

Environment Setup RabbitMQ

Description: “RabbitMQ is the most widely deployed open source message broker. RabbitMQ is lightweight and easy to deploy on premises and in the cloud. It supports multiple messaging protocols. RabbitMQ can be deployed in distributed and federated configurations to meet high-scale, high-availability requirements.” -- [RabbitMQ](#).

Project: Download and install RabbitMQ on local machine.

Technology:

This project uses the following technology:

RabbitMQ 3.10.n

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Install RabbitMQ Background

The screenshot shows the RabbitMQ website. The browser's address bar highlights the URL `rabbitmq.com/learn/install`. The website has a navigation bar with links for Features, Get Started, Support, Community, Docs, and Blog. The main heading is "Downloading and Installing RabbitMQ". Below this, it states the latest release is 3.8.0 and provides a link to the release log. It also mentions support timelines for different releases. A section titled "Experimenting with RabbitMQ on your workstation?" links to community Docker images. A terminal snippet shows the command to install RabbitMQ on Ubuntu: `docker run -it --rm rabbitmq:3.8.0-management`. The "Open Source RabbitMQ Server" section is followed by "Installation Guides", which lists instructions for Linux (Ubuntu, CentOS, Fedora), Windows (Chocolatey or Installer), and MacOS (Homebrew). A "Preview Releases (Betas, Release Candidates)" section explains how to contribute to the preview releases and how they are marked as pre-release. On the right side, there is a "In This Section" sidebar with links to various guides and resources.

Downloading and installing RabbitMQ

→ `rabbitmq.com/learn/install`

Features | Get Started | Support | Community | Docs | Blog

Downloading and Installing RabbitMQ

The latest release of RabbitMQ is **3.8.0**. See [change log](#) for release notes. See [RabbitMQ support timeline](#) to find out what release series are supported.

Experimenting with RabbitMQ on your workstation? Try the [community Docker image](#).

```
docker run -it --rm rabbitmq:3.8.0-management
```

Open Source RabbitMQ Server

Installation Guides

- Linux: [BSD, Ubuntu, Debian, Ubuntu \(Docker\), CentOS, Fedora](#) | [Generic binary build](#) | [Solaris](#)
- Windows: [Chocolatey or Installer](#) | [Recommended binary build](#)
- MacOS: [Homebrew](#) | [Generic binary build](#)
- [Getting GoTP for RabbitMQ](#)

Preview Releases (Betas, Release Candidates)

You can contribute to RabbitMQ by helping the community test preview releases.

Preview releases are [distributed via GitHub](#) and marked as pre-release.

In This Section

- [Install Windows](#)
- [Install, Deploy and Upgrade on Linux](#)
- [Docker-based Linux](#)
- [Install Homebrew](#)
- [Install Windows Image](#)
- [Install Generic Binary Build](#)
- [Install Solaris](#)
- [Install GoTP](#)
- [Upgrade](#)
- [Blue-green deployments, tested upgrade](#)
- [Supported Platforms](#)
- [Chaospy](#)
- [Erlang Packages](#)
- [Java Client Downloads](#)
- [NET Client Downloads](#)
- [Erlang Client Downloads](#)
- [Community Projects](#)
- [Search tags](#)

At the time this document was written RabbitMQ version 3.10.n was the latest. It is recommended to check back at the tools website to see if newer version of RabbitMQ is available.

Installing on Windows — RabbitMQ

→ rabbitmq.com/install-windows.html

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RabbitMQ

Features Get Started Support Community Docs Blog

Installing on Windows

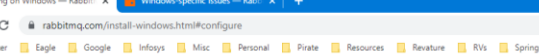
Overview

This guide covers RabbitMQ installation on Windows. It focuses on the two recommended installation options:

- Using Chocolatey
- Using the official installer as an administrative user

In This Section

- [Install Windows](#)
- [Install Debian and Ubuntu](#)
- [Install RPM-based Linux](#)
- [Install Dockerized](#)
- [Install Windows \(manual\)](#)
- [Install Docker binary build](#)
- [Install Sources](#)



Installing on Windows - RabbitMQ x Windows-specific Issues - Rabi x +

← → ↻ rabbitmq.com/install-windows.html#configure

Computer Eagle Google Infosys Misc Personal Pirate Resources Revature RVs Spring Unity V

Using chocolatey

RabbitMQ packages are [distributed via Chocolatey](#). New releases can take a while (sometimes weeks) to get through approvals, so this option is not guaranteed to provide the latest release. It does, however, manage the required dependencies.

