

# Dell EMC Unity™ Family

Version 4.4

## Upgrading Unity Software

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# Additional resources

As part of an improvement effort, revisions of the software and hardware are periodically released. Therefore, some functions described in this document might not be supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information on product features. Contact your technical support professional if a product does not function properly or does not function as described in this document.

## Where to get help

Support, product, and licensing information can be obtained as follows:

### Product information

For product and feature documentation or release notes, go to Unity Technical Documentation at: [www.emc.com/en-us/documentation/unity-family.htm](http://www.emc.com/en-us/documentation/unity-family.htm).

### Troubleshooting

For information about products, software updates, licensing, and service, go to Online Support (registration required) at: <https://Support.EMC.com>. After logging in, locate the appropriate **Support by Product** page.

### Technical support

For technical support and service requests, go to Online Support at: <https://Support.EMC.com>. After logging in, locate **Create a service request**. To open a service request, you must have a valid support agreement. Contact your Sales Representative for details about obtaining a valid support agreement or to answer any questions about your account.

## Special notice conventions used in this document



Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

---



Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

---



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

---



Addresses practices not related to personal injury.

---

### Note

Presents information that is important, but not hazard-related.

---

Additional resources

# CHAPTER 1

## Introduction

This chapter contains the following topics:

- [About this document](#)..... 8
- [Types of software updates](#)..... 8
- [Information on changes and new features in a release](#)..... 8

## About this document

This document provides information that you can use to understand, plan, and upgrade the Operating Environment software, Disk Firmware, and Language Packs installed on your Unity storage system. It also includes information on some of the common issues that can interrupt the upgrade and associated troubleshooting procedures. For more information about performing a Unity Data-in-Place conversion to upgrade hardware, refer to the *Unity Data-in-Place Conversion Guide*.

## Types of software updates

The storage system can have the following types of software updates:

- Operating Environment (OE) software (also called, Unisphere)
- Disk firmware
- Language packs

Note the following:

- Software updates are available in an encrypted binary file format (.gpg). The encryption ensures that the contents of the file are valid and not corrupted.
- OE software updates sometimes include system firmware upgrades. Such upgrades may take a bit longer to complete.
- Language packs are associated to a relevant system OE version.
- Disk firmware versions do not match the system OE versions.

## Information on changes and new features in a release

The *Release Notes* document includes information on the enhancements, fixed issues, and known issues in a release. When applicable, it also includes information on specific upgrade instructions or considerations for a release.

### Locate the Release Notes

The *Release Notes* document is available on the support website. To view a *Release Notes* document:

1. Obtain the Unity Operating Environment or software version for the *Release Notes*.
2. In Unisphere, select **Support > Downloads and Documentation** and select **Release Notes**.
3. Scroll to the *Release Notes* document for the version you want.

# CHAPTER 2

## Plan the upgrade

This chapter includes information that you must review before performing an upgrade:

- [Upgrade readiness considerations](#)..... 10
- [Common issues that can interrupt an upgrade](#)..... 10
- [Time needed to complete an upgrade](#)..... 11
- [I/O activities during an upgrade](#)..... 11

## Upgrade readiness considerations

At this time, there is no back out plan from an upgrade. Once you start the upgrade process, you must finish it. Before you start the upgrade, consider the following:

- When you upload a new upgrade file onto your system, it replaces the previously uploaded version. There can only be one upgrade candidate on the system at a time.
- You will be prevented from using Unisphere or the CLI to make configuration changes to the system while the upgrade is in progress.
- Unisphere may be temporarily disconnected during the upgrade. Access to Unisphere is automatically re-established after the upgrade completes.
- It is strongly recommended that you perform a system health check about a week before installing an upgrade, to ensure that you have time to resolve underlying problems that may prevent a successful update.
- Attempt to reduce the I/O to the system during the upgrade process as much as possible. While the upgrade is non-disruptive, there is only one storage processor handling I/O, so performance will be reduced.
- Any hot fixes installed prior to the upgrades are automatically removed during the upgrade. If the hot fix is not included in the upgrade, ensure that you install the hot fix again after the upgrade. Refer to the relevant *Release Notes* to ensure that the issue addressed by the hot fix is included as a fixed issue in the new system OE software version.

## Common issues that can interrupt an upgrade

The following common issues may interrupt an upgrade:

### Faulted component

If a component has faulted, an alert may already be present in Unisphere. You can also check for any faulted components in the **System View** page of Unisphere. Once you identify the component, make the necessary replacements, and then try running the upgrade again.

