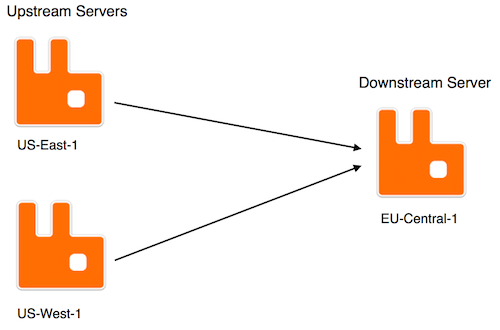
Rabbitmq Federation

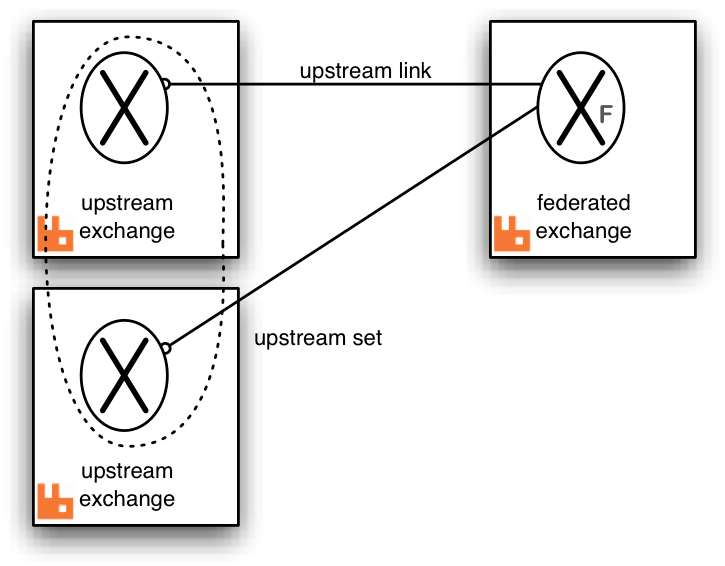


# Federated Exchanges

**What does a federated exchange do?**

A federated exchange links to other exchanges (called upstream exchanges). Logically (see next item), messages published to the upstream exchanges are copied to the federated exchange, as though they were published directly to it. The upstream exchanges do not need to be reconfigured and they do not have to be on the same broker or in the same cluster.

Here is a diagram showing a single federated exchange in one broker linking to a set of two upstream exchanges in other brokers.



*Reference: https://www.rabbitmq.com/federated-exchanges.html*

# Glossary

**Upstreams:** each upstream defines how to connect to another broker.

**Upstream sets:** each upstream set groups together a set of upstreams to use for federation.

**Policies:** each policy selects a set of exchanges, queues or both, and applies a single upstream or an upstream set to those objects.