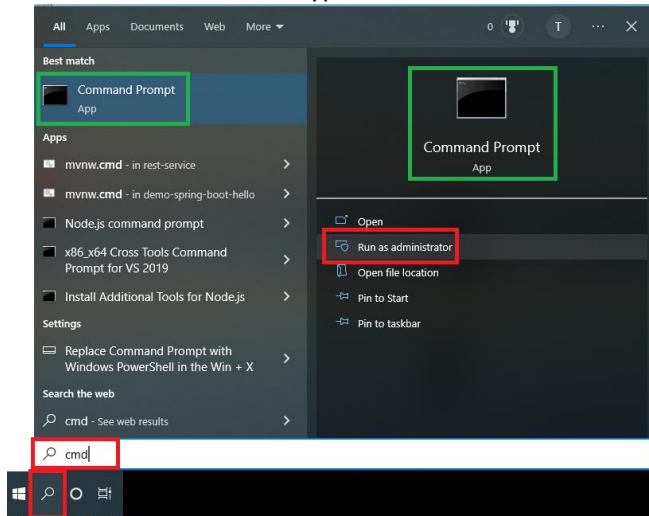
To install RabbitMQ using Chocolatey, run the following command from the [command line](#) or from [PowerShell](#):

```
choco install rabbitmq
```

Install RabbitMQ using Chocolatey

Open command prompt in Admin mode.

Use Windows search → type “cmd” → select “Run as administrator”

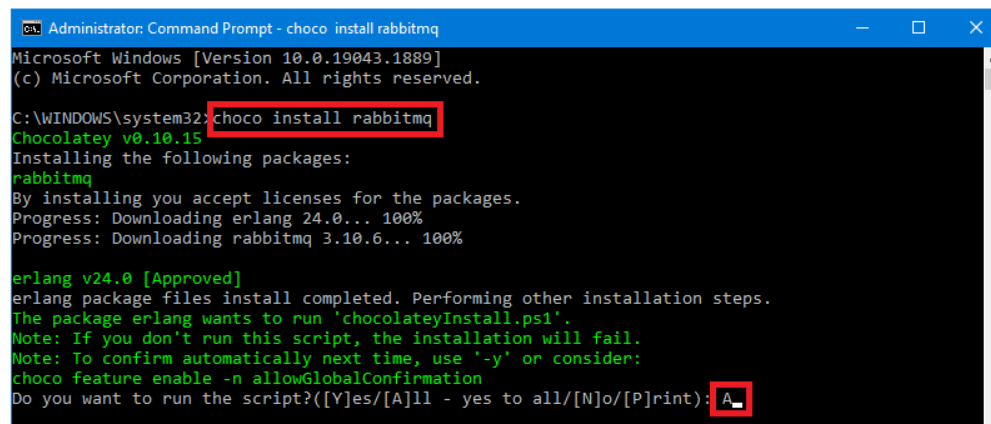


Enter the Chocolatey install command

```
choco install rabbitmq
```

The install starts displaying status on the screen and stops at the script prompt.

Enter “A” for all.



The download starts and displays progress percentage.

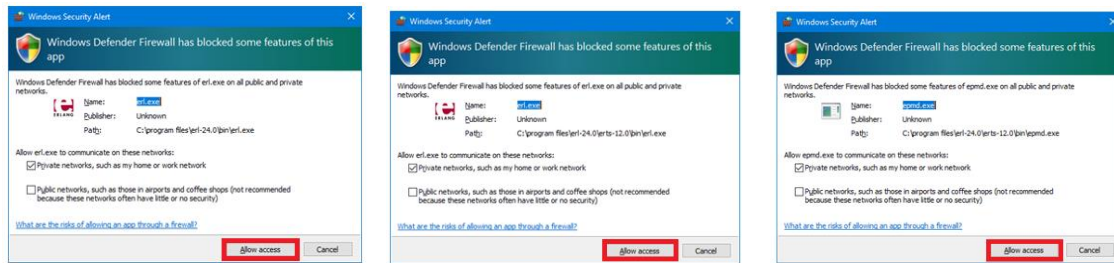
```
Do you want to run the script?([Y]es/[A]ll - yes to all/[N]o/[P]rint): A

Downloading erlang 64 bit
from 'https://erlang.org/download/otp_win64_24.0.exe'
Progress: 7% - Saving 7.8 MB of 110.05 MB
```

Once the download completed, the installation begins.

```
Progress: 100% - Completed download of C:\Users\tlw8748253\AppData\Local\Temp\chocolatey\rabbitmq\3.10.6\rabbitmq-server-3.10.6.exe (12.32 MB).
Download of rabbitmq-server-3.10.6.exe (12.32 MB) completed.
Installing rabbitmq...
```

Multiple “Windows Security Alert” firewall warnings appears.
Click “Allow access” to each.



