RabbitMQ CLI Message broker admin

START HERE

`rabbitmqctl status`
Is the node healthy?

`rabbitmqctl cluster_status`
Who is in the cluster?

`rabbitmqctl list_queues name messages consumers`
Queue depth at a glance

`rabbitmqctl list_exchanges`
What exchanges exist?

`rabbitmqctl list_bindings`
How is traffic routed?

`rabbitmqctl list_connections`
Who is connected?

`rabbitmqctl add_user <user> <password>`
Create a user

`rabbitmq-plugins enable rabbitmq_management`
Turn on the web UI

Publisher sends messages → `routing key` → **Exchange** routes by type → `binding` → **Queue** holds messages → `delivery + ack` → **Consumer** processes them

CONCEPTS

Run rabbitmqctl as the same OS user as the broker: it authenticates with the Erlang cookie, and a wrong cookie means a refused connection.

Everything lives in a virtual host (default /). Users, permissions, queues and policies are all scoped per vhost; pass -p <vhost> to look at another one.

Reset, delete_queue, purge_queue and forget_cluster_node destroy data: check -n <node> and -p <vhost> before running them.

NODE AND STATUS

`rabbitmqctl status`
Node health, versions, memory, listeners

`rabbitmqctl ping`
Check the node is reachable

`rabbitmqctl await_startup`
Wait until the node has booted
Useful in scripts right after starting the broker.

`rabbitmqctl environment`
Show effective application environment

`rabbitmqctl -n <node> <command>`
Target a specific node
Default is rabbit@<short hostname>; add -l (--longnames) for FQDN node names.

`rabbitmqctl -q <command>`
Quieter output

`rabbitmqctl -s <command>`
Silent: no headers, easy to parse

`rabbitmqctl stop_app`
Stop RabbitMQ, keep the Erlang VM

`rabbitmqctl start_app`
Start RabbitMQ again

QUEUES

`rabbitmqctl list_queues`
List queues with name and depth

`rabbitmqctl list_queues -p <vhost>`
List queues in one vhost

`rabbitmqctl list_queues name messages_ready messages_unacknowledged`
Ready vs unacked counts

QUEUES (cont.)

`rabbitmqctl list_queues name type state`
Queue type and state

`rabbitmqctl purge_queue <queue>`
Drop all ready messages

`rabbitmqctl delete_queue <queue>`
Delete a queue

`rabbitmqctl delete_queue <queue> --if-empty`
Delete only when empty

`rabbitmqctl delete_queue <queue> --if-unused`
Delete only when no consumers

`rabbitmqctl list_consumers`
Consumers per queue, with ack mode

EXCHANGES AND BINDINGS

`rabbitmqctl list_exchanges`
List exchanges with name and type

`rabbitmqctl list_exchanges name type durable`
Choose the columns

`rabbitmqctl list_bindings`
List all bindings

`rabbitmqctl list_bindings source_name destination_name routing_key`
Source, target and key only

CONNECTIONS AND CHANNELS

`rabbitmqctl list_connections`
List client connections

`rabbitmqctl list_connections name user vhost state`
Who, where and in what state

`rabbitmqctl list_channels`
List channels

`rabbitmqctl list_channels connection name consumer_count messages_unacknowledged`
Find stuck unacked messages

USERS, VHOSTS, PERMISSIONS

`rabbitmqctl list_users`
List users and their tags

`rabbitmqctl add_user <user> <password>`
Create a user

USERS, VHOSTS, PERMISSIONS (cont.)

`rabbitmqctl change_password <user> <new-password>`
Change a password

`rabbitmqctl delete_user <user>`
Remove a user

`rabbitmqctl set_user_tags <user> administrator`
Grant management UI admin

`rabbitmqctl add_vhost <vhost>`
Create a virtual host

`rabbitmqctl delete_vhost <vhost>`
Delete a vhost and its contents

`rabbitmqctl set_permissions -p <vhost> <user> ".*" ".*" ".*"`
Grant configure, write, read
The three values are regexes: configure, write, read. Use "" to deny.

`rabbitmqctl set_permissions -p <vhost> <user> "" "" ".*"`
Read-only access

POLICIES

`rabbitmqctl list_policies -p <vhost>`
List policies in a vhost

`rabbitmqctl set_policy <name> "<pattern>" '<json>'`
Apply settings to matching queues
The definition is a JSON object, for example {"max-length":10000}.

`rabbitmqctl set_policy --apply-to queues <name> "<pattern>" '<json>'`
Limit a policy to queues

CLUSTERING

`rabbitmqctl cluster_status`
Members, alarms, partitions

`rabbitmqctl stop_app && rabbitmqctl reset`
Wipe a node back to blank
Deletes the node's data and removes it from its cluster; stop_app must come first.

`rabbitmqctl join_cluster <seed-node>`
Join this node to a cluster
The app must be stopped; the node is reset first.

`rabbitmqctl forget_cluster_node <node>`
Remove a dead node from the cluster

PLUGINS AND RABBITMQADMIN

`rabbitmq-plugins list`
Show plugins and their state

`rabbitmq-plugins list -E`
Only explicitly enabled plugins

`rabbitmq-plugins enable <plugin>`
Enable a plugin

`rabbitmq-plugins disable <plugin>`
Disable a plugin

`rabbitmqadmin queues list`
List queues over the HTTP API

`rabbitmqadmin --vhost <vhost> queues declare --name <queue> --type quorum --durable true`
Create a durable quorum queue

`rabbitmqadmin exchanges declare --name <exchange> --type topic --durable true`
Create a topic exchange

`rabbitmqadmin bindings declare --source <exchange> --destination-type queue --destination <queue> --routing-key <key>`
Bind a queue to an exchange

rabbitmqadmin v2 talks to the management HTTP API, so it needs the rabbitmq_management plugin. Global flags like --vhost go before the command group.

RECIPES

Create an app user and vhost

```
rabbitmqctl add_vhost <vhost>
rabbitmqctl add_user <user>
<password>
rabbitmqctl set_permissions -p
<vhost> <user> ".*" ".*" ".*"
```

Web UI with an admin login

```
rabbitmq-plugins enable
rabbitmq_management
rabbitmqctl add_user <admin>
<password>
rabbitmqctl set_user_tags
<admin> administrator
rabbitmqctl set_permissions -
p / <admin> ".*" ".*" ".*"
```

Cap queue length with a policy

```
rabbitmqctl set_policy -p
<vhost> --apply-to queues cap
"^<prefix>\." '{"max-
length":10000}'
rabbitmqctl list_policies -p
<vhost>
```