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# Monitoring RabbitMQ Systems

Beta Version

AMPQ: RabbitMQ PowerPack version 100

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# Table of Contents

<b>Introduction</b> .....	<b>3</b>
Overview .....	3
What is RabbitMQ? .....	3
Prerequisites .....	3
What Does the AMPQ: RabbitMQ PowerPack Monitor? .....	4
Installing the AMPQ: RabbitMQ PowerPack .....	4
<b>Discovering RabbitMQ Systems</b> .....	<b>6</b>
Overview .....	6
Creating a Credential for RabbitMQ .....	6
Discovering RabbitMQ Devices .....	7
Verifying Discovery and Dynamic Application Alignment .....	9
Aligning the RabbitMQ Device Class .....	10

## Introduction

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### Overview

This manual describes how to monitor RabbitMQ systems using the the ScienceLogic platform.

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### What is RabbitMQ?

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

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### Prerequisites

Before performing the tasks in this manual, you must have the following information about the RabbitMQ system that you want to monitor:

- 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>.

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## What Does the AMPQ: RabbitMQ PowerPack Monitor?

To monitor RabbitMQ using the ScienceLogic platform, you must install the *AMPQ: RabbitMQ* PowerPack. This PowerPack enables you to collect data about the RabbitMQ application. The *AMPQ: RabbitMQ* PowerPack can monitor RabbitMQ systems running version 3.5.1 and later.

The *AMPQ: 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

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## Installing the AMPQ: RabbitMQ PowerPack

Before completing the steps in this manual, you must import and install version 100 of the *AMPQ: RabbitMQ* PowerPack.

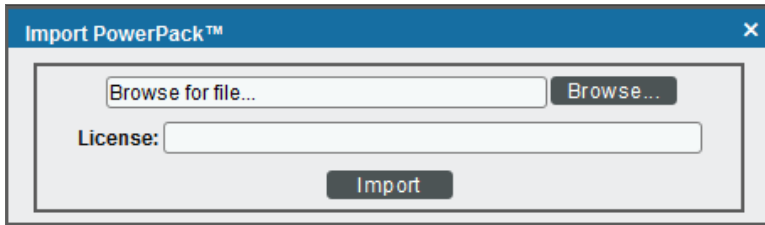
**NOTE:** To install version 100 of the *AMPQ: RabbitMQ* PowerPack, your ScienceLogic system must be upgraded to the 8.2.0 or later release.

To download and install a PowerPack:

**TIP:** By default, installing a new version of a PowerPack overwrites all content in 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 **System Administration** manual.)

1. Download the PowerPack from the [ScienceLogic Customer Portal](#).
2. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
3. In the **PowerPack Manager** page, click the **[Actions]** button, then select *Import PowerPack*.

4. The **Import PowerPack** dialog box appears:



5. Click the **[Browse]** button and navigate to the PowerPack file.
6. When the **PowerPack Installer** modal page appears, click the **[Install]** button to install the PowerPack.

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

## Discovering RabbitMQ Systems

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### Overview

The following sections describe the steps required to discover a RabbitMQ system in the ScienceLogic platform:

- [Creating a Credential for RabbitMQ](#)
- [Discovering RabbitMQ Devices](#)
- [Verifying Discovery and Dynamic Application Alignment](#)
- [Aligning the RabbitMQ Device Class](#)


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### Creating a Credential for RabbitMQ