Before you start the upgrade process, it is recommended that you perform a pre-upgrade health check. It checks for any hardware faults and the health of the file system. Ensure that there are no issues reported.

### Incompatible software update file

Some software upgrades require that you are running on a specific version. Refer to the *Release Notes* document associated with the software update. For more information, see [Information on changes and new features in a release](#).

### Corrupt software update file

Use the SHA256 checksum method to confirm whether the software update file is corrupt. For more information, see [Verify that the upgrade file is not corrupted](#).

If the file is corrupted, download the software update one more time, verify it using SHA256 checksum, and then proceed with the upgrade.

It is recommended that you always verify that the software update file is valid and not corrupt using the SHA256 checksum.

## Time needed to complete an upgrade

The total estimated time for an upgrade is around 1 hour and 15 minutes. It may change based on the I/O activities and other factors specific to your environment. Do not take actions, such as closing and opening the Web browser or power cycling the SPs in the middle of an upgrade.

The upgrade retains your existing configuration settings. This includes the IP addresses you configured for the system (static or dynamic).

---

### Note

OE software updates sometimes include system firmware updates. In such cases, the upgrade may take a bit longer to complete.

---

## I/O activities during an upgrade

Unisphere may be temporarily disconnected during the upgrade. Once the upgrade is complete, it will automatically be reconnected. It is recommended that you reduce all I/O activity before you proceed with the upgrade.

Plan the upgrade

# CHAPTER 3

## Perform the upgrade

This chapter contains the following topics:

- [Upgrade the system software](#)..... 14
- [Update drive firmware](#)..... 15
- [Update language packs](#)..... 16

# Upgrade the system software

## Before you begin

Updates are made when new software or firmware is released. Depending on the implementation, you can obtain updates from online support or from your service provider. If you have ESRS enabled, you can contact support and request that they automatically push down the latest software or firmware to your system.

- Perform a system health check about a week before upgrading your software or firmware to ensure that you have time to resolve underlying problems that may prevent a successful update.
- When you upload a new upgrade file onto your system, it replaces the previous version. There can only be one upgrade candidate on the system at a time.
- You will be prevented from using Unisphere or the CLI to make configuration changes to the system while the upgrade is in progress.
- Unisphere may be temporarily disconnected during the upgrade when the primary storage processor reboots, and it may take a few minutes to be automatically reconnected.

## Procedure

1. Under **Settings**, select **Software and Licenses > Software Updates**.
2. Select **Perform Health Checks** to perform the health check independently of an upgrade, or several days or weeks prior to a planned upgrade.

If the health check fails, you must resolve the problem before performing an update. If the health check does not fail, but displays warning messages highlighting potential issues, you can choose to check and correct these issues, or ignore these messages and proceed with the update.

3. Select **Download New Software** to download a new software upgrade image in advance of starting the upgrade.
4. If you downloaded the software manually, save the upgrade file to the local computer from which you are running Unisphere.

Do not change the name of the file.

5. Select **Start Upgrade**.
6. If you have not performed a system health check recently, select **Perform Health Checks**.

This enables you to identify and resolve any issues that may have appeared in the system after the last health check.

7. There are multiple possible options for **Select New Software**. They may not all be available at the same time. Select one of the following options and click **Next**:

- No files available for download: **Choose File** to upload an image previously downloaded to your system.
- **Use Candidate Software**: This image was previously uploaded to your system by a user.
- **Use Latest Image**: This image was automatically pushed to your system by support.

- **Upload a File:** If there are other images available on your system, but you want to upload a file now by navigating to a previously downloaded image file on your local machine.
8. Select the checkbox if you want the storage processors to reboot automatically during the upgrade. For more information, see [Automatically reboot storage processors](#) on page 15
  9. Review the planned upgrade and select **Finish**.

### Results

The screen shows the progress of the upgrade as both storage processors are upgraded and rebooted.

---

#### Note

If you did not select the option to reboot the storage processors automatically, the upgrade process will pause before rebooting the first storage processor, and wait for your input to proceed with the upgrade.

---

#### Note

Once the software upgrade completes, it is strongly recommended that you also install the latest drive firmware updates for your system. Check the **Alerts** page for notifications for newly available drive firmware upgrades. Upgrade notification alerts are sent weekly, so you may want to review the alert notifications for the last week, if possible. For additional information on upgrading drive firmware, including drive part numbers and the latest firmware packages available for each, refer to Knowledgebase article 000490700.

