Install Ops Manager with an `rpm` Package

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Overview

This tutorial describes how to install Ops Manager using an `rpm` package. If you are instead upgrading an existing deployment, please see Upgrade Ops Manager.

Prerequisites

You must have administrative access on the machines to which you install.

Before you install Ops Manager, you must:

1. Plan your configuration. See Installation Checklist.

2. Deploy servers that meet the Ops Manager Hardware and Software Requirements.

   > **WARNING:**
   > Failure to configure servers according to the Ops Manager Hardware and Software Requirements, including the requirement to read the MongoDB Production Notes ⧉, can lead to production failure.

3. Install the Ops Manager Application Database and optional Backup Database. The databases require dedicated MongoDB instances. Do **not** use MongoDB installations that store other data. The Backup Database is required only if you will use the Backup feature.

   The Ops Manager Application and Backup Daemon must authenticate to the backing databases as a MongoDB user with appropriate access. See `mongo.mongoUri` for more information.

   > **NOTE:**
   > Ops Manager cannot deploy its own backing databases. You must deploy those databases manually.

Install Ops Manager

To install Ops Manager:

1   Download the latest version of the Ops Manager package.

    a. In a browser, go to http://www.mongodb.com ⬚ and click on the Download ⬚ button.

    b. Complete the form.

    c. On the **MongoDB Download Center** page, click on the **Ops Manager** tab.

    d. Select `RedHat 5+ / CentOS 5+ / SUSE 11+ / Amazon Linux` from the **Platforms** drop-down menu.

    e. Select `RPM` from the **Packages** drop-down menu.

    f. Click **Download**.

> **NOTE:**
> The downloaded package is named `mongodb-mms-<version>.x86_64.rpm`, where `<version>` is the version number.

2   Install the Ops Manager package on each server being used for Ops Manager.

Install the `.rpm` package by issuing the following command, where `<version>` is the version of the `.rpm` package:

```
sudo rpm -ivh mongodb-mms-<version>.x86_64.rpm
```

When installed, the base directory for the Ops Manager software is `/opt/mongodb/mms/`. The `.rpm` package creates a new system user `mongodb-mms` under which the server runs.

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***Only* if you installed to RHEL 7.1 or 7.2, replace symlinks with scripts.**

As a result of RHEL Bug 1285492 ⬚, the version of `systemd` found in RHEL 7.1 and 7.2 Ops Manager will not start automatically on boot up.

To work around this:

    a. Replace the symbolic links to the scripts with the scripts themselves. Copy the scripts from `/opt/mongodb/mms/bin/mongodb-mms` to `/etc/init.d`.

    b. In the copied scripts, change the line:

```
ABS_PATH="$( resolvepath $0 )"
```

      to:

```
SCRIPTPATH=/opt/mongodb/mms/bin/mongodb-mms
ABS_PATH="$( resolvepath $SCRIPTPATH )"
```

**4   Configure the Ops Manager connection to the Ops Manager Application
Database.**

On a server that is to run the Ops Manager, open `/opt/mongodb/mms/conf/conf-
mms.properties` with root privileges and configure the settings described here, as appropriate.

Configure the following setting to provide the connection string Ops Manager uses to connect to
the database:

- `mongo.mongoUri`

If you will configure Ops Manager to use the Ops Manager Application Database over SSL,
configure the following SSL settings.

- `mongo.ssl`
- `mongodb.ssl.CAFile`
- `mongodb.ssl.PEMKeyFile`
- `mongodb.ssl.PEMKeyFilePassword`

Ops Manager also uses these settings for SSL connections to Backup Databases

If you will configure Ops Manager to use Kerberos to manage access to the Ops Manager
Application Database, configure the following Kerberos settings:

- `jvm.java.security.krb5.conf`
- `jvm.java.security.krb5.kdc`
- `jvm.java.security.krb5.realm`
- `mms.kerberos.principal`
- `mms.kerberos.keyTab`

5   On the same server, start Ops Manager.

Issue the following command:

```
sudo service mongodb-mms start
```

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Open the Ops Manager home page and register the first user.

a. Enter the following URL in a browser, where `<host>` is the fully qualified domain name of the server:

```
http://<host>:8080
```

b. Click the **Register** link and follow the prompts to register the first user and create the first group. The first user is automatically assigned the Global Owner role.