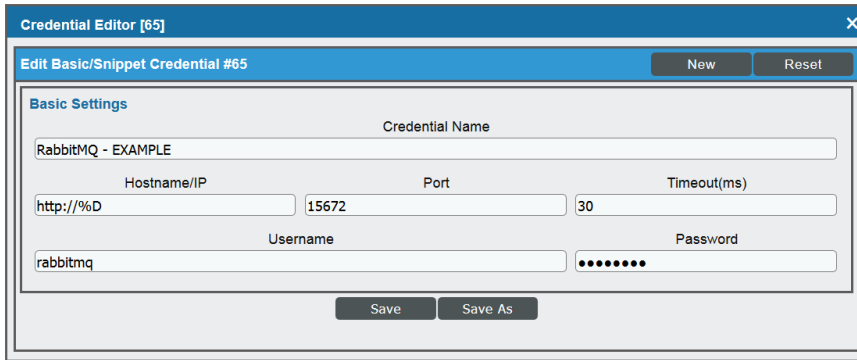
To configure the ScienceLogic platform to monitor a RabbitMQ system, you must first create a Basic/Snippet credential. This credential allows the platform (specifically, the Dynamic Applications in the AMPQ: RabbitMQ PowerPack) to communicate with your RabbitMQ system.

The PowerPack includes an example Basic/Snippet credential that you can edit 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:



The screenshot shows a 'Credential Editor' window with the following fields and values:

- Credential Name:** RabbitMQ - EXAMPLE
- Hostname/IP:** http://%D
- Port:** 15672
- Timeout(ms):** 30
- Username:** rabbitmq
- Password:** (masked with dots)

Buttons: New, Reset, Save, Save As

- **Profile Name.** Enter a name for the RabbitMQ credential.
- **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.

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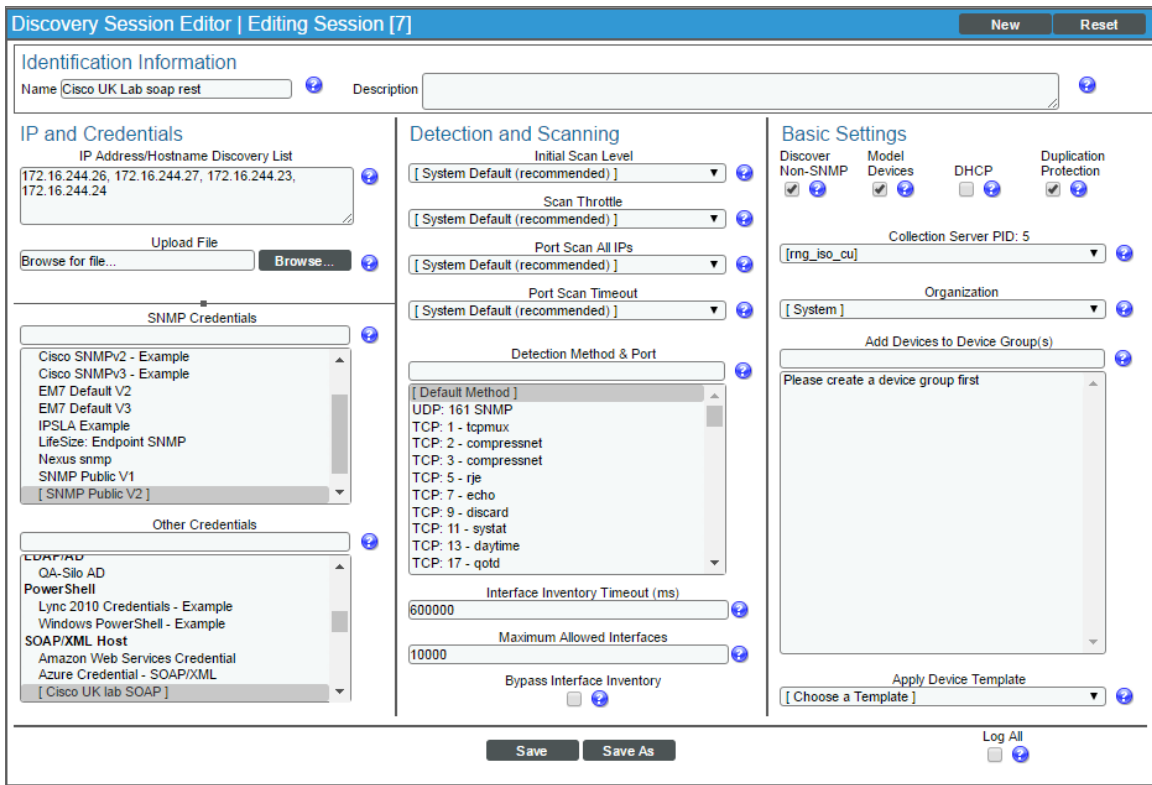
## Discovering RabbitMQ Devices



