



# Managing Software Images

Version 20.11.1.2, 23 December 2020

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# 1. Managing Software Images

RBMS manages a list of software images that are currently installed on the switches in the network or eligible for being installed. The image lifecycle encompasses the following states:

- **NEW**, a new image that has been uploaded to RBMS but is not yet eligible for deployment. Typically the integrity of a new image needs to be verified before it becomes eligible for deployment.
- **CANDIDATE**, a candidate image is eligible for deployment. It is a candidate to become the new release image if it passes all tests in the network.
- **RELEASE**, the release image gets installed by default.
- **SUPERSEDED**, a superseded image is a former release image which has been replaced by a newer release.
- **REVOKED**, a revoked image must not be installed on switches in the network.

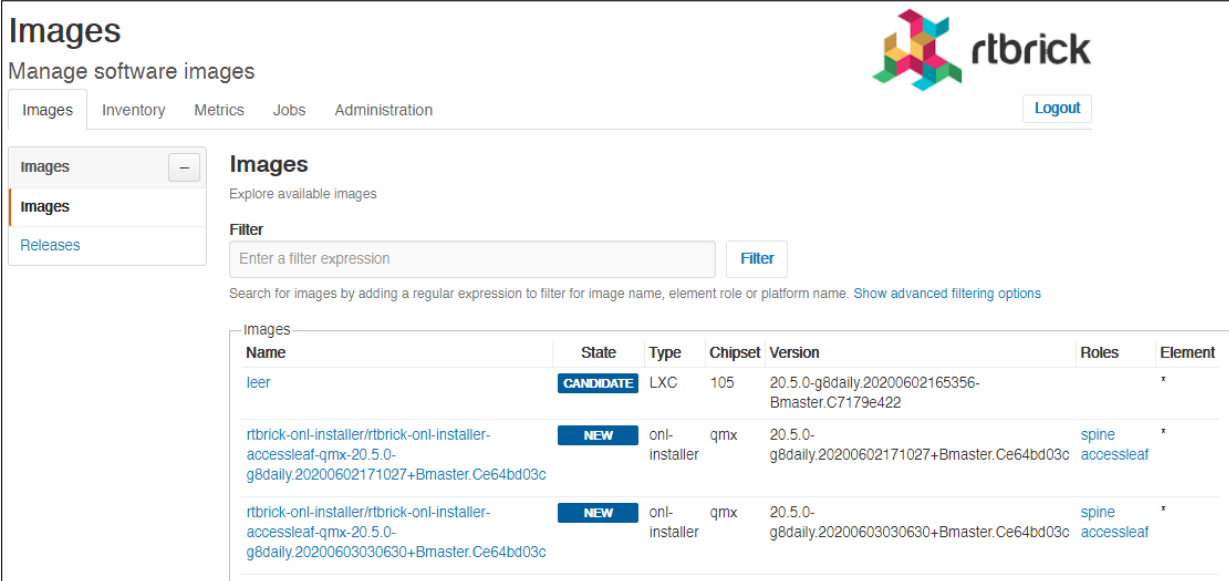
Superseded and revoked images are kept in the resource inventory for the sake of documentation and to track on how many switches superseded or revoked images are installed.

The `rtb-image` tool provides an option to register new image in RBMS. The new image can be installed on a switch via Zero-Touch Provisioning (ZTP).

## 1.1. Viewing all registered images

To view all registered images

- Click the **Images** tab. The **Images** page appears, showing the list of registered images.



The screenshot shows the 'Images' page in the RBMS interface. The page title is 'Images' with the subtitle 'Manage software images'. The 'rtbrick' logo is in the top right corner. A navigation bar includes 'Images', 'Inventory', 'Metrics', 'Jobs', and 'Administration'. A 'Logout' button is also present. On the left, a sidebar shows 'Images' as the active tab, with 'Releases' below it. The main content area is titled 'Images' and includes a filter input field and a 'Filter' button. Below this, a table lists the registered images.