7   Configure Ops Manager.

Ops Manager walks you through several configuration pages. Required settings are marked with an asterisk. Enter information as appropriate. When configuration is complete, Ops Manager opens the **Deployment** page.

In addition to the common required settings, the following are required for particular deployment configurations. For more information on a setting, see Ops Manager Configuration.

Configuration	Required Settings
If are running multiple Ops Manager instances behind a load balancer	Set **Load Balancer Remote IP Header** to the name of the header the load balancer will use when forwarding the client's IP address to the application server. If you set this, do not allow clients to connect directly to any of the application servers. The load balancer must not return cached content. You will set up the additional servers as part of the next steps in this procedure.
If you are using Automation or Backup without an internet connection	Set the *MongoDB Version Management* settings. You will need to put the tarballs for every MongoDB release used in your deployment in the configured release directory on every Ops Manager server. For more information, see Configure Local Mode for Ops Manager Servers without Internet Access.

8   Copy the `gen.key` file from the current server to the other servers.

Ops Manager requires an identical gen.key file be stored on both servers running Ops Manager and uses the file to encrypt data at rest in the Ops Manager Application Database and Backup Database.

You must copy the `gen.key` file from the current server, on which you just installed Ops Manager, to every server that will run Ops Manager. You must copy the `gen.key` to the other servers **before** starting Ops Manager on them.

Use `scp` to copy the `gen.key` file from the `/etc/mongodb-mms/` directory on the current server to the same directory on the other servers.

9   **If you will run multiple Ops Manager Applications behind a load balancer, configure and start the applications.**

For each Ops Manager instance, repeat the step to configure the connection to the Ops Manager Application Database and the step to start the application.

For more information on running multiple applications behind a load balancer, see Configure a Highly Available Ops Manager Application.

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If you will run Ops Manager Backup, configure the Backup Daemon and Backup Storage.

a. On each Ops Manager server that will be activated as a Backup Daemon, create the directory that will store the head databases. The directory must be:
   ○ a dedicated disk partition that is not be used for any other purpose.
   ○ sized appropriately according to the Ops Manager Hardware and Software Requirements.
   ○ writable by the `mongodb-mms` user.
b. If you will store snapshots on a filesystem instead of the Backup Database, create the directory that will store snapshots.
c. Open Ops Manager and make sure you are logged in as the user you registered when installing Ops Manager. This user is the global owner.
d. Click the **Admin** link at the top right of the page.
e. Click the **Backup** tab.
f. Follow the prompts to configure the Backup Daemon and Backup Storage. Ops Manager walks you through configuration of the daemon and snapshot storage.
   After you select how to store snapshots, you are prompted to configure the connection string to the Backup Database. If you use filesystem storage for your snapshots, the Backup Database is used only for the oplog store.

> **WARNING:**
> Once the connection string is saved, any change to the string requires you to restart all the Ops Manager instances, including those running activated Backup Daemons. Making the change and clicking **Save** is not sufficient. Ops Manager will continue to use the previous string until you restart the instances.

<hostname>:<port>	Enter a comma-separated list of the fully qualified domain names and port numbers for all replica set ⬚ members for the Backup Database.
MongoDB Auth Username and **MongoDB Auth Password**	Enter the user credentials if the database uses authentication.

Encrypted Credentials	Check this if the user credentials use the Ops Manager `credentialstool`. For more information, see Encrypt User Credentials.
Use SSL	Check this if the database uses SSL. If you select this, you must configure SSL settings Ops Manager. See Ops Manager Configuration.
Connection Options	To add additional connection options, enter them using the MongoDB Connection String URI Format ⧉. This field supports un-escaped values only.

Next Steps

Once you have installed the Ops Manager web application to the Ops Manager server, you must next do the following:

1. Install Ops Manager agents on the servers that run your MongoDB deployments. You can install agents on servers running existing MongoDB deployments or on servers on which you will create new MongoDB deployments. Servers that run your MongoDB deployments must meet the requirements in the MongoDB Production Notes ⧉ in the MongoDB Manual.
   To install agents, see Provision Servers.

   SEE ALSO:
   Install or Update the Automation Agent, Install or Update the Monitoring Agent, Install or Update the Backup Agent

2. After you install agents, deploy MongoDB to your servers to test connections. If you use Ops Manager Automation, you can deploy MongoDB through the Ops Manager interface. For example, see Deploy a Replica Set.