

IBM QRadar
Version 7.4.2

Upgrade Guide



Note

Before you use this information and the product that it supports, read the information in [“Notices” on page 5](#).

Product information

This document applies to IBM® QRadar® Security Intelligence Platform 7.4.2 and subsequent releases unless superseded by an updated version of this document.

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Introduction to upgrading QRadar software

Information about upgrading IBM QRadar applies to IBM QRadar SIEM and IBM QRadar Log Manager products.

Intended audience

System administrators who are responsible for upgrading IBM QRadar systems must be familiar with network security concepts and device configurations.

Technical documentation

To find IBM QRadar product documentation on the web, including all translated documentation, access the [IBM Knowledge Center](http://www.ibm.com/support/knowledgecenter/SS42VS/welcome) (<http://www.ibm.com/support/knowledgecenter/SS42VS/welcome>).

For information about how to access more technical documentation in the QRadar products library, see [Accessing IBM Security Documentation Technical Note](http://www.ibm.com/support/docview.wss?rs=0&uid=swg21614644) (www.ibm.com/support/docview.wss?rs=0&uid=swg21614644).

Contacting customer support

For information about contacting customer support, see the [Support and Download Technical Note](http://www.ibm.com/support/docview.wss?uid=swg21616144) (<http://www.ibm.com/support/docview.wss?uid=swg21616144>).

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Chapter 1. Preparation checklist for QRadar upgrades

To successfully upgrade an IBM QRadar system, verify your upgrade path, especially when you upgrade from older versions that require intermediate steps. You must also review the software, hardware, and high availability (HA) requirements.

ISO files are used for major operating system version upgrades and SFS files are used for any upgrades that do not include a major operating system version upgrade.

Use the following checklist to make sure that you are prepared for an upgrade.

- __ • Review the [QRadar Release Notes](https://ibm.biz/qradarsoftware)[®] (<https://ibm.biz/qradarsoftware>).
- __ • Run a health check and fix any failures. See "Running health checks" in the *Troubleshooting Guide*.
- __ • Notify users of scheduled maintenance.
- __ • Verify that running scans and reports are complete.
- __ • Request that users close all QRadar sessions and **screen** sessions.
- __ • Download the SFS file. See the [QRadar Release Notes](https://ibm.biz/qradarsoftware) (<https://ibm.biz/qradarsoftware>) for a download link.
- __ • Verify the checksum of the SFS file.
- __ • Get a CSV file that contains a list of IP addresses for each appliance in your deployment if you don't already have this information, by typing the following command:

```
/opt/qradar/support/deployment_info.sh
```

- __ • Back up all third-party data, such as:
 - scripts
 - personal utilities
 - important files or exports
 - JAR files or interim fixes that were provided by QRadar support
 - static route files for network interfaces
- __ • If you have HA appliances in your deployment, verify that your primary appliances are in the Active state, and your secondary appliances are in the Standby state.
- __ • Ensure that you have direct access to the command line on all appliances. If you are using IMM, iDRAC, Raritan, KVM, or other technology for command line access, ensure that they are configured and functional.
- __ • Verify that the firmware is the latest version for your appliances. For more information about updating firmware, see [Firmware update for QRadar](http://www.ibm.com/support/docview.wss?uid=swg27047121) (<http://www.ibm.com/support/docview.wss?uid=swg27047121>).
- __ • Back up your custom content by typing the following command:

```
/opt/qradar/bin/contentManagement.pl --action export --content-type all
```

- __ • Confirm that all appliances in your deployment are at the same software version by typing the following commands:

```
/opt/qradar/support/all_servers.sh -C -k /opt/qradar/bin/myver >  
myver_output.txt
```

```
cat myver_output.txt
```

- __ • Confirm that all previous updates are unmounted by typing the following commands:

```
/opt/qradar/support/all_servers.sh -k "umount /media/cdrom"
```

```
/opt/qradar/support/all_servers.sh -k "umount /media/updates"
```

- __ • If you have HA appliances in your deployment:
 - Verify that the `/store` file system is mounted on the primary appliance and not mounted on the secondary appliance.
 - Verify that the `/transient` file system is mounted on both the primary and secondary appliances.
- __ • Review system notifications for errors and warnings for the following messages before you attempt to update. Resolve these error and warning system notifications before you attempt to update:
 - Performance or event pipeline degradation notifications
 - Memory notifications
 - TX sentry messages or process stopped notifications
 - HA active or HA standby failure system notifications
 - Disk failure system notifications
 - Disk Sentry noticed one or more storage partitions are unavailable notifications
 - Time synchronization system notifications
 - Unable to execute a backup request notifications
 - Data replication experiencing difficulty notifications
 - RAID controller misconfiguration notifications
- __ • Manually deploy changes in the user interface to verify that it completes successfully.
- __ • Verify that the latest configuration backup completed successfully and download the file to a safe location.
- __ • Ensure that all apps on your system are updated. Out-of-date apps might not work after you upgrade QRadar.
- __ • Resolve any issues with applications in an error state or not displaying properly.
- __ • App Nodes are no longer supported as of V7.3.2. If you have an App Node in your deployment, follow the steps in "Migrating from an App Node" in the *IBM QRadar Administration Guide* before you start the upgrade.