To monitor your RabbitMQ system, 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 > Discovery).
2. In the **Discovery Control Panel**, click the **[Create]** button.

- 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.
- 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.
  - Click the **[Save]** button to save the discovery session and then close the **Discovery Session Editor** window.
  - 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.
  - 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 the ScienceLogic platform 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 screenshot displays the ScienceLogic interface for a device named 'doc-svn'. The top navigation bar includes tabs for Close, Properties, Thresholds, Collections (selected), Monitors, and Schedule. Below this, there are sub-tabs for Logs, Toolbox, Interfaces, Relationships, Tickets, Redirects, Notes, and Attributes. The main content area is divided into two sections. The upper section shows device details: Device Name (doc-svn), IP Address / ID (172.16.0.68 | 1691), Class (Ping), Organization (System), Collection Mode (Active), and Description. The lower section, titled 'Dynamic Application™ Collections | Application Added', contains a table with the following data:

	Dynamic Application	ID	Poll Frequency	Type	Credential	
+ AMQP: RabbitMQ Performance		1591	5 mins	Snippet Performance	RabbitMQ - EXAMPLE	<input type="checkbox"/>
+ AMQP: RabbitMQ Configuration		1592	15 mins	Snippet Configuration	RabbitMQ - EXAMPLE	<input type="checkbox"/>

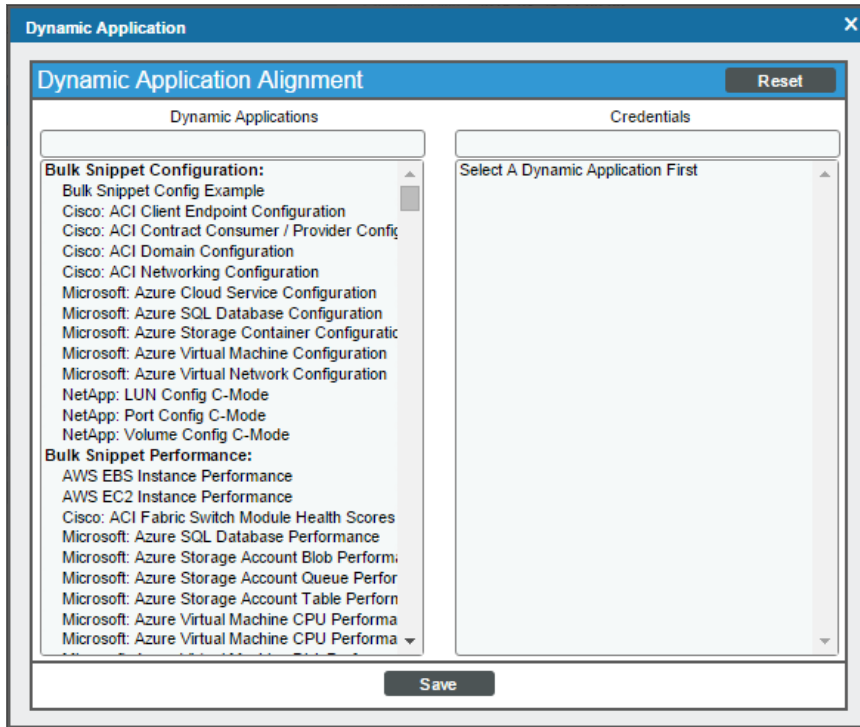
At the bottom of the interface, there is a '[Select Action]' dropdown menu, a 'Go' button, and a 'Save' button.