Additional status progress scrolls on the screen.

```
Administrator: Command Prompt
Downloading erlang 64 bit
from 'https://erlang.org/download/otp_win64_24.0.exe'
Progress: 100% - Completed download of C:\Users\TLW8748253\AppData\Local\Temp\chocolatey\erlang\24.0\otp_win64_24.0.exe (110.05 MB).
Download of otp_win64_24.0.exe (110.05 MB) completed.
Hashes match.
Installing erlang...
erlang has been installed.
Added C:\ProgramData\chocolatey\bin\ct_run.exe shim pointed to 'c:\program files\erl-24.0\erts-12.0\bin\ct_run.exe'.
Added C:\ProgramData\chocolatey\bin\erl.exe shim pointed to 'c:\program files\erl-24.0\erts-12.0\bin\erl.exe'.
Added C:\ProgramData\chocolatey\bin\werl.exe shim pointed to 'c:\program files\erl-24.0\erts-12.0\bin\werl.exe'.
Added C:\ProgramData\chocolatey\bin\erlc.exe shim pointed to 'c:\program files\erl-24.0\erts-12.0\bin\erlc.exe'.
Added C:\ProgramData\chocolatey\bin\escript.exe shim pointed to 'c:\program files\erl-24.0\erts-12.0\bin\escript.exe'.
Added C:\ProgramData\chocolatey\bin\dialyzer.exe shim pointed to 'c:\program files\erl-24.0\erts-12.0\bin\dialyzer.exe'.
Added C:\ProgramData\chocolatey\bin\typer.exe shim pointed to 'c:\program files\erl-24.0\erts-12.0\bin\typer.exe'.
erlang may be able to be automatically uninstalled.
The install of erlang was successful.
Software installed as 'exe', install location is likely default.
```

The goal is for a successful installation and a return to the Windows command prompt.

```
Administrator: Command Prompt
rabbitmq v3.10.6 [Approved]
rabbitmq package files install completed. Performing other installation steps.
Downloading rabbitmq
from 'https://github.com/rabbitmq/rabbitmq-server/releases/download/v3.10.6/rabbitmq-server-3.10.6.exe'
Progress: 100% - Completed download of C:\Users\TLW8748253\AppData\Local\Temp\chocolatey\rabbitmq\3.10.6\rabbitmq-server-3.10.6.exe (12.32 MB).
Download of rabbitmq-server-3.10.6.exe (12.32 MB) completed.
Installing rabbitmq...
rabbitmq has been installed.
Enabling plugins on node rabbit@TLW8748253-DL13:
rabbitmq_management
The following plugins have been configured:
  rabbitmq_management
  rabbitmq_management_agent
  rabbitmq_web_dispatch
Applying plugin configuration to rabbit@TLW8748253-DL13...
The following plugins have been enabled:
  rabbitmq_management
  rabbitmq_management_agent
  rabbitmq_web_dispatch
set 3 plugins.
Offline change; changes will take effect at broker restart.
rabbitmq may be able to be automatically uninstalled.
Environment Vars (like PATH) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of rabbitmq was successful.
Software installed as 'EXE', install location is likely default.
Chocolatey installed 2/2 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).
```

As mentioned in the boxed area, for the updates to the path to be noticed when using command prompt, “exit” and reopen in Admin mode.

