IBM QRadar
7.6

Upgrade Guide

Note

Before you use this information and the product that it supports, read the information in “Notices” on page 21.

Contents

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).

For information about how to access more technical documentation in the QRadar products library, see Accessing IBM Security Documentation Technical Note (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).

Statement of good security practices

IT system security involves protecting systems and information through prevention, detection and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, misappropriated or misused or can result in damage to or misuse of your systems, including for use in attacks on others. No IT system or product should be considered completely secure and no single product, service or security measure can be completely effective in preventing improper use or access. IBM systems, products and services are designed to be part of a lawful comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products or services to be most effective. IBM DOES NOT WARRANT THAT ANY SYSTEMS, PRODUCTS OR SERVICES ARE IMMUNE FROM, OR WILL MAKE YOUR ENTERPRISE IMMUNE FROM, THE MALICIOUS OR ILLEGAL CONDUCT OF ANY PARTY.

Please Note:

Use of this Program may implicate various laws or regulations, including those related to privacy, data protection, employment, and electronic communications and storage. IBM QRadar may be used only for lawful purposes and in a lawful manner. Customer agrees to use this Program pursuant to, and assumes all responsibility for complying with, applicable laws, regulations and policies. Licensee represents that it will obtain or has obtained any consents, permissions, or licenses required to enable its lawful use of IBM QRadar.

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.

Important: If you upgrade to QRadar 7.5.0 FP1 or later a database migration occurs. The time to complete the database migration can take many hours and is dependent on the database size, hard drive/storage performance, network performance, and hardware performance.

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

__ • Review the QRadar® Release Notes (https://www.ibm.com/docs/en/qsip/7.5?topic=release-notes).

__ • Review the software update checklist on the **Update checklist** tab. For more information, see Software update checklist.

__ • 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.

__ • When upgrading to a version of QRadar prior to 7.4.2, ensure that all event collectors are migrated from GlusterFS to Distributed Replicated Block Device. For more information, see “Migrating event collectors from GlusterFS to Distributed Replicated Block Device” on page 9.

__ • Review the release notes for the version you are upgrading to and download the SFS file. To access the release notes and SFS file download link, go to QRadar Software 101 (https://ibm.biz/qradarsoftware).

__ • Verify the checksum of the SFS file. For information about verifying the checksum of the SFS file, see Using a Windows Host for Checksum verification of the build (https://www.ibm.com/support/pages/radar-error-installing-radar-when-using-iso).

