



INTEGRATION MODULE FOR ZENDESK

For Keverion Runbook Studio and Azure Automation

User Guide

Version 1.2

Microsoft
Azure

Certified

Kelverion Integration Module for Zendesk

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Installation and Configuration

The following sections outline how to deploy and configure the Keverion Integration Module Zendesk.

System Requirements

The Integration Module for Zendesk requires the following software to be installed and configured prior to implementing the integration. For more information on installing Keverion Runbook Studio, please refer to the Keverion Runbook Studio User Guide.

- Keverion Runbook Studio 5.6
- Microsoft .NET Framework 4.7.2
- [Zendesk Subscription through 2023-12-08](#)

The Keverion Integration Module for Zendesk requires TLS 1.2 support to be enabled on your local computer or hybrid worker. Please use [SystemDefaultTlsVersions](#) and [SCHANNEL\Protocols](#) in the Windows Registry to control the version of TLS in use.

Deploying the Integration Module

The easiest way to install and deploy the Integration Module for Zendesk is from the PowerShell Gallery, but you can also download the module from Keverion 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 Keverion Integration Module for Zendesk 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 any Hybrid Workers:

1. Confirm that the latest PowerShellGet module is installed.
2. Start a PowerShell window as Administrator and run the command:

```
Install-Module -Name Keverion.Zendesk -Scope AllUsers
```

Upload the Integration Module to an Azure Automation Account:

1. Go to the [PowerShell Gallery](#).
2. Click the **Azure Automation** tab.
3. Click **Deploy to Azure Automation**. You will be directed to Microsoft Azure.
4. Select the **Automation Account** that you want to deploy the module to.
5. 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 any Hybrid Workers:

1. Copy the **Keverion.Zendesk.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.Zendesk.zip** file.
5. Copy the **Keverion.Zendesk** 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.Zendesk.zip** file that you download.
6. Click **OK**. Importing the module may take several minutes.

Licensing the Integration Module

Licenses for Keverion Integration Modules are managed and deployed using *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. Select the Automation Account that you want to update.
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 Asset 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. On 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 click **Update License Keys**. A summary is displayed.

Working with Activities in Runbook Studio

The following sections outline some of the common configuration options that are available to you when working with the activities in the Keverion Integration Module for Zendesk.

The Keverion Integration Module for Zendesk supports the following activities.

Get-ZendeskComment	Get the comments on a ticket.
Get-ZendeskRecord	Get a record.
New-ZendeskTicket	Create a new ticket.
Remove-ZendeskTicket	Delete a ticket.
Set-ZendeskTicket	Modify an existing ticket.

The advanced discovery capabilities provided by the activities in this integration module are only supported when authoring runbooks in Keverion Runbook Studio.

When you publish your runbooks from Keverion Runbook Studio to Azure Automation or when you generate PowerShell code snippets for Service Management Automation, Runbook Studio will automatically convert the dynamically generated parameters and filters of Smart activities into the parameters provided by the underlying command activities.

Smart Connections

In Keverion Runbook Studio you can configure one or more Smart Connections to establish reusable links between Runbook Studio and specific Zendesk subdomains. You can create multiple Smart Connections to the same subdomain to allow for different user accounts.

Add a Smart Connection in Keverion Runbook Studio:

1. On the **Home** tab, click **Smart Connections**. The Smart Connections dialog appears.
2. Click **Add a connection** at the top of the list.
3. In the **Name** box, enter a name for the connection.
4. In the **Connection Type** box, select *Keverion.Zendesk*.
5. In the **SubDomain** box, enter the subdomain for your Zendesk instance. You can find this in your Zendesk instance URL, which is based on the format `https://<subdomain>.zendesk.com`.
6. In the **Username** box, enter the username that the integration module should use to connect to your Zendesk instance.
7. In the **Token** box, enter the API token that the integration module should use to connect to your Zendesk instance. For more details on how to generate an API token please refer to [Zendesk documentation](#).
8. Click **OK**, and then click **OK** again.

