Monitoring RabbitMQ Systems

AMQP: RabbitMQ PowerPack version 104

Table of Contents

Chapter 1

Introduction

Overview

The following sections provide an overview of RabbitMQ and the "AMQP: RabbitMQ" PowerPack:

This chapter covers the following topics:

NOTE: ScienceLogic provides this documentation for the convenience of ScienceLogic customers. Some of the configuration information contained herein pertains to third-party vendor software that is subject to change without notice to ScienceLogic. ScienceLogic makes every attempt to maintain accurate technical information and cannot be held responsible for defects or changes in third-party vendor software. There is no written or implied guarantee that information contained herein will work for all third-party variants. See the End User License Agreement (EULA) for more information.

What is RabbitMQ?

RabbitMQ is a message broker that uses the Advanced Message Queueing Protocol. RabbitMQ can be installed on servers running Linux or Windows.

What Does the AMQP: RabbitMQ PowerPack Monitor?

To monitor RabbitMQ using SL1, you must install tthe "AMQP: RabbitMQ" PowerPack. This PowerPack enables you to collect data about the RabbitMQ application. The "AMQP: RabbitMQ" PowerPack can monitor RabbitMQ

systems running version 3.5.1 and later.

The "AMQP: RabbitMQ" PowerPack includes:

- An example credential you can use as a template to create a Basic/Snippet credential to connect to the RabbitMQ API
- Dynamic Applications to monitor performance metrics and collect configuration data for RabbitMQ
- A Device Class that can be manually aligned to a device on which a RabbitMQ system is installed
- Event Policies and corresponding alerts that are triggered when a RabbitMQ system meets certain status criteria

Installing the AMQP: RabbitMQ PowerPack

Before completing the steps in this manual, you must import and install the latest version of the "AMQP: RabbitMQ" PowerPack.

TIP: By default, installing a new version of a PowerPack overwrites all content from a previous version of that PowerPack that has already been installed on the target system. You can use the ***Enable Selective PowerPack Field Protection*** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. For more information, see the section on *Global Settings*.

NOTE: For details on upgrading SL1, see the relevant *SL1 Platform Release Notes*.

To download and install the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page (Product Downloads > PowerPacks & SyncPacks) at the ScienceLogic Support Site.
2. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks).
3. Click the **[Actions]** button and choose *Import PowerPack*. The **Import PowerPack** dialog box appears.
4. Click **[Browse]** and navigate to the PowerPack file from step 1.
5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal displays a list of the PowerPack contents.
6. Click **[Install]**. The PowerPack is added to the **PowerPacks** page.

NOTE: If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPacks** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

Chapter 2

Credentials and Discovery

Overview

The following sections describe how to configure and discover a RabbitMQ system for monitoring by SL1 using the "AMQP: RabbitMQ" PowerPack:

This chapter covers the following topics:

Prerequisites for Monitoring RabbitMQ

To configure SL1 to monitor a RabbitMQ system using the "AMQP: RabbitMQ" PowerPack, you must first have the following information:

- The IP address of the server running the RabbitMQ system
- The username and password for a RabbitMQ user that has read permission to the RabbitMQ API. For information about configuring users in RabbitMQ, see https://www.rabbitmq.com/management.html.

Creating a Basic/Snippet Credential for RabbitMQ

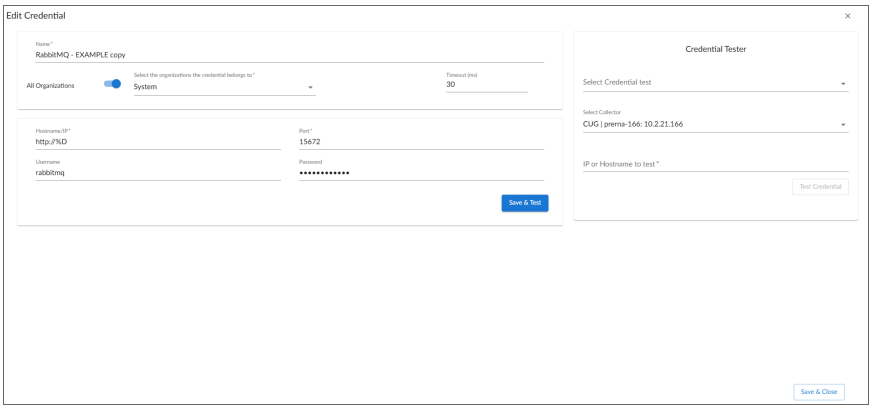
To configure SL1 to monitor a RabbitMQ system, you must first create a Basic/Snippet credential. This credential allows the Dynamic Applications in the "AMQP: RabbitMQ" PowerPack to communicate with your RabbitMQ