## Automatically reboot storage processors

The default option during a software upgrade is to automatically reboot both storage processors, one-at-a-time, as soon as the software upgrade image is staged and the system is prepared for upgrade. If you like tighter control over when the reboots happen, you can clear this option so that upgrade can be started and staged, but neither storage processor will reboot until you are ready.

Doing so reduces the duration of the window (approximately by 10-20%) when the storage processors could be rebooting, which makes it easier to plan for a time of reduced activity during the upgrade. If that window is not a factor during your upgrade, then leave the default option of rebooting the storage processors automatically to avoid delays with the upgrade completing.

## Update drive firmware

This task applies to physical deployments only.

### Procedure

1. Select the **Settings** icon, and then select **Software and Licenses > Drive Firmware**.
2. Select **Obtain Drive Firmware Online** to download a new drive firmware package.
3. Select **Install Drive Firmware** to upload and install a new drive firmware package to the storage system.

4. Select **Perform Health Checks**.

If the pre-update health check fails, you need to resolve the problem before performing an update. If the health check does not fail, but displays warning messages highlighting potential issues, you can choose to check and correct these issues, or ignore these messages and proceed with the update.

5. Select the drive firmware file you want to upload, or one that was automatically pushed to your system by Support.
6. Select **Upload**. The drive firmware file is uploaded and installed on the system.
7. View the results and close.

## Update language packs

### Procedure

1. Select the **Settings** icon, and then select **Software and Licenses > Language Packs**.
2. Select **Obtain Language Pack Online** and download a language pack file to your local system.
3. Select **Install Language Pack** to launch the Install Language Pack wizard.
4. Select the language pack file you want to upload.
5. Select **Upload**. The language pack is uploaded and installed on the system.
6. View the results and close.
7. Select the **My Account** icon and select **Preferences**.
8. Select the preferred language from the **Language** list.

# CHAPTER 4

## Unisphere CLI commands

This chapter describes the following upgrade-related CLI commands:

- [Upgrade the system](#).....18
- [Associated CLI commands](#)..... 24

## Upgrade the system

Create an upgrade session to upgrade the system or view existing upgrade sessions. The upgrade session installs an upgrade candidate file that was uploaded to the system. Download the latest upgrade candidate from the support website. Use the `upload` switch to upload it to the system before creating the upgrade session.

The latest software upgrade candidate contains all available hot fixes. If you have applied hot fixes to your system, the hot fixes will be included in the latest upgrade candidate.

### Note

All system components must be healthy, prior to upgrading the system. If any system components are degraded, the update will fail. [Perform a system health check](#) on page 20 explains how to run a health check on the system.

The following table lists the attributes for upgrade sessions.

**Table 1** Upgrade session attributes

Attribute	Description
Status	Current status of the upgrade session. Value is one of the following: <ul style="list-style-type: none"> <li><code>running</code> — Session is upgrading the system software.</li> <li><code>completed</code> — Session has completed upgrading the system software.</li> <li><code>paused</code> — Upgrade session has paused before rebooting the SPs.</li> <li><code>failed</code> — Upgrade session has failed.</li> </ul>
Progress	Current progress of the upgrade session.
Creation time	Date and time the upgrade session was created.
Elapsed time	Amount of time that the upgrade session has been running.
Estimated time left	Estimated time required to complete the upgrade session.
Percent complete	Indicates the progress of the upgrade in percent.
Type	The type of upgrade being performed: software upgrade or storage processor upgrade. With software upgrade, details can be found with <code>/sys/soft/ver show</code> .
Additional info	Additional information about the status of the upgrade.

## View system software versions

Display details about the version of the installed system software any upgrade candidates that have been uploaded to the system. [Upgrade the system](#) on page 18 explains how to upgrade the system software.