Name	State	Type	Chipset	Version	Roles	Element
leer	CANDIDATE	LXC	105	20.5.0-g8daily.20200602165356-Bmaster.C7179e422		*
rtbrick-onl-installer/rtbrick-onl-installer-accessleaf-qmx-20.5.0-g8daily.20200602171027+Bmaster.Ce64bd03c	NEW	onl-installer	qmx	20.5.0-g8daily.20200602171027+Bmaster.Ce64bd03c	spine accessleaf	*
rtbrick-onl-installer/rtbrick-onl-installer-accessleaf-qmx-20.5.0-g8daily.20200603030630+Bmaster.Ce64bd03c	NEW	onl-installer	qmx	20.5.0-g8daily.20200603030630+Bmaster.Ce64bd03c	spine accessleaf	*

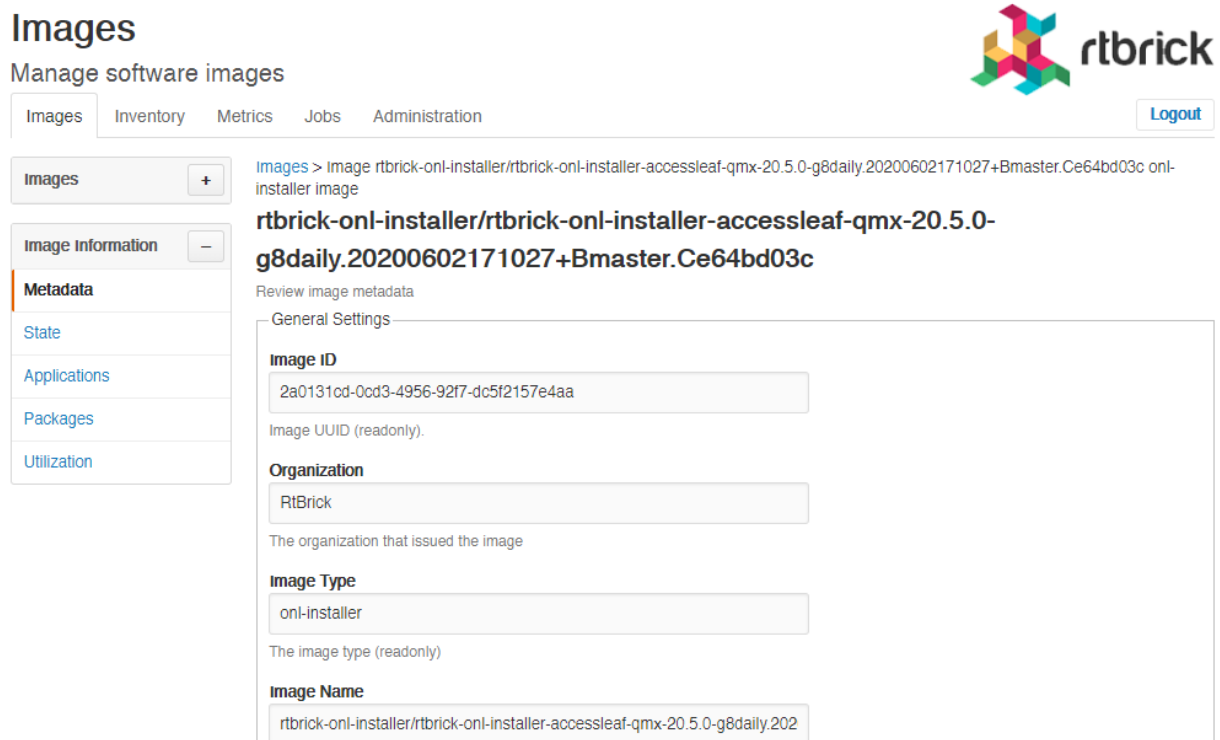
The **Images** page displays the following fields:

Field	Description
Name	Name of the software image
State	Indicates the image state such as New, Candidate, Release, Suspended, Revoked. For more information, see the <a href="#">Image Lifecycle Management</a> section.
Type	Type of the software image such as LXC or ONL
Chipset	Specifies the supported hardware name
Version	Version of the software image
Roles	The image is deployed on the specified element roles.
Element	Name of the registered element

### 1.1.1. Viewing image details

To view the details of an image

1. Click the **Images** tab. The list of registered images appear.
2. In the **Images** group box, click the name of the image that you want to view. The image details page appears.