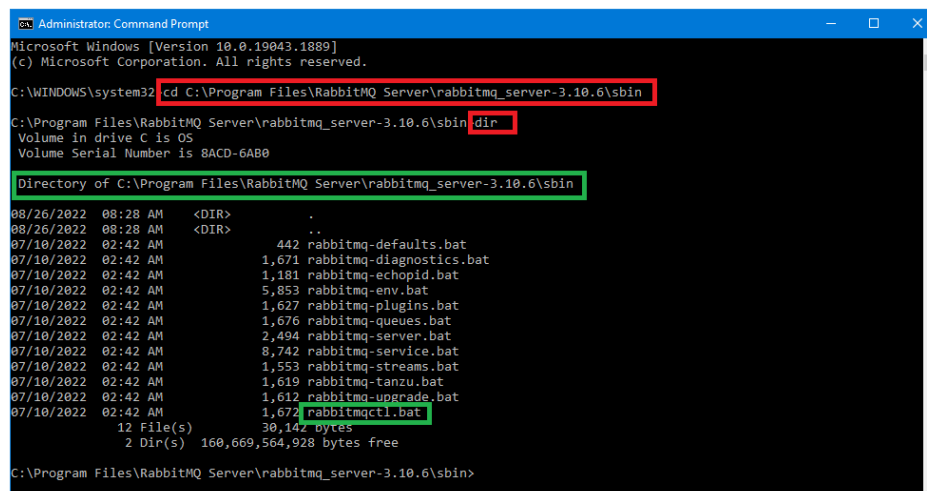
Installation of RabbitMQ using Chocolatey Notes

No issues were encountered during the installation used for writing this document. The [“Installing on Windows”](#) website gives indication that Windows installs are not always smooth. Additional details concerning issues and resolution are found on the website just mentioned and a referenced website [“Windows-specific Issues”](#). If issues are encountered during Window installation read through the two websites mentioned.

Getting Started with RabbitMQ

In a new Command Prompt window opened as Admin.
Change to the RabbitMQ sbin directory and perform directory command.

```
cd C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin
dir
```



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19043.1889]
(c) Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>cd C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin
C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin>dir
Volume in drive C is OS
Volume Serial Number is 8ACD-6AB0

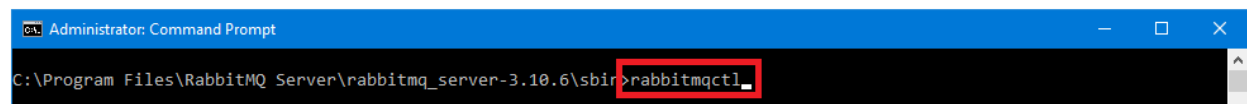
Directory of C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin

08/26/2022  08:28 AM  <DIR>          .
08/26/2022  08:28 AM  <DIR>          ..
07/10/2022  02:42 AM             442 rabbitmq-defaults.bat
07/10/2022  02:42 AM            1,671 rabbitmq-diagnostics.bat
07/10/2022  02:42 AM            1,181 rabbitmq-echoipid.bat
07/10/2022  02:42 AM           5,853 rabbitmq-env.bat
07/10/2022  02:42 AM            1,627 rabbitmq-plugins.bat
07/10/2022  02:42 AM            1,676 rabbitmq-queues.bat
07/10/2022  02:42 AM            2,494 rabbitmq-server.bat
07/10/2022  02:42 AM            8,742 rabbitmq-service.bat
07/10/2022  02:42 AM            1,553 rabbitmq-streams.bat
07/10/2022  02:42 AM            1,619 rabbitmq-tanzu.bat
07/10/2022  02:42 AM            1,612 rabbitmq-upgrade.bat
07/10/2022  02:42 AM            1,672 rabbitmqctl.bat
               12 File(s)          30,142 bytes
               2 Dir(s) 160,669,564,928 bytes free

C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin>
```

The primary file of interest is the “rabbitmqctl.bat”
Running this batch file without any parameter display a full parameter list with descriptions.

```
rabbitmqctl
```



```
Administrator: Command Prompt

C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin>rabbitmqctl
```

Primary parameters of interest are highlighted in the screen text copy below.

```
C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin>rabbitmqctl

--[lmUsage]-[0m

rabbitmqctl [--node <node>] [--timeout <timeout>] [--longnames] [--quiet] <command> [<command options>]

Available commands:

--[lmHelp]-[0m:
```

```

    autocomplete      Provides command name autocomplete variants
    help              Displays usage information for a command
    version           Displays CLI tools version

--[1mNodes--[0m:

    await_startup      Waits for the RabbitMQ application to start on the target node
    reset              Instructs a RabbitMQ node to leave the cluster and return to its virgin state
    rotate_logs         Does nothing [deprecated]
    shutdown            Stops RabbitMQ and its runtime (Erlang VM). Monitors progress for local nodes. Does not
require a PID file path.
    start_app           Starts the RabbitMQ application but leaves the runtime (Erlang VM) running
    stop               Stops RabbitMQ and its runtime (Erlang VM). Requires a local node pid file path to monitor
progress.
    stop_app            Stops the RabbitMQ application, leaving the runtime (Erlang VM) running
    wait               Waits for RabbitMQ node startup by monitoring a local PID file. See also 'rabbitmqctl
await_online_nodes'

