

opentext™

ZENworks 2020 Update 2 Upgrade Guide

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About This Guide

This guide includes information about new enhancements in ZENworks 2020 Update 2 and information to help you successfully upgrade to this release.

The information in this guide is organized as follows:

- ♦ [Chapter 1, “Upgrading or Migrating the Primary Servers,” on page 7](#)
- ♦ [Chapter 2, “Upgrading Linux and Windows Primary Servers to ZENworks 2020 Update 2,” on page 17](#)
- ♦ [Chapter 3, “Appliance Migration,” on page 51](#)
- ♦ [Chapter 4, “Updating Satellites and Managed Devices to ZENworks 2020 Update 2,” on page 59](#)
- ♦ [Chapter 5, “Upgrading Servers in a Vertica-enabled Zone,” on page 61](#)
- ♦ [Appendix A, “Documentation Updates,” on page 69](#)

Audience

This guide is intended for ZENworks administrators.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the comment on this topic link at the bottom of each page of the online documentation.

Additional Documentation

ZENworks is supported by other documentation (in both PDF and HTML formats) that you can use to learn about and implement the product.

1 Upgrading or Migrating the Primary Servers

Using the ZENworks 2020 Update 2 installation media, you can directly upgrade or migrate a Primary Server to ZENworks 2020 Update 2, if it is using ZENworks 2020 or later.

If the upgrade installer reports any of the following issues during the upgrade, follow the recommended procedures to resolve the problem:

- ♦ **Unsupported ZENworks version:** Upgrade all Primary Servers to ZENworks 2020 Update 2. Ensure that all Primary Servers in the zone have the same version of ZENworks.
- ♦ **Unsupported operating systems:** Upgrade the operating systems to a supported version. For more information about the discontinued operating systems, see the [System Requirements](#).

NOTE: ♦ On Linux (including appliances), during the upgrade, the "zenworks" user and "zenworks" group IDs may be changed to 525 (*/etc/passwd* and */etc/group* files respectively). If there is any mechanism in the environment to prevent this or unable to rewrite the changes, then ZENworks might break.

- ♦ If the zone with multiple Primary Servers has added support for newly released versions of OS, then consolidate the effective user-defined targets in the *custom_ostargets.xml* of the master primary and update the master primary server first.
-

IMPORTANT: Do not extract the ISO image and use it to install. The installation must be run from an installation DVD.

The following sections provide information about upgrading to ZENworks 2020 Update 2:

- ♦ [Section 1.1, "Changes in the Primary Server Upgrade or Migration Process," on page 7](#)
- ♦ [Section 1.2, "Understanding the Upgrade Installer," on page 11](#)
- ♦ [Section 1.3, "Database Considerations," on page 12](#)
- ♦ [Section 1.4, "Understanding the Upgrade Order," on page 13](#)
- ♦ [Section 1.5, "Calibrating Memory Requirements on the ZENworks Server," on page 15](#)

1.1 Changes in the Primary Server Upgrade or Migration Process

As ZENworks aims to adopt a more robust and flexible architecture, and to align itself with the Micro Focus standards, some enhancements have been introduced to the Upgrade process in the ZENworks 2020 Update 2 release. Though the procedure to upgrade to ZENworks 2020 Update 2 essentially remains the same, as in the previous release version, some of the significant changes introduced in this release are as follows:

Requirement to install Docker and Docker Compose on a Linux Server: Before upgrading or installing ZENworks 2020 Update 2 on a Linux Primary Server, you are required to install Docker and Docker Compose on the server. This is not applicable for an Appliance server. For more information, see [Installing Docker](#) and [Installing Docker Compose](#).

Migration of server data to new file path: After upgrading to ZENworks 2020 Update 2 on a Windows, Appliance or a Linux Primary Server, ZENworks Server data such as MSIs, RPMs, logs, and configuration files that were earlier in the Novell file path will be moved to the new Micro Focus file path.

Upgrade all Primary Servers before configuring the Antimalware Database: Antimalware is a new component of ZENworks Endpoint Security beginning in ZENworks 2020 Update 2. If you intend to activate the Antimalware entitlement in Endpoint Security Management and configure the Antimalware Database, you need to update all Primary Servers in the zone before configuring this database.

This requirement is only when using the Antimalware Database, which is needed if you want to monitor malware status and Antimalware Agent activity on the dashboard or from the device Antimalware page. You can still activate Antimalware, configure the Antimalware Server and Ondemand Content Master, and deploy the Antimalware Enforcement policy to protect devices, without upgrading all servers, as long as you do not configure the Antimalware Database.

For more information about Antimalware, see the [ZENworks Endpoint Security Antimalware Reference](#).

Renaming of ZENworks Server services: After upgrading to ZENworks 2020 Update 2 on a Windows, Appliance or a Linux Primary Server, certain ZENworks Server services such as ZENserver service, ZENloader service and ZENjoinproxy service, will be renamed from Novell to Micro Focus.

A list of all the changes introduced in the upgrade process in the ZENworks 2020 Update 2 release, are as follows:

Change Categories	Primary Server on Linux and on Appliance	Primary Server on Windows
New prerequisites	Install Docker v19.x or higher (not applicable for Appliance)	Not Applicable
	Install Docker Compose v1.x (not applicable for Appliance)	Not Applicable
	(Conditional) If you are using a shared content repository, mount the content repository to the new Micro Focus location. Example: /var/opt/microfocus/zenworks/content-repo	(Conditional) If you are using a shared content repository, mount the content repository to the new Micro Focus location. Example: C:\Program Files (x86)\Micro Focus\zenworks\content-repo

Change Categories	Primary Server on Linux and on Appliance	Primary Server on Windows
Renaming of ZENworks Server services	ZENworks Server services are renamed by prefixing them with Micro Focus instead of Novell.	ZENworks Server services are renamed by prefixing them with Micro Focus instead of Novell.
NOTE: From this release onwards, ZooKeeper will run as a separate service and not within the ZENserver service.	<p>Example:</p> <p><code>novell-zenserver</code> service is now renamed to <code>microfocus-zenserver</code> service</p>	<p>Example:</p> <p>Novell ZENworks Server service is now renamed to Micro Focus ZENworks Server.</p>
	<p><code>novell-zenloader</code> service is now renamed to <code>microfocus-zenloader</code> service</p>	<p>Novell ZENworks Join Proxy service is now renamed to Micro Focus ZENworks Join Proxy</p>
	<p><code>novell-zenjoinproxy</code> service is now renamed to <code>microfocus-zenjoinproxy</code> service</p>	<p>Novell ZENworks Services Monitor service is now renamed to Micro Focus ZENworks Services Monitor</p>
	<p>NOTE: Services related to the ZENworks agent will retain the Novell naming convention. For example, <code>novell-zenworks-xplatzmd</code>.service will not be renamed.</p>	<p>Novell ZENworks Loader service is now renamed to Micro Focus ZENworks Loader</p>
	<p>The <code>zenpostgresql</code>.service will also retain the Novell naming convention.</p>	<p>NOTE: Services related to the ZENworks agent will retain the Novell naming convention. For example, the Novell ZENworks Agent Service will not be renamed.</p>
		<p>The ZENworks Embedded Datastore-PostgreSQL will retain the Novell naming convention.</p>

Change Categories	Primary Server on Linux and on Appliance	Primary Server on Windows
New location for server related files and data	<p>Server related files and data will now be available in the new Micro Focus location, while the agent related files and data will be retained in the old Novell location.</p> <p>Example:</p> <p>Log Files: The log files that were earlier in <code>/var/opt/novell/logs/zenworks</code> will now be available in <code>/var/opt/microfocus/logs/zenworks</code></p> <p>Configuration Files: The configuration files that were earlier in <code>/etc/opt/novell/zenworks</code> will now be available in <code>/etc/opt/microfocus/zenworks</code></p> <p>Libraries: The libraries that were earlier in <code>/opt/novell/zenworks</code> will now be available in <code>/opt/microfocus/zenworks</code></p> <p>NOTE: The location of the ZENworks agent files will be retained in the old Novell file path. For example, configuration files related to the ZENworks agent data will be retained in <code>/etc/opt/novell/zenworks</code>.</p>	<p>Server related files and data will now be available in the new Micro Focus location, while the agent related files and data will be retained in the old Novell location.</p> <p>Example:</p> <p>Log Files: The log files that were earlier in <code>C:\Program Files (x86)\Novell\ZENworks\logs</code> will now be available in <code>C:\Program Files(x86)\Micro Focus\ZENworks\logs</code></p> <p>Configuration Files: The configuration files that were earlier in <code>C:\Program Files (x86)\Novell\ZENworks\conf</code> will now be available in <code>C:\Program Files (x86)\Micro Focus\ZENworks\conf</code></p> <p>Libraries: The libraries that were earlier in <code>C:\Program Files (x86)\Novell\ZENworks\lib</code> will now be available in <code>C:\Program Files (x86)\Micro Focus\ZENworks\lib</code></p> <p>NOTE: The location of the ZENworks agent files will be retained in the Novell file path. For example, configuration files related to the ZENworks agent data will be retained in <code>C:\Program Files (x86)\Novell\ZENworks\conf</code>.</p>

Change Categories	Primary Server on Linux and on Appliance	Primary Server on Windows
Introduction of a new environment variable	Not Applicable	<p>A new environment variable %ZENSERVER_HOME% has been introduced that points to the new Micro Focus file path C:\Program Files (x86)\Micro Focus\ZENworks.</p> <p>The existing environment variable %ZENWORKS_HOME% is still applicable to access the ZENworks agent data, which is retained in the Novell file path.</p>
Renaming of Configure actions	<p>Configure actions have been renamed from Novell to Micro Focus. However, the configure actions that follow the Novell naming convention are still available.</p> <p>For example, the configure action <code>novell-zenworks-configure -c Start</code> is now renamed to <code>microfocus-zenworks-configure -c Start</code></p>	<p>Configure actions have been renamed from Novell to Micro Focus. However, the configure actions that follow the Novell naming convention are still available.</p> <p>For example, the configure action <code>novell-zenworks-configure -c Start</code> is now renamed to <code>microfocus-zenworks-configure -c Start</code></p>
Running the Cleanup Utility	<p>After upgrade, the ZENworks server configuration will be copied from the old Novell file path to the new Micro Focus file path. However, the ZENworks server binaries and old configuration in the old file path is retained during the upgrade process. You can run the cleanup utility provided with the build, to remove the retained server data.</p> <p>For more information, see “Running the Cleanup Utility on a Linux or Appliance Server” on page 36</p>	<p>After upgrade, the ZENworks server configuration will be copied from the old Novell file path to the new Micro Focus file path. However, the ZENworks server binaries and old configuration in the old file path is retained during the upgrade process. You can run the cleanup utility provided with the build, to remove the retained server data.</p> <p>For more information, see “Running the Cleanup Utility on Windows Server” on page 38</p>

1.2 Understanding the Upgrade Installer

- ◆ Upgrades all ZENworks 2020 Configuration Management components on the Primary Servers, including Configuration Management, Asset Management, Asset Inventory, Endpoint Security Management, and Patch Management.

- ◆ Upgrades the ZENworks database and the Audit database. This occurs when the first server is upgraded.
- ◆ After you upgrade the first server to ZENworks 2020 Update 2, the System Update is available for upgrading the supported versions of ZENworks Satellite Servers and managed devices to ZENworks 2020 Update 2.

The time required to complete the upgrade on the first Primary Server depends on the size of the data present in database.

1.3 Database Considerations

Before you perform the upgrade from ZENworks 2020 to ZENworks 2020 Update 2, consider the following guidelines:

- ◆ If you are using an external database, you need to upgrade or migrate the external database to the supported latest version before upgrading the Primary Server.

NOTE: If the ZENworks database is configured to the compatibility level of an older version of the Microsoft SQL Server, for example, 2005, then it should be set to the current supported version of the SQL Server.

For more information about the supported database versions, see “[Database Requirements](#)”, in the [System Requirements](#) guide.

- ◆ (Recommended) Select the type of database based on the number of devices in the environment:
 - ◆ For environments with up to 5,000 devices, use Embedded PostgreSQL
 - ◆ For environments with up to 20,000 devices, use Remote PostgreSQL.
 - ◆ For environments with up to 40,000 devices, use MS SQL or Oracle.
 - ◆ For environments with more than 40,000 devices, use Oracle Enterprise Edition (with partitioning). For information about partitioning, see [Oracle Enterprise with Partitioning](#), in the [ZENworks Server Installation](#) guide.

If the existing database does not meet the recommendation, migrate the existing database after the upgrade is complete.

- ◆ For upgrading database, you can either upgrade the database on the same device where it is running or you can migrate the database using a third-party upgrade installer.

If you are using an embedded PostgreSQL database, the ZENworks Upgrade installer will upgrade and rebuild the database.

NOTE: On a server that hosts an embedded PostgreSQL database, ensure that you have the required free space, equal to the size of the database file.

- ◆ You can only upgrade to a higher version of the same database. You cannot migrate from one database to another using the Upgrade installer.
- ◆ For all external databases, stop the ZENworks services on all other Primary Servers before performing the database upgrade.

-
- ♦ **IMPORTANT:** If you are using Microsoft SQL server database, before upgrading your zone, ensure that the database tables are available in the default database schema DBO. If the ZENworks database tables are not present under the default database schema DBO, then to avoid any issues, contact Micro Focus Customer Support.

To find out the database schema, run the following query in the Microsoft SQL database:

```
SELECT distinct(SCHEMA_NAME(schema_id)) as OWNER FROM sys.objects WHERE type='U'
```

1.4 Understanding the Upgrade Order

Ensure that you perform the ZENworks 2020 Update 2 upgrade tasks in the following order:

1. **Upgrade the Operating System:** If the operating system installed on the device is not supported by ZENworks, upgrade the operating system to the latest supported version.

For more information on the supported operating systems, see [System Requirements](#) .

NOTE: Refer to the following scenarios for information on the order in which the operating system (OS) and ZENworks upgrades need to be performed:

- ♦ On Windows Primary Servers: You can perform major and minor in-place OS upgrades. The following scenarios provide clarity on the upgrade order to be followed for the major and minor OS upgrades:
 - ♦ To perform an OS upgrade to a version that is supported by ZENworks 2020 and ZENworks 2020 Update 2, you can perform the upgrade in any order. Example: If you are upgrading from Windows 2012 Server to Windows 2016 Server, you can either upgrade the OS first or ZENworks first.
 - ♦ To perform an OS upgrade from a version that is not supported by ZENworks 2020 Update 2, you need to first upgrade the OS and then upgrade to ZENworks 2020 Update 2.
 - ♦ To perform an OS upgrade to a version that is not supported by ZENworks 2020 but is supported by 2020 Update 2, you need to first upgrade to ZENworks 2020 Update 2 and then upgrade the OS.
- ♦ On Linux Primary Servers: You cannot perform a major in-place OS upgrade. To perform a major in-place upgrade, you need to replace the current Primary Server having the older OS version, with a new Primary Server having the latest supported OS version. Example: If you are upgrading from SLES 12 SP4 to SLES 15, you need to first upgrade to ZENworks 2020 Update 2 and then replace the SLES 12 SP4 Primary Server with a new SLES 15 Primary Server.

However, you can perform minor in-place OS upgrades. The following scenarios provide clarity on the upgrade order to be followed for minor OS upgrades:

- ♦ To perform a minor upgrade to an OS version that is supported by ZENworks 2020 and ZENworks 2020 Update 2, you can perform the upgrade in any order. Example: If you are upgrading from SLES 12 SP3 to SLES 12 SP4, you can either upgrade the OS first or ZENworks first.

- ◆ To perform a minor OS upgrade from an OS version that is supported by ZENworks 2020 Update 2 but not ZENworks 2020, you need to first upgrade the OS and then upgrade to ZENworks 2020 Update 2. Example: If you are upgrading from SLES 12 to SLES 12 SP4, you need to first upgrade the OS to SLES 12 SP4 and then upgrade to ZENworks 2020 Update 2.
 - ◆ To perform a minor OS upgrade from an OS version that is supported by ZENworks 2020 Update 2, but not supported by ZENworks 2020 you need to first upgrade to ZENworks 2020 Update 2 and then upgrade the OS. Example: If you are upgrading from SLES 12 SP4 to SLES 12 SP5, you need to first upgrade to ZENworks 2020 Update 2 and then perform an OS upgrade to SLES 12 SP5.
-

IMPORTANT: Before you perform the upgrade, ensure that you back up the relevant server and CA.

2. Upgrade ZENworks: Upgrade ZENworks to the latest version.

The sequence in which the Primary Servers are to be upgraded in the zone, are as follows:

- (Conditional) If you have already migrated to the Embedded PostgreSQL database, first upgrade the device that hosts the database, then upgrade the other Primary Servers.
 - (Conditional) If you have enabled Vertica in your zone as a part of an earlier ZENworks release, then upgrade those servers in which Vertica is enabled, then upgrade the other Primary Servers. For more information, see [Upgrading Servers in a Vertica-enabled Zone](#).
- ◆ The ZENworks 2020 Update 2 upgrade installer can upgrade only the server on which you run it.
-

NOTE: After you upgrade the first Primary Server to ZENworks 2020 Update 2, all other servers must be immediately upgraded to ZENworks 2020 Update 2.

- ◆ When you perform the upgrade for the first time in the Management Zone, only one Primary Server can be upgraded. The subsequent upgrade of additional Primary Servers can be done in parallel, or in any order.

While upgrading the first Primary Server, you must stop the ZENworks services on all other Primary Servers. During the upgrade of additional Primary Servers, you must stop the services on those servers that have not been upgraded. If you do not stop the services, the database might be inconsistent.

NOTE: The Schema and License information will be updated only during the first Primary Server upgrade.

- ◆ You must upgrade the Primary Servers first; then upgrade the Satellite Servers and agents in the zone.

IMPORTANT: When upgrading additional Primary Servers in the zone, ensure that the ZENworks Server services are running on the upgraded first Primary Server. If the zone uses Embedded PostgreSQL, the Embedded PostgreSQL service must be running on the upgraded first Primary Server.

- ◆ If you are using ZENworks Reporting, then after upgrading the zone to ZENworks 2020 Update 2, ensure that you reconfigure ZENworks reporting. For more information, see [Reconfiguring ZENworks Reporting Appliance](#) in the [ZENworks Reporting Appliance Deployment and Administration Reference](#).

1.5 Calibrating Memory Requirements on the ZENworks Server

As per the system requirements, ZENworks recommends minimum memory requirement of 16 GB for both Appliance and Non-appliance Primary Servers. Based on the RAM size requirements, you need to ensure that memory is optimally allocated for the RDBMS (if embedded PostgreSQL is installed), Vertica, Kafka and ZENworks Services (ZENserver and ZENloader services), for these components to function effectively in the server. ZENworks provides you configure action that automatically calibrates appropriate memory for these processes.

You need to run this configure action after upgrading the server to ZENworks 2020 Update 2. However, if you plan to install Vertica in this server, then ensure that you run this Configure action only after configuring Vertica. For more information, see [Vertica Reference](#) documentation.