The screenshot shows the 'Images' page in the rtbrick interface. The page title is 'Images' with the subtitle 'Manage software images'. The navigation bar includes 'Images', 'Inventory', 'Metrics', 'Jobs', and 'Administration', with a 'Logout' button on the right. The left sidebar shows a list of image details: 'Image Information', 'Metadata', 'State', 'Applications', 'Packages', and 'Utilization'. The main content area displays the details for the image 'rtbrick-onl-installer/rtbrick-onl-installer-accessleaf-qmx-20.5.0-g8daily.20200602171027+Bmaster.Ce64bd03c onl-installer image'. The image name is 'rtbrick-onl-installer/rtbrick-onl-installer-accessleaf-qmx-20.5.0-g8daily.20200602171027+Bmaster.Ce64bd03c'. The image ID is '2a0131cd-0cd3-4956-92f7-dc5f2157e4aa'. The image UUID is '2a0131cd-0cd3-4956-92f7-dc5f2157e4aa'. The organization is 'RtBrick'. The image type is 'onl-installer'. The image name is 'rtbrick-onl-installer/rtbrick-onl-installer-accessleaf-qmx-20.5.0-g8daily.20200602171027+Bmaster.Ce64bd03c'.

This page displays the following fields:

Field	Description
Image ID	Image UUID (read-only)
Organization	The organization that issued the image
Image Type	The image type (read-only)
Image Name	The unique image name
Image Version	Image version (read-only)
Category	Optional image category
Description	Optional description of the image
Platform Chipset	The chipset this image is build for (read-only)
Element Roles	This image can be deployed on the selected element roles
Supported Platforms	The list of platforms on which the image can be installed

### 1.1.2. Updating image metadata

To update the metadata of an image

1. Click the **Images** tab. The list of registered images appear.
2. In the **Images** group box, click the name of the image whose metadata you want to update. The image details page appears.
3. On the left navigation pane, click **Metadata**.

#### Images

Manage software images



Images

Inventory

Metrics

Jobs

Logs

Administration

Logout

Images

+

Image Information

Metadata

State

Applications

Packages

Utilization

Images > Image accessleaf\_EC5916-54XK\_onl-installer\_20.6.0-g6daily.20200623033220+Bdevelopment.C8e4ec1e0 onl-installer image

accessleaf\_EC5916-54XK\_onl-installer\_20.6.0-g6daily.20200623033220+Bdevelopment.C8e4ec1e0

Review image metadata

General Settings

Image ID

90a1715f-4c12-48b8-a234-f33dd1c1cccf

Image UUID (readonly).