Chapter 2. Upgrading QRadar to 7.4.2

You must upgrade all of the IBM QRadar products in your deployment to the same version.

About this task

To ensure that IBM QRadar upgrades without errors, ensure that you use only the supported versions of QRadar software:

- Ensure that QRadar 7.3.2 Fix Pack 3 or later is installed. To learn more about QRadar versions, see the [QRadar Master Software List](https://www.ibm.com/support/pages/node/550495) (https://www.ibm.com/support/pages/node/550495).
- Check the software version in the software by clicking **Help > About**.

Important: Software versions for all IBM QRadar appliances in a deployment must be the same version and fix level. Deployments that use different QRadar versions of software are not supported.

Upgrade your QRadar Console first, and then upgrade each managed host. In high-availability (HA) deployments, when you upgrade the HA primary host, the HA secondary host is automatically upgraded.

When you run the upgrade patch, any QRadar Event Collectors are detected. These Event Collectors must be migrated from GlusterFS to Distributed Replicated Block Device before the upgrade can continue. The patch to 7.4.2 fails if the migration has not been run and an Event Collector is detected in the deployment. The migration patch is included with the upgrade patch and must be run separately on any 7.3.2 Fix Patch 3 or later deployment.

Important: If you migrate your QRadar Event Collectors from GlusterFS to Distributed Replicated Block Device, you must upgrade to 7.4.2 or later.

The following QRadar systems can be upgraded concurrently:

- Event Processors
- QRadar Event Collectors
- Flow Processors
- QFlow Collectors
- Data Nodes
- App Hosts

QRadar 7.4.2 includes stricter rules for Ariel queries, to address APARIJ13437 (https://www.ibm.com/support/docview.wss?uid=swg1IJ13437). You must run the `aq1Validator` script to determine whether any Ariel queries must be updated before you upgrade to QRadar 7.4.2. For more information about the `aq1Validator` script, see APARIJ13446 (https://www.ibm.com/support/docview.wss?uid=swg1IJ13446).

Procedure

1. Run the `aq1Validator` script to determine whether any Ariel queries must be updated before you upgrade QRadar:

- If auto-updates are enabled, run `aq1Validator` by typing the following command:

```
/opt/qradar/support/apar/aq1Validator
```

- If auto-updates are not enabled:
 - a. Download the latest autoupdates bundle from [Fix Central](https://www.ibm.com/support/fixcentral/) (https://www.ibm.com/support/fixcentral/).
 - b. Install the autoupdates bundle by following the instructions in [QRadar: How to Manually Install the QRadar Weekly Auto Update Bundle](https://www.ibm.com/support/docview.wss?uid=swg22003034) (https://www.ibm.com/support/docview.wss?uid=swg22003034).

c. Run `aqlValidator` by typing the following command:

```
/opt/qradar/support/apar/aqlValidator
```

2. Download the `<QRadar>.sfs` file from [Fix Central](http://www.ibm.com/support/fixcentral) (www.ibm.com/support/fixcentral).
3. Use SSH to log in to your system as the root user.
4. Copy the SFS file to the `/storetmp` or `/var/log` directory or to another location that has sufficient disk space.

To verify you have enough space (5GB) in the QRadar Console, type the following command:

```
df -h /storetmp /var/log | tee diskchecks.txt
```

Important: Don't copy the file to an existing QRadar system directory such as the `/store` directory.

5. To create the `/media/updates` directory, type the following command:

```
mkdir -p /media/updates
```

6. Use the `cd` command to change to the directory where you copied the SFS file.
7. To mount the SFS file to the `/media/updates` directory, type the following command:

```
mount -o loop <QRadar>.sfs /media/updates
```

8. To run the installer, type the following command:

```
/media/updates/installer
```

If you receive the following error message, you have a QRadar Incident Forensics appliance in your deployment. For information about upgrading with a QRadar Incident Forensics appliance in your deployment, see [Upgrading QRadar Incident Forensics](#).

```
Error: This patch is incompatible with Forensics deployments
[ERROR](testmode) Patch pretest 'Check for QIF appliances in deployment' failed.
(check_qif.sh)
[ERROR](testmode) Failed 1/8 pretests. Aborting the patch.
[ERROR](testmode) Failed pretests
[ERROR](testmode) Pre Patch Testing shows a configuration issue. Patching this host cannot
continue.
[INFO](testmode) Set ip-130-86 status to 'Patch Test Failed'
[ERROR](testmode) Patching can not continue
[ERROR] Failed to apply patch on localhost, not checking any managed hosts.
An error was encountered attempting to process patches.
Please contact customer support for further assistance.
```

What to do next

1. Unmount `/media/updates` by typing the following command:

```
umount /media/updates
```

2. Delete the SFS file.
3. Perform an automatic update to ensure that your configuration files contain the latest network security information. For more information, see the *IBM Security QRadar SIEM Administration Guide*.
4. Delete the patch file to free up space on the partition.
5. Clear your web browser cache. After you upgrade QRadar, the **Vulnerabilities** tab might not be displayed. To use QRadar Vulnerability Manager after you upgrade, you must upload and allocate a valid license key. For more information, see the *Administration Guide* for your product.
6. Determine if there are changes that must be deployed. For more information see "Deploying Changes" in *IBM Security QRadar SIEM Administration Guide*.

Related information

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