The scenarios in which this action should be run are:

- ◆ Non-appliance server on which only embedded PostgreSQL is installed
- ◆ Non-appliance second Primary Server
- ◆ Appliance server on which Kafka and Vertica are installed
- ◆ Appliance server on which only Vertica is installed
- ◆ Appliance server on which embedded PostgreSQL and Vertica are installed
- ◆ Appliance server on which embedded PostgreSQL and Kafka are installed
- ◆ Appliance server on which only Kafka is installed
- ◆ Appliance server on which embedded PostgreSQL, Kafka and Vertica are installed
- ◆ Appliance second Primary Server

To run this Configure action:

1. In the command line utility of the server, execute the command: `microfocus-zenworks-configure -c CalibrateMemoryConfigureAction`
2. A message is displayed informing the user that the ZENworks services will automatically restart on the server after the Configure action is run. If you want to proceed with the memory calibration, then press enter to select the default value 1 or else enter the value 2.

3. (Conditional) On an Appliance server, you will be asked if you want to install Vertica and Kafka on the server. If you plan to install Vertica and Kafka on this server, then ensure that you run this action only after configuring Vertica in the server. To exit the action, enter the value 2.

If you do not want to install Vertica and Kafka in the server and want to proceed with memory calibration, enter the value 1.

The newly configured values for each component are displayed. If you want to view the configured values at a later point in time, then run the following Configure action:`microfocus-zenworks-configure -c DisplayMemoryConfigureAction`

2 Upgrading Linux and Windows Primary Servers to ZENworks 2020 Update 2

This section provides information on upgrading your Linux or Windows Primary Servers to ZENworks 2020 Update 2. To migrate you Appliance server, see [Appliance Migration](#).

NOTE: If a zone with multiple Primary Server has added support for newly released versions of OS, then consolidate the effective user-defined targets in the `custom_ostargets.xml` of master primary and update the master Primary Server first.

2.1 Prerequisites

When you upgrade a Primary Server to ZENworks 2020 Update 2 for the first time in the Management Zone, complete the following tasks before running the upgrade.

2.1.1 For Linux Servers

- ♦ **Docker is Installed:** Docker v19.x or higher should be installed on the Primary Server that you are about to upgrade. For more information on installing Docker, see [Installing Docker](#).
 - ♦ Ensure that the Docker service is enabled at all times.
 1. To check the status of the Docker service, run the following command:

```
$ sudo systemctl status docker.service
```
 2. To enable the service, run the following command:

```
$ sudo systemctl enable docker.service
```
 - ♦ Ensure that the Docker service has started. To start the service, run the following command:

```
$ sudo systemctl start docker.service
```
- ♦ **Docker Compose is Installed:** Docker Compose v1.x should be installed on the Primary Server that you are about to upgrade. To know the latest version of Docker Compose, navigate to <https://github.com/docker/compose/releases>. For more information on installing Docker Compose, see [Installing Docker Compose](#).
- ♦ **DNS server is configured:** Ensure that a DNS server has been set on the Primary Server that is being upgraded. Also, the hostname of the local machine should be resolvable over DNS.
- ♦ **Disable Hibernate logs:** On a Linux Primary Server, ensure that the `c3p0`, the hibernate logs for ZENLoader, and ZENServer are disabled prior to the upgrade. For more information, see [TID 7015032](#) (<https://www.novell.com/support/kb/doc.php?id=7015032>).

- ♦ **External Content-repo** If you have content-repo as a symbolic link to another folder, which is outside of the ZENworks folder structure, then ensure that you perform the steps in [Changing the Location of the Content Repository on a Linux or Appliance Server](#) in the [ZENworks Primary Server and Satellite Reference](#).

To view the remaining prerequisites that are applicable for both Windows and Linux, see [For Linux and Windows Servers](#).

2.1.2 For Windows Server

- ♦ **Verify Windows Installer version:** Ensure that the Windows Primary Servers have Windows Installer 4.5 or later versions installed and running.

To view the remaining prerequisites that are applicable for both Windows and Linux, see [For Linux and Windows Servers](#).

2.1.3 For Linux and Windows Servers

- ♦ **ZENworks Diagnostic Center:** Before upgrading your zone, ensure that you run ZDC and verify the health of the Primary Server and the Management Zone. For more information, see [ZENworks Diagnostic Center](#).
- ♦ **Review changes in the upgrade process:** Ensure that you have reviewed the changes introduced in the ZENworks 2020 Update 2 release, before upgrading the Primary Servers. For more information, see [Changes in the Primary Server Upgrade or Migration Process](#).
- ♦ **(Conditional) Shared content repository is mounted to the new location:** If it is a shared content repository, ensure that you have unmounted the repository from the old path and mounted the repository to the new Micro Focus path, that is, `/var/opt/microfocus/zenworks/content-repo` on a Linux server and `%ZENSERVER_HOME%\work\content-repo` on a Windows server.

The content-repo folder in novell path should not be renamed or deleted by the administrators.

- ♦ **Review system requirements:** Ensure that the Primary Server that you want to upgrade to ZENworks 2020 Update 2 meets all the [System Requirements](#) .

For more information, see “Database Requirements” in the [System Requirements](#) .

- ♦ **ZENworks Database:** Back up the ZENworks database.

Also ensure that the server hosting the database is running with an active database. For more information on the prerequisites for external databases, see [Prerequisites for External Databases](#) in [ZENworks Server Installation](#)

- ♦ **Backup the ZENworks Server:** Back up the configuration files of the ZENworks Primary Server that you are upgrading. For more information, see [Backing Up and Restoring the ZENworks Server and Certificate Authority](#) in the [ZENworks Disaster Recovery Reference](#).
- ♦ **Run the upgrade in test environment:** The time required to complete the upgrade on the first Primary Server depends on the size of the data present in database. If the first Primary Server upgrade is on a device that is using an Microsoft SQL or Oracle database, then run the upgrade in a test environment (with server data similar to the production environment). This is to calculate the outage time of the production server.
- ♦ **CPU and Memory Utilization:** Ensure that there is no high CPU utilization or memory utilization during the first Primary Server upgrade.

- ♦ **Stop ZENworks services:** Stop all ZENworks services on any Primary Server that is not being upgraded in order to prevent the database from being accessed during the upgrade. Otherwise, this might result in the database being inconsistent.
 - ♦ For information about stopping ZENworks services:
 - ♦ **On a Windows Primary Server:** See “[ZENworks Services on a Windows Server](#)” in the *ZENworks Primary Server and Satellite Reference*.
 - ♦ **On a Linux Primary Server:** See “[ZENworks Services on a Linux Server](#)” in the *ZENworks Primary Server and Satellite Reference*.

When you upgrade the first server, then the System Update is available to upgrade the ZENworks Satellite Servers and managed devices to ZENworks 2020 Update 2.

- ♦ **Synchronize time:** Ensure that the time on the server and the database are synchronized (time difference must be less than 2 minutes).

NOTE:

- ♦ If the time difference is more than 2 minutes and less than 24 hours, a warning message is displayed during the upgrade.
 - ♦ If the time difference is more than 24 hours, an error message is displayed.
-
- ♦ **Verify the ports:** Ensure that all fixed ports are free during the upgrade. If the fixed ports are blocked, the upgrade can not proceed. For the list of ports, see [ZENworks 2020 Update 1 TCP and UDP Ports](#).

If you have obtained the ZENworks upgrade software as an ISO image download, do one of the following to create the upgrade DVD:

- ♦ [Using Windows to Create a ZENworks Installation DVD from an ISO Image](#)
- ♦ [Using Linux to Create a ZENworks Installation DVD from an ISO Image](#)

IMPORTANT: Do not extract and use the ISO image for upgrading ZENworks.

2.1.4 Installing Docker

The procedure detailed in this section will enable you to download and install the latest version of Docker.

- 1 After registering to Suse Customer Center, generate a registration key for the operating system version of your Primary Server and register the device with the [Suse Customer Center](#).
- 2 Start YaST.
- 3 In the Administrator Settings window, select **Software > Software Repositories**.
- 4 Click **Add** to open the **Add On Product** dialog box.
- 5 Select **Extensions and Modules from the Registration Server...** Click **Next**.
- 6 From the list of **Available Extensions and Modules**, based on the platform version, select one of the following container modules, click **Next** and **Finish** the wizard. The modules and its repositories will be added to your system.
 - ♦ **SLES 12 SP3, SLES 12 SP4, SLES 12 SP5: Containers Module 12 x86_64**
 - ♦ **SLES 15: Containers Module 15 x86_64**

♦ **SLES 15 SP1: Containers Module 15 SP1 x86_64**

- 7 On the Linux terminal, execute the following command to install the Docker package:

```
$ sudo zypper install docker
```

NOTE: If the `zypper install docker` command fails to install docker, then run the following command to check whether the container module has been added to the repository:

```
$ sudo zypper ls
```

If the container module has not been added, then run the following command to add the container module:

For SLES 12 SP3, SLES 12 SP4, SLES 12 SP5:

```
$ sudo SUSEConnect -p sle-module-containers/12/x86_64
```

For SLES 15:

```
$ sudo SUSEConnect -p sle-module-containers/15/x86_64
```

For SLES 15 SP1:

```
$ sudo SUSEConnect -p sle-module-containers/15.1/x86_64
```

- 8 Execute the following command to enable the Docker services:

```
$ sudo systemctl enable docker.service
```

- 9 Execute the following command to start the Docker service:

```
$ sudo systemctl start docker.service
```

- 10 Execute the following command to test whether Docker has been installed properly:

```
$ docker run hello-world
```

If the message `Hello from Docker!` is displayed, then it indicates that Docker has been installed successfully.

NOTE: After installing Docker, if you want to upgrade the Docker version, then ensure that you restart the ZENworks server services after the upgrade.

2.1.5 Installing Docker Compose

Before installing Docker Compose, ensure that you have already installed the Docker engine as elaborated in the previous section.

- 1 On the Linux terminal, run the following command to download the latest release of Docker Compose, in this case Docker Compose version 1.28.2:

```
$ sudo curl -L "https://github.com/docker/compose/releases/download/1.28.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose
```

NOTE: If the server does not have Internet access and communicates through a proxy server, then refer to the curl man page for configuring curl to use proxy.

- 2 Run the following command to apply executable permissions to the binary:

```
$ sudo chmod +x /usr/local/bin/docker-compose
```

NOTE: If the `docker-compose` command fails after installation, check the path. You can also create a symbolic link to `/usr/bin` or any other directory in your path.

Example:

```
$ sudo ln -s /usr/local/bin/docker-compose /usr/bin/docker-compose
```

- 3 Test the installation by running the following command. The Docker Compose version will be displayed.

```
$ docker-compose --version
```

NOTE: The latest release versions of Docker Compose is published in <https://github.com/docker/compose/releases>. To upgrade to the latest release, follow the steps displayed under the **Linux** tab in <https://docs.docker.com/compose/install/>. However, before upgrading Docker Compose to the latest version, ensure that you stop the ZENworks services. For more information on stopping these services, see [Stopping the ZENworks Services](#).

2.1.6 Changing the Internal Docker IP

By default, docker internally uses the IP 172.17.0.1/16. In case this IP conflicts with any other device or network in your organization, only then the docker IP should be changed.

To change the internal docker IP that is being used, perform the following steps:

1. Stop all the ZENworks services by running the `microfocus-zenworks-configure -c Start` command.
2. Modify the `daemon.json` file available in the `/etc/docker/`, and add the line `"bip": "<IP_address>"`, to the start of the file, as shown in the below image:

```
{
  "bip": "192.168.2.1/24",
  "log-level": "warn",
  "log-driver": "json-file",
  "log-opts": {
    "max-size": "10m",
    "max-file": "5"
  }
}
```

NOTE: You can use any private IP that is not being used by your organization.

In above example we have used `192.168.2.1/24`

3. Restart the docker service by running the following command:

```
systemctl restart docker
```

4. Start all the ZENworks services by running the `microfocus-zenworks-configure -c Start` command.

2.1.7 Using Windows to Create a ZENworks Installation DVD from an ISO Image

- 1 Download the ZENworks upgrade ISO image from the [Micro Focus Download site](#) to a temporary location on your Windows device.
- 2 Burn the ISO image to a DVD.

2.1.8 Using Linux to Create a ZENworks Installation DVD from an ISO Image

- 1 Download the ZENworks upgrade ISO image from the [Micro Focus Download site](#) to a temporary location on your Linux device.
- 2 Mount the ISO image by using the following command:

```
mount -o loop /tempfolderpath/isoimagename.iso mountpoint
```

Replace *tempfolderpath* with the path of the temporary folder, replace *isoimagename* with the ZENworks ISO file name, and replace *mountpoint* with the path of the file system location where you want to mount the image. The path specified by *mountpoint* must already exist.

For example:

```
mount -o loop /zcm11/ZCM11upgr.iso /zcm11/upgrade
```

2.2 Upgrading the Primary Servers

You can upgrade by using a graphical user interface (GUI) program or a command line (Linux only).

- ♦ [Section 2.2.1, “Using the GUI to Upgrade Linux and Windows Servers,” on page 23](#)
- ♦ [Section 2.2.2, “Using a Command Line to Upgrade a Linux Server,” on page 30](#)
- ♦ [Section 2.2.3, “Upgrading the ZENworks 2020 Update 2 Lighthouse build to ZENworks 2020 Update 2 FCS,” on page 32](#)
- ♦ [Section 2.2.4, “Running ZENworks Diagnostic Center to Verify the Database Schema,” on page 33](#)
- ♦ [Section 2.2.5, “Running the Cleanup Utility,” on page 35](#)
- ♦ [Section 2.2.6, “Post-Upgrade Configurations,” on page 39](#)

NOTE: After upgrading the zone, ZooKeeper is enabled on the Primary Server that is first updated. For more information see, [Post-Upgrade Configurations](#).

IMPORTANT: ♦ Do not use the ZENworks System Update to upgrade the Primary Servers to ZENworks 2020Update 2.

Before upgrading the ZENworks server on a Windows device, run the Windows Update on the device to ensure that all the available updates are installed on the device. Subsequently, disable the Windows Update to ensure that there are no further updates on the device when you upgrade the ZENworks server on the device. Windows Update can be enabled after upgrading ZENworks.

- ♦ Disable the Linux Update to ensure that there are no further updates on the device when you upgrade the ZENworks server on the device.
 - ♦ On the Windows Primary Server, run `icacls "%zenworks_home%\cache" /remove:d Users` command as a super user.
-

2.2.1 Using the GUI to Upgrade Linux and Windows Servers

Perform the following procedure on the Primary Server that you want to upgrade to ZENworks 2020 Update 2, if all the prerequisites are met:

- 1 To start the ZENworks upgrade program:
 - ♦ **Linux:** Do the following:
 1. Download the ZENworks upgrade ISO image from the [Micro Focus Download site](#).
 2. Mount the ISO by running the command `mount -o loop <ISO path including name> <mount_path>`
 3. `cd` to the mounted location and run `./setup.sh`.
 - ♦ **Windows:** Do one of the following:
 1. Download the ZENworks upgrade ISO image from the [Micro Focus Download site](#).
 2. Mount the ISO.
 3. Run `setup.exe`.
 4. Open a DOS window, browse to the root of the ZENworks 2020 Update 2 installation media, then enter the `setup.exe` command.
- 2 During upgrade, see [Table 2-1, “Upgrade Information,” on page 24](#) for details on the upgrade data.

If you are using the GUI upgrade, you can also click the **Help** button for similar information.
- 3 Do one of the following on the Windows device:
 - ♦ If you selected to reboot automatically (you selected the **Yes, restart the system** option during the upgrade; see [“Restarting the Server \(applicable only for Windows\)” on page 27](#)), continue with [Step 5](#) after the booting process has completed and the services have started.
 - ♦ If you selected to reboot manually (you selected the **No, I will restart the system myself** option during the upgrade; see [“Restarting the Server \(applicable only for Windows\)” on page 27](#)), wait for the upgrade to complete and the services to start in order to verify it.
- 4 After the upgrade, the ZENworks Server data will be copied from the old Novell file path to the new Micro Focus file path. However, the ZENworks Server data in the old file path is retained during the upgrade process. After verifying whether the upgraded version of the ZENworks

Server is working as expected, you can run the cleanup utility provided with the build, to remove the retained server data. For more information, see [Running the Cleanup Utility on a Linux or Appliance Server](#).

- 5 To upgrade another Primary Server, repeat from [Step 1](#).

IMPORTANT: Repeat these steps until all Primary Servers in the Management Zone are upgraded.

NOTE: If you are using ZENworks Reporting, then after upgrading the zone to ZENworks 2020 Update 2, ensure that you reconfigure ZENworks reporting. For more information, see [Reconfiguring ZENworks Reporting Appliance](#) in the [ZENworks Reporting Appliance Deployment and Administration Reference](#).

The [Table 2-1 on page 24](#) provides the upgrade information for upgrading from ZENworks 2020 to ZENworks 2020 Update 2.