--[1mCluster--[0m:

    await_online_nodes  Waits for <count> nodes to join the cluster
    change_cluster_node_type  Changes the type of the cluster node
    cluster_status      Displays all the nodes in the cluster grouped by node type, together with the currently
running nodes
    force_boot          Forces node to start even if it cannot contact or rejoin any of its previously known peers
    force_reset         Forcefully returns a RabbitMQ node to its virgin state
    forget_cluster_node Removes a node from the cluster
    join_cluster         Instructs the node to become a member of the cluster that the specified node is in
    rename_cluster_node  Renames cluster nodes in the local database
    update_cluster_nodes Instructs a cluster member node to sync the list of known cluster members from <seed_node>

--[1mReplication--[0m:

    cancel_sync_queue   Instructs a synchronising mirrored queue to stop synchronising itself
    sync_queue          Instructs a mirrored queue with unsynchronised mirrors (follower replicas) to synchronise
them

--[1mUsers--[0m:

    add_user            Creates a new user in the internal database. This user will have no permissions for any
virtual hosts by default.
    authenticate_user   Attempts to authenticate a user. Exits with a non-zero code if authentication fails.
    change_password      Changes the user password
    clear_password       Clears (resets) password and disables password login for a user
    clear_user_limits    Clears user connection/channel limits
    delete_user         Removes a user from the internal database. Has no effect on users provided by external
backends such as LDAP
    list_user_limits     Displays configured user limits
    list_users           List user names and tags
    set_user_limits      Sets user limits
    set_user_tags        Sets user tags

--[1mAccess Control--[0m:

    clear_permissions   Revokes user permissions for a vhost
    clear_topic_permissions  Clears user topic permissions for a vhost or exchange
    list_permissions    Lists user permissions in a virtual host
    list_topic_permissions  Lists topic permissions in a virtual host
    list_user_permissions  Lists permissions of a user across all virtual hosts
    list_user_topic_permissions  Lists user topic permissions
    list_vhosts         Lists virtual hosts
    set_permissions     Sets user permissions for a vhost
    set_topic_permissions  Sets user topic permissions for an exchange

--[1mMonitoring, observability and health checks--[0m:

    list_bindings       Lists all bindings on a vhost
    list_channels        Lists all channels in the node
    list_ciphers         Lists cipher suites supported by encoding commands
    list_connections     Lists AMQP 0.9.1 connections for the node
    list_consumers        Lists all consumers for a vhost
    list_exchanges       Lists exchanges
    list_hashes          Lists hash functions supported by encoding commands
    list_node_auth_attempt_stats  Lists authentication attempts on the target node
    list_queues          Lists queues and their properties
    list_unresponsive_queues  Tests queues to respond within timeout. Lists those which did not respond
    ping                Checks that the node OS process is up, registered with EPMD and CLI tools can authenticate
with it
    report               Generate a server status report containing a concatenation of all server status information
for support purposes
    schema_info          Lists schema database tables and their properties
    status               Displays status of a node

--[1mParameters--[0m:

    clear_global_parameter  Clears a global runtime parameter
    clear_parameter         Clears a runtime parameter.
    list_global_parameters  Lists global runtime parameters
    list_parameters         Lists runtime parameters for a virtual host
    set_global_parameter    Sets a runtime parameter.
    set_parameter           Sets a runtime parameter.