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.

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## Aligning the RabbitMQ Device Class



By default, the ScienceLogic platform 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 do this:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).

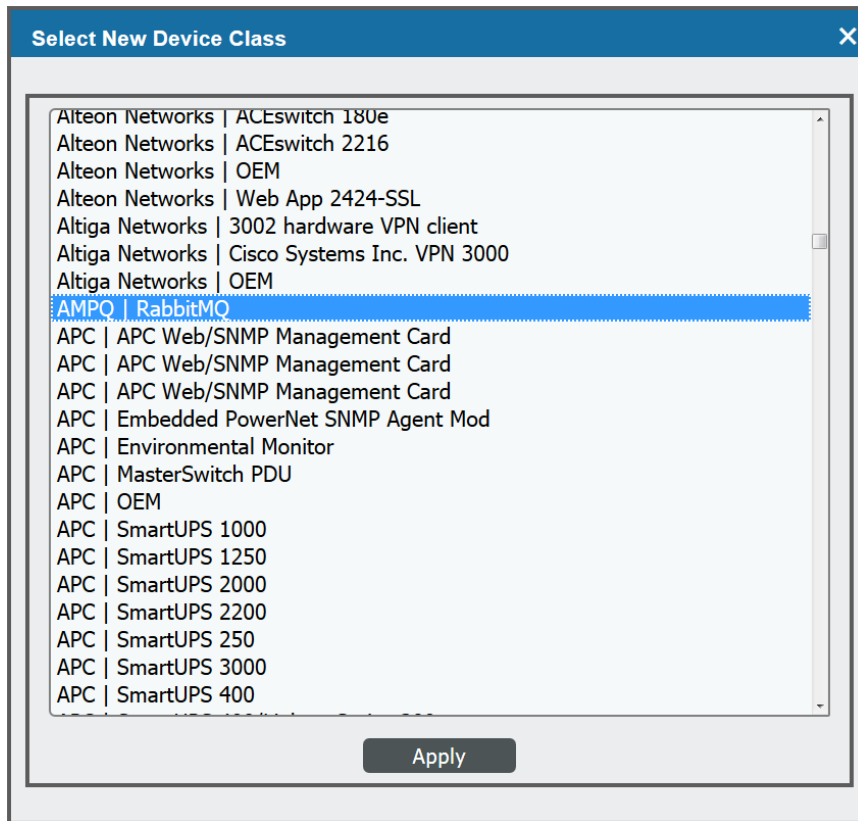
2. Find the device you want to edit. Click its wrench icon (🔧).