Table 2-1 Upgrade Information

Upgrade Information	Explanation
License agreement	The Upgrade installer does not proceed if the license agreement is not accepted.
ZENworks Prerequisites	<p>If the required prerequisites are not met, the upgrade procedure does not continue. The requirements that are not met are displayed (GUI) or listed (command line). For more information, see Prerequisites.</p> <p>If the .NET prerequisite is not met, you can click the ZENworks link in the description to install the runtime version that is bundled with ZENworks. Ensure that you install Microsoft .NET 4.5 framework and all its latest updates. After .NET is installed, the ZENworks upgrade proceeds.</p> <p>NOTE: You must reboot the device after the installation of .NET 4.5.</p>
Upgrade Type	<p>Select Yes if this is the first Primary Server in the Management Zone to be upgraded, else select No.</p> <p>If you select Yes, you are prompted for the zone administrator credentials.</p> <p>or</p> <p>If you select No, perform the steps listed in Table 2-2, “Upgrade Information - Upgrade of additional Primary Servers,” on page 28.</p>

Upgrade Information	Explanation
Database Purging	<p>The time required to complete the upgrade of the first Primary Server depends on the size of the data present in the database. On Primary Servers that are using an Microsoft SQL or Oracle Enterprise database, the upgrade installer checks the size of unwanted inventory data that can be purged. If there are more than 200,000 records to be purged, the Upgrade installer gives an option to purge the database before upgrading the Primary Server. For other database types, if there are less than 200,000 records to be purged, this page does not open.</p> <ul style="list-style-type: none"> ◆ Purge the database now: If this option is selected, the wizard will continue with purging the database. After the database is purged, re-initiate the upgrade process. <p>Configure the following settings for purging:</p> <ul style="list-style-type: none"> ◆ Remove the deleted products and components older than x day(s): Specify the number of days after which to purge deleted product and component data. The default value is 180 days. ◆ Remove the inventory history data older than x day(s): Specify the number of days after which to purge the inventory history. The default value is 180 days. ◆ Remove the Software Application Usage data older than x day(s): Specify the number of days after which to purge the software application usage data collected for Asset Management. The default value is 180 days. ◆ Remove the Network Software Usage data older than x day(s): Specify the number of days after which to purge the network software usage data collected for Asset Management. The default value is 180 days. ◆ Remove the Web Application Usage data older than x day(s): Specify the number of days after which to purge the Web application usage data collected for Asset Management. The default value is 180 days. <p>IMPORTANT: If the purging process is interrupted, the database might become inconsistent.</p> <ul style="list-style-type: none"> ◆ Continue without purging the database: If this option is selected, the wizard continues with the upgrade process.
ZENworks Diagnostic Center	<p>Verify the database using ZENworks Diagnostic Center. If any mismatches are found, then error are logged in the ZDC reports.</p> <p>The error reports are available in the following location:</p> <ul style="list-style-type: none"> ◆ On Windows: %ZENSERVER_HOME%\logs\migration\zdc\reports ◆ On Linux: /var/opt/microfocus/log/zenworks/migration/zdc/reports <p>NOTE: Verify the database before you upgrade the first Primary Server to ZENworks 2020 Update 2. You will not be prompted to verify the database for the subsequent server upgrades.</p>

Upgrade Information	Explanation
Pre-Upgrade Tasks	<p>Ensure that you have stopped all ZENworks services on all other Primary Servers. If services are not stopped on other Primary Servers, then you cannot proceed with the upgrade.</p> <p>For Linux servers, ensure that Docker and Docker Compose is installed and their services are enabled and running. For more information, see Prerequisites.</p> <p>Ensure that you have taken complete backup of the ZENworks databases and other important data.</p> <p>After performing the required actions, select the displayed checkboxes .</p>
Pre-upgrade summary	<p>The following fields are displayed in the summary:</p> <p>Zone Name: Displays the name of the Management Zone to which this server belongs.</p> <p>To make changes to any information, click Previous.</p>
Upgrading process	<p>The upgrade process takes several minutes, depending on the capabilities of the hardware and size of data in the database.</p>
Upgrading errors	<p>If there are errors during the upgrade, this page is displayed. For detailed information, see the log files in the following locations. Resolve the errors and restart the upgrade.</p> <p>On Windows: You can check the logs in the old Novell file path. When the Upgrade process is re-initiated, then check the logs in the new Micro Focus file paths.</p> <p>Novell File Path:</p> <ul style="list-style-type: none"> ◆ %ZENWORKS_HOME%\logs <ul style="list-style-type: none"> ◆ %ZENWORKS_HOME%\logs\ZENworks_Upgrade_<TimeStamp>.log.xml ◆ %ZENWORKS_HOME%\logs\loader-messages.log ◆ %ZENWORKS_HOME%\logs\system-update-import.log %ZENWORKS_HOME%\logs\system-update\<Update GUID> <ul style="list-style-type: none"> ◆ %ZENWORKS_HOME%\logs\pre-global-actions.log ◆ %WINDOWS_SYSTEM_DRIVE%\tmp\err.log <p>Micro Focus File Path:</p> <ul style="list-style-type: none"> ◆ %ZENSERVER_HOME%\logs <ul style="list-style-type: none"> ◆ %ZENSERVER_HOME%\logs\ZENworks_Upgrade_<TimeStamp>.log.xml ◆ %ZENSERVER_HOME%\logs\loader-messages.log ◆ %ZENSERVER_HOME%\logs\system-update-import.log

Upgrade Information	Explanation
	<p>On Linux: You can check the logs in the old Novell file path. When the Upgrade process is re-initiated, then check the logs in the new Micro Focus file paths.</p>
	<p>Novell File Path</p> <ul style="list-style-type: none"> ◆ /var/opt/novell/log/zenworks <ul style="list-style-type: none"> ◆ /var/opt/novell/log/zenworks/ZENworks_Upgrade_<TimeStamp>.log.xml <p>/var/opt/novell/log/zenworks/system-update/<Update GUID></p> <ul style="list-style-type: none"> ◆ /var/opt/novell/log/zenworks/loader-messages.log ◆ /var/opt/novell/log/zenworks/system-update-import.log ◆ /var/opt/novell/log/zenworks/pre-global-actions.log ◆ /tmp/err.log
	<p>Microfocus File path</p> <ul style="list-style-type: none"> ◆ /var/opt/microfocus/log/zenworks <ul style="list-style-type: none"> ◆ /var/opt/microfocus/log/zenworks/ZENworks_Upgrade_<TimeStamp>.log.xml
<p>Post-upgrade actions: Run the ZENworks System Status utility</p>	<p>Choose to run the ZENworks System Status utility to launch the ZENworks services heartbeat check before closing the upgrade program. The results are posted in the upgrade log file.</p>
<p>Post Upgrade actions: Run the cleanup Utility</p>	<p>After upgrade, the ZENworks server configuration will be copied from the old Novell file path to the new Micro Focus file path. However, the ZENworks server binaries and old configuration in the old file path is retained during the upgrade process. After verifying whether the upgraded version of the ZENworks Server is working as expected, you can run the cleanup utility provided with the build, to remove the retained server data. For more information, see Running the Cleanup Utility on a Linux or Appliance Server.</p>
<p>Restarting the Server (applicable only for Windows)</p>	<p>Upon a successful upgrade on a Windows Primary Server, you can select between rebooting immediately or later:</p> <ul style="list-style-type: none"> ◆ Yes, Restart the System: If you select this option, the server is rebooted to complete the upgrade process. ◆ No, I Will Restart the System Myself: If you select this option, the upgrade process finishes when you reboot the server for the next time. <p>IMPORTANT: Reboot the server to complete the upgrade process.</p>
<p>Upgrade completion</p>	<p>The actions you selected previously are performed, including:</p> <ul style="list-style-type: none"> ◆ Upgrading the ZENworks database (done when the first Primary Server is upgraded). ◆ Upgrading all ZENworks components installed on the Primary Server. ◆ Importing System Update into the zone so that you can upgrade the managed devices in the zone.

Table 2-2 Upgrade Information - Upgrade of additional Primary Servers

Installation Information	Explanation
Primary Server and Zone Credentials	You are prompted for the details of the Primary Server that is already upgraded, the Zone credentials, and the SSL port number.
ZENworks Database Details	(Conditional) If the device cannot connect to the database through the Primary Server that is already upgraded, you are prompted for the details to connect directly to the database.
Port Number	A few ports that might be blocked by your firewall need to be opened. You can open them now or you can manually open them later.
Pre-upgrade summary	<p>WARNING: Before the Pre-upgrade summary page is displayed, the ZENworks services will be stopped on the server. If you cancel the upgrade at this time, you will need to restart the ZENworks services manually.</p> <p>The following fields are displayed in the summary:</p> <p>ZENworks Home Directory: Displays the location on the Primary Server where the ZENworks software that is being upgraded is installed.</p> <p>Zone Name: Displays the name of the Management Zone to which this server belongs.</p>
Upgrading process	The upgrade process takes several minutes, depending on the capabilities of the hardware.

Installation Information	Explanation
Errors during upgrade	<p>If there are errors during the upgrade, this page is displayed. You must resolve the errors and restart the upgrade. For detailed information, see the log files in the following locations:</p>
	<p>On Windows: You can check the logs in both the old Novell and the new Micro Focus file paths:</p>
	<p>Novell File Path</p>
	<ul style="list-style-type: none"> ◆ %ZENWORKS_HOME%\logs <ul style="list-style-type: none"> ◆ %ZENWORKS_HOME%\logs\ZENworks_Upgrade_<TimeStamp>.log.xml ◆ %ZENWORKS_HOME%\logs\loader-messages.log ◆ %ZENWORKS_HOME%\logs\system-update-import.log
	<p>%ZENWORKS_HOME%\logs\system-update\<Update GUID></p>
	<ul style="list-style-type: none"> ◆ %ZENWORKS_HOME%\logs\pre-global-actions.log ◆ %WINDOWS_SYSTEM_DRIVE%\tmp\err.log
	<p>Micro Focus File Path</p>
	<ul style="list-style-type: none"> ◆ %ZENSERVER_HOME%\logs <ul style="list-style-type: none"> ◆ %ZENSERVER_HOME%\logs\ZENworks_Upgrade_<TimeStamp>.log.xml ◆ %ZENSERVER_HOME%\logs\loader-messages.log ◆ %ZENSERVER_HOME%\logs\system-update-import.log
	<p>On Linux: You can check the logs in the following file paths</p>
	<p>Novell File Path</p>
	<ul style="list-style-type: none"> ◆ /var/opt/novell/log/zenworks <ul style="list-style-type: none"> ◆ /var/opt/novell/log/zenworks/ ZENworks_Upgrade_<TimeStamp>.log.xml
	<p>/var/opt/novell/log/zenworks/system-update/<Update GUID></p>
	<ul style="list-style-type: none"> ◆ /var/opt/novell/log/zenworks/loader-messages.log ◆ /var/opt/novell/log/zenworks/system-update-import.log ◆ /var/opt/novell/log/zenworks/pre-global-actions.log ◆ /tmp/err.log
	<p>Microfocus File Path</p>
	<ul style="list-style-type: none"> ◆ /var/opt/microfocus/log/zenworks <ul style="list-style-type: none"> ◆ /var/opt/microfocus/log/zenworks/ ZENworks_Upgrade_<TimeStamp>.log.xml

Installation Information	Explanation
Post-upgrade actions	Before closing the upgrade program, you can run the ZENworks System Status utility to launch a heartbeat check of the ZENworks services. The results are listed in the installation log.
Restarting the Server (applicable only for Windows)	<p>After the upgrade on a Windows Primary Server, you can select either to reboot immediately or later:</p> <ul style="list-style-type: none"> ◆ Yes, Restart the System: Reboots the server to complete the upgrade process. ◆ No, I Will Restart the System Myself: Completes the upgrade process, when you reboot the server the next time. <p>IMPORTANT: You must reboot the server to complete the upgrade process.</p>
Upgrade completion	<p>The actions you selected previously are performed, including:</p> <ul style="list-style-type: none"> ◆ Upgrading the ZENworks database (done when the first Primary Server is upgraded). ◆ Upgrading all ZENworks components installed on the Primary Server. ◆ Importing System Update into the zone so that you can upgrade the managed devices in the zone.

2.2.2 Using a Command Line to Upgrade a Linux Server

Perform the following on the Primary Server that you want to upgrade from ZENworks 2020 to ZENworks 2020 Update 2:

- 1 Ensure that the upgrade prerequisites are met.
- 2 Start the ZENworks upgrade program, open a Linux terminal, browse to the root of the upgrade media, then enter the following command:

```
./setup.sh --console
```

or

```
./setup.sh -e
```

- 3 Select the language. English is the default language. Select the number corresponding to your language, then press **Enter** to continue.
- 4 Review the introduction, then press **Enter** to continue.

TIP: Type `back` and press **Enter** to return to a previous installation option to make the changes. Type `quit` to exit the wizard.

- 5 To accept the end-user license agreement (EULA), type `1`, then press **Enter**.
- 6 To accept the license agreement, type `1`, then press **Enter**.
If you disagree, the upgrade wizard quits.
- 7 The Prerequisite check page is displayed. If there are any warning or error messages, resolve the errors, then press **Enter** to continue.
- 8 Type `1` if this is the first Primary Server to be upgraded; otherwise, type `2`, then press **Enter**.

- 9 (Conditional) If you typed 1 in the previous page, you will be prompted for the zone administrator credentials. Specify details, then press **Enter** and continue with [Step 11](#).
- 10 (Conditional) If you typed 2 in the previous page, you will be prompted for the details of the upgraded Primary Server and the zone administrator credentials. Specify the required details, then press **Enter**.
- 11 At the end of the **Enter the zone administrative user's name** line, press **Enter** to accept the default (Administrator), or specify an administrator name, then press **Enter**.
- 12 Specify a password for the administrator, then press **Enter**.
- 13 In the ZENworks licensing page, you have an option to change the ZENworks licensing type. Specify the ZENworks 2020 Update 2 license, and then click Next.
- 14 Stop the ZENworks services on all other Primary Servers, then press **Enter** to stop the services on the local server.

Before the upgrade, you should stop the services on all other Primary Servers in the Management Zone. If services are not stopped on other Primary Servers, then you will not be able to proceed with the upgrade.

Except for the database service, no ZENworks service should be running during the upgrade process.

- 15 Review the pre-upgrade summary, then press **Enter** to continue.

If you are upgrading the other Primary Servers in the Management Zone, the upgrade starts when you press **Enter** in this step.

- 16 When **Upgrade Complete** is displayed, press **Enter** to continue.

If errors are displayed, see the installation logs in the `/var/opt/novell/log/zenworks` or `/var/opt/novell/log/zenworks/systemupdate/<Update GUID>` file.

If while re-running the upgrade process, errors are displayed, then you can also check the logs in the Micro Focus path. For example, `/var/opt/microfocus/log/zenworks`

- 17 Do any of the following to verify that ZENworks 2020 Update 2 is running:

- ♦ **Check the Linux services by using the specific service commands**

For SLES 12, or later servers run the following commands:

```
systemctl status microfocus-zenserver.service
systemctl status microfocus-zenloade.service
```

If the services are not running, run the following commands to start the ZENworks services:

```
systemctl start microfocus-zenserver.service
systemctl start microfocus-zenloader.service
```

- ♦ **Check the Linux services by using the configuration command**

On the server, run the following commands:

```
microfocus-zenworks-configure -c SystemStatus
```

ZENworks services and their status are listed.

To start the services, run the following command:

```
microfocus-zenworks-configure -c Start
```

- ♦ **Run ZENworks Control Center**

Use the following URL to open the ZENworks Control Center in a web browser on any device in your network:

`https://<DNS name of the Primary_Server>/zenworks`

or

`https://<IP address of the Primary_Server>/zenworks`

18 To upgrade another Primary Server, repeat from [Step 2](#).

For information on the post-upgrade tasks, see “[Completing Post-Installation Tasks on Windows Servers](#)” in the [ZENworks Server Installation](#).

NOTE: If you are using ZENworks Reporting, then after upgrading the zone to ZENworks 2020 Update 2, ensure that you reconfigure ZENworks reporting. For more information, see [Reconfiguring ZENworks Reporting Appliance](#) in the [ZENworks Reporting Appliance Deployment and Administration Reference](#).

2.2.3 Upgrading the ZENworks 2020 Update 2 Lighthouse build to ZENworks 2020 Update 2 FCS

If you have deployed ZENworks 2020 Update 2 Lighthouse build, and intend to upgrade the zone to ZENworks 2020 Update 2 FCS, then perform the following steps:

On Linux/Appliance

On Appliance: If you have deployed ZENworks 2020 Update 2 Lighthouse Appliance build on Microsoft Hyper-V, XEN on SLES, or Citrix XenServer and want to update to the ZENworks 2020 Update 2 FCS build, please contact Micro Focus Customer Support, and then perform the following steps.

- 1 Create a temporary directory (`mntdir`) in the `/var/tmp` or `/var/opt/microfocus/zenworks/tmp` directory.
- 2 Mount the ISO in the temporary directory that was created.
- 3 After mounting the ISO, ensure that you restart the ZENloader service.
- 4 Go to the mount directory (`mntdir`).

Example:

- ♦ If you have mounted to `/var/tmp/` location then go to `/var/tmp/mntdir`.
- ♦ If you have mounted to `/var/opt/microfocus/zenworks/` location then go to `/var/opt/microfocus/zenworks/mntdir`

- 5 Run the `zman sui Common` command.

When prompted, specify the administrator credentials, and you will be prompted for the root password.

The system update will be imported to the zone, and to track the status in ZCC, go to Configuration > System Updates.

Next follow update deployment steps, see [Deploying Updates](#) in the [ZENworks System Updates Reference](#).

On Windows

- 1 Mount the ZENworks 2020 Update 2 ISO.
- 2 After mounting the ISO restart the ZENloader service.
- 3 Open the command prompt and go to the <mount_location>.
- 4 Run the `zman sui Common` command.

When prompted, specify the administrator credentials.

The system update will be imported to the zone, and to track the status in ZCC, go to Configuration > System Updates.

Next follow update deployment steps, see [Deploying Updates](#) in the [ZENworks System Updates Reference](#).

2.2.4 Running ZENworks Diagnostic Center to Verify the Database Schema

The first time you upgrade any Primary Server to ZENworks 2020 Update 2, you must verify the database schema. Do not perform this procedure for the subsequent server upgrades.

- ♦ [“Verifying an Embedded Database Schema” on page 33](#)
- ♦ [“Verifying an External Database Schema” on page 34](#)

Verifying an Embedded Database Schema

- 1 At the Primary Server’s console prompt, run the following commands:

- ♦ **On Windows**

```
cd to MEDIA_ROOT\Common\tools\zdc
zdc_verifyDB.bat
```

- ♦ **On Linux**

```
cd to MEDIA_PATH/Common/tools/zdc
./zdc_verifyDB
```

ZENworks Diagnostic Center runs the diagnostic tests and generates the results in HTML format.

On a Windows Primary Server, the reports are stored in the following location:

```
%ZENSERVER_HOME%\logs\zdcreports\%SESSION%
```

```
/var/opt/microfocus/log/zenworks/zdcreports
```

On a Linux Primary Server the reports are stored in the following location:

```
/var/opt/microfocus/log/zenworks/zdcreports
```

To view the reports, open `index.html`, located in the `report` directory.

The complete log of diagnostic tests is stored in the following locations:

On Windows:

```
%ZENSERVER_HOME%\logs\zdcreports\zdc_zen11_verify_%SESSION%.log
```

On Linux: /var/opt/microfocus/log/zenworks/zdcreports

Verifying an External Database Schema

Perform the following steps to verify an external database schema such as external PostgreSQL, Microsoft SQL, or Oracle database schema:

1 At the Primary Server's console prompt, run the following commands:

◆ **On Windows**

```
cd to MEDIA_PATH/Common/tools/zdc
zdc_verifyDB.bat -d check
```

◆ **On Linux**

```
cd to MEDIA_PATH/Common/tools/zdc
./zdc_verifyDB -d check
```

NOTE: The `-d check` parameter must be used only when you migrate the database from one device to another. Do not use the `-d check` parameter if the database is upgraded on the same device.

2 Specify the type of database. Type the relevant number based on the database type:

- ◆ (1) PostgreSQL
- ◆ (2) MS-SQL
- ◆ (3) Oracle

3 Specify the database details, based on the selected database (Microsoft SQL, PostgreSQL, or Oracle).

NOTE: If you are using an Microsoft SQL database, based on the type of authentication you choose to log in, enter the user name in the relevant format:

- ◆ Windows Authentication: `<name>@<domain>`
 - ◆ SQL Server Authentication: `<name>`
-

4 (Conditional) If the database is Remote PostgreSQL, enter the Database Engine Name.

ZENworks Diagnostic Center runs the diagnostic tests and generates the results in HTML format.

On a Windows Primary Server the reports are stored in the following location:

```
%ZENSERVER_HOME%\logs\zdcreports\%SESSION%
```

On a Linux Primary Server the reports are stored in the following location:

```
/var/opt/microfocus/log/zenworks/zdcreports
```

To view the reports, open `index.html`, located in the `report` directory.

The complete log of diagnostic tests is stored in the following locations:

On Windows:

```
%ZENSERVER_HOME%\logs\zdcreports\zdc_zen11_verify_%SESSION%.log
```

On Linux: /var/opt/microfocus/log/zenworks/zdcreports

2.2.5 Running the Cleanup Utility

After upgrade, the ZENworks server configuration will be copied from the old Novell file path to the new Micro Focus file path. However, the ZENworks server binaries and old configuration in the old file path is retained during the upgrade process. After verifying whether the upgraded version of the ZENworks Server is working as expected, you can run the cleanup utility provided with the build, to remove the retained server data. The topics covered in this section are as follows:

- ♦ [“Viewing the Renamed Services and File Locations on a Linux or Appliance Server” on page 35](#)
- ♦ [“Running the Cleanup Utility on a Linux or Appliance Server” on page 36](#)
- ♦ [“Viewing the Renamed Services and File Locations on a Windows Server” on page 37](#)
- ♦ [“Running the Cleanup Utility on Windows Server” on page 38](#)

Viewing the Renamed Services and File Locations on a Linux or Appliance Server

After a successful upgrade, you can now go ahead and view the changes introduced in this release:

- ♦ [“New File Path for ZENworks Server Data” on page 35](#)
- ♦ [“Renamed Configure Actions” on page 36](#)
- ♦ [“Renamed Services” on page 36](#)

New File Path for ZENworks Server Data

Example:

- ♦ **Log Files:** The log files will now be available in the new Micro Focus path (`/var/opt/microfocus/log/zenworks`).