Reference: https://www.rabbitmq.com/federation.html

# Enable Federation plugins

**Commands:**

rabbitmq-plugins enable rabbitmq\_federation

rabbitmq-plugins enable rabbitmq\_federation\_management

# Upstream and Downstream configuration

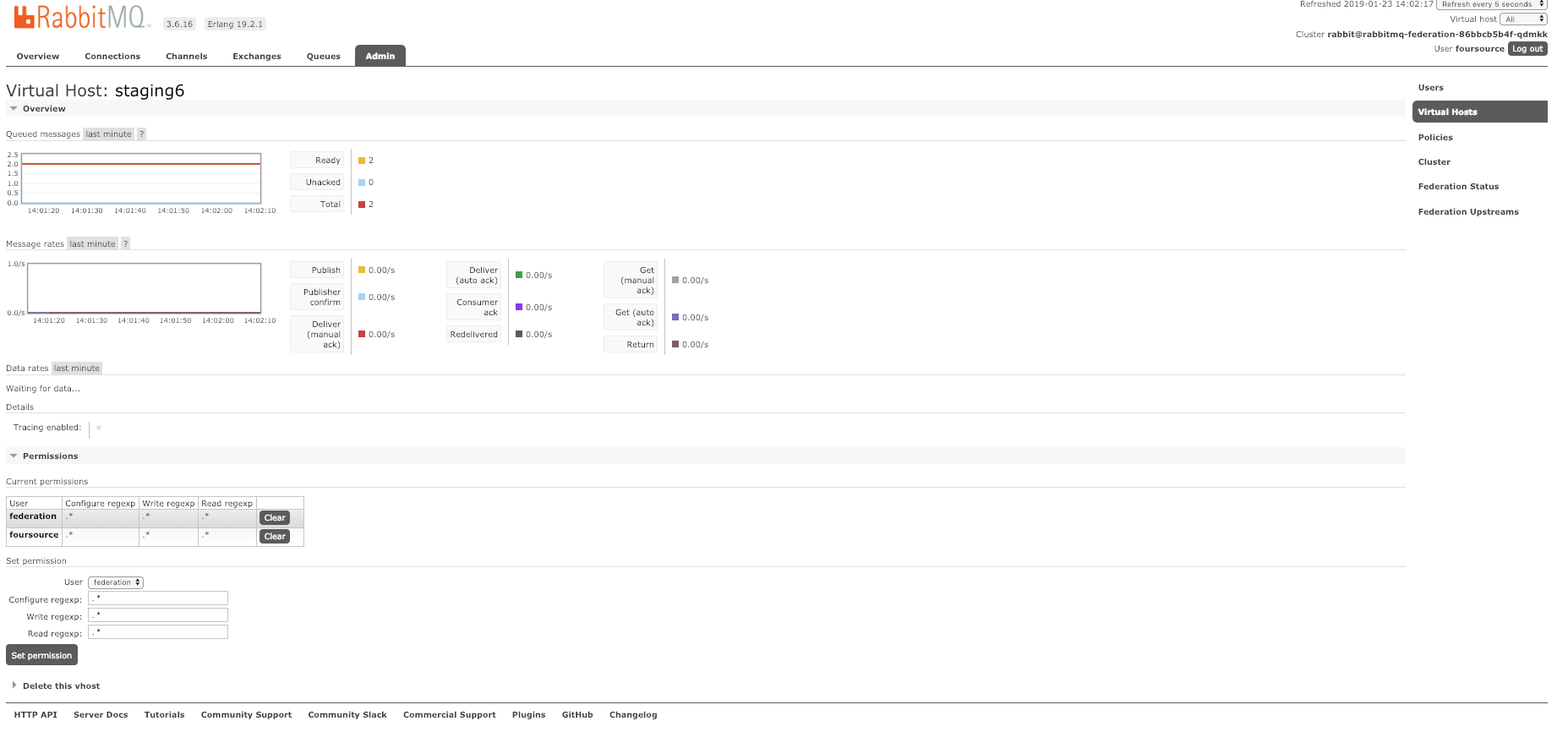
Add a new user, example“federation” with “management” tag



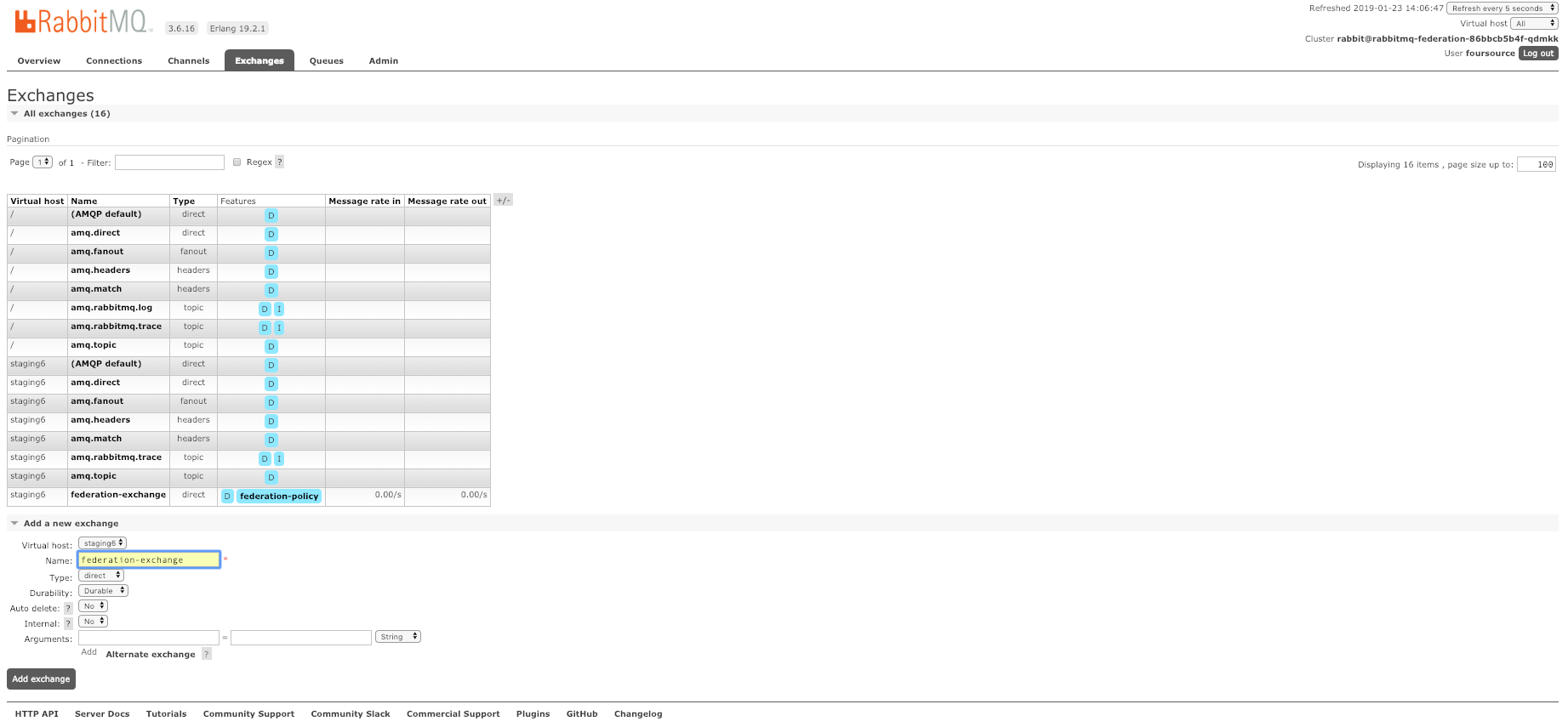
Add a virtual host, example “staging6”



