServiceNow is a new Integration Module for Runbook Studio and Azure Automation that lets you integrate your runbooks with ServiceNow.