--[1mPolicies--[0m:

```

clear_operator_policy	Clears an operator policy
clear_policy	Clears (removes) a policy
list_operator_policies	Lists operator policy overrides for a virtual host
list_policies	Lists all policies in a virtual host
set_operator_policy	Sets an operator policy that overrides a subset of arguments in user policies
set_policy	Sets or updates a policy
--[1mVirtual hosts--[0m:	
add_vhost	Creates a virtual host
clear_vhost_limits	Clears virtual host limits
delete_vhost	Deletes a virtual host
list_vhost_limits	Displays configured virtual host limits
restart_vhost	Restarts a failed vhost data stores and queues
set_vhost_limits	Sets virtual host limits
set_vhost_tags	Sets virtual host tags
trace_off	
trace_on	
--[1mConfiguration and Environment--[0m:	
decode	Decrypts an encrypted configuration value
encode	Encrypts a sensitive configuration value
environment	Displays the name and value of each variable in the application environment for each running application
set_cluster_name	Sets the cluster name
set_disk_free_limit	Sets the disk_free_limit setting
set_log_level	Sets log level in the running node
set_vm_memory_high_watermark	Sets the vm_memory_high_watermark setting
--[1mDefinitions--[0m:	
export_definitions	Exports definitions in JSON or compressed Erlang Term Format.
import_definitions	Imports definitions in JSON or compressed Erlang Term Format.
--[1mFeature flags--[0m:	
enable_feature_flag	Enables a feature flag or all supported feature flags on the target node
list_feature_flags	Lists feature flags
--[1mOperations--[0m:	
close_all_connections	Instructs the broker to close all connections for the specified vhost or entire RabbitMQ node
close_all_user_connections	Instructs the broker to close all connections of the specified user
close_connection	Instructs the broker to close the connection associated with the Erlang process id
eval	Evaluates a snippet of Erlang code on the target node
eval_file	Evaluates a file that contains a snippet of Erlang code on the target node
exec	Evaluates a snippet of Elixir code on the CLI node
force_gc	Makes all Erlang processes on the target node perform/schedule a full sweep garbage collection
resume_listeners	Resumes client connection listeners making them accept client connections again
suspend_listeners	Suspends client connection listeners so that no new client connections are accepted
--[1mQueues--[0m:	
delete_queue	Deletes a queue
purge_queue	Purges a queue (removes all messages in it)
--[1mDeprecated--[0m:	
hipe_compile	DEPRECATED. This command is a no-op. HiPE is no longer supported by modern Erlang versions
node_health_check	DEPRECATED. Performs intrusive, opinionated health checks on a fully booted node. See https://www.rabbitmq.com/monitoring.html#health-checks instead
Use 'rabbitmqctl help <command>' to learn more about a specific command	
C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin>	

As shown in the last highlight above run rabbitmqctl with a parameter to invoke that command.

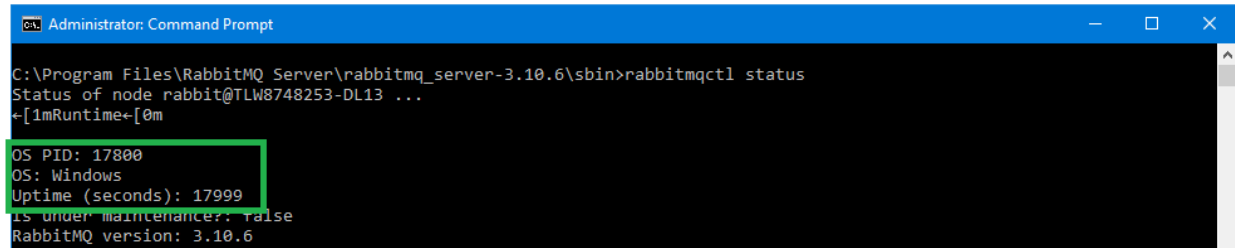
shutdown	Stops RabbitMQ and its runtime (Erlang VM). Monitors progress for local nodes. Does not require a PID file path.
start_app	Starts the RabbitMQ application but leaves the runtime (Erlang VM) running
stop	Stops RabbitMQ and its runtime (Erlang VM). Requires a local node pid file path to monitor progress.
stop_app	Stops the RabbitMQ application, leaving the runtime (Erlang VM) running
status	Displays status of a node

After installation there was no indication if RabbitMQ Server was running. The “[Installing on Windows](#)” website did not give instruction on starting the server or if the server was started during installation.

Running the command with status parameter will show the server status.

```
rabbitmqctl status
```

What was seen towards the beginning of the printout is “Uptime (seconds):” in this case “17,999” or just under 5 hours. Which is about the time the installation was performed when writing this document.



```
Administrator: Command Prompt
C:\Program Files\RabbitMQ Server\rabbitmq_server-3.10.6\sbin>rabbitmqctl status
Status of node rabbit@TLW8748253-DL13 ...
+-----+
+--[1mRuntime+--[0m
OS PID: 17800
OS: Windows
Uptime (seconds): 17999
Is under maintenance?: false
RabbitMQ version: 3.10.6
```

Given this the server is started automatically after successful installation. Observation after the machine was shut down for a period of time and restarted, the RabbitMQ server was automatically restarted.