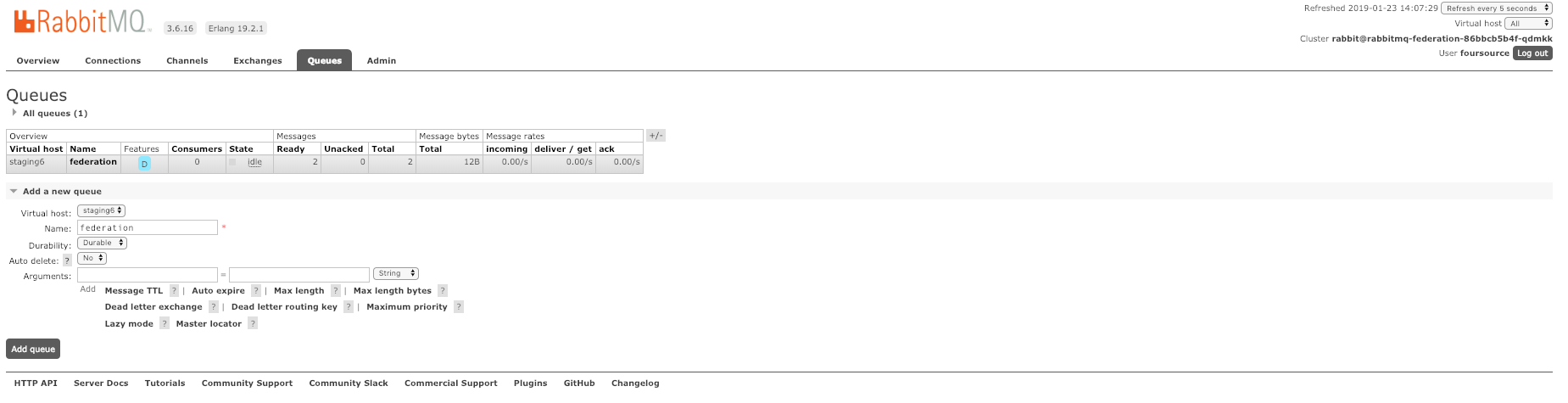
Add permissions on the virtual host “staging6” for the user “federation”