Global Connection Assets

The activities in the Kolverion Integration Module for Zendesk require connection information to connect to instances of Zendesk.

The recommended way to pass connection information to your activities in your runbooks is to use Global Connection Assets. Global connection assets let you securely define connection information in Azure which can then be retrieved on demand using either the *Get-AutomationConnection* cmdlet or Connection Asset Data Source.

Add a global connection asset in Runbook Studio:

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** box, enter a name for the configuration.
6. In the **Connection Type** box, select *Kolverion.Zendesk*.
7. In the **SubDomain** box, enter the subdomain for your Zendesk instance. You can find this in your Zendesk instance URL, which is based on the format `https://<subdomain>.zendesk.com`.
8. In the **Username** box, enter the username that the integration module should use to connect to your Zendesk instance.
9. In the **Token** box, enter the API token that the integration module should use to connect to your Zendesk instance. For more details on how to generate an API token please refer to [Zendesk documentation](#).
10. Click **OK**.

Activity Properties

All activities in the Kolverion Integration Module for Zendesk have the following properties:

Property	Description
Label	A unique label that identifies the activity in the runbook. Runbook Studio will provide a default name for each activity, but you can provide your own labels to make their role in the runbook more obvious.
Description	An optional description of the activity. Providing a description is a great way to let everyone understand the function of the activity in the runbook.
Checkpoint	Indicates whether or not a checkpoint is set in the runbook workflow after the activity runs. Checkpoints are only available for Graphical PowerShell Workflow runbooks.

	If the runbook uses Azure cmdlets, you should follow best practices and follow a check-pointed activity with an <u>Add-AzureRMAccount</u> in case the runbook is suspended and restarts from this checkpoint on a different worker.
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Smart Discovery

When designing runbooks in Keverion Runbook Studio, you will notice that the activities in the Keverion Integration Module for Zendesk include a **Discovery** panel instead of the **Parameter Sets** panel that is present for standard command activities. This is because the activities in the Keverion Integration Module for Zendesk support interactive discovery of the Zendesk assets in your environments.

All activities in the Keverion Integration Module for Zendesk have a **Connection** option on the **Discovery** panel which lets you specify how Runbook Studio should connect to Zendesk.

When connected to Zendesk, Runbook Studio will provide additional discovery options for some activities, **Record Type** which can be used to specify the resources that you want to integrate with. Once you have filled in the discovery options Runbook Studio will provide additional parameters and, in some cases, filters which can be used to configure the activity.

Smart Parameters

Unlike standard command activities, whose parameters are determined by the Parameter Set that is selected, the parameters in the Keverion Integration Module for Zendesk are determined by the Discovery options that you specify.

For example, when using the **Get-ZendeskRecord** activity, the Discovery panel will contain options for selecting a Zendesk record type. Once you have selected a record type, Runbook Studio will provide you with parameters that coincide with the fields in the business object. If you select another business object, Runbook Studio will provide you with a different set of parameters.

You must configure all mandatory parameters. To view the optional parameters that are associated with an activity, click **Optional** at the top of the Parameters tab.

In addition, all activities in the Keverion Integration Module for Zendesk include a **Connection** parameter which is used to specify information that the activity will use to connect to Zendesk when it is executed as part of a runbook running on a Hybrid Worker. Typically, you will assign a Connection Asset data source to this parameter so that the activity can securely use connection information stored in Azure.

The Connection parameter should not be confused with the similarly named Connection option on the Discovery panel which is used to specify how Runbook Studio connects to Zendesk in order to provide design-time configuration options.

Several factors determine the data sources that are available when configuring a parameter. They include: the parameter's data type, whether it is linked to another activity and whether the runbook has any input parameters.

Runbook studio supports the following data sources.