__ • 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
```

__ • Unmount all external storage which is not /store/ariel or /store.

__ • 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).

__ • You can also back up your custom content by typing the following command:

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

Depending on the environment size, it could take hours, days, or in some cases weeks for the export to complete in large environments. For more information, see QRadar: Best practices when using the Content Management Tool to export custom data.

__ • 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 SIEM to 7.5.0 UP8

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

Before you begin

Review the software update checklist on the **Update checklist** tab. For more information, see Software update checklist (https://www.ibm.com/support/pages/qradar-software-update-checklist-administrators).

Restriction:

The following restrictions apply to the upgrade process:

- To successfully upgrade to QRadar 7.5.0 UP8, your deployment must be on QRadar 7.5.0 UP7.
- To successfully upgrade to RHEL-8, your deployment must use a supported device driver. If any unsupported drivers exist on your deployment, they are removed during the upgrade. For more information on the list of unsupported drivers, see Removed device drivers.
- Upgrading to RHEL-8 on systems with LUKS encrypted partitions is not supported. Verify that your deployment does not include hosts with LUKS encrypted partitions to successfully upgrade your system.
- Upgrading to RHEL-8 on systems with Secure Boot enabled is not supported.
- The Leapp pretest can fail if the tool detects any Network Interface Card (NIC) that uses kernel naming (eth) and multiple NICs existing on the same system. To resolve this issue, follow the steps in https://access.redhat.com/solutions/4067471.

Determine the minimum QRadar version that is required for the version of QRadar to which you want to update.

- Click **Help** > **About** to check your current version of QRadar.
- To determine whether you can upgrade to a version of QRadar, go to QRadar Software 101 (https://www.ibm.com/community/qradar/home/software/). And check the release notes of the version that you want to upgrade to.

About this task

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

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.
- Custom DSMs are not removed during the upgrade.
- After you upgrade to Update Package 8, WinCollect 7.3.1 managed agents do not receive updates from encrypted QRadar managed hosts. For more information, see technote DT269649.
- After you upgrade from QRadar 7.5.0 Update Package 7 to Update Package 8 or later, a full Distributed Replicated Block Device (DRBD) synchronization process runs on HA systems. If you upgrade from QRadar 7.5.0 Update Package 8 to Update Package 9, a partial DRBD synchronization process runs on HA systems. For more information, see technote DT365804.

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.

The following QRadar systems can be upgraded concurrently:

- Event processors
- Event collectors

- Flow processors
- QFlow collectors
- Data nodes
- App hosts

Procedure

1. Download the `.sfs` file from Fix Central (www.ibm.com/support/fixcentral).
   - If you are upgrading QRadar SIEM, download the *<QRadar>*`.sfs` file.
   - If your deployment includes an IBM QRadar Incident Forensics (6000) appliance, download the `<identifier>_Forensics_patchupdate-<build_number>.sfs` file. The `.sfs` file upgrades the entire QRadar deployment, including QRadar Incident Forensics and QRadar Network Insights.
2. Use SSH to log in to your system as the root user.
3. Copy the SFS file to the `/storetmp` or `/var/log` directory or to another location that has sufficient disk space. Verify that the `/storetmp` directory has at minimum 10 GB of space available on all hosts, including secondary hosts, for the upgrade.

   Important: If the SFS file is in the `/storetmp` directory and you do not upgrade, when the overnight diskmaintd.pl utility runs, the SFS file is deleted. For more information, see Daily disk maintenance (https://www.ibm.com/support/pages/node/874848?mhsrc=ibmsearch_a&mhq=daily%20disk%20maintenance).

   To verify that you have enough space (10 GB) 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.
4. To create the `/media/updates` directory, type the following command:

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

   ```
   mount -o loop <QRadar>.sfs /media/updates
   ```
7. You must run the Leapp pretest to verify your system before the upgrade. To run the Leapp pretest, type the following command:

   ```
   /media/updates/installer --leapp-only
   ```

   Important:

   - If you run the leapp-only installer from a console in a distributed environment, the `sfs` file is copied to all hosts and the leap-installer only runs locally to provide a report. Alternatively, you can copy the `sfs` file to each host and run the leapp-only installer before you run on the console.