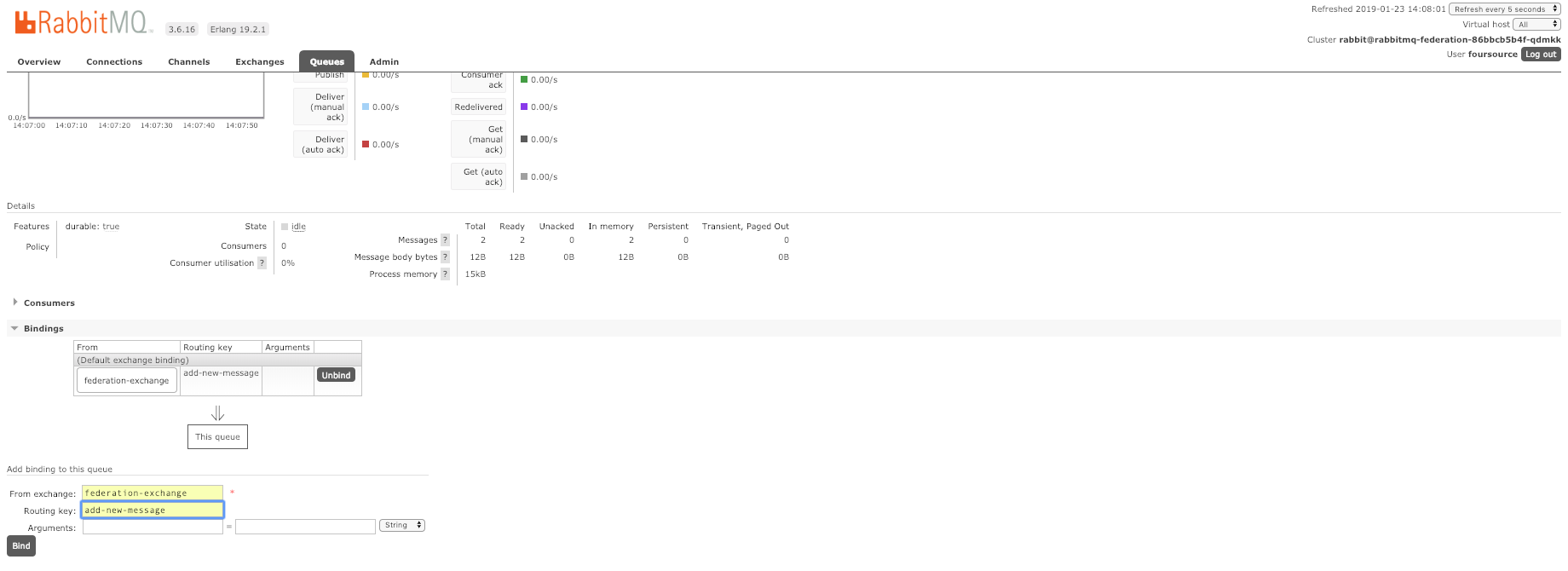
Create a new exchange, for example "federation-exchange”



Add a new queue, for example "federation”