Data Source	Description
Activity output	<p>Specify activity whose output will be assigned to the parameter. You may also provide an optional Path to select a specific property of the output objects that are generated by the activity.</p> <p>Available when the activity is linked to a source activity.</p>
Not configured	<p>Clears any value that was previously configured. You must configure all mandatory parameters.</p>
Certificate asset	<p>Specify the name of the global certificate asset that will be used to provide a value for the parameter.</p> <p>If you have connected to Azure and selected a Subscription and Automation Account on the toolbar, the data source will provide the names of the certificates that are available.</p>
Credential asset	<p>Specify the name of the global credential asset that will be used to provide a value for the parameter.</p> <p>If you have connected to Azure and selected a Subscription and Automation Account on the toolbar, the data source will provide the names of the credentials that are available.</p>
Constant	<p>Specify a constant value to assign to the parameter.</p> <p>Available for parameters that have the following data types:</p> <ul style="list-style-type: none">• String• DateTime• Timespan• Decimal• Double <p>When assigning a constant DateTime and Time values, Runbook Studio assumes the value is in UTC.</p>
Connection asset	<p>Specify the name of the global connection asset that will be used to provide a value for the parameter.</p> <p>If you have connected to Azure and selected a Subscription and Automation Account on the toolbar, the data source will provide the names of the connections that are available.</p>
Empty string	<p>An empty string will be assigned to the parameter. Available when the parameter is type <i>System.String</i></p>
Null	<p>A null (\$null) value will be assigned to the parameter. Available when the parameter type is a reference type.</p>

PowerShell expression	<p>Specify a <i>simple</i> PowerShell expression whose output will be assigned to the parameter.</p> <p>You can use variables in the expression to access the output of an activity or a runbook parameter.</p>
Runbook input	<p>Specify the name of the runbook input parameter whose value will be assigned to the parameter.</p> <p>Available when the runbook has one or more input parameters.</p>
Variable asset	<p>Specify the name of the global variable asset that will be used to provide a value for the parameter.</p> <p>If you have connected to Azure and selected a Subscription and Automation Account on the toolbar, the data source will provide the names of the variables that are available.</p>

Smart Filters

Some of the activities in the Keverion Integration Module for Zendesk include a **Filters** panel which lets you specify filters that can be used to retrieve specific issues in Zendesk.

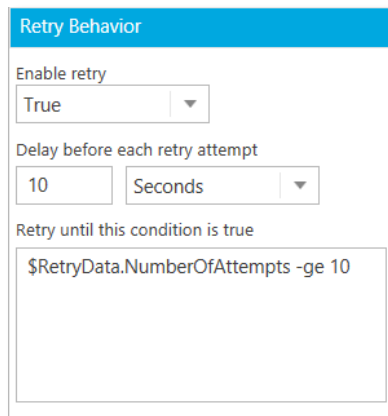
To add a filter to your activity, select the **Filters** panel and click **Add**. Filters have the following properties.

Property	Description
Filter	The name of the filter.
Operation	<p>The operation used to evaluate the filter. Different operators will be provided based on the filter that is selected. Possible filter operators include:</p> <ul style="list-style-type: none"> • Equals • Does not equal • Is less than • Is less than or equal to • Matches • Does not match • Is greater than • Is greater than or equal to
Value	<p>The data source used to retrieve the value to use to evaluate the filter.</p> <p>The value used to evaluate the filter will be obtained. For more information on data sources, please refer to the Parameters section for more information on configuring data sources.</p>

Retry Behavior

The activities in the Keverion Integration Module for Zendesk can be configured to run multiple times until a condition, which you specify, is satisfied. You can use the retry behavior options to configure activities that should run multiple times, that are error prone or may need more than one attempt for success.

When you enable retry for an activity, you can configure the runbook to wait a specified number of minutes or seconds before running the activity again. If no delay is specified the runbook will run the activity again, immediately after it completes.



The retry condition lets you specify a PowerShell expression that the runbook will evaluate after each time the activity runs. If the result of the expression is true the activity does not run again, and the runbook moves on to the next child activity in the runbook.

When defining the retry conditions for your activity you can take advantage of a global variable called **\$RetryData**. Specific information about the last time the activity ran can be accessed using the following properties.