   - If the Leapp pretest is unsuccessful, you must resolve the issues in the pretest output, and then run the test again. The upgrade is blocked until the Leapp pretest runs successfully.
8. Optional: Pretest the installation by typing the following command:

   ```
   /media/updates/installer -t
   ```

   Important: The web server and hostcontext services are stopped while the tests are running. After the test is complete, they are started back automatically.

   Review the pretest output. If your deployment fails any pretests, take any of the suggested actions.
9. 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. Download the QRadar Incident Forensics patch file from IBM® Fix Central (www.ibm.com/support/fixcentral). The patch file is named similar to this one: <identifier>_Forensics_patchupdate-<build_number>.sfs. For more 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 Checking for new updates.
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. FIPS installation only To verify that the FIPS mode is enabled, run the following command.

   ```
   fips-mode-setup --check
   ```

   If the FIPS mode is disabled, run the following command, and then reboot your system to enable the FIPS mode.

   ```
   /opt/qradar/bin/qradar_fips_toggle.sh enable
   ```

7. If you have custom syslog-ng configuration files, update your files to ensure compatibility with the new syslog-ng syntax in version 3.23. For more information, see Updating custom syslog-ng configuration files.
8. Determine whether there are changes that must be deployed. For more information, see "Deploying Changes" in *IBM Security QRadar SIEM Administration Guide*.

Related information

QRadar Software 101

Chapter 3. Upgrading QRadar SIEM

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

Before you begin

Review the software update checklist on the **Update checklist** tab. For more information, see Software update checklist (https://www.ibm.com/support/pages/qradar-software-update-checklist-administrators).

For QRadar versions earlier than QRadar 7.4.2, you must migrate your event collectors from GlusterFS to Distributed Replicated Block Device. When you upgrade, QRadar event collectors are detected and before the upgrade can continue, the event collectors must be migrated. For more information, see Migrating event collectors from GlusterFS to Distributed Replicated Block Device.

Determine the minimum QRadar version that is required for the version of QRadar to which you want to update.

- Click **Help** > **About** to check your current version of QRadar.
- To determine whether you can upgrade to a version of QRadar, go to QRadar Software 101 (https://www.ibm.com/community/qradar/home/software/) and check the release notes of the version you want to upgrade to.

About this task

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

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.
- Custom DSMs are not removed during the upgrade.

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.

The following QRadar systems can be upgraded concurrently:

- Event processors
- Event collectors
- Flow processors
- QFlow collectors
- Data nodes
- App hosts

With QRadar 7.5.0 Update Package 2 you can enable secure boot. If Secure Boot is to be enabled on the system the public key must be imported after the patch completes. For more information, see Enabling Secure Boot.

Procedure

1. Download the `.sfs` file from Fix Central (www.ibm.com/support/fixcentral).
   - If you are upgrading QRadar SIEM, download the *<QRadar>*`.sfs` file.
   - If your deployment includes an IBM QRadar Incident Forensics (6000) appliance, download the `<identifier>_Forensics_patchupdate-<build_number>.sfs` file. The `.sfs` file upgrades the entire QRadar deployment, including QRadar Incident Forensics and QRadar Network Insights.

2. Use SSH to log in to your system as the root user.
3. Copy the SFS file to the `/storetmp` or `/var/log` directory or to another location that has sufficient disk space.

   Important: If the SFS file is in the `/storetmp` directory and you do not upgrade, when the overnight diskmaintd.pl utility runs, the SFS file is deleted. For more information, see Daily disk maintenance (https://www.ibm.com/support/pages/node/874848?mhsrc=ibmsearch_a&mhq=daily%20disk%20maintenance).

   To verify you have enough space (5 GB) 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.
4. To create the `/media/updates` directory, type the following command:

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

   ```
   mount -o loop <QRadar>.sfs /media/updates
   ```
7. 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. Download the QRadar Incident Forensics patch file from IBM Fix Central (www.ibm.com/support/fixcentral). The patch file is named similar to this one: <identifier>_Forensics_patchupdate-<build_number>.sfs. For more 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 Checking for new updates.
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 whether there are changes that must be deployed. For more information, see "Deploying Changes" in *IBM Security QRadar SIEM Administration Guide*.