system.

The PowerPack includes an example Basic/Snippet credential that you can edit and save for your own use.

To create a Basic/Snippet credential:

1. Go to the **Credentials** page (Manage > Credentials).
2. Locate the "RabbitMQ - Example" credential, then click its **[Actions]** icon (⋮) and select *Duplicate* from the drop-down field. The "RabbitMQ - Example copy" credential appears.
3. Click the **[Actions]** icon (⋮) for the "RabbitMQ - Example copy" credential, then select *Edit*. The **Edit Credential** page appears.



4. Enter values in the following fields:
    - ***Name***. Enter a new name for the credential. This field is required.
    - ***All Organizations***. Toggle on (blue) to align the credential to all organizations, or toggle off (gray) and then select one or more specific organizations from the ***Select the organizations the credential belongs to*** drop-down field to align the credential with those specific organizations.
    - ***Timeout***. Enter the time, in milliseconds, after which SL1 will stop trying to communicate with the RabbitMQdevice. The default value is *30*. This field is required.
    - ***Hostname/IP***. Enter the RabbitMQ url. The default value is http://%D.
    - ***Port***. Type "15672".
    - ***Username***. Enter the username associated with the RabbitMQ administrator account.
    - ***Password***. Enter the password associated with the RabbitMQ administrator account.
5. Click **[Save & Close]**.

Creating a Basic/Snippet Credential for RabbitMQ in the SL1 Classic User Interface

To configure SL1 to monitor a RabbitMQ system in the SL1 classic user interface, you must first create a Basic/Snippet credential. This credential allows the Dynamic Applications in the "AMQP: RabbitMQ" PowerPack to communicate with your RabbitMQ system.

The PowerPack includes an example Basic/Snippet credential that you can edit and save for your own use.

To configure a Basic/Snippet credential to access a RabbitMQ system:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the "RabbitMQ - EXAMPLE" credential, then click its wrench icon (). The **Edit Basic/Snippet Credential** modal page appears.
3. Enter values in the following fields:
    - ***Profile Name***. Enter a name for the RabbitMQ credential.
    - ***Hostname/IP***. Use the provided "http://%D".

> **NOTE:** The IP address in the ***Hostname/IP*** field must be preceded by "http://".

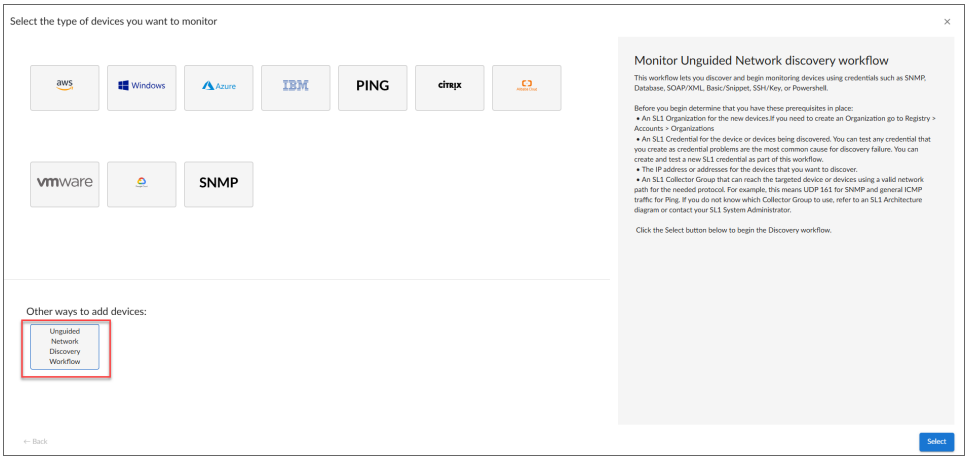
    - ***Username***. Enter the username for a RabbitMQ user that has read permission to the RabbitMQ API.
    - ***Password***. Enter the password for the user you entered in the ***Username*** field.
4. Leave all other fields set to the default values. Click the **[Save As]** button.