Device Name	IP Address	Device Gateway	Device Class / Sub-class	OID	Organization	Current State	Collection Group	Collection Status	SNMP Credentials	SNMP Version	Actions	Report	Reset	Guide
Server-651	10.20.0.177	Office Printers	Lexmark International   Print Server	42	System	Minor	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
ShorelineSwitch	10.20.0.214	Unknown	Shoreline Teleworks   OEM	15	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
SimpleSoft.qa.ScienceLogic.local	10.20.0.7	Servers	Microsoft   Windows Server 2008 R2	77	System	Minor	CUG1	Active	cdsmos V2	2	🔧	📄	🔄	📖
SNAP952146	10.20.0.249	Storage-NAS	Quantum Corp - Snap Division   Snap Server	158	System	Minor	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
SNAP20041001-Texas	10.20.0.247	Network-Switches	Juniper Networks   NTR Router	152	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
SOM2353DX	10.20.0.188	Servers	Microsoft   Windows CE Version 3.0 (Multiple	27	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
Summit-1	10.20.0.92	Network-Switches	Extreme Networks   Summit45s Version 7.1.1	101	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
Summitpro1	10.20.0.27	Servers	NET-SNMP   Solara	169	System	Minor	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
Support_NorwoodJunctUSA	10.20.0.210	Telephony	Quantum   Hinx-AB00	18	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
Support_25254C1_NewOr	10.20.0.1	Network-Switches	Cisco Systems   Catalyst 3750-Stack	76	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
switch	10.20.0.15	Network-Switches	Brocade   Channel-AL Switch	104	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
tanberg	10.20.0.217	Unknown	Tandberg ASA   OEM	12	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
tggenakto-fw1.ral.hostedolutions.com	10.20.0.157	Network-Firewall	Cisco Systems   ASA-5520	146	System	Minor	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
TOSHIBA-e-STUDY451c	10.20.0.86	Unknown	Tec Corporation   OEM	124	System	Minor	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
TRIComm	10.20.0.229	Unknown	Xerox   OEM	81	System	Minor	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
ts3.local	10.20.0.71	Network-Switches	Cisco Systems   TS SEC	68	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
TS3.local	10.20.0.72	Network-Switches	Cisco Systems   TS SEC	67	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
TRIPLE-A-COUNTING	10.20.0.168	Unknown	HP   OEM	166	System	Minor	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
ups1.hvm.az	10.20.0.77	Environmental-UPS	APC   SmartUPS 2200	66	System	Critical	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
V11000	10.20.0.166	Unknown	General Instrument   OEM	55	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
vixTarget	10.20.0.227	Telephony	Vina Technologies   Multiplexor	136	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
webob-prod	10.20.0.64	Servers	Empire Technologies   Default Enterprise Agent	87	System	Critical	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
WV-LANV-CORE-R01	10.20.0.62	Network-Router	Cisco Systems   179G	83	System	Minor	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
WxGoods-1-IT-Watchdogs, Inc.	10.20.0.228	Unknown	Generic   SNMP	78	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖
wxomsv134	10.20.0.23	Servers	XenServer   Xen Host	176	System	Healthy	CUG1	Active	Cisco SNMPv2 - Exa V2	2	🔧	📄	🔄	📖

3. In the **Device Properties** page, find the **Device Class** field. Click the toolbox icon (🔧).

Close	Properties	Thresholds	Collections	Monitors	Tickets	Redirects	Notes
Schedule	Logs	Toolbox	Interfaces	Relationships			
Device Name	10.20.0.175	Managed Type	Physical Device	Category	Unknown		
IP Address / ID	10.20.0.175   62	Sub-Class	SNMP	Uptime	0 days, 00:00:00		
Class	Generic	Collection Time	2014-06-12 17:20:00	Group / Collector	CUG2   em7_cu2		
Organization	System						
Collection Mode	Active						
Description							
Device Hostname							
Device Properties							
						Organization	Asset
						Actions	Reset
						Guide	
Identification							
Device Name	10.20.0.175	IP Address	[10.20.0.175 - verified]	Organization	[System]		
Monitoring & Management							
Device Class	Generic SNMP						
SNMP Read/Write	[Cisco SNMPv2 - Example]	[None]					
Availability Port	[UDP]	[161 - SNMP]					
Latency Port	[ICMP]	[ICMP]					
Avail+Latency Alert	[Disable]						
User Maintenance	[Disabled]	[Maintenance Collection Enabled]					
Collection	[Enabled]	[CUG2]					
Coll. Type	[Standard]						
Critical Ping	[Disabled]						
Dashboard	[None]						
Event Mask	[Group in blocks every 10 minutes]						
Save							
Preferences							
Auto-Clear Events	<input checked="" type="checkbox"/>						
Accept All Logs	<input checked="" type="checkbox"/>						
Daily Port Scans	<input checked="" type="checkbox"/>						
Auto-Update	<input checked="" type="checkbox"/>						
Scan All IPs	<input type="checkbox"/>						
Dynamic Discovery	<input checked="" type="checkbox"/>						
Preserve Hostname	<input checked="" type="checkbox"/>						
Disable Asset Update	<input type="checkbox"/>						

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.

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