The log files in the old Novell path (`/var/opt/novell/log/zenworks`) will also be retained. These files will not be deleted even after you run the cleanup utility.

NOTE: All new server related log files that are generated after the upgrade, will be available only in the new Micro Focus file path and not in the old Novell file path.

- ♦ **Conf Files:** The configuration files for only the ZENworks Server will now be available in the new Micro Focus path (`/etc/opt/microfocus/zenworks`).

The configuration files for both the server and the agent will also be retained in the old Novell path (`/etc/opt/novell/zenworks`). When you run the cleanup utility, the configuration files related to the ZENworks Server will be deleted from the old path. However, the files related to the ZENworks agent will be retained in the old path.

- ♦ **Libraries:** The libraries for only the ZENworks Server will now be available in the new Micro Focus path (`/opt/microfocus/zenworks`).

The libraries for both the server and the agent will also be retained in the old Novell path (`/opt/novell/zenworks`). When you run the cleanup utility, the libraries related to the ZENworks Server will be deleted from the old path.

Renamed Configure Actions

Configure actions have been renamed from Novell to Micro Focus. For example, the configure action `novell-zenworks-configure -c CalibrateMemoryConfigureAction` is now renamed to `microfocus-zenworks-configure -c CalibrateMemoryConfigureAction`. Configure actions that follow the Novell naming convention have been deprecated in this release and will be available along with the Configure actions that follow the Micro Focus naming convention.

Renamed Services

ZENworks Server services have been renamed from Novell to Micro Focus. For example, `novell-zenserver.service` is renamed to `microfocus-zenserver.service`.

Similarly, services such as `novell-zenloader.service` and `novell-zenjoinproxy.service` are renamed to `microfocus-zenloader.service` and `microfocus-zenjoinproxy.service`, respectively

However, the old service names will still be displayed but will be inactive. You can run the cleanup utility to remove the old server services.

Therefore, while using the `systemctl` commands to start or stop services, ensure that you use the renamed services in the command.

NOTE: Some services such as `novell-zenworks-xplatzmd.service` will not be renamed and will retain the old naming convention even after running the cleanup utility.

The service related to the embedded database for PostgreSQL will also retain the Novell naming convention, that is, the `zenpostgresql.service` will remain enabled and will not be removed during cleanup.

Running the Cleanup Utility on a Linux or Appliance Server

The cleanup utility enables you to remove the old ZENworks configuration data that is retained in the Novell file path and the old versions of the ZENworks Server services that are inactive. Run the cleanup utility only after verifying whether the upgraded server is working as expected. The following are retained after running the cleanup utility:

- ♦ ZENworks agent related data such as the configuration files and libraries will be retained in the old Novell file path.
- ♦ The ZENworks System Updater Service (ZeUS) folder will be retained in the `/opt/novell/zenworks/ZeUS` path.
- ♦ The System Update and other log files will be retained in the `/var/opt/novell/log/zenworks` path.
- ♦ Services related to the ZENworks agent, that is, `novell-zenworks-xplatzmd.service`, will be retained with the Novell naming convention.
- ♦ The service related to embedded PostgreSQL, that is, `zenpostgresql.service`, will not be renamed.

To run the clean up utility, execute the following command as a root user and confirm whether you want to proceed with the cleanup:

```
/opt/microfocus/zenworks/bin/zen-legacy-cleanup.sh
```

To run the clean up utility silently without user interaction, add the `-s` flag into the command.

The logs for this cleanup utility can be found at the `/var/opt/microfocus/log/zenworks/zen-legacy-cleanup_<timestamp>.log` location.

After running the command, you can verify whether the files in the old file path `/opt/novell/zenworks/` and old server services that follow the Novell naming convention, are removed from the server or not.

NOTE: When you run the cleanup utility, Sybase related files will be retained, which can be removed manually after verifying whether the upgraded ZENworks Server is working as expected.

If you have migrated the Sybase database to any other database using the database migration tool, the database files, services, and Sybase packages might be retained in the Primary Server. To clean-up the data, run the following scripts on the Primary Server that had the Sybase database.

- ♦ **On Linux/Appliance:** Run the script available in: `/opt/microfocus/zenworks/install/downloads/tools/cleanupSybase.sh`.

Viewing the Renamed Services and File Locations on a Windows Server

After a successful upgrade, you can now go ahead and view the changes introduced in this release:

- ♦ [“New File Path for ZENworks Server Data” on page 37](#)
- ♦ [“Renamed Services” on page 38](#)
- ♦ [“Introduction of a New Environment Variable” on page 38](#)
- ♦ [“Renamed Configure Actions” on page 38](#)

New File Path for ZENworks Server Data

Example:

- ♦ **Log Files:** The log files will now be available in the new Micro Focus path. Example: `C:\Program Files (x86)\Micro Focus\ZENworks\logs`.

The log files in the old Novell path will be retained. Example: `C:\Program Files (x86)\Novell\ZENworks\logs`. These files will not be deleted after you run the cleanup utility.

NOTE: All new server related logs files that are generated after the upgrade, will be available only in the new Micro Focus file path and not in the old Novell file path.

- ♦ **Libraries:** The libraries for only the ZENworks Server will now be available in the new Micro Focus path. Example: `C:\Program Files (x86)\Micro Focus\ZENworks\lib`.
The libraries for both the server and the agent will also be retained in the old Novell path. Example: `C:\Program Files (x86)\Novell\ZENworks\lib`. When you run the cleanup utility, the libraries related to the ZENworks Server will be deleted from the old path.

Renamed Services

ZENworks Server services have been renamed from Novell to Micro Focus. Example: Novell ZENworks Join Proxy is renamed to Microfocus ZENworks Join Proxy.

Similarly, the service Novell ZENworks Loader is renamed to Microfocus ZENworks Loader, Novell ZENworks Services Monitor is renamed to Microfocus ZENworks Services Monitor and Novell ZENworks Server server is renamed to Microfocus ZENworks Server.

However, the services that use the old Novell naming convention will still be displayed but will be disabled. You need to run the cleanup utility to remove these services.

NOTE: Services such as the Novell ZENworks Agent Service will remain enabled and will retain the Novell naming convention after running the cleanup utility.

The service related to the embedded database for PostgreSQL will also retain the Novell naming convention, that is, the Novell ZENworks Embedded Datastore-PostgreSQL will remain enabled and will not be removed during cleanup.

Introduction of a New Environment Variable

A new environment variable %ZENSERVER_HOME% has been introduced in this release that points to the new Micro Focus file path C:\Program Files (x86)\Micro Focus\ZENworks. The existing environment variable %ZENWORKS_HOME% is still applicable to access the ZENworks agent data, which is retained in the Novell file path.

Renamed Configure Actions

Configure actions have been renamed from Novell to Micro Focus. For example, the configure action novell-zenworks-configure -c CalibrateMemoryConfigureAction is now renamed to microfocus-zenworks-configure -c CalibrateMemoryConfigureAction. Configure actions that follow the Novell naming convention have been deprecated in this release and will be available along with the Configure actions that follow the Micro Focus naming convention.

Running the Cleanup Utility on Windows Server

The cleanup utility enables you to remove the old ZENworks Server data that is retained on the Novell file path and the old versions of the ZENworks Server services that are disabled. Run the cleanup utility only after verifying whether the upgraded ZENworks Server is working as expected. The following are retained after running the cleanup utility:

- ♦ ZENworks agent related data such as configuration files and libraries will be retained in the Novell file path. Example: C:\Program Files (x86)\Novell\ZENworks.
- ♦ The log files will be retained in the Novell file path. Example: C:\Program Files (x86)\Novell\ZENworks\logs.
- ♦ The ZENworks System Updater Service (ZeUS) folder will be retained in the Novell file path. Example: C:\Program Files (x86)\Novell\ZENworks\ZeUS.

- ◆ Services related to the ZENworks agent will retain the Novell naming convention, that is, the Novell ZENworks Agent Service will remain enabled. They will not be removed during cleanup.
- ◆ The service related to the embedded database for PostgreSQL will also retain the Novell naming convention, that is, the Novell ZENworks Embedded Datastore-PostgreSQL will be in a enabled state. It will not be removed during cleanup.

To cleanup the retained data, run the cleanup utility as an administrator. The utility is available at the following location:

```
%ZENSERVER_HOME%\bin\ZENLegacyCleanup.exe
```

The logs for this cleanup utility can be found at the

```
%ZENSERVER_HOME%\logs\LegacyUninstall\ZENLegacyCleanup_<timestamp>.log
```

location.

After running the command, you can verify whether the ZENworks Server data in the old Novell file path and the ZENworks Server services that follow the Novell naming convention, are removed from the server or not.

NOTE: When you run the cleanup utility, Sybase related files will be retained, which can be removed manually after verifying whether the upgraded ZENworks Server is working as expected.

If you have migrated the Sybase database to any other database using the database migration tool, the database files, services, and Sybase packages might be retained in the Primary Server. To clean-up the data, run the following scripts on the Primary Server that had the Sybase database.

- ◆ **On Windows:** Open the PowerShell console and run the script available in the ZENWORKS_HOME/install/downloads/tools/cleanupSybase.ps1 location.

Ensure that you DO NOT USE COMMAND PROMPT.

2.2.6 Post-Upgrade Configurations

After successfully upgrading the Primary Servers, perform the following post-upgrade configurations:

1. Configure the system update entitlement by activating ZENworks licenses. For more information on licensing, see [TID 7024521](#).

NOTE: ◆After licensing ZENworks, ensure that you check for updates in ZENworks System Update page.

2. Using the appliance key from Software Licenses and Downloads, register and then configure Online Updates. For more information, see:
 - ◆ [ZENworks Product Licensing Reference](#)
 - ◆ [Online Update](#)
3. Ensure that you verify the version of ZENworks in ZENworks Control Center (**Configuration > Server Hierarchy**).
4. Ensure that the status of System Update is successful.

5. Ensure that you run the latest ZDC to verify the schema. For more information, see [ZENworks Diagnostic Center](#).
6. (Conditional) Ensure that you apply the latest Tuxera NTFS driver or imaging updates. For more information, see [Adding Tuxera Driver for ZENworks Imaging](#).
7. Ensure that you configure reporting to get the newly available domains. For more information, see [ZENworks Reporting Configuration](#).
8. (Conditional) If ZENworks is connected to ZENworks Reporting Server, then ensure that you upgrade the Reporting database domain to the upgraded ZCM Database. For more information, see [Reconfiguring ZENworks Reporting Appliance in ZENworks Reporting Appliance Deployment and Administration Reference](#).
9. Ensure that the ZooKeeper service is up and running at all times to enable proper functioning of various ZENworks components such as the ZENworks Loader services and the Vertica database. To verify the status of the ZooKeeper service, see the Diagnostics page in ZCC. For more information on the ZooKeeper component, see [ZooKeeper](#) in the [Vertica Reference Guide](#).

NOTE: ♦The TID (https://portal.microfocus.com/s/article/KM000002512?language=en_US) is applicable only for Window servers. Refer to the TID and perform the specified steps.

- ♦ In case of multiple Primary servers in the zone, by default, the Zookeeper service is and active on the first upgraded Primary Server node.

If the Primary Servers in your zone are unable to communicate with the ZooKeeper service due to firewall restrictions, you can run the following configure action to open the ZooKeeper ports: You also need to ensure that the firewall allows client connections from other Primary Servers to the ZooKeeper services on port 6789. If the Primary Servers in your zone are unable to access the ZooKeeper service, then to open the ports, you can run the following Configure action on the server in which ZooKeeper is enabled.

```
microfocus-zenworks-configure -c ZENServicesFirewallConfigureAction -  
Doperation=add -Dservice=zookeeper
```

However, if the Primary Server that is within the DMZ is unable to access the ZooKeeper service within the corporate network, then you need to manually open the port 6789 in the corporate firewall.

For more information on the ZooKeeper ports, see [ZENworks 2020 TCP and UDP Ports](#).

10. After upgrade, the ZENworks server configuration will be copied from the old Novell file path to the new Micro Focus file path. However, the ZENworks server binaries and old configuration in the old file path is retained during the upgrade process. After verifying whether the upgraded version of the ZENworks Server is working as expected, you can run the cleanup utility provided with the build after a couple of weeks, to remove the retained server data.

For more information, see [Running Cleanup Utility on a Linux or Appliance Server](#) or [Running the Cleanup Utility on Windows Server](#).

11. (Optional) When you run the cleanup utility, Sybase related files will be retained, which can be removed manually after verifying whether the upgraded ZENworks Server is working as expected.

If you have migrated from the Sybase database to any other database using the database migration tool, the database files, services, and Sybase packages might be retained in the Primary Server. To cleanup the data, run the following scripts on the Primary Server that had the Sybase database.

- ♦ **On Linux/Appliance:** Run the script available in: `/opt/microfocus/zenworks/install/downloads/tools/cleanupSybase.sh`
- ♦ **On Windows:** Open the PowerShell console and run the script available in the `ZENWORKS_HOME/install/downloads/tools/cleanupSybase.ps1` location.

On Windows, ensure that you DO NOT USE COMMAND PROMPT.

12. After upgrading to ZENworks 2020 Update 2, you should apply the ZENworks 2020 Update 2 – FTF 998 to mitigate the Log4j vulnerability. For information on downloading the FTFs, see https://portal.microfocus.com/s/article/KM000003058?language=en_US

2.3 Troubleshooting

If the ZENworks Server Upgrade fails, you must rectify the problem and re-run the ZENworks Upgrade Installer.

- ♦ You must re-run the Upgrade Installer on the same server where the upgrade was started.
- ♦ If the upgrade fails during the post-package upgrade database action, then on re-running and after zone authentication, the pre-upgrade Summary page displays and the upgrade proceeds to perform the database actions.
- ♦ If Embedded PostgreSQL database is used, ensure that the `.dbR` and `.logR` files are deleted from the database folder before re-running the Upgrade Installer.

The following sections provide solutions to the problems that you might encounter while upgrading the ZENworks Primary Server:

- ♦ [“ZENworks Upgrade Stuck at ZoneAuthConfigureAction” on page 42](#)
- ♦ [“Externally mounted content-repo is not recognized” on page 42](#)
- ♦ [“ZENworks upgrade fails as the PostgreSQL Engine upgrade failed” on page 43](#)
- ♦ [“Upgrade completes with an error on a Linux Primary Server” on page 43](#)
- ♦ [“Upgrading to ZENworks 2020 fails on Windows Primary Server” on page 44](#)
- ♦ [“The MDM device displays inconsistent status after upgrading to ZENworks 2020 Update 2” on page 44](#)
- ♦ [“System Update Failed Due to Pending Reboot Error” on page 44](#)
- ♦ [“The Inventory-Only Agent \(IOA\) System Update Fails on SLED 15 SP1 devices” on page 45](#)
- ♦ [“During the Upgrade of any Windows Primary Server, Windows Explorer Automatically Restarts a Few Times” on page 45](#)
- ♦ [“When ZENworks Upgrade is launched, if the database is executing any transactions, it might conflict with the upgrade process” on page 45](#)
- ♦ [“While using an Oracle database, during the upgrade or database creation, the TNS error message is displayed” on page 46](#)
- ♦ [“While using an MS-SQL database, during the upgrade or database creation, there are connection issues” on page 47](#)

- ♦ “Incorrect values displayed for the inventory records to be pruned” on page 47
- ♦ “An error occurs when you delete a folder with a long name” on page 48
- ♦ “The ZENworks schema fails to upgrade due to collation incompatibility in MS SQL database” on page 48
- ♦ “The upgrade XML log file is not displayed properly in Google Chrome and Firefox” on page 48
- ♦ “On a Linux Primary Server, the legacy Novell services are listed in start configure action” on page 49
- ♦ “ZENworks Primary Server Upgrade fails with the 'Zulu Platform x64 Architecture has stopped working' error” on page 49

ZENworks Upgrade Stuck at ZoneAuthConfigureAction

Source: ZENworks 2020 Update 2, ZENworks Upgrade

Explanation: While upgrading the ZENworks Management Zone with the Oracle database, the upgrade is stuck at ZoneAuthConfigureAction.

Possible Cause: The Oracle database listener was configured to accept connection from DMZ on the customer-defined port, but during the upgrade, this port is being overridden with the port that is meant for connection from the internal server.

Action: In the Oracle database, if you have configured multiple listeners at the database layer, then temporarily allow Oracle to accept the connection from other servers (DMZ) to communicate using the internal port.

Externally mounted content-repo is not recognized

Explanation: Externally mounted content-repo is not recognized by ZENLoader after upgrading to ZENworks 2020 Update 2. Hence, rebuilding is never completed.

Action: While upgrading ZENworks 2020 Update 1 and earlier versions to ZENworks 2020 Update 2, ZENworks might not function properly, after upgrade, if you have content-repo as a symbolic link to a folder that is outside the ZENworks folder structure.

For example, if the content is available in `/var/my-external-content-repo` and `/var/opt/novell/zenworks/content-repo` points to that directory, then it might not work.

Hence, ensure that you move the `/var/my-external-content-repo` to a different partition and mount it to `/var/opt/novell/zenworks/content-repo`.

You can store your data on a local mount or on a network share such as NFS, SMB, or CIFS and mount the share in your `content-repo` directory to access your data.

Let us assume that `/dev/sdb` is a partition on which you are planning have the content-repo, perform the following steps:

- 1 Stop all the ZENworks services.
- 2 Create a directory by running `mkdir /tmp/temp-mount`

- 3 Mount the partition: `mount </dev/sdb> /tmp/temp-mount`
- 4 Move the content-repo by using `mv /var/my-external-content-repo/* /tmp/temp-mount`
- 5 Unmount the directory by using `umount /tmp/temp-mount`
- 6 Remove the directory by running `rmdir /tmp/temp-mount`
- 7 Remove the symbolic link by running `rm /var/opt/microfocus/zenworks/content-repo/`
- 8 Create a directory by running the `mkdir /var/opt/microfocus/zenworks/content-repo/` command
- 9 `mount </dev/sdb> /var/opt/microfocus/zenworks/content-repo`. Ensure that this step is performed automatically by adding an entry in the `/etc/fstab` file.
Example: `//localhost/zenshare /var/opt/microfocus/zenworks/content-repo cifs username=root,password=rootpass 0 0`
- 10 To verify, run `ls /var/opt/microfocus/zenworks/content-repo`
If the command lists the content and images folder, then the content-repo is configured successfully.
- 11 Run `permissions.sh`
- 12 Start all the ZENworks services.

ZENworks upgrade fails as the PostgreSQL Engine upgrade failed

Explanation: While upgrading ZENworks, the ZENworks upgrade fails if the PostgreSQL engine upgrade failed. This might be because the PostgreSQL service was in an inconsistent state before the upgrade was initiated.