Discovering RabbitMQ Devices

To monitor your RabbitMQ system, you must run a discovery session to discover the server on which RabbitMQ is installed.

To create and run a discovery session that will discover a RabbitMQ appliance:

1. Go to the **Devices** page () or the **Discovery Sessions** page (Devices > Discovery Sessions) and click the **[Add Devices]** button.
2. Click the **[Unguided Network Discovery Workflow]** button. Additional information about that requirements for discovery appears in the **General Information** pane to the right.



3. Click **[Select]**. The three-step wizard appears starting with the **[Step 1 Basic Information]** tab.
4. Complete the following fields:
    - ***Discovery Session Name***. Type a unique name for this discovery session. This name is displayed in the list of discovery sessions on the **[Discovery Sessions]** tab.
    - ***Description***.Optional. Type a short description of the discovery session. You can use the text in this description to search for the discovery session on the **[Discovery Sessions]** tab.
    - ***Select the organization to add discovered devices to***. Select the name of the organization to which you want to add the discovered devices.
5. Click **[Next]**. The **[Step 2 Credential Selection]** tab of the wizard appears.
6. On the **[Credential Selection]** tab, locate and select the Basic/Snippet credential you created for RabbitMQ appliances.
7. Click **[Next]**. The **[Step 3 Discovery Session Details]** tab of the wizard appears.
8. Complete the following fields:
    - ***List of IP/Hostnames***. Type the IP address for the RabbitMQ appliance.
    - ***Which collector will discover these devices?***. Required. Select an existing collector to monitor the discovered devices.
    - ***Run after save***. Toggle on (blue) to run this discovery session as soon as you save the session.
    - ***Advanced options***. Click the down arrow (⌄) to complete the following fields:
        - ***Discover Non-SNMP***. Toggle on (blue) to enable this setting.
        - ***Model Devices***. Toggle on (blue) to enable this setting.
        - ***Select Device Template***. If you configured a RabbitMQ device template, select it here. Otherwise, leave the default selection.
9. If you enabled the ***Run after save*** option, click the**[Save and Run]** button. The discovery session will run and the **Discovery Logs** page will display any relevant log messages. If the discovery session locates and adds any devices, the **Discovery Logs** page will include a link to the **Device Investigator** page for the discovered device.
10. If you did not enable the ***Run after save*** option, click the **[Save and Close]** button. The **Discovery Sessions** page (Devices > Discovery Sessions) will display the new discovery session.

Discovering RabbitMQ Devices in the SL1 Classic User Interface

To monitor your RabbitMQ system in the SL1 classic user interface, you must run a discovery session to discover the server on which RabbitMQ is installed.

To discover the server on which RabbitMQ is installed, perform the following steps:

1. Go to the **Discovery Control Panel** page (System > Manage > Classic Discovery or System > Manage > Discovery in the classic user interface).
2. In the **Discovery Control Panel**, click the **[Create]** button.