Related information
QRadar Software 101

Migrating event collectors from GlusterFS to Distributed Replicated Block Device

If the QRadar upgrade detects stand-alone or clustered event collectors with GlusterFS in your deployment, the upgrade fails. You must run a migration script separately on QRadar 7.3.2 Fix Pack 3 or later before you upgrade to QRadar 7.4.2 or later. If your event collectors are deployed on QRadar 7.1 or earlier and then upgraded to a later version, you must upgrade the file systems table (fstab) before you migrate GlusterFS to Distributed Replicated Block Device.

Before you begin

Ensure that terminals are closed within the `/store` partition on the event collectors before you run the script.

About this task

You can migrate the event collectors from GlusterFS to Distributed Replicated Block Device without upgrading to a new version of QRadar. However, your event collectors must be migrated to Distributed Replicated Block Device if you upgrade to QRadar 7.4.2 or later. The migration can be only started from the QRadar Console and runs sequentially on several event collectors. A backup check runs to ensure that enough space is available to back up the `/store` partition.

Important: If you have a large /store partition, for example 50 TB, creating the high-availability Distributed Replicated Block Device might take a few days to complete. You must wait until the synchronization completes before you upgrade QRadar.

Procedure

1. Download the latest version of the migration script from the Script section of Fix Central (https://www.ibm.com/support/fixcentral/swg/selectFixes?parent=IBM%20Security&product=ibm/Other+software/IBM+Security+QRadar+SIEM&release=7.4.0&platform=Linux&function=all).
2. Copy the migration script that you downloaded to the QRadar Console by typing the following command:

   ```
   scp <filename> <user>@<IP_address>:/opt/qradar/ha/bin/<filename>
   ```

   Important: This script must be copied to the directory `/opt/qradar/ha/bin` or it doesn't run.
3. In the directory `/opt/qradar/ha/bin/`, enter the following command to set the permissions on the script.

   ```
   chmod +x glusterfs_migration_manager-<script_version>.bin
   ```
4. To verify the script, run the following command:

   ```
   ls -ltrh glusterfs_migration_manager-<script_version>.bin
   ```

   The result might look similar to this example:

   ```
    -rwxr-xr-x 1 root root 9.8M Feb  9 12:14 glusterfs_migration_manager-<script_version>.bin
   ```
5. For all versions of QRadar, run the migration script from the QRadar Console by typing the following command:

   ```
   /opt/qradar/ha/bin/glusterfs_migration_manager-<script_version>.bin -m
   ```

   Important: If you get an error that there is not enough storage space during migration from GlusterFS to Distributed Replication Block Device, do not point to the `/store` directory. Pointing to the `/store`

directory interferes with the stability of the system. For more information, see https://www.ibm.com/support/pages/node/6413281 (https://www.ibm.com/support/pages/node/6413281).

The following table describes the migration parameters that you can use in the command.

Table 1. GlusterFS migration parameters

Parameters	Description
-h	Shows the help information for GlusterFS migration.
-p	Copies this executable file and runs the precheck on all hosts that might require a migration.
-m	Starts the migration process on all applicable hosts. By default the /storetmp/backup partition is used to back up the /store partition but you can provide a different backup partition with the migrate option.
-s	Provides details about the migration status of applicable hosts in the deployment.
--debug	Runs with another option to enable debug output.

The time to complete the migration of a single HA event collector host is approximately 20 - 25 minutes. The time depends on how much data is backed up before the `/store` partition is wiped to make space for Distributed Replicated Block Device.

Results

All services are stopped on the event collectors during migration from GlusterFS to Distributed Replicated Block Device. After the event collectors are migrated, the event collector works the same way as any other host that uses Distributed Replicated Block Device.

What to do next

Chapter 3, “Upgrading QRadar SIEM,” on page 7

Upgrading QRadar SIEM by using parallel patching

You can upgrade all the IBM QRadar products in your deployment by using parallel patching.

From the **Patch installer** menu, you can choose to upgrade your IBM QRadar products by using **Legacy Patching (Sequential)** or **Parallel Patching**.

Important: The **Patch installer** menu is available only when you run the installer from the console.

Legacy Patching (Sequential)

To upgrade the attached managed hosts sequentially, from the **Patch installer** menu, select **Legacy Patching (Sequential)**. The default **Legacy Patch installer** menu is displayed as shown in the following example.

