
Configure AMQP Notifications

 For supported software information, click [here](#).

Versa Director publishes object change and event Advanced Message Queuing Protocol (AMQP) notifications when you enable event and object notifications and when you configure and connect to an AMQP server. This article describes how to set up a RabbitMQ AMQP server, and it describes the AMQP notifications.

Set Up RabbitMQ AMQP Server

To set up a RabbitMQ AMQP server, you do the following:

1. Install the RabbitMQ AMQP server on an Ubuntu VM.
2. Integrate the AMQP connector with Versa Director.
3. Configure the RabbitMQ AMQP server to receive AMQP notifications.
4. Verify RabbitMQ AMQP server connectivity.

Install RabbitMQ AMQP Server on Ubuntu VM

1. On the webpage <https://computingforgeeks.com/how-to-install-latest-rabbitmq-server-on-ubuntu-linux/>, follow the steps to install the Rabbit MQ AMQP server on an Ubuntu VM.
2. Add a new user to the Rabbit MQ AMQP server, and provide the user with administrator permissions:

```
sudo rabbitmqctl add_user test test123
sudo rabbitmqctl set_user_tags test administrator
sudo rabbitmqctl set_permissions -p / test ".*" ".*" ".*"
```

3. Log in to the RabbitMQ AMQP server and verify the user credentials created in Step 2:

```
http://<RabbitMQ-server-ip-address>:15672/
```

Integrate AMQP Connector with Versa Director

1. Log in to Versa Director.
2. Select the Administration tab.
3. In the left navigation bar, select Connectors > AMQP.

4. In the top bar, click the  Add icon. The Add AMQP Connector popup window displays:

Add AMQP Connector

Name*

AMQP-Connector

AMQP IP Address*

10.192.60.13

AMQP Port*

5672

Exchange*

systemExchangeUser

vHost*

/

User Name*

versa

Password*

.....

☒ Enable Event Notifications

☒ Enable Object Notifications

OK

Cancel

5. Enter information in the following fields:

Field	Description
Name	Enter the name of the AMQP connector.
AMQP IP Address	Enter the IP address of the server on which the AMQP server is installed.
AMQP Port	Enter the port number on which the AMQP server is listening. The default AMQP port is 5672. If this port was changed when the RabbitMQ AMQP server was installed, enter that number.
Exchange	Enter a unique exchange name, which is used by the AMQP server.
vHost	Enter a name of the vHost. The default name is “/”.
Username	Enter the login name to access the AMQP server.

Field	Description
Password	Enter the password to access the AMQP server.
Enable Event Notifications	Check to enable event notification.

Configure RabbitMQ AMQP Server To Receive AMQP Notifications

1. Log in to the RabbitMQ AMQP server.
2. In the top bar, select the Exchanges tab.
3. In the Exchanges table, locate the systemExchangeUser exchange that you created in the previous section. If this exchange is present, skip to Step 5.
4. If the systemExchangeUser exchange is not listed in the table:
 - a. Click Add a New Exchange.
 - b. Enter the name you specified for the Name field of the Add AMQP Connector popup.
 - c. Click Add Exchange.

Exchanges

▼ All exchanges

Filter:

Name	Type	Policy	Parameters	Message rate in	Message rate out
(AMQP default)	direct		D	0.00/s	0.00/s
amq.direct	direct		D		
amq.fanout	fanout		D		
amq.headers	headers		D		
amq.match	headers		D		
amq.rabbitmq.log	topic		D		
amq.rabbitmq.trace	topic		D		
amq.topic	topic		D		
eventsExchange	topic		D	0.00/s	0.00/s
systemExchange	topic		D	0.00/s	0.00/s
systemExchangeBharath	topic		D	0.00/s	0.00/s
systemExchangeJameer	topic		D	0.00/s	0.00/s
systemExchangeNew	topic		D	0.00/s	0.00/s
systemExchangeSuraj	topic		D	0.00/s	0.00/s
systemexchangeuser	topic		D		
testExchange	topic		D	0.00/s	

▼ Add a new exchange

Name: *

Type:

Durability:

Auto delete: (?)

Internal: (?)

Alternate exchange: (?)

Arguments: =

5. In the top bar, select the Queues tab:
 - a. Select Add a New Queue.
 - b. Enter a name for the queue.

- c. Click Add Queue.

RabbitMQ

Overview Connections Channels Exchanges **Queues** Admin

Queues

▼ All queues

Filter:

Overview					Messages			Message rates		
Name	Exclusive	Parameters	Policy	Status	Ready	Unacked	Total	incoming	deliver / get	ack
Bharath		D		Idle	51	0	51	0.00/s	0.00/s	
Jameer		D		Idle	0	0	0	0.00/s	0.00/s	0.00/s
Suraj		D		Idle	41	0	41	0.00/s	0.00/s	
Suraj-20.1		D		Idle	3	0	3	0.00/s	0.00/s	
User		D		Idle	0	0	0			
eventsQueue		D		Idle	698	0	698	0.00/s	0.00/s	
test		D		Idle	6,477	0	6,477	0.00/s	0.00/s	

▼ Add a new queue

Name: *

Durability:

Auto delete: (?)