Action: If the *Database Service Creation (dbsvc) failed with return code: 2* exception is logged in the Upgrade log, then open `zen20u2_upgrade_status` file present at `/etc/opt/novell/zenworks` on Linux and `%ZENWORKS_HOME%\conf` on Windows and remove **POSTGRES_ENGINE_UPGRADE = stop service** line from the file. Start the embedded database service, and then re-trigger the upgrade.

The workaround should be performed only in case of stop service failure. However, this workaround is not recommended for failure at other stages.

Upgrade completes with an error on a Linux Primary Server

Explanation: An explanation of the message.

Possible Cause: When you upgrade a Linux Primary Server, the upgrade could complete with an error. However, this could be a false alarm and the upgrade could be successful.

Troubleshooting: Open the Upgrade log and check whether the following statement is logged:

```
"![CDATA[Docker service check failed: Format specifier '%s']]. Severity is CDATA[8]]"
```

Search for the number of instances of “![CDATA[8]]” in the upgrade log. If there is only one instance, along with the above statement, then the upgrade is successful. Please verify the same by logging into ZCC.

Upgrading to ZENworks 2020 fails on Windows Primary Server

Explanation: While upgrading the Windows Primary Server to ZENworks 2020, the upgrade fails.

If the following error is seen in the system-update.log under folder

```
%zenworks_home%\logs\system-  
update\5020000000fc5000000002019100412
```

```
[SystemUpdate] [MSI_INSTALL_ERROR] [ERROR] [novell-zenworks-primary-  
agent-20.0.0.3138.msi,1603] [] [] [ZENworks]
```

For more information, see TID (<https://support.microfocus.com/kb/doc.php?id=7024602>).

Action: Perform the following steps:

1. If the server upgrade has already failed, then run the following command as a super user:

```
icacls "%zenworks_home%\cache" /remove:d Users
```

2. After running the command, retry the upgrade using the ZENworks 2020 Media Upgrade (ISO).

The MDM device displays inconsistent status after upgrading to ZENworks 2020 Update 2

Source: ZENworks

Explanation: When you apply ZENworks 2020 Update 2 on an MDM device that was enrolled in ZENworks 2020 or 2020 Update 1 (MDM only), the System Update device status displays Update Not Applicable.

Action: None

After updating all the devices in the zone, you can ignore the MDM devices to baseline the update.

System Update Failed Due to Pending Reboot Error

Source: ZENworks

Explanation: While deploying the system update, the system will restart multiple times. Even after shutting down the system, the system update failed and displayed the pending reboot error.

Action: It is recommended that you restart or reboot the device after updating the device. On the latest Windows devices, due to the Fast Startup mode, shutting down and starting is not considered a device reboot. Hence, you need to restart or reboot the device or disable the “Fast Startup” mode.

The Inventory-Only Agent (IOA) System Update Fails on SLED 15 SP1 devices

Source: ZENworks

Explanation: When you deploy an Inventory-Only Agent (IOA) system update on SLED 15 devices using the 'zac su' command, the system update might fail. This might be because the 'at' package might not be installed on the SLED 15 devices, by default.

To verify this, the Inventory-Only Agent (IOA) users or administrators can check the zmd-messages.log file and check for the **'Cannot run program "at": error=2, No such file or directory'** error.

Action: If the 'at' package is not installed on the Inventory-Only Agent (IOA) device, then install the 'at' command using the zypper command or other tools. After installing the 'at' command, rerun the zac su command.

In case the zypper command fails to identify the 'at' package, we can install the following RPMs:

The RPMs can be downloaded from <https://rpmfind.net/linux/rpm2html/search.php>

1. Search for 'libHX28' and download the rpm applicable to your OS platform.

Example: libHX28-3.22-lp150.1.7.x86_64.rpm

2. Search for 'libfl2' and download the rpm applicable to your OS platform.

Example: libfl2-2.6.4-lp150.2.48.x86_64.rpm

3. Search for 'at' and download the rpm applicable to your OS platform.

Example: at-3.1.20-lp150.2.27.x86_64.rpm

During the Upgrade of any Windows Primary Server, Windows Explorer Automatically Restarts a Few Times

Explanation: During the upgrade of any Windows Primary Server, Windows Explorer automatically restarts a few times and the command prompt window with the following message is automatically launched:

```
For each prompt presented, press 'enter' to accept the
<default> value, type 'back' to return to the previous
action, or type 'quit' to exit.
```

Action: Ignore the messages.

When ZENworks Upgrade is launched, if the database is executing any transactions, it might conflict with the upgrade process

Source: ZENworks; Upgrade

Explanation: When the ZENworks Upgrade is launched, if the database is executing any transactions, it might conflict with the upgrade process.

Action: Kill the database session that conflicts with the upgrade process. Perform the following steps, to kill a database session:

- 1 Log in to the database as a system user and launch the SQL client.
- 2 Execute one of the following scripts, based on the database type:

- ◆ Oracle:

```
select 'ALTER SYSTEM KILL SESSION
''||SID||','||SERIAL#||'';' AS "Drop
Query",b.sql_text,a.* from gv$session a, gv$sql b
where (case when a.sql_id is null then a.prev_sql_id
else a.sql_id end)=b.sql_id and a.program='JDBC Thin
Client' and a.logon_time< (sysdate-3/60/24) and
a.username='<<ZENWORKSUSER>>';
```

Where:

ZENWORKSUSER is the ZENworks database user name.

- ◆ MS SQL:

```
select 'KILL '+cast(spид as varchar(100)) as "Drop
Query", r.text,s.* from sys.sysprocesses s cross
apply sys.dm_exec_sql_text (sql_handle) r where
s.program_name='jTDS' and s.spид!=@spид and
s.login_time < dateadd(minute,-3,getdate()) and
s.loginame='<<ZENWORKSUSER>>';
```

Where:

ZENWORKSUSER is the ZENworks database user name.

- ◆ SQL Anywhere:

```
SELECT 'Drop connection '+cast(sa_conn_info.Number
as varchar(100))+';' as "Drop Query",
sa_conn_info.Number AS connection_number, DB_NAME(
DBNumber ) AS database_name, sa_conn_info.name AS
connection_name, sa_conn_info.userid,
CONNECTION_PROPERTY( 'LoginTime', Number ) as "Login
Time", CONNECTION_PROPERTY( 'LastStatement', Number
) As "Query" FROM sa_conn_info() where
sa_conn_info.Number != @@spид and
CONNECTION_PROPERTY( 'LoginTime', Number ) <
dateadd(minute,-3,getdate()) and
userid='<<ZENWORKSUSER>>';
```

Where

ZENWORKSUSER is the ZENworks database user name.

While using an Oracle database, during the upgrade or database creation, the TNS error message is displayed

Source: ZENworks; Upgrade

Explanation: While using an Oracle database during the upgrade or database creation, you get an error message: **TNS:listener could not find available handler with matching protocol stack.**

Action: Increase the maximum load for dedicated connections, which is determined by the PROCESSES parameter. If the issue persists, contact Micro Focus Customer Support.

While using an MS-SQL database, during the upgrade or database creation, there are connection issues

Source: ZENworks; Upgrade

Explanation: While using an MS-SQL database, during the upgrade or database creation, there are connection issues with the following error message:

```
org.hibernate.exception.JDBCConnectionException: Cannot open connection
```

```
Caused by: java.sql.SQLException: I/O Error: Connection reset
```

```
Caused by: java.net.SocketException: Connection reset
```

Action: Run `select * from sys.configurations where name='user connections'`

By default, the maximum connection is 32,767. You can adjust it to *Number of Primary Servers * 200*.

For more information on how to configure the user connections, see <http://technet.microsoft.com/en-us/library/ms187030.aspx>.

Check whether the MS-SQL server has high CPU utilization and database server load. Contact Micro Focus Customer Support for further assistance.

Incorrect values displayed for the inventory records to be pruned

Source: ZENworks; Upgrade

Explanation: When you opt for pruning in the Upgrade wizard, the number of records specified for deletion is displayed in the Pre-prune summary page.

For example, if you have marked 8,000,000 records out of the total 10,000,000 records for pruning, then 8,000,000 of 10,000,000 is displayed in the **number of records specified for deletion** field.

After successful pruning, when you relaunch the Upgrade wizard for pruning, the Database Pruning page displays an incorrect value in the **Total number of records found to be deleted** field.

For example, if 8,000,000 inventory records have been deleted out of 10,000,000 inventory records, then the ideal value to be displayed in the **Total number of records found to be deleted** field is 200,000.

Currently, an incorrect value is displayed. As a result, there is a mismatch in the values displayed for deleted Inventory records and for Inventory records that are yet to be deleted.

Action: There is no workaround.

An error occurs when you delete a folder with a long name

Source: ZENworks; Upgrade

Explanation: In a ZENworks zone that uses an SQL Server database, when you try to delete a ZENworks object (for example, device or folder) that has a name which exceeds 900 bytes, you will receive the following error:

```
com.novell.zenworks.datamodel.exceptions.InternalDataModelException: org.hibernate.exception.GenericJDBCException: Operation failed. The index entry of length 912 bytes for the index 'idx_zZENObject_Name' exceeds the maximum length of 900 bytes.
```

Action: Ensure that the length of ZENworks Object names in the zone does not exceed 900 bytes. For more information, see <https://technet.microsoft.com/en-us/library/ms191241%28v=sql.105%29.aspx>.

The ZENworks schema fails to upgrade due to collation incompatibility in MS SQL database

Source: ZENworks; Upgrade

Explanation: The ZENworks schema fails to upgrade if the MS SQL server and audit database collations are incompatible.

Action: Execute the following SQL queries on both databases (ZENworks and audit) to verify database collation compatibility:

- ◆ SQL Query to get Database Collations:

```
SELECT collation_name FROM sys.databases WHERE name = db_name();
```

- ◆ SQL Query to get Database columns Collations:

```
select distinct collation_name from information_schema.columns where collation_name is not null;
```

Share the upgrade logs and queries output with the Micro Focus customer support for further analysis.

The upgrade XML log file is not displayed properly in Google Chrome and Firefox

Source: ZENworks; Upgrade

Explanation: When you try to view the upgrade XML log file in Google Chrome and Firefox, the log file was not displayed properly.

Action: To view the log file in a browser, run the following configure action:

```
microfocus-zenworks-configure -c
```



```
ConvertLogToHTMLConfigureAction -DlogFile=<LogFilePath>
```

The configure action converts the XML log file to HTML and opens the log file in a web browser.

Alternatively, you can view the log file using any text editor.

On a Linux Primary Server, the legacy Novell services are listed in start configure action

Source: ZENworks; Upgrade

Explanation: After upgrading to ZENworks 2020 Update 2 on a Linux Primary Server, when you run the following command:

```
novell-zenworks-configure -c Start
```

The legacy Novell services are listed and not the new Micro Focus services. If you try to start, stop, or restart services, an exception error is displayed.

Action: Log out of the Linux server and then log in again. Open a new terminal window and run the following command:

```
novell-zenworks-configure -c Start
```

The new Micro Focus services are now listed. You can start, stop, or restart the services.

ZENworks Primary Server Upgrade fails with the 'Zulu Platform x64 Architecture has stopped working' error

Source: ZENworks; Upgrade

Explanation: While upgrading ZENworks 2020 or Update 1 Windows Primary Server to 2020 Update 2, upgrade fails with the following error:

```
Zulu Platform x64 Architecture has stopped working
```

Possible Cause: The error occurs due to Data Execution Prevention (DEP) setting that conflicts with the program.

Action: Check the DEP on the server by navigating to **Control Panel > System > Advanced system settings**. In the **System Properties** window, click **Advanced**, under **Performance**, click **Settings**. In the **Performance Options** window, click **Data Execution Prevention**.

Note the current setting. Select **Turn on DEP for essential Windows programs and services only** if it is not selected. Restart the Windows server and retry upgrading ZENworks Primary Server. If the error persists, contact Micro Focus Support.

Important: If the setting was changed prior to upgrade, please revert the value and restart the Windows server.

3 Appliance Migration

To migrate a ZENworks 2020 Appliance to ZENworks 2020 Update 2, you need to copy the ZENworks data and appliance network settings from the ZENworks 2020 Appliance, deploy the ZENworks 2020 Update 2 Appliance, and then transfer the ZENworks 2020 data to the ZENworks 2020 Update 2 Appliance.

In a multi-appliance ZENworks system, the order of migration is important only if you are using the embedded PostgreSQL database. In this case, you need to migrate the appliance with the database first, followed by any other appliances. If you are using an external database, you can migrate appliances in any order.

The following sections provide information on how to migrate ZENworks 2020 Virtual Appliance to ZENworks 2020 Update 2, Virtual Appliance:

- ◆ [Section 3.1, “Prerequisites,” on page 51](#)
- ◆ [Section 3.2, “Preparing the ZENworks 2020 Appliance for Migration,” on page 52](#)
- ◆ [Section 3.3, “Deploying and Configuring the ZENworks 2020 Update 2 Appliance,” on page 53](#)
- ◆ [Section 3.4, “Migrating ZENworks 2020 Data to ZENworks 2020 Update 2 Appliance,” on page 54](#)
- ◆ [Section 3.5, “Post migration,” on page 54](#)
- ◆ [Section 3.6, “Updating the ZENworks 2020 Update 2 Lighthouse Appliance to ZENworks 2020 Update 2 FCS,” on page 57](#)
- ◆ [Section 3.7, “Replacing Primary Servers,” on page 57](#)
- ◆ [Section 3.8, “Moving a Primary Server to an Appliance,” on page 57](#)
- ◆ [Section 3.9, “Running the Cleanup Utility,” on page 57](#)

3.1 Prerequisites

Before migrating to ZENworks 2020 Update 2, ensure that the following prerequisites are met:

- ◆ **Review changes in the migration process:** Ensure that you have reviewed the changes introduced in the ZENworks 2020 Update 2 release. For more information, see [Changes in the Primary Server Upgrade or Migration Process](#).
- ◆ **Understand the Migration Order:** If you have enabled Vertica in the zone, then for more information, see [Upgrading Servers in a Vertica-enabled Zone](#).
- ◆ **DNS server is configured:** Ensure that a DNS server has been set on the Primary Server that is being migrated. Also, the hostname of the local machine should be resolvable over DNS.
- ◆ **External Content-repo:** If you have content-repo as a symbolic link to another folder, which is outside of the ZENworks folder structure, then ensure that you perform the steps in [Changing the Location of the Content Repository on a Linux or Appliance Server](#) in the [ZENworks Primary Server and Satellite Reference](#).

- ♦ **System requirements:** Ensure that the virtual machine to which you want to deploy ZENworks Appliance meet the requirements listed in the ZENworks 2020 Update 2 System Requirements [ZENworks 2020 Update 2 System Requirements](#).

3.2 Preparing the ZENworks 2020 Appliance for Migration

Complete the following steps to prepare the appliance for migration:

- 1 Verify the health of the database by running ZDC. Depending on your ZENworks version, download the ZDC from the Micro Focus Download site. For more information, see [Downloading and Extracting ZDC](#) in the [ZENworks Command Line Utilities Reference](#).
- 2 Ensure that at least 90 GB of free space is available in the `/vastorage` disk for ZENworks 2020 Appliance.
- 3 Run the `microfocus-zenworks-prerequisite.zip` to prepare and copy the zone properties for the appliance migration.

NOTE: If Vertica is enabled in the zone, then the `microfocus-zenworks-prerequisite.sh` script stops the Vertica cluster and the functionality related to Vertica will not work until all the Vertica enabled Appliances are migrated to ZENworks 2020 Update 2. Hence, it is recommended that you run the `microfocus-zenworks-prerequisite.sh` just before starting the migration process.

- 3a** Download `microfocus-zenworks-prerequisite.zip` from ZENworks 2020 Update 2 Download site.
 - 3b** Extract the `microfocus-zenworks-prerequisite.zip`
 - 3c** Copy the `microfocus-zenworks-prerequisite.sh` file to a temporary location on each ZENworks 2020 Appliance Primary Server.
 - 3d** Log into the ZENworks 2020 Appliance Primary Server with root user.
 - 3e** Add the execute permissions by running the `chmod +x microfocus-zenworks-prerequisite.sh` command.
 - 3f** Run the `sh microfocus-zenworks-prerequisite.sh` command.
- 4 Power off the ZENworks 2020 Appliance.
 - 5 If you have any snapshots, ensure that you delete all the snapshots.
 - 6 Copy the ZENworks 2020 Appliance virtual disk (vastorage).
It is recommended to copy the ZENworks 2020 Appliance virtual disk and attach it to the ZENworks 2020 Update 2 Appliance. Ensure that you maintain the same folder structure in the ZENworks 2020 Update 2 appliance.
 - 7 If there is more than one appliance in the zone, before upgrading run the `select * from zNetWorkAddress where ipaddress is NULL;` query. If there are any hits, contact Micro Focus Customer Care.

NOTE: If the `microfocus-zenworks-prerequisite.sh` is not executed properly, or volume is not copied to the ZENworks 2020 Update 2 Appliance, then an error message will be displayed.

3.3 Deploying and Configuring the ZENworks 2020 Update 2 Appliance

You need to deploy the ZENworks 2020 Update 2Appliance to migrate the existing appliance and then configure the ZENworks 2020 Update 2Appliance with the ZENworks 2020data and network settings.

IMPORTANT: The ZENworks 2020 Update 2 Appliance should be hosted on the same network as the ZENworks 2020appliance.

1 To deploy the appliance,

- 1a** Download the ZENworks 2020 Update 2 Appliance file from the Software Licensing and Downloads portal (SLD) or download the multi-part ZENworks Appliance ZIP files and create the open virtualization archive (OVA) file.

Based on your hypervisor, download the relevant file:

- ♦ **VMware ESXi:** Download the .ova file.
- ♦ **Microsoft Hyper-V:** Download the .vhd or .vhdx file.
- ♦ **Xen Server on SLES 12:** Download the xen.tar.gz file.
- ♦ **Citrix Hypervisor (formerly XenServer):** Download the xva.tar.gz file.

NOTE: On a Windows device, use the native support for tar to extract the xva.tar.gz file. To extract the file, on the command prompt, specify the following:

```
tar -xjvf <xva.tar.gz file>
```

- 1b** Deploy the ZENworks Appliance to the hypervisor by downloading and extracting the file (.ova, .vhd, .vhdx, .xva or .raw).

Do NOT power on the appliance at this time.

- 2** Attach the migration hard disk (/vastorage) that was copied in [Step 6 of “Preparing the ZENworks 2020 Appliance for Migration” on page 52](#), to the ZENworks 2020 Update 2Appliance.
- 3** Power on the ZENworks 2020 Update 2 Appliance and wait till credential screen appears.
- 4** Specify the *root* and *zenadmin* passwords for the ZENworks 2020 Update 2 Appliance.

The Appliance Configuration utility automatically populates the identity and network details for the ZENworks 2020 Update 2Appliance from the ZENworks 2020 data and continues booting the appliance. When the process is complete, on the Appliance console the URL is displayed.

- 5** If the ZENworks 2020Appliance was using an external content repository, then attach the corresponding disk to ZENworks 2020 Update 2 Appliance.

To configure the external disk, perform the following:

- 5a** After restarting the ZENworks 2020 Update 2 Appliance, log into the appliance as *root* and stop the ZENworks services.