Organization

The organization that issued the image

Image Type

onl-installer

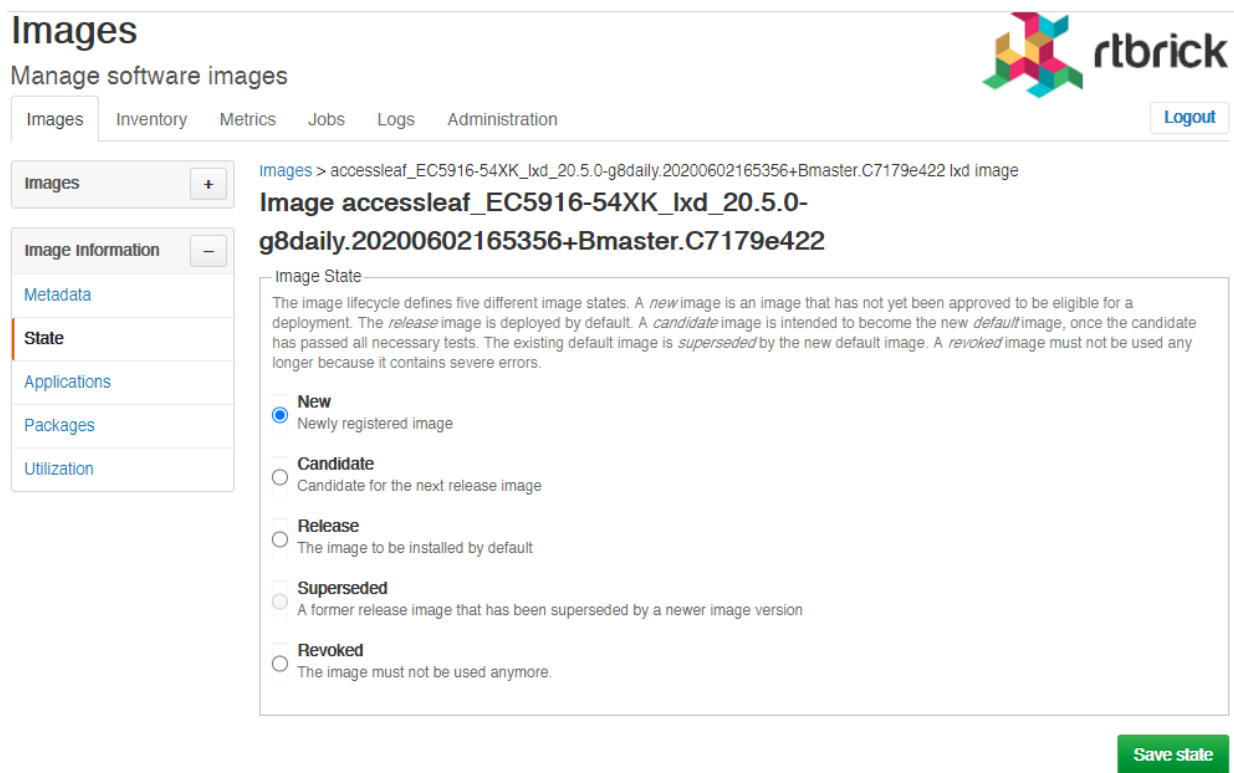
The image type (readonly)

4. Update image metadata such as image ID, type, name, and version.
5. Click **Save settings**.

## 1.2. Image Lifecycle Management

The image lifecycle defines five different image states. A new image is an image that has not yet been approved to be eligible for a deployment. The release image is deployed by default. A candidate image is intended to become the new default image, once the candidate has passed all necessary tests. The existing default image is superseded by the new default image. A revoked image must not be used any longer because it contains severe errors.

1. Click the **Images** tab. The list of registered images appear.
2. Click the name of the image that you want to view.
3. Click **State** in the left navigation pane.
4. From the following list of states, select the state that you want to apply.



The screenshot shows the 'Images' management interface for 'rtbrick'. The top navigation bar includes 'Images', 'Inventory', 'Metrics', 'Jobs', 'Logs', and 'Administration'. A 'Logout' button is in the top right. The left sidebar shows 'Image Information' with sub-items: 'Metadata', 'State' (selected), 'Applications', 'Packages', and 'Utilization'. The main content area displays the image name 'accessleaf\_EC5916-54XK\_lxd\_20.5.0-g8daily.20200602165356+Bmaster.C7179e422' and its full ID. Below this, the 'Image State' section explains the lifecycle and lists five states with radio buttons: 'New' (selected), 'Candidate', 'Release', 'Superseded', and 'Revoked'. Each state has a brief description. A green 'Save state' button is at the bottom right.

- **New:** Newly registered image
- **Candidate:** Candidate for the next release image
- **Release:** The image to be installed by default
- **Superseded:** A former release image that has been superseded by a newer image version
- **Revoked:** The image must not be used anymore.

5. Click **Save state**.