Message TTL: (?) ms

Auto expire: (?) ms

Max length: (?)

Dead letter exchange: (?)

Dead letter routing key: (?)

Arguments: =

6. In the Queues table, click the queue that you just created.
7. In the Queues tab:
 - a. Select Queue User > Bindings > Add Binding to this Queue.
 - b. Enter information in the following fields:

Field	Description
From Exchange	Enter the same exchange name you used for the AMQP connector.
Routing Key	Enter the routing key.

- c. Click Bind. The Bindings table then displays the binding information.

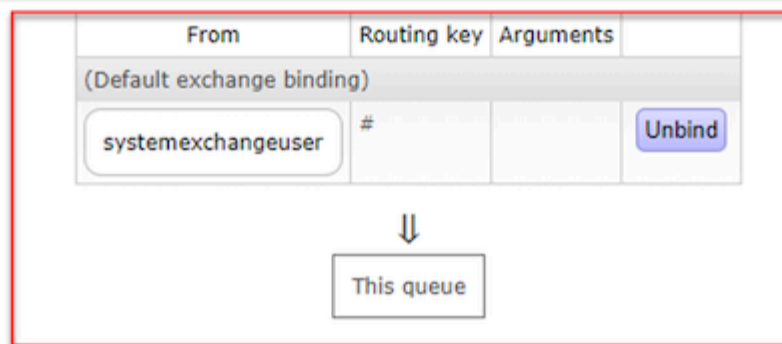
Queue User

► Overview

► Message rates breakdown

► Consumers

▼ Bindings



Add binding to this queue

From exchange:

Routing key:

Arguments: = String ▼

Bind

► Publish message

► Get messages

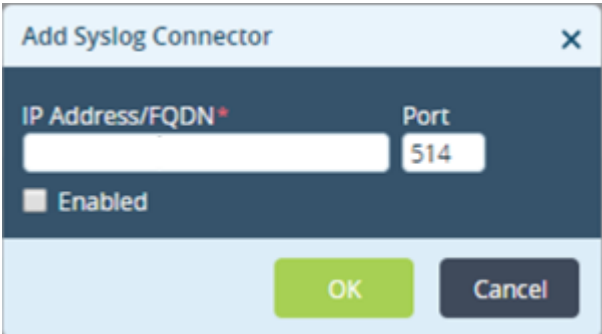
► Delete / purge

HTTP API | Command Line

Verify Rabbit MQ AMQP Server Connectivity

1. Log in to Versa Director.
2. In the top bar, select the Administration tab.
3. In the left navigation bar, select Connectors > Syslog.

4. In the top bar, click the  Add icon. The Add Syslog Connector popup window displays:

A screenshot of the 'Add Syslog Connector' popup window. The window has a title bar with the text 'Add Syslog Connector' and a close button (X). The main area has a dark blue background. It contains two input fields: 'IP Address/FQDN*' and 'Port'. The 'Port' field has the value '514' entered. Below these fields is a checkbox labeled 'Enabled'. At the bottom of the window are two buttons: 'OK' (green) and 'Cancel' (dark blue).

5. Enter information in the following fields:

Field	Description
IP Address/FQDN	Enter the IP address or the fully qualified domain name of the syslog server.
Port	Enter the port number used to connect to the syslog server. The default port number is 514.
Enabled	Check to enable the syslog connector.

- 6. Click OK.
- 7. Log in to the RabbitMQ AMQP server.
- 8. In the top bar, select the Queues tab.
- 9. Select Queue User > Get Messages.
 - a. Enter a number in the Messages field to specify the number of messages to retrieve from Versa Director.
 - b. Click Get Messages.

Overview
Connections
Channels
Exchanges
Queues
Admin

Queue User

▶ Overview
▶ Message rates breakdown
▶ Consumers
▶ Bindings
▶ Publish message
▼ Get messages

Warning: getting messages from a queue is a destructive action. (?)

Requeue:

Encoding: (?)

Messages:

Get Message(s)

Message 1

The server reported 2 messages remaining.

Exchange	systemExchangeSuraj
Routing Key	info.versa_director:object_change_event./nms-system:system/syslog-servers/server{10-10-10-10}.System.System
Redelivered	•
Properties	message_id: 8034 headers: organization: System
Payload	{"messageId":8034,"severity":"info","eventType":"versa_director:object_change_event","eventEntity":"/nms-system:system/sy
486 bytes	
Encoding:	string

◀

▶ Delete / purge

HTTP API | Command Line

Display AMQP Notifications in the CLI

To display the AMQP notifications on the Versa Director CLI, use the following commands:

```
select * from amqp_object_event
select * from amqp_event
```

Supported Software Information

Releases 20.2 and later support all content described in this article.

Additional Information

[Event Notifications](#)

[Object Change Notifications](#)