3. The **Discovery Session Editor** page appears. In the **Discovery Session Editor** page, define values in the following fields:
    - ***IP Address/Hostname Discovery List***. Enter the IP address for the server on which RabbitMQ is installed.
    - ***SNMP Credentials***. Optionally, select the SNMP credential for the Linux or Windows server you are discovering.
    - ***Other Credentials***. Select the Basic/Snippet credential you created for the RabbitMQ API.
    - ***Discover Non-SNMP***. Select this checkbox.
4. Optionally, you can enter values in the other fields on this page. For more information about the other fields on this page, see the ***Discovery & Credentials*** manual.
5. Click the **[Save]** button to save the discovery session and then close the **Discovery Session Editor** window.
6. The discovery session you created appears at the top of the **Discovery Control Panel** page. Click its lightning-bolt icon ( ) to run the discovery session.
7. The **Discovery Session** window appears. When the device is discovered, click the device icon ( ) to view the **Device Properties** page for the device.

Verifying Discovery and Dynamic Application Alignment

To verify that SL1 automatically aligned the correct Dynamic Applications during discovery:

1. From the **Device Properties** page for the server on which RabbitMQ is installed, click the **[Collections]** tab. The **Dynamic Application Collections** page appears.
2. All applicable Dynamic Applications for RabbitMQ are automatically aligned during discovery.

> **NOTE:** It can take several minutes after the discovery session has completed for Dynamic Applications to appear in the **Dynamic Application Collections** page.

The following Dynamic Applications should be aligned to the device:

- AMQP: RabbitMQ Configuration
- AMQP: RabbitMQ Performance

If the listed Dynamic Applications have not been automatically aligned during discovery, you can align them manually. To do so, perform the following steps:

1. Click the **[Action]** button and then select *Add Dynamic Application*. The **Dynamic Application Alignment** page appears.
2. In the ***Dynamic Applications*** field, select the Dynamic Application you want to align.
3. In the ***Credentials*** field, select the Basic/Snippet credential you created for the RabbitMQ API.
4. Click the **[Save]** button.
5. Repeat steps 1-4 for the other unaligned Dynamic Applications.

Aligning the RabbitMQ Device Class

By default, SL1 discovers the server running the RabbitMQ system as a Linux, Windows, or Pingable device. Optionally, you can align the AMQP | RabbitMQ device class to the device.

To align the device class:

1. Go to the **Device Manager** page (Devices > Classic Devices, or Registry > Devices > Device Manager in the classic SL1 user interface).
2. Find the device you want to edit. Click its wrench icon ( ).
3. In the **Device Properties** page, find the *Device Class* field. Click the toolbox icon ( ).
4. In the **Select New Device Class** modal page, select the AMQP | RabbitMQ device class.
5. Click the **[Apply]** button.
6. In the **Device Properties** page, deselect the ***Auto-Update*** checkbox.
7. Click the **[Save]** button.

Copyrights and Trademarks

ScienceLogic, the ScienceLogic logo, and EM7 are trademarks of ScienceLogic, Inc. in the United States, other countries, or both.

Below is a list of trademarks and service marks that should be credited to ScienceLogic, Inc. The ® and ™ symbols reflect the trademark registration status in the U.S. Patent and Trademark Office and may not be appropriate for materials to be distributed outside the United States.

- ScienceLogic™
- EM7™ and em7™
- Simplify IT™
- Dynamic Application™
- Relational Infrastructure Management™

The absence of a product or service name, slogan or logo from this list does not constitute a waiver of ScienceLogic's trademark or other intellectual property rights concerning that name, slogan, or logo.

Please note that laws concerning use of trademarks or product names vary by country. Always consult a local attorney for additional guidance.

Other

If any provision of this agreement shall be unlawful, void, or for any reason unenforceable, then that provision shall be deemed severable from this agreement and shall not affect the validity and enforceability of any remaining provisions. This is the entire agreement between the parties relating to the matters contained herein.

In the U.S. and other jurisdictions, trademark owners have a duty to police the use of their marks. Therefore, if you become aware of any improper use of ScienceLogic Trademarks, including infringement or counterfeiting by third parties, report them to Science Logic's legal department immediately. Report as much detail as possible about the misuse, including the name of the party, contact information, and copies or photographs of the potential misuse to: legal@sciencelogic.com. For more information, see https://sciencelogic.com/company/legal.

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

International: +1-703-354-1010