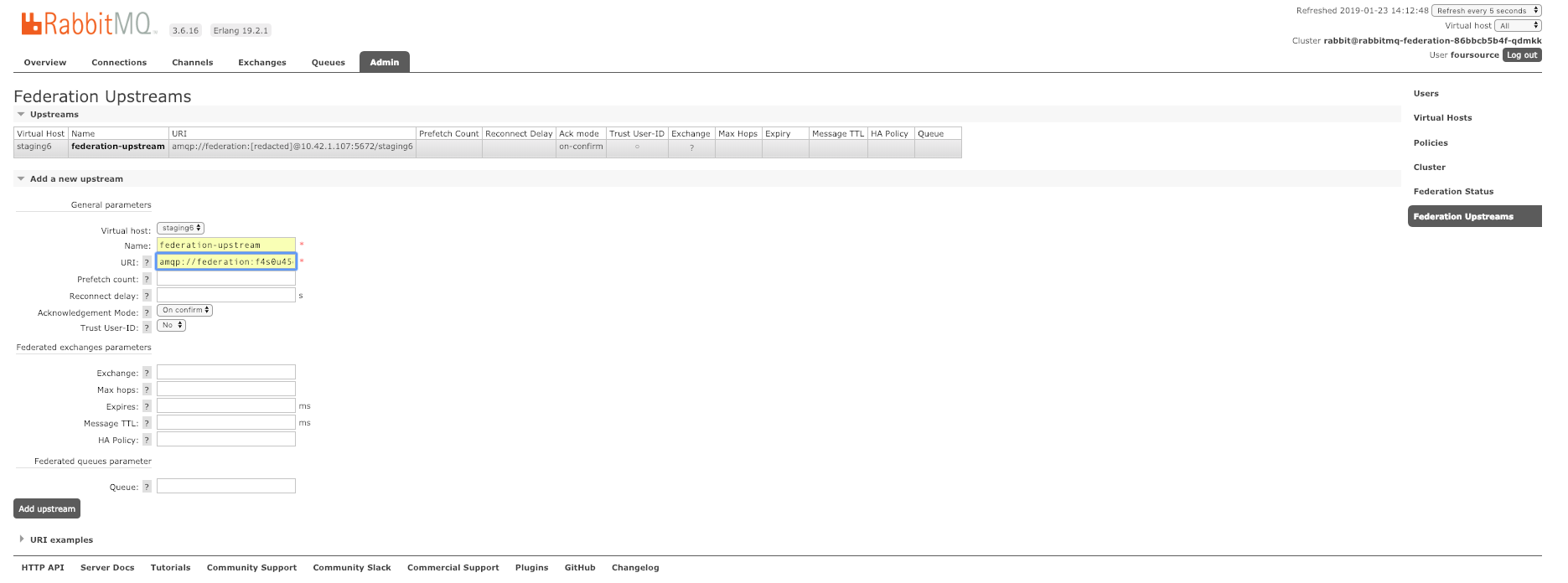


Add new binding for the queue “federation”, from exchange “federation-exchange” routing key “add-new-message”

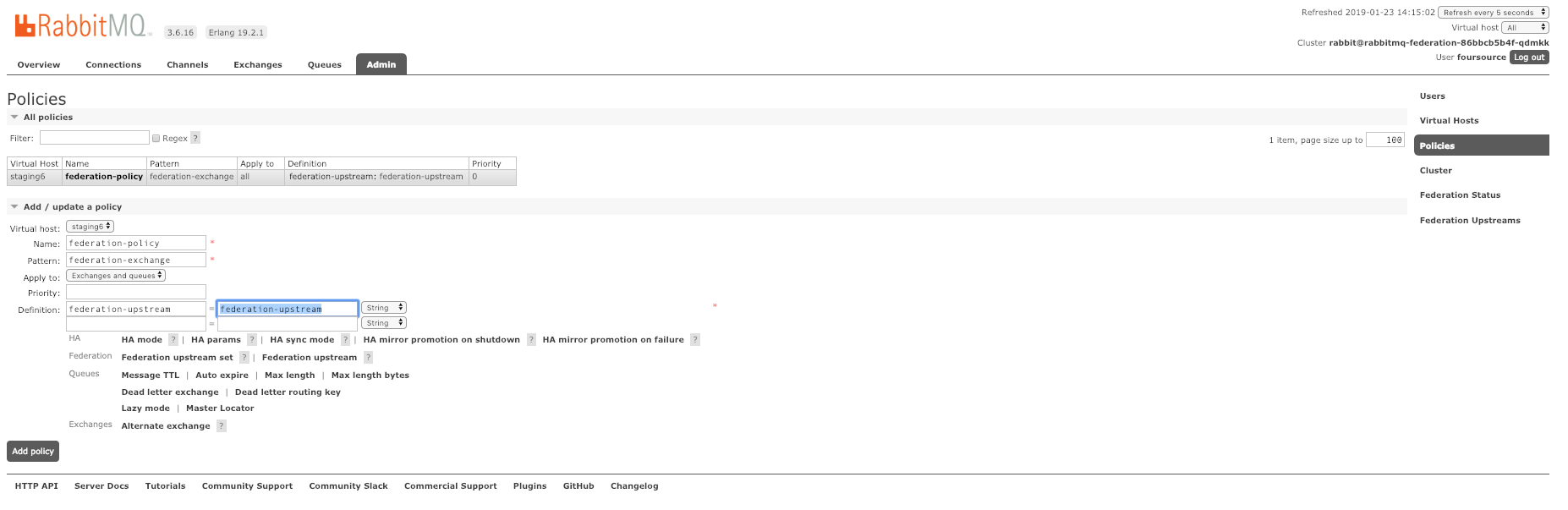


# Downstream configuration

Create a new federation upstream, example “federation-upstream”, uri “amqp://federation:[f4s0u45e@10.42.1.107](mailto:f4s0u45e@10.42.1.107):5672/staging6”



Create a new policy, example “federation-policy”, pattern “federation-exchange”, definition “federation-upstream” = “federation-upstream”



Check the federation status



Try to send a message from the upstream exchange “federation-exchange” with routing key “add-new-message” to the downstream



Check if the downstream received the message