If the appliance hosts the Embedded PostgreSQL, then PostgreSQL service (zenpostgresql) should be running. Run the following command to check the status of the PostgreSQL service:

```
systemctl status zenpostgresql
```

5b Ensure that new mounted directory has required permissions. To modify the permissions, run the `permissions.sh` script.

The `permissions.sh` is available in the `/opt/microfocus/zenworks/bin/` location.

6 Take note of the URLs displayed in the console, then continue with the next task, [Migrating ZENworks 2020 Data to ZENworks 2020 Update 2 Appliance](#).

3.4 Migrating ZENworks 2020 Data to ZENworks 2020 Update 2 Appliance

After you have deployed and configured the ZENworks 2020 Update 2 Appliance, you are ready to migrate ZENworks 2020 data to the appliance.

1 In a supported browser, launch the URL that is displayed in the Appliance console.

For example, `https://<FQDN>:9443`

2 Log in to ZENworks Appliance with the `root` or `zenadmin` credentials as configured in [Step 4 on page 53](#).

3 Verify that all of the migration requirements are met, select the **I have verified that all necessary steps have been completed** check box, then click **Next** to display the ZENworks Management Zone credential screen.

If all the migration requirements are not met, click **Cancel**, complete the requirements, then log into the ZENworks Appliance console again to complete the migration.

IMPORTANT: If the appliance is a second Primary Server and the database is Embedded PostgreSQL, then you must ensure that the PostgreSQL service (`zenpostgresql`) on the first Primary Server is started.

4 Specify the ZENworks administrator credentials to access the ZENworks Management Zone.

NOTE: While migrating the Appliance, the administrator user name might be case sensitive. For more information, see the [ZENworks 2020 Readme](#).

5 The ZENworks migration begins and it might take several minutes. The migration process will continue in the background even if you close the browser or if the session times out.

6 When the ZENworks migration is finished, click **Close** to display the ZENworks Appliance configuration summary screen.

7 Click **Open ZENworks Control Center** to see your migrated data and to continue managing your ZENworks system.

3.5 Post migration

- After Appliance migration, the ZENworks Server data will be available in the Micro Focus file path. ZENworks Server services will follow the Micro Focus naming convention, that is, Micro Focus will be prefixed with the name of the service. However, the ZENworks agent data will be available in the Novell file path and the related agent services will follow the Novell naming convention, that is, Novell will be prefixed with the name of the service. To view these changed filed paths and service names, see [Viewing the Renamed Services and File Locations](#).

- ◆ Run ZDC to verify the migrated ZENworks 2020 Update 2 Appliance System.
For more information, see [ZENworks Diagnostic Center](#) in [ZENworks Command Line Utilities Reference](#),
- ◆ Ensure that all ZENworks services are running: `microfocus-zenworks-configure -c SystemStatus`
- ◆ Ensure that the ZooKeeper service is up and running at all times to enable proper functioning of various ZENworks components. To verify the status of the ZooKeeper service, see the Diagnostics page in ZCC. For more information on the ZooKeeper component, see [ZENworks Server](#) in the [ZENworks Primary Server and Satellite Reference](#).

If the Primary Servers in your zone are unable to communicate with the ZooKeeper service due to firewall restrictions, you can run the following configure action to open the ZooKeeper ports. You also need to ensure that the firewall allows client connections from other Primary Servers to the ZooKeeper services on port 6789. If the Primary Servers in your zone are unable to access the ZooKeeper service, then to open the ports, you can run the following Configure action on the server in which ZooKeeper is enabled.

```
microfocus-zenworks-configure -c ZENServicesFirewallConfigureAction -
Doperation=add -Dservice=zookeeper
```

However, if the Primary Server that is within the DMZ is unable to access the ZooKeeper service within the corporate network, then you need to manually open the port 6789 in the corporate firewall.

For more information on the ZooKeeper ports, see [ZENworks 2020 TCP and UDP Ports](#).

- ◆ After appliance migration, the ZENworks server configuration will be copied from the old Novell file path to the new Micro Focus file path. However, the ZENworks server binaries and old configuration in the old file path is retained during the upgrade process. After verifying whether the upgraded version of the ZENworks Server is working as expected, you can run the Legacy Cleanup Utility provided with the build after a couple of weeks, to delete the retained server data.

For more information, see [Running Cleanup Utility on a Linux or Appliance Server](#) or [Running the Cleanup Utility on Windows Server](#).

- ◆ (Optional) When you run the cleanup utility, Sybase related files will be retained, which can be removed manually after verifying whether the upgraded ZENworks Server is working as expected.

If you have migrated from the Sybase database to any other database using the database migration tool, the database files, services, and Sybase packages might be retained in the Primary Server. To cleanup the data, run the following scripts on the Primary Server that had the Sybase database.

- ◆ **On Linux/Appliance:** Run the script available in: `/opt/microfocus/zenworks/install/downloads/tools/cleanupSybase.sh`

- ◆ After migrating to ZENworks 2020 Update 2, you should apply the ZENworks 2020 Update 2 – FTF 998 to mitigate the Log4j vulnerability. For information on downloading the FTFs, see https://portal.microfocus.com/s/article/KM000003058?language=en_US

3.5.1 Viewing the Renamed Services and File Locations

After a successful upgrade, you can now view the renamed services and file locations introduced in the ZENworks 2020 Update 2 release.

- ♦ [“New File Path for ZENworks Server Data” on page 56](#)
- ♦ [“Renamed Configure Actions” on page 56](#)
- ♦ [“Renamed Services” on page 56](#)

New File Path for ZENworks Server Data

Example:

- ♦ **Log Files:** The log files will now be available in the new Micro Focus path (`/var/opt/microfocus/log/zenworks`). However, the log files will also be retained in the old Novell path (`/var/opt/novell/log/zenworks`).
- ♦ **Conf Files:** The configuration files for only the ZENworks Server will now be available in the new Micro Focus path (`/etc/opt/microfocus/zenworks`). However, the configuration files for both the server and the agent will be retained in the old Novell path (`/etc/opt/novell/zenworks`).
- ♦ **Libraries:** The libraries for only the ZENworks Server will now be available in the new Micro Focus path (`/opt/microfocus/zenworks`). However, the libraries for both the server and the agent will be retained in the old Novell path (`/opt/novell/zenworks`).

Renamed Configure Actions

Configure actions have been renamed from Novell to Micro Focus. For example, the configure action `novell-zenworks-configure -c CalibrateMemoryConfigureAction` is now renamed to `microfocus-zenworks-configure -c CalibrateMemoryConfigureAction`. Configure actions that follow the Novell naming convention have been deprecated in this release and will be available along with the Configure actions that follow the Micro Focus naming convention.

Renamed Services

ZENworks Server services have been renamed from Novell to Micro Focus. For example, `novell-zenserver.service` is renamed to `microfocus-zenserver.service`.

Similarly, services such as `novell-zenloader.service` and `novell-zenjoinproxy.service` are renamed to `microfocus-zenloader.service` and `microfocus-zenjoinproxy.service`, respectively.

Certain services that follow the Novell naming convention, especially those related to the ZENworks agent, will still be applicable.

Therefore, while using the `systemctl` commands to start or stop services, ensure that you use the renamed services in the command.

3.6 Updating the ZENworks 2020 Update 2 Lighthouse Appliance to ZENworks 2020 Update 2 FCS

NOTE: If you have deployed ZENworks 2020 Update 2 Lighthouse Appliance build on Microsoft Hyper-V, XEN on SLES, or Citrix XenServer and want to update to the ZENworks 2020 Update 2 FCS build, please contact Micro Focus Customer Support, and then perform the steps mentioned in the [Updating the ZENworks 2020 Update 2 Lighthouse build to ZENworks 2020 Update 2 FCS](#)

3.7 Replacing Primary Servers

The first Primary Server in your one can be replaced with the second Primary Server, or you can replace an existing Primary Server with a new Primary Server. For more information on replacing Primary Servers, see the [Replacing Primary Servers](#) in the [ZENworks Disaster Recovery Reference](#).

3.8 Moving a Primary Server to an Appliance

An existing Windows or Linux Primary Server can be moved to an Appliance server. For more information, see [Moving from a Windows or Linux Primary Server to Appliance](#) in the [ZENworks Primary Server and Satellite Reference](#).

3.9 Running the Cleanup Utility

After appliance migration, the ZENworks server configuration will be copied from the old Novell file path to the new Micro Focus file path. However, the ZENworks server binaries and old configuration in the old file path is retained during the upgrade process. After verifying whether the upgraded version of the ZENworks Server is working as expected, you can run the cleanup utility provided with the build, to remove the retained server data. For more information, see [Running Cleanup Utility on a Linux or Appliance Server](#).

4 Updating Satellites and Managed Devices to ZENworks 2020 Update 2

To update the managed devices and Satellite Servers to ZENworks 2020 Update 2, review the following sections:

- ♦ [Section 4.1, “Prerequisites for Updating Satellite Servers or Managed Devices,”](#) on page 59
- ♦ [Section 4.2, “Supporting ZENworks 2017 Device Upgrades,”](#) on page 60
- ♦ [Section 4.3, “Updating Satellite Servers and Managed Devices,”](#) on page 60

4.1 Prerequisites for Updating Satellite Servers or Managed Devices

Before updating a Satellite Server or managed device from a supported ZENworks version to ZENworks 2020 Update 2, you must complete the following tasks:

NOTE: For information about the supported versions, see the [System Requirements](#) guide.

- ♦ Ensure that the device meets the minimum system requirements for ZENworks.
For more information on managed device requirements, see [System Requirements](#).
- ♦ Ensure that the Microsoft .NET 4.5, or later framework and its latest updates are installed and running on the device.
- ♦ Ensure that the Windows Installer 4.5 or later version is installed.
- ♦ Ensure that all the Primary Servers in the zone have been upgraded to ZENworks 2020 Update 2.
- ♦ If you choose to deploy the System Update in stages, ensure that the stage that you create contains at least one stage member (an individual device and a group that contain devices).
- ♦ Ensure that the Update for ZENworks 2020 Update 2 displays in the Available System Updates list in ZCC. If it is not available, then run the following command to import the update:

```
zman sui <install media\ISO>:\Common
```
- ♦ Agents with Windows XP would have to remain on ZENworks 11, as Windows XP is not supported from ZENworks 2017 onwards.
- ♦ From ZENworks 2020 Update 2 onwards, promoting 32-bit agents as a Satellite Server is not supported.

4.2 Supporting ZENworks 2017 Device Upgrades

If you have ZENworks 2017 managed devices or Satellite Servers in your network and want to register the devices to a new ZENworks 2020 Update 2 Management Zone so that they can be automatically upgraded to ZENworks 2020 Update 2, you must import the ZENworks 2020 System Update into the zone from the ZENworks 2020 Update 2 installation media.

From ZENworks 2020 onwards, promoting a 32-bit device as a Satellite Server is not supported.

4.3 Updating Satellite Servers and Managed Devices

To update Satellite Servers or managed devices, use the System Update feature. For detailed information, see the [ZENworks System Updates Reference](#).

If you encounter any issues while deploying the ZENworks update on the managed devices, see the following log files:

Windows: `installation_path\novell\zenworks\logs\system-update\502000000fc5000000002019100412\system-update.log`

Linux: `/var/opt/novell/log/zenworks/system-update/502000000fc5000000002019100412/system-update.log`

In the upgrade log file path, 502000000fc5000000002019100412 indicates the System Update GUID.

NOTE: ♦ After updating from an older version of ZENworks on which ZENworks Patch Management is installed, DAU might fail on newly added devices until the next Patch Management subscription is updated.

After the DAU bundle is updated by the subscription and the version is incremented by the same, this issue will be resolved. This issue does not impact the existing ZENworks agents as they already have the `analyze.exe` module installed on them. Therefore, they continue to execute the old DAU and receive an updated patch agent when the subscription service updates the DAU bundle.

- ♦ If you demote a Satellite Server before performing an update, you need to ensure that the demotion is successful before you proceed with the update.
-

5 Replacing a ZENworks Primary Server with Another Server (Windows, Linux and Appliance)

To replace a ZENworks Primary Server with another server (Windows, Linux and Appliance), depending on your first Primary Server platform, select any of the following:

If you want to retain the server identity:

- ♦ Replacing a Windows server with another Windows server by retaining the original identity.
- ♦ Replacing a Linux server or Appliance with another Linux server or Appliance by retaining the original identity.

In this case, you can replace the same version of the operating system. For example:

- ♦ You can replace Appliances with other Appliances that has the same SLES versions and same ZENworks versions.

For example:

ZENworks 2020 Appliance can be replaced with other ZENworks 2020 appliances.

ZENworks 2020 Update 1 Appliance can be replaced with other ZENworks 2020 Update 1 appliances.

ZENworks 2020 Update 2 Appliance can be replaced with other ZENworks 2020 Update 2 appliances.

However, replacing ZENworks 2017 Appliances with ZENworks 2020 appliances with the above approach is not supported. Ensure that you follow the [Chapter 3, “Appliance Migration,” on page 51](#).

- ♦ You cannot replace a server with one major version with a server with another major version. However, you can replace servers with the same major version, but different minor versions.

For example: A SLES 12 server cannot be replaced with a SLES 15 server, but SLES 12 SP 1 server can be replaced with SLES 12 SP 4.

Perform the steps mentioned in the following document:

[Replacing an Existing Primary Server with a New Primary Server in the ZENworks Disaster Recovery Reference](#).

If you do not want to retain the server Identity:

- ♦ Replacing a Windows server with another Windows server without retaining the original identity.
- ♦ Replacing a Windows server with a Linux server or Appliance without retaining the original identity.
- ♦ Replacing a Linux server or Appliance with another Linux server or Appliance without retaining the original identity.

Replacing a Linux server or Appliance with a Windows server without retaining identity.

Perform the steps mentioned in the following document:

[Replacing the First Primary Server with the Second Primary Server in the ZENworks Disaster Recovery Reference.](#)

Unsupported scenarios:

- ♦ Replacing a Windows server with a Linux server or Appliance by retaining the original identity.
- ♦ Replacing a Linux server or Appliance with a Windows server by retaining the original identity.

6 Considerations for Managing ZENworks 11.4.x Managed Devices

ZENworks 2017 allows you to manage ZENworks Configuration Management 11.4.x managed devices from ZENworks 2017 Primary Servers. Review the following sections to understand the considerations for managing ZENworks Configuration Management 11.4.x managed devices from the ZENworks 2017 Primary Servers:

- [Section 6.1, “Preparing the ZENworks 2017 Server to Manage ZENworks 11.4.x Managed Devices,” on page 63](#)
- [Section 6.2, “Creating and Managing Closest Server Rules for ZENworks 11.4.x Devices,” on page 64](#)
- [Section 6.3, “Known Limitations,” on page 75](#)

6.1 Preparing the ZENworks 2017 Server to Manage ZENworks 11.4.x Managed Devices

A ZENworks 2017 server is compatible with ZENworks Configuration Management 11.4.x managed devices. However, a newly installed ZENworks 2017 server cannot provide component management functionality to ZENworks 11.4.x managed devices communicating with it unless these steps are taken.

- 1 Copy the following files from a ZENworks 11.4.x server or a system updated ZENworks 2017 server in the zone and replace them at the respective location of the newly installed ZENworks 2017 server.

On Linux:

```
/opt/novell/zenworks/install/downloads/novell-*.msi
```

```
/opt/novell/zenworks/install/downloads/novell-*.msi.superceded
```

On Windows:

```
%ZENWORKS_HOME%\install\downloads\novell-*.msi
```

```
%ZENWORKS_HOME%\install\downloads\novell-*.msi.superceded
```

Location where the files must be copied on the newly installed ZENworks 2017 server:

On Linux:

```
/opt/novell/zenworks/install/downloads/
```

```
/opt/novell/zenworks/install/downloads/
```

On Windows:

```
%ZENWORKS_HOME%\install\downloads\
```

```
%ZENWORKS_HOME%\install\downloads\
```

NOTE: On Linux, ensure all the copied files have `zenworks:zenworks` ownership. To set the appropriate ownership for these files, use the following commands:

```
chown zenworks:zenworks /opt/novell/zenworks/install/downloads/novell-*.msi
```

```
chown zenworks:zenworks /opt/novell/zenworks/install/downloads/novell-*.msi.superceded
```

6.2 Creating and Managing Closest Server Rules for ZENworks 11.4.x Devices

When your ZENworks Management Zone includes more than one server (Primary Servers and Satellites), devices need to know which server to contact. The Closest Server Rules panel lets you create rules to determine which servers a device contacts. With respect to Closest Server rules, devices that are configured as Satellites are considered as servers.

The following are basic functions for which devices contact a server:

- ♦ **Collection:** Inventory and message log information is collected from each device, to be viewed in ZENworks Control Center and output to reports. Each ZENworks Primary Server and any Satellite can act as a collection server.
- ♦ **Content:** Content is provided to managed devices. Each ZENworks Primary Server and any Satellite can act as a content server.
- ♦ **Configuration:** Configuration settings and registration information are applied to devices. Only ZENworks Primary Servers can act as configuration servers.
- ♦ **Authentication:** Managed devices contact a ZENworks Server to authenticate to the Management Zone. Each ZENworks Primary Server and any Satellite can act as an authentication server.

A device can contact the same server for all functions, or it can contact different servers for each function. Each device can have only one Closest Server rule applied to it. A device's effective rule is determined as follows:

1. **Device Settings:** Evaluate all rules that are set on the device. If the device meets a rule's criteria, that rule becomes the device's effective rule.
2. **Folder settings:** If no device rule applies, evaluate all rules that are set on the device's parent folder. If the device meets a rule's criteria, that rule becomes the device's effective rule. If not, evaluate the rules on the next folder up in the hierarchy.
3. **Management Zone:** If no folder rule applies, evaluate all rules that are set in the Management Zone. If the device meets a rule's criteria, that rule becomes the device's effective rule. If not, apply the Default Rule to the device.
4. **Default Rule:** If no device, folder, or Management Zone rule applies, apply the default rule to the device. The Default rule is simply a listing of all content servers in the order you want devices to contact them.

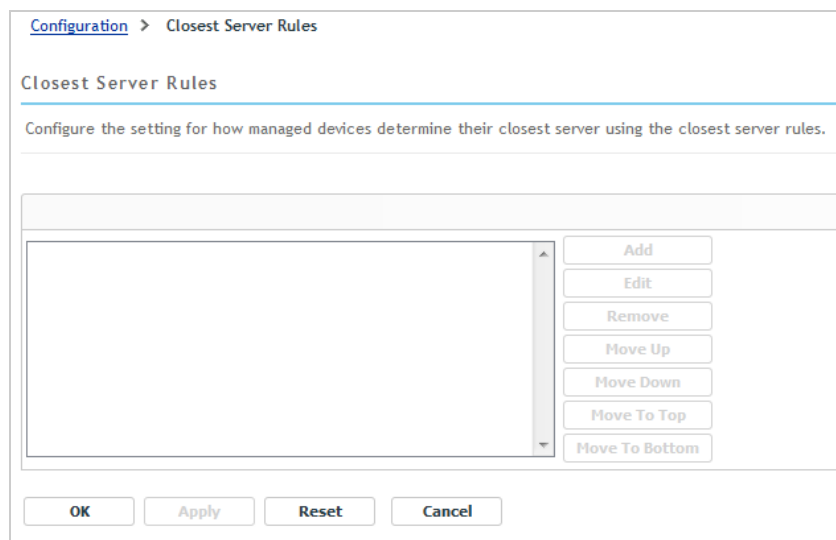
The Closest Server Default rule is applicable for ZENworks 11.4.x and ZENworks 2017 devices. If you do not want the Closest Server Default rule to be used to determine the closest servers for devices, you can create customized Closest Server rules. You can create the Closest Server rules for ZENworks 11.4.x devices at three levels: Management zone, device folder, and device. These settings are disabled when you baseline your Management Zone to ZENworks 2017. To create a customized Closest Server rule for ZENworks Configuration Management 11.4.x devices, see [Section 6.2.1, “Creating Closest Server Rules for ZENworks 11.4.x Devices,” on page 65](#). For a ZENworks 2017 device, the customized closest servers are configured on locations. For detailed information, see [“Adding Closest Servers to Locations” in the ZENworks Location Awareness Reference](#).