```
Legacy Patch installer
--------------
Please select a host for patching:

1) console-13 (console)
all) Apply patches on all hosts sequentially (console first)

*) Exit
```

If you exit from the **Legacy Patching (Sequential)** menu, the installer closes. You can reload the installer to go back to the **Patch installer** menu.

Parallel Patching

To upgrade all attached managed hosts simultaneously, from the **Patch installer** menu, select **Parallel Patching**. The **Parallel Patch Menu** is displayed as shown in the following example.

```
Parallel Patch Menu
--------------

1) Stage SFS on all hosts
2) Patch all hosts in parallel (Console first)
3) Check patching status
4) View live report
*) Exit
```

Important: To successfully upgrade QRadar SIEM by using parallel patching, do not rename the SFS file on the console.

The following table describes the options in the **Parallel Patch Menu**.

Table 2. Parallel Patch Menu options

Options	Description
Optional: Stage SFS on all hosts	The SFS file that is on the console is staged to each managed host in the deployment before the upgrade begins. You can stage the SFS on all hosts a day or a week in advance without excess downtime. If an SFS file exists on the managed host, the console runs a hash check to verify whether the SFS file on the managed host and the console are identical. If hash check fails, the console overwrites the SFS file on the managed host. If the SFS files are identical, this step is skipped. If an error occurs during the staging, a message is displayed in the **Parallel Patch Menu** that indicates the managed hosts where the SFS staging failed. By default, the SFS is staged to 5 managed hosts at a time. If you face network bandwidth issues, use the **-l** option in the command line to specify the transfer rate in kilobits per second that is used to copy the SFS file to each managed host. For example, if the transfer limit is 500 kilobits per second, the total bandwidth that is used by the console is 2500 kilobits per second when the SFS file is staged on 5 managed hosts.

Table 2. Parallel Patch Menu options (continued)

Options	Description
Patch all hosts in parallel	The SFS file is staged on all managed hosts, and the upgrade process is started. If the SFS file is not staged on the managed hosts, this option stages the SFS file on all managed hosts before the upgrade process. After the console verifies that the SFS file is staged on all the managed hosts, the upgrade process begins on the console. If the console upgrade fails, the upgrade process stops and requires investigation. When the console upgrade is successful, the console validates each managed host before the upgrade is run in your deployment. A message is displayed in the **Parallel Patch Menu** with a summary of the upgrade process. A managed host is skipped during the upgrade process if it meets the following conditions. • The managed host is already upgraded to the SFS file or later. • The managed host is running an upgrade currently. • The managed host is unreachable.
Check patching status	A high-level overview of each host is displayed with the **SFS Status**, **Is Host Patched**, and **Is Patch Running** details.
View Live Report	The live report of the upgrade status is displayed. This display shows all the hosts in the deployment and the percentage complete of the upgrade. If a host fails during the upgrade, a `Patching Failed` message is displayed. If the patching fails on one host, the patching continues on other hosts until it is completed successfully or failed.

Table 2. Parallel Patch Menu options (continued)

Options	Description
Exit	While the upgrade is running on the managed hosts, the **Exit** option is not available. You can use this option when the upgrade is completed on all managed hosts. To go to the console command line during the upgrade, use only one of the following methods: 1. Create another SSH session to the console. 2. Detach the TMUX session by using the `CTRL-b` and `d` commands. To reattach the TMUX session, use only one of the following commands on the same host that the TMUX session was detached: 1. Attach the TMUX session by using the `tmux attach` command. 2. Re-run the installer by using the `/media/updates/installer` command.

Chapter 4. Upgrading QRadar Incident Forensics

IBM QRadar Incident Forensics offering is not available in QRadar 7.6.0 but continues to be supported in the QRadar7.5.0 release stream. Please find all relevant information and updates QRadar 7.5.0 documentation.

Chapter 5. Upgrading QRadar Network Insights

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

Restriction: Resizing logical volumes is not supported.

Before you begin

Custom changes that you make to QRadar configuration files do not persist when you upgrade your deployment. Before you upgrade, back up any customized configuration files so that you can refer to them after the upgrade. After the upgrade is complete, do not overwrite the new configuration files with the old files. You must manually re-apply the customized settings.

The file that you use to upgrade QRadar Network Insights depends on which products are installed in your deployment. You must download the correct upgrade file from Fix Central (www.ibm.com/support/fixcentral/).

Procedure

1. Download the patch update file from Fix Central (www.ibm.com/support/fixcentral/).
2. Use SSH to log in to your system as the root user.
3. Copy the patch file to the `/tmp` directory or to another location that has sufficient disk space.
4. To create the `/media/updates` directory, type the following command:

   ```
   mkdir -p /media/updates
   ```
5. Change to the directory where you copied the patch file.
6. To mount the patch file to the `/media/updates` directory, type the following command:

   ```
   mount -o loop -t squashfs <patchupdate_filename>.sfs /media/updates/
   ```
7. To run the upgrade installer, type the following command:

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

   The first time that you run the patch installer script, there might be a delay before the first patch installer menu is displayed.
8. Provide answers to the pre-patch questions based on your deployment.
9. Use the upgrade installer to upgrade all hosts in your deployment.

   If your SSH session is disconnected while the upgrade is in progress, the upgrade continues. When you reopen your SSH session and rerun the installer, the installation resumes.
10. After the upgrade is complete, type the following command to unmount the software update:

    ```
    umount /media/updates
    ```

Chapter 6. Upgrading QRadar Network Packet Capture on IBM hardware

This software offering is no longer available.

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