**Format**

```
/sys/soft/ver [{"-id <value>|-type {installed|candidate|
downloaded}}] show
```

**Object qualifier**

Qualifier	Description
-id	Type the ID of the system software.
-type	Type the software type. Value is one of the following: <ul style="list-style-type: none"> <li><code>installed</code> — View the version of the system software that is installed.</li> <li><code>candidate</code> — View the version of the system software upgrade candidate that was uploaded to the system.</li> <li><code>downloaded</code> — Software image that was automatically pushed to the system by support.</li> </ul>

**Example**

The following command displays details about the installed system software and an uploaded upgrade candidate:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /sys/soft/ver show
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1:  ID          = INST_1
    Type       = installed
    Version    = 4.3.0.1498853411
    Release date = 2017-06-30 23:33:44
    Image type  =
    Reboot required =
    Pause allowed =
    Image filename =

2:  ID          = CAND_1
    Type       = candidate
    Version    = 4.3.0.1502142551
    Release date = 2017-08-08 05:19:50
    Image type  = software
    Reboot required = yes
    Pause allowed = yes
    Image filename = Unity-c4dev PIE_471-
upgrade-4.3.0.1502142551-4.3.0.1502142551-GNOSIS_DEBUG.tgz.bin

3:  ID          = ASD_1
    Type       = downloaded
    Version    = 4.2.0.9215195
    Release date =
    Image type  = software
    Reboot required =
    Pause allowed =
    Image filename = Unity_dev_001-
upgrade-4.2.0.9215195.9215195-4.2.0.9215195.9215195-
GNOSIS_DEBUG.tgz.bin.gpg

4:  ID          = ASD_2
    Type       = downloaded
    Version    = V2-Dec-19-2016
    Release date =
```

```
Image type      = firmware
Reboot required =
Pause allowed  =
Image filename  = Unity-Drive-Firmware-V2-
Dec-19-2016.tgz.bin.gpg
```

## Perform a system health check

Perform a health check of the entire system. A health check is a series of checks on the state of your system to ensure that no underlying problems exist.

---

### Note

Before upgrading the system software, a system health check must be performed. All system components must be healthy prior to upgrading the system software. If any of the system components are degraded, the software update will fail.

---

### Format

```
/sys/general healthcheck
```

### Example

The following command performs a health check of the system:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /sys/general
healthcheck
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1: Error code = Error: The health check has failed. An internal
error is preventing
the health check from completing successfully. Record the error
code and search the
EMC Online Support website for available support options.
[Error Code: platform::check_boot_control_status_2]

Operation completed successfully.
```

---

### Note

- The results of the health check may show errors and warnings, but a message of `Operation completed successfully.` displays in the output. This is only an indication that the health check action was performed, not that it was successfully completed without errors and warnings. Attempt to resolve all errors and rerun the health check.
- If errors occur, a system software upgrade is not allowed. If warnings occur, they can be bypassed during the upgrade procedure.

## Upload an upgrade candidate

To upgrade the system software, upload an upgrade candidate file that you download from the support website and use the `-upload` qualifier. Once you upload the

candidate file to the system, use an upgrade session to start the upgrade process. [Create upgrade sessions](#) on page 21 explains configuring upgrade sessions.

### Prerequisites

Download the latest system software upgrade candidate from the support website.

### Format

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! -upload -f
<file> upgrade
```

### Options

Qualifier	Description
-f	Type the path and file name of the upgrade candidate file to upload. Wrap the path and file name in quotes.

### Example

The following example upload a upgrade candidate file to the system:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! -upload -f
"upgrade-2.0.0.12190-MAGNUM-RETAIL.tgz.bin" upgrade
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## Create upgrade sessions

Creates a new upgrade session. This could be a software or hardware upgrade that is monitored by a session.

#### NOTICE

Do not use Unisphere or Unisphere CLI to manage or configure the system during a software upgrade.

### Format

```
/sys/upgrade create -type { software [-candId <value>] [-
pauseBeforeReboot] | sp -newSPModel <value>} [-offline]} [-
pauseBetweenReboots]
```

### Action qualifiers

Qualifier	Description
-candId	Type the ID of the uploaded upgrade candidate. <a href="#">View system software versions</a> on page 18 explains how to view the ID of the uploaded software candidate.  <b>Note</b> This argument is optional. If unspecified, the system looks up the upgrade candidate.

Qualifier	Description
<code>-pauseBeforeReboot</code>	Specify whether to pause during the upgrade, executing all tasks before the SPs reboot.  <b>Note</b> This option is ignored for language packs, hot fix, and ODFU upgrades.
<code>-newSPModel</code>	Start a storage processor upgrade with the specified target model. The possible values for this system are identified using <code>/sys/general show</code> .
<code>-offline</code>	Optional parameter that will start an offline storage processor upgrade rather than an online (default) storage processor upgrade.
<code>-pauseBetweenReboots</code>	Optional parameter for software or online Data-in-place (DIP) upgrades. If specified, the system will pause after the first SP has been upgraded, but before the second SP is upgraded. This will allow you to suspend the upgrade until you manually resume the upgrade using <code>/sys/upgrade resume</code> .

**Example 1**

The following command creates a session to upgrade the system software:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /sys/upgrade create
-type software
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

**Note**

All warning messages, if any, appear the first time you run the upgrade process. When a potential issue results in a warning message, the upgrade process stops. Once you review the warning message, run the upgrade command again to continue with the upgrade process. This time the upgrade process will run the checks again, but it will not stop for any warnings. The upgrade process will only stop when an error occurs.

**Example 2**

The following command creates a session to upgrade the storage processor:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /sys/upgrade create
-type sp -newSPModel SP500
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

**Example 3**

The following command initiates an offline DIP upgrade.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /sys/upgrade create
-type sp -newSPModel SP500 -offline
```

```
Storage system address: 10.64.75.201
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

**Example 4**

The following command initiates a software upgrade that pauses after the first SP reboots.