Refer to the following sections:

- ◆ [Section 6.2.1, “Creating Closest Server Rules for ZENworks 11.4.x Devices,” on page 65](#)
- ◆ [Section 6.2.2, “Backing Up Closest Server Rules for ZENworks 11.4.x Devices,” on page 75](#)

6.2.1 Creating Closest Server Rules for ZENworks 11.4.x Devices

- 1 Launch ZENworks Control Center.
- 2 Do one of the following:
 - ◆ To create a Closest Server rule for your Management Zone, click the **Configuration** tab, then click **Infrastructure Management** (in the Management Zone Settings panel) > **Closest Server Rules**.
 - ◆ To create a Closest Server rule for a device folder, open the folder’s details page, then click **Settings** > **Infrastructure Management** (in the Settings panel) > **Closest Server Rules**.
 - ◆ To create a Closest Server rule for a device, open the device’s details page, then click **Settings** > **Infrastructure Management** (in the Settings panel) > **Closest Server Rules**.



- 3 Conditional: If you are creating Closest Server rules on a device or device folder, click **Override settings** to activate the Closest Server Rules panel.

The **Override** option (not depicted) displays only at the device and device folder levels.

- 4 Click **Add**, the **Rule Construction** dialog box is displayed.
- 5 In the **Rule Name** field, specify a name for the rule.

The name displays in the Closest Server Rules listing in ZENworks Control Center. To access this listing, click **Configuration** in the left pane, click the **Configuration** tab, click the **Management Zone Settings** panel to open it, click the **Infrastructure Management** section to open it, then click **Closest Server Rules**. All defined rules for the current level are displayed there.

- 6 If you do not want to append the Closest Server Default rule to the servers you are listing in this Closest Server rule, select the **Exclude the Closest Server Default Rule** check box.

The Closest Server rules feature first uses the servers specified in the rule, then proceeds to any other servers listed in the Closest Server Default rule if the specified servers are not available to the managed device. Therefore, to obtain content only from the servers specified in the rule, select this check box to exclude all other servers.

- 7 Use the **Rule Logic** fields to create the rule expression.

An expression consists of a criteria option, operator, and value. For example:

```
DNS Name Filter equal to *.novell.com
```

DNS Name Filter is the criteria option, equal to is the operator, and *.novell.com is the value. In the above example, the Closest Server rule is applied only to devices whose DNS name ends with .novell.com.

If necessary, you can use NOT to perform a logical negation of the expression. For example:

```
NOT DNS Name Filter equal to *.novell.com
```

In the above example, the Closest Server rule is applied only to devices whose DNS name does not end with .novell.com.

You can use more than one expression for the rule. For example:

```
DNS Name Filter equal to provo.novell.com or IP Address equal to 192.168.67.12/24
```

You can use the following criteria:

Option	Explanation
DNS Name Filter	<p>Matches DNS names that meet the filter criteria. You can specify an exact filter or use a question mark (?) or an asterisk (*) as a wildcard to match one or more characters in the DNS name. A ? matches one character and an * matches one or more characters. Examples:</p> <p>provo.novell.com: Matches all devices in the provo subdomain of the novell.com top-level domain.</p> <p>*.novell.com: Matches all devices in the novell.com top-level domain, including any devices in subdomains.</p> <p>provo?.novell.com: Matches all devices in the provo1 and provo 2 subdomains of the novell.com top-level domain; does not match devices in the provo12 subdomain.</p>

Option	Explanation
IP Address /n	<p>Matches IP addresses that fall within the specified CIDR (Classless Inter-Domain Routing) block. With CIDR, the dotted decimal portion of the IP address is interpreted as a 32-bit binary number that has been broken into four 8-bit bytes. The number following the slash (/n) is the prefix length, which is the number of shared initial bits, counting from the left side of the address. The /n number can range from 0 to 32, with 8, 16, 24, and 32 being commonly used numbers. Examples:</p> <p>192.168.67.12/16: Matches all IP addresses that start with 192.168.</p> <p>192.168.67.12/24: Matches all IP addresses that start with 192.168.67.</p>

8 To configure the servers listed in any section, do any of the following:

- 8a** (Conditional) You can perform the following tasks to manage individual servers in any of the server lists (Collection, Content, Configuration, and Authentication):

Task	Steps	Additional Details
Add a server to a list	<ol style="list-style-type: none"> 1. In the desired server list (Collection, Content, Configuration, or Authentication), click Add. 2. Browse for and select one or more ZENworks Servers or Satellites. 3. Click OK to add the selected servers to the list. 	<p>By default, ZENworks Servers support all functions (Collection, Content, Configuration, and Authentication). Therefore, all ZENworks Servers are available for selection in any of the server lists.</p> <p>Satellites, however, can be configured for specific roles (Collection, Content, Imaging, and Authentication). This has the following implications:</p> <ul style="list-style-type: none"> ◆ When selecting Satellites for the Collection Server list, only those Satellites that are assigned the Collection role are available for selection. ◆ When selecting Satellites for the Authentication Server list, only those Satellites that are assigned the Authentication role are available for selection. ◆ When selecting Satellites for the Content Server list, only those Satellites that are assigned the Content role or Imaging role are available for selection. ◆ Satellites do not fulfill the Configuration role. Therefore, they cannot be added to the Configuration Server list. <p>Satellite roles are configured in the Server Hierarchy panel on the Configuration tab.</p>

Task	Steps	Additional Details
Reorder the list	<ol style="list-style-type: none"> 1. In the desired server list, select the check box for the server, group, or L4 switch you want to move. 2. Click Move Up or Move Down as necessary to change its order in the list. 3. Repeat as necessary to order the list. 	<p>Placement in the list determines the order in which servers are contacted. The first list item (server, group, or L4 switch) is contacted first, then the second, and so forth.</p> <p>You can order the items in the lists differently. This allows you to spread the workload initiated by devices by placing different servers higher in one list than in the other lists. For example:</p> <ul style="list-style-type: none"> ◆ Collection Servers: Server1, Group1, Server3, L4Switch5 ◆ Content Servers: L4Switch5 ◆ Configuration Servers: Server3, Server2, Group1 ◆ Authentication Servers: Server1, Server2
Remove a server from a list	<ol style="list-style-type: none"> 1. In the server list, select the check box for the server you want to remove. 2. Click Remove. 	

8b (Conditional) You can use a group to randomize connections to servers. Each time the server list is sent to a device, it is randomized so that not all devices receive the same ordered list.

For example, assume the server list contains the following:

- ◆ Server 1
- ◆ Group 1 (Server 2, Server 3, Server 4)
- ◆ Server 5

One device might receive the following list: Server 1, Server 3, Server 2, Server 4, Server 5.

Another device might receive a different list: Server 1, Server 4, Server 3, Server 2, Server 5.

In all cases, Server 1 is listed first and Server 5 is listed last, but the order of the servers in Group 1 is randomized.

You can perform the following tasks to manage server groups in any of the server lists (Collection, Content, Configuration, and Authentication):

Task	Steps	Additional Details
Create a server group	<ol style="list-style-type: none"> 1. In the desired server list, select the check boxes for the servers you want to include in the group, then click Groups > Create Group from Selection. or If you want to create an empty group, click Groups > Create Empty Group. You can add servers to the empty group later using the Groups > Add to Group option. 2. Specify a name for the group, then click OK to add the group to the list. 3. Click Apply to make the change effective. 	
Add servers to a group	<ol style="list-style-type: none"> 1. In the desired server list, select the check boxes for the servers you want to add to the group. 2. Click Groups > Add to Group. 3. Do one of the following: <ul style="list-style-type: none"> ◆ To add the selected servers to a new group, select Create New, specify a group name, then click OK. ◆ To add the selected servers to an existing group, select a group from the list in the Select Existing field, then click OK. 4. Click Apply to make the change effective. 	

Task	Steps	Additional Details
Reorder the list	<ol style="list-style-type: none"> 1. In the server list, select the check box for the server, group, or L4 switch you want to move. 2. Click Move Up or Move Down as necessary to change its order in the list. 3. Repeat as necessary to order the list. 	<p>Placement in the list determines the order in which servers are contacted. The first list item (server, group, or L4 switch) is contacted first, then the second, and so forth.</p> <p>You can order the items in the lists differently. This allows you to spread the workload initiated by devices by placing different servers higher in one list than in the other lists. For example:</p> <ul style="list-style-type: none"> ◆ Collection Servers: Server1, Group1, Server3, L4Switch5 ◆ Content Servers: L4Switch5, Server2, Server3, Server1 ◆ Configuration Servers: Server3, Server2, Group1 ◆ Authentication Servers: Group1, L4Switch5, Server1, Server2
Copy a group from one list to another list	<ol style="list-style-type: none"> 1. In the server list to which you want to copy a group, click Groups > Copy Existing Group. For example, to copy a group from the Collection Servers list to the Content Servers list, click Groups > Copy Existing Group in the Content Servers list. 2. Select the desired group from the list, then click OK to copy the group. 3. Click Apply to make the change effective. 	<p>If you copy a group to a list that does not already contain the group's servers, the unlisted servers are removed from the group. For example, if Group1 includes Server1 and Server2 and you copy Group1 to a list that does not include Server1, Server1 is removed from the group.</p>
Remove servers from a group	<ol style="list-style-type: none"> 1. In the server list, expand the group to display its servers. 2. Select the check boxes for the servers that you want to remove from the group. 3. Click Groups > Remove from Group, then click OK. 4. Click Apply to make the change effective. 	<p>The servers are not removed from the server list, only from the group.</p>

Task	Steps	Additional Details
Remove a group	<ol style="list-style-type: none"> 1. In the server list, select the check box for the group you want to remove. 2. Click Groups > Remove Group, then click OK. 3. Click Apply to make the change effective. 	The group's servers are not removed, only the group.

8c (Conditional) If you have ZENworks Servers or Satellites that are clustered behind an L4 switch, you can define the L4 switch and add the servers to the definition. This enables the L4 switch to continue to balance the traffic among those servers.

Task	Steps	Additional Details
Create an L4 switch definition	<ol style="list-style-type: none"> 1. In the server list, select the check boxes for the servers to include in the L4 switch definition, then click L4 Switch > Create L4 Switch Definition from Selection. or If you want to create an empty L4 switch definition, click L4 Switch > Create Empty. You can add servers to the empty definition later using the L4 Switch > Add to L4 Switch Definition option. 2. Specify the DNS name or the IP address of the L4 switch, then click OK to add the L4 switch to the list. 3. Click Apply to make the change effective. 	

Task	Steps	Additional Details
Add servers to an L4 switch definition	<ol style="list-style-type: none"> 1. In the server list, select the check boxes for the servers you want to add to the L4 switch definition. 2. Click L4 Switch > Add to L4 Switch Definition. 3. Do one of the following: <ul style="list-style-type: none"> ◆ To add the selected servers to a new L4 switch definition, select Create New and specify the DNS name or IP address of the L4 switch, then click OK. ◆ To add the selected servers to an existing L4 switch definition, select an L4 switch definition from the list in the Select Existing field, then click OK. 4. Click Apply to make the change effective. 	
Reorder the list	<ol style="list-style-type: none"> 1. In the desired server list, select the check box for the server, group, or L4 switch you want to move. 2. Click Move Up or Move Down as necessary to change its order in the list. 3. Repeat as necessary to order the list. 	<p>Placement in the list determines the order in which servers are contacted. The first list item (server, group, or L4 switch) is contacted first, then the second, and so forth.</p> <p>You can order the items in the lists differently. This allows you to spread the workload initiated by devices by placing different servers higher in one list than in the other lists. For example:</p> <ul style="list-style-type: none"> ◆ Collection Servers: Server1, Group1, Server3, L4Switch5 ◆ Content Servers: L4Switch5, Server2, Server3, Server1 ◆ Configuration Servers: Server3, Server2, Group1 ◆ Authentication Servers: Group1, L4Switch5, Server1, Server2

Task	Steps	Additional Details
Remove servers from an L4 switch definition	<ol style="list-style-type: none"> 1. In the server list, expand the L4 switch definition to display its servers. 2. Select the check boxes for the servers that you want to remove from the L4 switch definition. 3. Click L4 Switch > Remove from L4 Switch Definition, then click OK. 4. Click Apply to make the change effective. 	The servers are not removed from the server list, only from the L4 switch definition.
Remove an L4 switch definition	<ol style="list-style-type: none"> 1. In the server list, click L4 Switch > Remove L4 Switch Definition, then click OK. 2. Click Apply to make the change effective. 	The L4 switch definition's servers are not removed, only the definition.

9 Specify the number of ZENworks servers whose data must be sent to the managed devices at a time. The available options are:

- ◆ **Unlimited:** By default, the contact information about all servers listed in the effective rule's lists are sent to the managed devices. In addition, unless excluded in the effective rule, the servers listed in the default rule are appended to the servers listed in the effective rule.
- ◆ **Limit to <number> Servers per list:** If you want to conserve bandwidth between the server and the managed devices, specify the number of servers whose data must be sent to the managed devices at a time.

NOTE: You can also configure the **Limit Servers Returned to Agent** setting in the Closest Server Default rule. The limit that you set in the Closest Server rule overrides the limit that you set in the Closest Server Default rule.

10 When you are finished, click **OK** to add the rule to the **Closest Server Rules** list.

11 Repeat [Step 2](#) through [Step 10](#) to create additional rules.

12 If necessary, when you are finished creating rules, do the following:

- ◆ Use the **Move Up** and **Move Down** buttons to reorder the rules in the **Closest Server Rules** list.
The rules are evaluated in the order they are listed. You should place the rules in the order you want them evaluated.
- ◆ To modify the settings of a rule, select the desired rule, then click **Edit**.

6.2.2 Backing Up Closest Server Rules for ZENworks 11.4.x Devices

If your ZENworks Management Zone has complex Closest Server rules configured, you might want to export these rules as part of your backup procedure.

The following zman commands are useful when backing up Closest Server rules:

- ♦ **location-copy-rules (locpp)**: Copies Closest Server rules data from a source device or device folder to one or more destination devices or device folders.
- ♦ **location-export-rules-to-file (loctf)**: Exports Closest Server rules data (in XML format) to a file. The XML file can be used as input for creating or appending to the Closest Server rules.
- ♦ **location-import-rules-from-file (locff)**: Imports Closest Server rules data (in XML format) from a file.

For more information about these commands and their usage, see “[Location Rules Commands](#)” in the *ZENworks Command Line Utilities Reference*. The commands are no longer valid after you baseline your zone to ZENworks 2017.

6.3 Known Limitations

- ♦ After upgrading a Primary Server from ZENworks 11 SP4 to ZENworks 2017, the following are not supported:
 - ♦ Promoting the managed devices that have a previous version of ZENworks Agent (version 11.4.x) installed as a Satellite.
 - ♦ Modifying the Satellite roles and settings for the existing 11.4.x satellites
- ♦ If a sandbox-only bundle or policy is assigned to a test user and this user logs in to a 11.4.x managed device that is a part of ZENworks 2017 Management Zone, none of the bundle or policy user assignments flows to the device.
- ♦ The behavior of the Install action set of a bundle on a managed device has changed in ZENworks 2017 because of the introduction of Bundle Change Management. To understand the behavior, see “[How Bundle Versions Affect an Install Action Set](#)” in the *ZENworks Software Distribution Reference*.

To comply with the ZENworks 2017 Install action set behavior, the execution of the Install action set on a 10.2.x managed device that is in a ZENworks 2017 Management Zone requires a patch to be applied to the device. For more information on the patch, see the [Micro Focus Downloads site](#).

7 Upgrading Servers in a Vertica-enabled Zone

This section intends to provide some essential information as well as some best practices that you need to keep in mind before upgrading your servers to the ZENworks 2020 Update 2 version, if you have configured Vertica in your zone as part of an earlier ZENworks release.

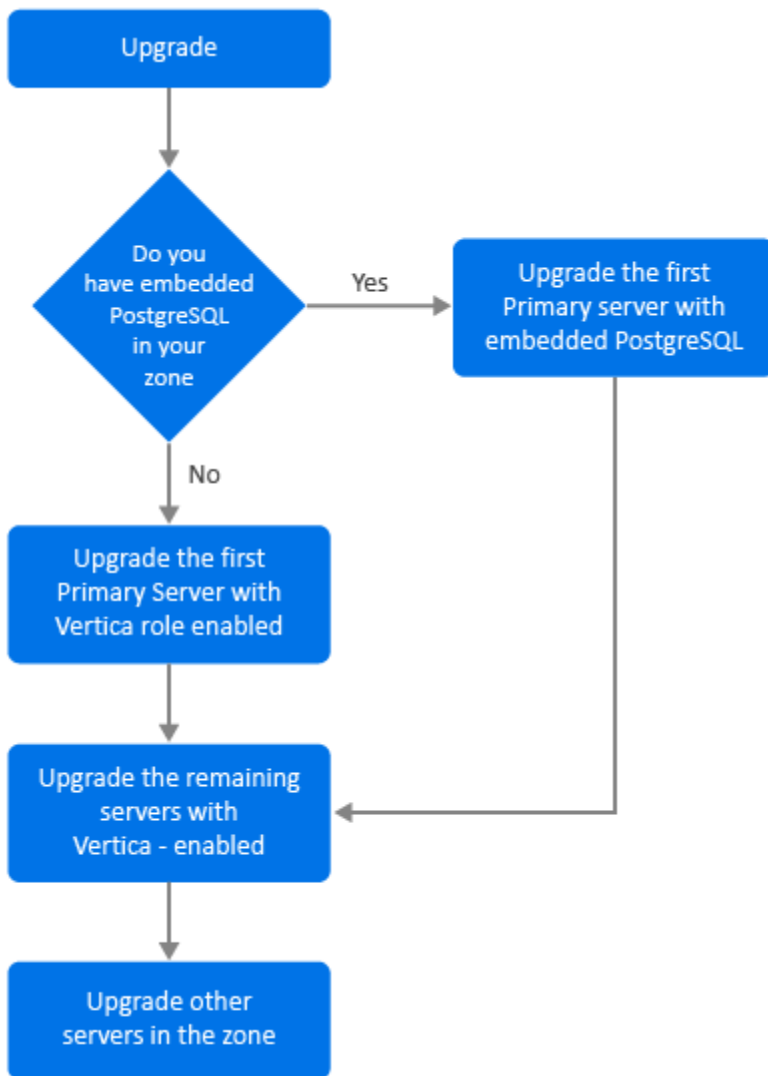
7.1 Best Practices

It is recommended that you first upgrade the servers on which Vertica is enabled and subsequently upgrade the other Primary Servers in the zone. However, if you are using an Embedded PostgreSQL database, then you need to first upgrade the server that hosts the database and then upgrade the servers on which Vertica is enabled.

