



Red Hat Mobile Application Platform 4.7

Upgrading RHMAP 4.6 to 4.7

For Red Hat Mobile Application Platform 4.7

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Abstract

This document contains detailed instructions for upgrading an RHMAP 4.6 installation to RHMAP 4.7.

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PREFACE



NOTE

Upgrading RHMAP is a resource intensive process. Allow each step to complete before proceeding to the following step.

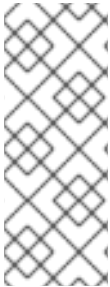
CHAPTER 1. PREPARING INFRASTRUCTURE FOR UPGRADING

You can upgrade RHMAP by either

- Installing Ansible version 2.4 and running the installer scripts.
- [Running a docker container](#), which has ansible installed, and running the installer scripts in that container.

To prepare for the upgrade:

1. Ensure that RHMAP is deployed to a [compatible OpenShift installation](#).
2. Install Ansible version 2.4 as described in [Ansible Installation Guide](#). After installing Ansible, [configure Ansible for installing RHMAP components](#).
3. [Install the RHMAP OpenShift Templates](#).
4. [Set up an inventory file](#).



NOTE

Before proceeding with the automated upgrade, Red Hat recommends you use the RHMAP Ansible scripts to download the new images onto each of the target nodes. For instructions, see [Seeding the Nodes with the RHMAP Images](#).

This step improves the robustness of the upgrade process, especially on low speed networks.

1.1. USING DOCKER TO UPGRADE RHMAP (OPTIONAL)

An alternative method for upgrading is to use the RHMAP installer docker image, which includes Ansible and the templates, so you do not need to install Ansible.

Enter the following command to download the docker image:

```
docker pull rhmap47/installer
```

The procedures in this guide provide example commands for using this container.

CHAPTER 2. UPGRADING THE CORE PROJECT 4.6 TO 4.7.0

2.1. OVERVIEW

Upgrading Red Hat Mobile Application Platform from version 4.6 to version 4.7.0 includes the following changes:

- Existing images versions are updated to RHMAP 4.7 versions by modifying the deployment configurations for all objects in the RHMAP Core, which triggers a redeployment of each component.
- The project version in the **platform-info** ConfigMap in the RHMAP Core project is updated to 4.7.



WARNING

Before proceeding with the upgrade:

- [Back up all persistent volumes.](#)
- Make sure you have administrator permissions for the OpenShift cluster hosting RHMAP.

2.2. UPGRADING TO RHMAP CORE VERSION 4.7



NOTE

The OpenShift templates for RHMAP Core are installed into the **/opt/rhmap/4.7/templates/core** directory.

1. If you are using the docker image option, mount an inventory file and a valid SSH key for targeting that inventory, for example:

```
docker run -it \
  -v ~/.ssh/id_rsa:/opt/app-root/src/.ssh/id_rsa:Z \
  -v ${HOME}/Desktop/rhmap-ansible/inventories:/opt/app-
  root/src/inventories \
  -e ANSIBLE_PRIVATE_KEY_FILE=/opt/app-root/src/.ssh/id_rsa \
  rhmap47/installer bash
```

2. To upgrade your existing RHMAP Core from 4.6 to 4.7 you must specify:

- the name of the current project
- an inventory file
- **project_type** which must be set to **core**.

An example command is shown below:

■

```
cd /opt/rhmap/4.7/rhmap-ansible
ansible-playbook -i my-inventory-file playbooks/upgrade.yml -e
project_type=core -e project_name=my-rhmap-core-project
```

This command reads the current deployment information and chooses the next available upgrade path. A warning message is displayed advising you to back up your data before proceeding. Press **Enter** to confirm that you have backed up and to continue with the upgrade.

2.3. VERIFYING RHMAP CORE UPGRADE

1. Review the output to verify there were no failures.
2. Verify all Nagios checks are healthy.
3. Make sure the component versions match those in the [Container Catalog](#) for the [erratum](#).

See the [troubleshooting documentation](#) in cases where the upgrade fails.

CHAPTER 3. UPGRADING EACH MBAAS PROJECT 4.6 TO 4.7.0

3.1. OVERVIEW

Upgrading your deployment of Red Hat Mobile Application Platform from version 4.7 to version 4.7.0:

- Adds the **MONGODB_ENDPOINT_COUNT** to the Nagios deployment configuration.
- Adds annotations to group related services together in the OpenShift UI.
- Adds the **node-proxy** ConfigMap Volume mount to fh-statsd.
- Existing images versions are updated to RHMAP 4.7 versions by modifying the deployment configurations for all objects in the RHMAP MBaaS, which triggers a redeployment of each component.
- Updates the version in **fh-mbaas-info-info** ConfigMap in the RHMAP MBaaS project to 4.7



WARNING

Before proceeding with the upgrade:

- Ensure you have administrator permissions for the OpenShift cluster hosting RHMAP.

3.2. UPGRADING TO RHMAP MBAAS VERSION 4.7

1. If you are using the docker image option, mount an inventory file and a valid SSH key for targeting that inventory, for example:

```
docker run -it \
  -v ~/.ssh/id_rsa:/opt/app-root/src/.ssh/id_rsa:Z \
  -v ${HOME}/Desktop/rhmap-ansible/inventories:/opt/app-
  root/src/inventories \
  -e ANSIBLE_PRIVATE_KEY_FILE=/opt/app-root/src/.ssh/id_rsa \
  rhmap47/installer bash
```

2. With all pods running, back up all persistent volumes using the following commands:

```
oc exec `oc get po --selector='deploymentconfig=mongodb-1' --
  template="(index .items 0).metadata.name` bash - -c '/opt/rh/rh-
  mongodb32/root/usr/bin/mongodump -u admin -p
  ${MONGODB_ADMIN_PASSWORD} --gzip --archive' > ./core7_mongodb.gz
```

3. To upgrade your existing RHMAP MBaaS from 4.6 to 4.7 you must specify:

- the name of the current project

- an inventory file
- **project_type** which must be set to **1-node-mbaas** or **3-node-mbaas**.

An example command is shown below:

```
cd /opt/rhmap/4.7/rhmap-installer
ansible-playbook -i my-inventory-file playbooks/upgrade.yml -e
project_type=3-node-mbaas -e project_name=my-rhmap-mbaas-project
```

This command reads the current deployment information and chooses the next available upgrade path. A warning message is displayed advising you to back up your data before proceeding. Press **Enter** to confirm that you have backed up and to continue with the upgrade.

3.3. VERIFYING RHMAP MBAAS UPGRADE

1. Review the output to verify there were no failures.
2. Verify all Nagios checks are healthy.
3. Make sure the component versions match those in the [Container Catalog](#) for the [erratum](#).
4. Verify the mongo replica set has persisted throughout the upgrade. On any mongo pod:
 - a. Run **oc rsh {{MONGO_POD}}**
 - b. Log in to the mongo cli:
mongo admin -u admin -p \$MONGODB_ADMIN_PASSWORD
 - c. Run **rs.status()**
Review the **json** output and make sure there is one PRIMARY and two SECONDARY members.

See the [troubleshooting documentation](#) in cases where the upgrade fails.