```
uemcli /sys/upgrade create -type software -pauseBetweenReboots
```

```
Storage system address: 10.64.75.201
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## View upgrade sessions

View details for an existing upgrade session.

**Note**

[The show action command](#) on page 24 explains how to change the output format.

**Format**

```
/sys/upgrade show
```

**Example 1**

The following command displays details about the hardware upgrade session:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /sys/upgrade show
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1:      Type           = SP
      Status          = Running
      Status message   =
      Creation time    = 2015-11-09 19:43:08
      Elapsed time     = 01h 3m 08s
      Estimated time left = 01h 70m 00s
      Progress         = Task 2 of 5 (Running health checks)
      Percent complete  = 5%
```

**Example 2**

The following command displays details about the software upgrade session:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /sys/upgrade show
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1:      Type           = Software
      Status          = Failed
      Status message   = Stopping c4 stack on SPA timeout
expired
      Creation time    = 2009-11-09 18:04:12
      Elapsed time     = 00h 20m 08s
      Estimated time left =
      Progress         = Task 5 of 25 (Stopping c4 stack on SPA)
      Percent complete = 15%
```

### Example 3

The following command shows an issue with the pre-upgrade health check in Additional info.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /sys/upgrade show -
detail
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1:      Type           = Software
      Status          = Failed
      Creation time    = 2009-11-09 18:04:12
      Elapsed time     = 00h 20m 08s
      Estimated time left =
      Progress         =
      Percent complete = 5%
      Additional info  = "Error: The health check has failed.
An internal error is preventing the health check from completing
successfully. Record the error code and search the EMC Online
Support website for available support options. [Error Code:
platform::check_boot_control_status_2]","Error: One or more LUNs
are in degraded state. Record the error code and contact your
service provider. [Error Code:
flr::check_if_lun_recovery_is_required_2]"
```

## Associated CLI commands

### The show action command

The `show` action command displays a list of objects that exist on the system and the attributes of those objects. You can specify an object qualifier to view the attributes for a single object. The `show` action command provides qualifiers for changing the display of the output, including the format and the attributes to include. The available output formats are name-value pair (NVP), table, and comma-separated values (CSV).

#### Format

```
uemcli [<switches>] <object> [<object qualifier>] show [{-
detail | -brief | -filter <value>}] [-output {nvp | table [-
wrap] | csv}]
```

**Action qualifier**

Qualifier	Description
<code>-output   -o</code>	Specify the output format. Value is one of the following: <ul style="list-style-type: none"> <li><code>nvp</code> — The name-value pair (NVP) format displays output as <code>name=value</code>. <a href="#">Name-value pair format</a> on page 25 provides an example of the NVP format.</li> <li><code>table</code> — The table format displays output as a table, with column headers and rows. By default, values that are too long to fit in a column are cut off. Add <code>-wrap</code> after the table qualifier, separated by a space, so that the values wrap. <a href="#">Table format</a> on page 25 provides an example of the table format.</li> <li><code>csv</code> — The comma-separated values (CSV) format is similar to the table format, but the names and values are separated by commas. <a href="#">Comma-separated values format</a> on page 25 provides an example of the CSV format.</li> </ul>
<code>-detail</code>	Display all attributes.
<code>-brief</code>	Display only the basic attributes (default).
<code>-filter</code>	Comma-separated list of attributes which are included into the command output.

**Name-value pair format**

```

1:      ID           = la0_SPA
        SP           = SPA
        Ports        = eth0_SPA,eth1_SPA
        Health state = OK (5)