Property	Description
NumberOfAttempts	Number of times that the activity has ran
Output	Output that was generated by the activity the last time that it ran
TotalDuration	Time elapsed since the activity was started
StartedAt	Time in UTC when the activity was first started

The following are some examples of activity retry conditions

```
# Run the activity exactly 5 times
$RetryData.NumberOfAttempts -eq 5

# Run the activity until it produces some output
$RetryData.Output.Count -ge 1

# Run the activity until at least 2 minutes has elapsed
$RetryData.TotalDuration.TotalMinutes -ge 2
```

Additional Parameters

The activities in the Kelverion Integration Module for Zendesk let you specify additional PowerShell parameters that you can use to control the behavior of the activity.

For example, to output detailed information about the operation performed by an activity you would specify **-Verbose:\$True**

Get-ZendeskComment

The **Get-ZendeskComment** activity retrieves all the comments on a ticket.

Discovery Options

You can use the following options to connect to Zendesk and configure the activity:

Connection	The name of the Smart Connection used to connect Runbook Studio to Zendesk.
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Required Parameters

You must configure the following parameters.

Connection	Hashtable containing information used to connect to Zendesk.
Ticket ID	The ticket ID of the ticket to retrieve comments.

Optional Parameters

You can use the following optional parameters to control the behavior of the activity:

Ascending	Indicates that comments should be sorted in ascending order.
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Output

The activity returns objects that represent the Zendesk comments that were retrieved.

Get-ZendeskRecord

The **Get-ZendeskRecord** activity retrieves Zendesk records using criteria that you specify.

Discovery Options

You can use the following options to connect to Zendesk and configure the activity:

Connection	The name of the Smart Connection used to connect Runbook Studio to Zendesk.
Record Type	The type of record to retrieve.
Search By	The method used to retrieve the records. Select Filters to use filters, Record ID to get by record ID or Query to use a query.

Required Parameters

You must configure the following parameters.

Connection	Hashtable containing information used to connect to Zendesk.
Record ID	The record IDs of the records to retrieve.

Optional Parameters

You can use the following optional parameters to control the behavior of the activity:

Ascending	Indicates that records should be sorted in ascending order. This parameter is used only when Order By is specified.
Order By	The field used to order the records by.

Filters

The activity provides filters based on the **Record Type** that was selected.

Output

The activity returns objects that represent the Zendesk records that were retrieved. The record type you selected during discovery will determine which properties the objects will have.

New-ZendeskTicket

The **New-ZendeskTicket** activity creates a new Zendesk ticket.

Discovery Options

You can use the following options to connect to Zendesk and configure the activity:

Connection	The name of the Smart Connection used to connect Runbook Studio to Zendesk.
-------------------	---

Required Parameters

You must configure the following parameters.

Connection	Hashtable containing information used to connect to Zendesk.
Comment	The first comment of the ticket.

Optional Parameters

The activity provides additional parameters based on the subdomain that you selected.

Output

The activity returns the ID of the Zendesk ticket that was created.

Remove-ZendeskTicket

The **Remove-ZendeskTicket** activity removes a Zendesk ticket.

Discovery Options

You can use the following options to connect to Zendesk and configure the activity:

Connection	The name of the Smart Connection used to connect Runbook Studio to Zendesk.
-------------------	---

Required Parameters

You must configure the following parameters.

Connection	Hashtable containing information used to connect to Zendesk.
Ticket ID	The ticket ID of the ticket to remove.

Output

The activity returns the ID of the Zendesk ticket that was removed.

Set-ZendeskTicket

The **Set-ZendeskTicket** activity modifies an existing ticket.

Discovery Options

You can use the following options to connect to Zendesk and configure the activity:

Connection	The name of the Smart Connection used to connect Runbook Studio to Zendesk.
-------------------	---

Required Parameters

You must configure the following parameters.

Connection	Hashtable containing information used to connect to Zendesk.
Ticket ID	The ticket ID of the ticket to modify.

Optional Parameters

The activity provides additional parameters based on the subdomain that you selected.

Output

The activity returns the ID of the Zendesk ticket that was modified.