2:      ID           = la0_SPB
        SP           = SPB
        Ports        = eth0_SPB,eth1_SPB
        Health state = OK (5)

```

**Table format**

```

ID          | SP | Ports                | Health state
-----+-----+-----+-----
la0_SPA    | SPA | eth0_SPA,eth1_SPA | OK (5)
la0_SPB    | SPB | eth0_SPB,eth1_SPB | OK (5)

```

**Comma-separated values format**

```

ID,SP,Ports,Health state
la0_SPA,SPA,"eth0_SPA,eth1_SPA",OK (5)
la0_SPB,SPB,"eth0_SPB,eth1_SPB",OK (5)

```

**Example**

The following command modifies the set of attributes in the show action output. For example, if you add `-filter "ID,ID,ID,ID"` to the command, in the output you will see four lines with the "ID" attribute for each listed instance:

```
1:  ID = la_0
    ID = la_0
    ID = la_0
    ID = la_0
```

```
uemcli /net/nas/server show -filter "ID, SP, Health state, ID, Name"
```

**Filter format**

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1:  ID           = nas_1
    SP           = SPA_
    Health state = OK (5)
    ID           = nas_1
    Name         = Mynas1

2:  ID           = nas_2
    SP           = SPA_
    Health state = OK (5)
    ID           = nas_2
    Name         = Mynas2
```

# CHAPTER 5

## Troubleshooting upgrade issues

This chapter contains the following topics:

- [Unable to upload the upgrade file](#).....28
- [Verify that the upgrade file is not corrupted](#)..... 28
- [Upgrade failed. What next?](#)..... 28

## Unable to upload the upgrade file

### Procedure

- Ensure that the upgrade file name is correct.  
The upgrade file name must match the name of the upgrade file listed on Online Support. If you tried to download the file more than once, it may have a [1] suffix in the file name. This may lead to the system recognizing it as an invalid file.
- Log on to Unisphere in a different Web browser and try uploading the file again.
- If this does not work, try restarting the Unisphere software by doing the following:
  - In Unisphere, go to **System > Service**. Under **Storage System**, select **Restart Management Software**.

## Verify that the upgrade file is not corrupted

You can verify the upgrade file using the checksum available with each upgrade file on the support website. To verify that the downloaded upgrade file is not corrupt:

### Procedure

1. Note the checksum value for the upgrade file from the support website.

---

#### Note

The checksum value appears when you click the **Checksum** link that appears with each downloadable upgrade file listed on the **Downloads** page of the support website for the system.

---

2. On the system where the upgrade file is downloaded, do one of the following:
  - On a Linux-based system, run the command: `sha256sum <downloaded upgrade file name>`.
  - On a Windows-based system, use one of the open source or freeware applications to calculate the checksum value.
3. Compare the checksum value generated for the upgrade file with the one you noted in Step 1.

Matching values indicate the upgrade file is intact and not corrupt.

## Upgrade failed. What next?

### Procedure

- Review [Common issues that can interrupt an upgrade](#).
- For upgrades that failed to start—A corrupted upgrade image may have caused this problem. Download a new image from Online Support and run the upgrade again.
- If your upgrade fails with a health check error, follow the link to consult the documentation as well as check the logs to get further details on the failure. If the upgrade fails with a warning, it is advised that you resolve the problem, but you may continue by clicking **Retry**.

- For upgrades that terminated unexpectedly—Select the **Settings** icon, and then select **Software and Licenses > Software Updates** and review information about the upgrade candidate. Try running the upgrade again.
- For upgrades that failed—The **Software Updates** page lists the errors the system encountered during the update. Select the **Settings** icon, and then select **Software and Licenses > Software Updates** and review information about the upgrade candidate. Try running the upgrade again.
- If you recently added new hardware, new disks and other similar hardware components, they may be on an incompatible image or you may not have configured them yet. New ports must be committed before they can be used, for example. Plan downtime and restart the entire system. When the system starts up, during the power-on self test, it will check for new firmware images and update all or any parts to latest images as required, self-healing the box. Once this is complete, try running the upgrade again.
- Before contacting support, access the Unisphere Online Help (click the Help icon in the top-right corner of the Unisphere screen) or the knowledgebase in the Online Support website for more information on steps you can take to fix the issue.

If none of the options above help resolve the issue, do not apply in your scenario, or if you are not sure about the issue causing the failure, go to **Support > Contact Us > Chat** to chat with support personnel. If this option is not available, contact your service provider.