7.2 Understanding the Upgrade Order in a Vertica-enabled Zone

As stated earlier in this guide, if you have multiple servers in the zone, when you perform the upgrade for the first time in the Management Zone, only one Primary Server can be upgraded at a time and this server will be considered as the first Primary Server. The subsequent upgrade of additional Primary Servers can be done in parallel.

The sequence in which the servers are to be upgraded is illustrated below:



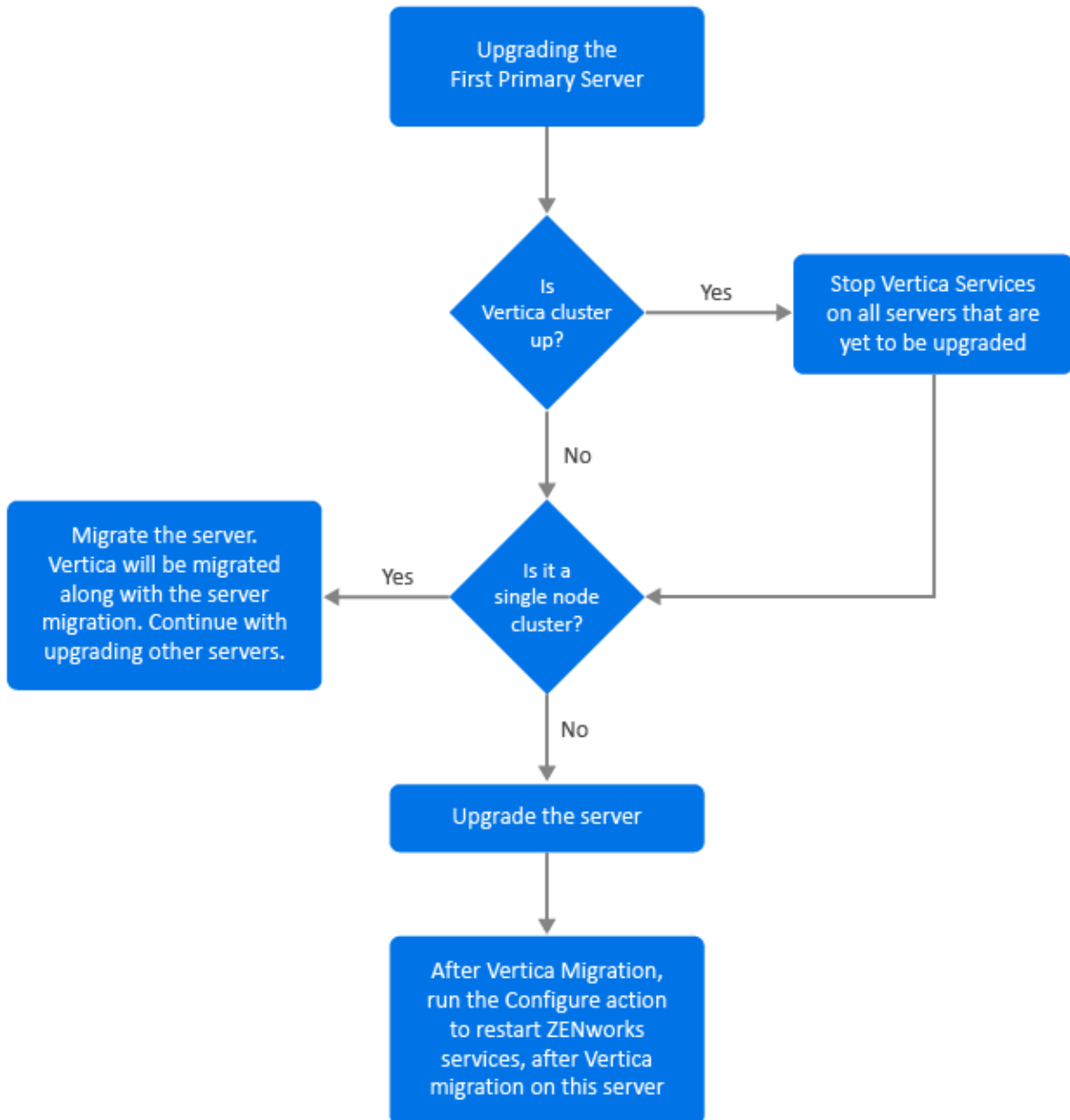
1. If embedded PostgreSQL is present in your zone, then it is mandatory that you first upgrade the server that has the embedded PostgreSQL database and then continue with Step 3.
2. (Conditional) If embedded PostgreSQL is not present in the zone, then it is recommended that you first upgrade the Appliance server that has the Vertica role enabled in it.
3. Upgrade the other servers that have the Vertica-role enabled, if any
4. Upgrade the remaining servers in the zone.

7.3 Prerequisites

Before upgrading a Primary Server in your zone, ensure that the ZENworks services including the Vertica services are down, on all the other Primary Servers that are to be upgraded. To stop the Vertica services on all the servers in which Vertica is enabled, see the Vertica Reference guide.

7.4 Upgrading the First Primary Server

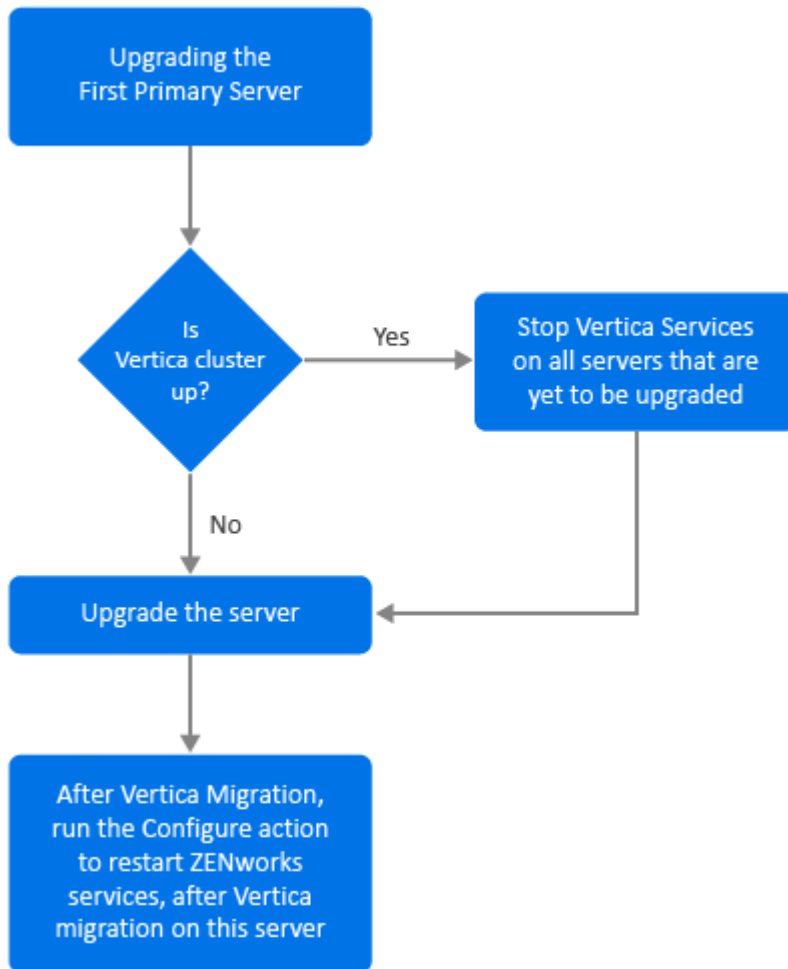
7.4.1 If the First Primary Server is an Appliance Server



1. Ensure that you refer to the Prerequisites section before upgrading the server.
2. If the first Primary Server is an Appliance server with the Vertica role enabled:
 - ♦ If the server is the only server in which Vertica is enabled, then migrate the Appliance server. For more information, see [Appliance Migration](#). The Appliance server along with the Vertica database is migrated. Continue with Step 4.
 - ♦ If the Appliance server is one of the servers in the Vertica cluster, then migrate this server. For more information, see [Appliance Migration](#). After migration, continue with Step 3.

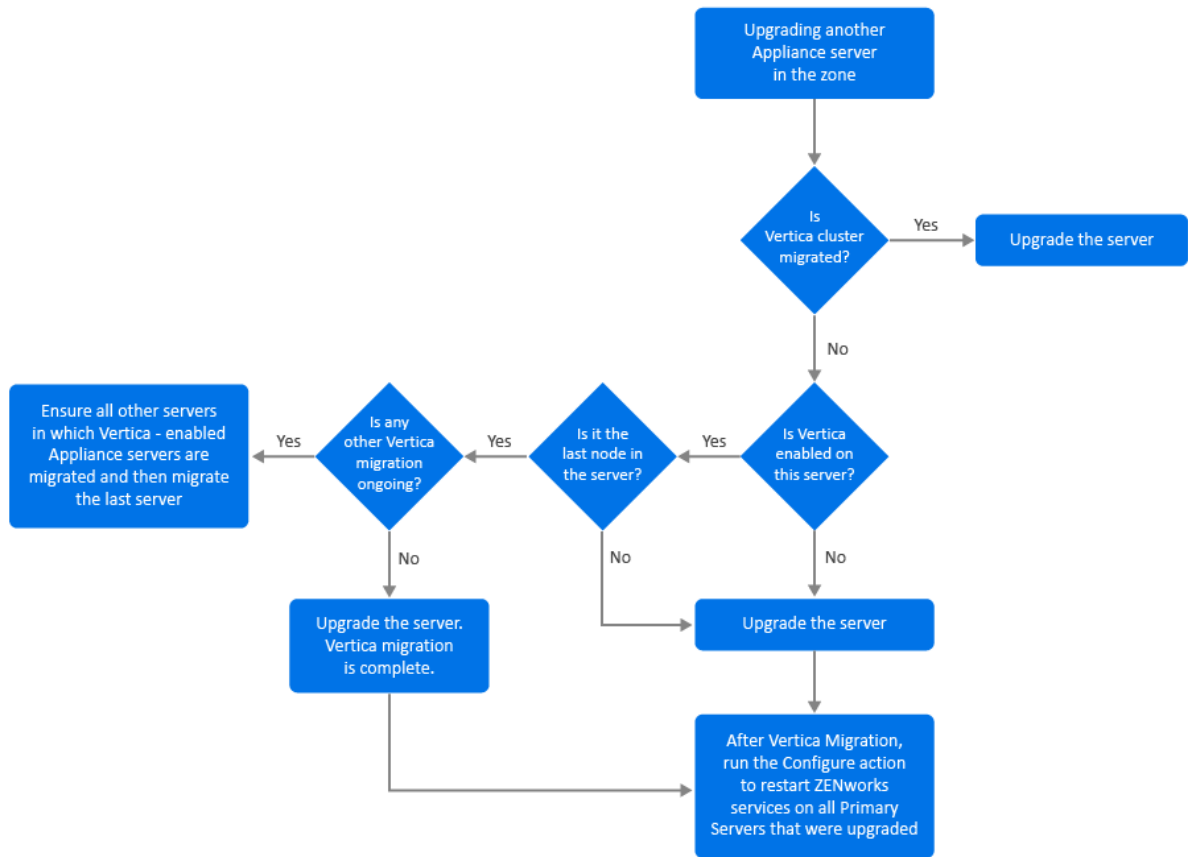
3. Post-upgrade, the zone will run with limited capabilities until all the servers in which Vertica is enabled, are upgraded. After all the servers in which Vertica is enabled, are upgraded, run the Configure action `microfocus-zenworks-configure -c Start` to restart the ZENworks services on the first Primary Server that you have upgraded.
4. You can now continue upgrading other servers in the zone.

7.4.2 If the First Primary Server is a not an Appliance Server



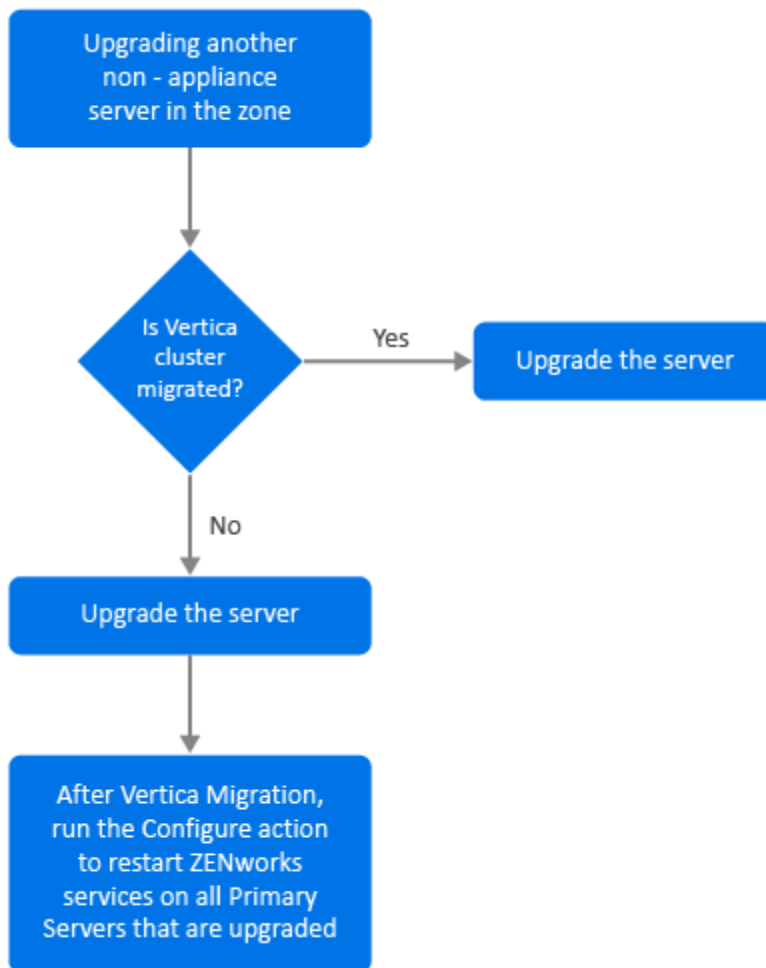
1. Ensure that you refer to the Prerequisites section before upgrading the server.
2. If the first Primary Server is a Windows or a Linux server that has the embedded PostgreSQL server, then upgrade the server and continue with Step 3. For more information on upgrading the server, see [Upgrading Linux and Windows Primary Servers to ZENworks 2020 Update 2](#).
3. You can now continue upgrading other servers in the zone, in which Vertica is enabled.
4. Post-upgrade, the zone will run with limited capabilities until all the servers in which Vertica is enabled, are upgraded. After all the servers in which Vertica is enabled are upgraded, run the Configure action `microfocus-zenworks-configure -c Start` to restart the ZENworks services on the first Primary Server that you have upgraded

7.5 Upgrading Other Servers in the Zone (Appliance)



1. If all the servers that were part of the Vertica cluster are already migrated, then migrate the remaining Appliance servers and continue with Step 5. For more information on migrating the server, see [Appliance Migration](#). If all the servers that are part of the Vertica cluster, are yet to be migrated, then continue with Step 2.
2. If the Appliance server that is to be migrated does not have the Vertica role enabled, then migrate the server and continue with Step 4. For more information on migrating the server, see [Appliance Migration](#). If the Appliance server has the Vertica role enabled, then continue with Step 3.
3. If the Appliance server to be migrated is part of the Vertica cluster:
 - ♦ This server is the last node in the cluster: You need to wait for the other servers in the cluster to complete migration. If Appliance migration on these servers is ongoing, then wait for the process to complete before migrating the last node. After other servers in which Vertica is enabled, are successfully migrated, then migrate the last node and continue with Step 4. For more information on migrating the server, see [Appliance Migration](#).
 - ♦ This server is not the last node: Migrate the server and continue with Step 4. For more information on migrating the server, see [Appliance Migration](#).
4. After the last node in the Vertica cluster is upgraded, run the Configure action `microfocus-zenworks-configure-c Start` to restart the ZENworks services on all the Primary Servers that have been upgraded until now
5. Continue with the upgrade of the remaining servers in the zone, if any

7.6 Upgrading Other Servers in the Zone (Non-appliance)



1. If all the Appliance servers in which Vertica is enabled, are already migrated, then upgrade the Windows or the Linux server (non-appliance) and continue with Step 4. For more information on upgrading the server, see [Upgrading Linux and Windows Primary Servers to ZENworks 2020 Update 2](#).
2. If the servers in which Vertica is enabled, are yet to be migrated, then upgrade the Windows or the Linux server (non-appliance) and continue with Step 3.
3. Post-upgrade, the zone will run with limited capabilities until all the servers in which Vertica is enabled, are upgraded. After the last node in the Vertica cluster is upgraded, run the Configure action `microfocus-zenworks-configure-c Start` to restart the ZENworks services on all the Primary Servers that have been upgraded until now, that is, Server 1, Server 2 and Server 3.
4. Continue with the upgrade of the remaining servers in the zone, if any.

7.7 Examples

7.7.1 Scenario 1

There are 5 Primary Servers in a zone that uses the embedded database.

- ♦ Server 1 is a Linux server with embedded PostgreSQL
- ♦ Server 2, 3, and 4 are Appliance servers in which the Vertica-role is enabled
- ♦ Server 5 is a Linux server

Procedure

1. As a prerequisite, the Vertica cluster should be down. To bring down the cluster, you need to stop the Vertica services on all the servers in which Vertica is enabled. For more information, see the Vertica Reference guide.
2. Upgrade server 1. This is the first Primary Server that needs to be upgraded as it contains the embedded PostgreSQL.
3. Migrate server 2 and server 3 that are part of the Vertica cluster.
4. Migrate Server 4. As this is the last node in the Vertica cluster, you need migrate this server, only after Servers 2 and 3 are successfully migrated.
5. Run the Configure action `microfocus-zenworks-configure-c` Start to restart the ZENworks services on all the Primary Servers that have been upgraded up till now (server 1, server 2, and server 3)
6. Upgrade server 5.

7.7.2 Scenario 2

There are 3 Primary Servers in a zone that uses the external database:

- ♦ Server 1 is an Appliance server with Vertica enabled
- ♦ Server 2 is an Appliance server but does not have the Vertica role enabled
- ♦ Server 3 is a Windows server

Procedure

1. Migrate server 1. This is the first Primary Server that needs to be upgraded as the Vertica role is enabled in this server.
2. Migrate and upgrade servers 2 and 3.

A Documentation Updates

This section contains information on documentation content changes that were made in this Upgrade for ZENworks Configuration Management. The information can help you to keep current on updates to the documentation.

The documentation for this product is provided on the Web in two formats: HTML and PDF. The HTML and PDF documentation are both kept up-to-date with the changes listed in this section.

If you need to know whether a copy of the PDF documentation that you are using is the most recent, the PDF document includes a publication date on the title page.

The documentation was updated on the following date:

A.1 May 2021: ZENworks 2020 Update 2

Location	Change
Chapter 1, “Upgrading or Migrating the Primary Servers,” on page 7	New chapter introduced that provides general upgrade information for Windows, Linux, and Appliance servers.
Chapter 2, “Upgrading Linux and Windows Primary Servers to ZENworks 2020 Update 2,” on page 17	Section 2.1, “Prerequisites,” on page 17 : Updated prerequisites Section 2.2.5, “Running the Cleanup Utility,” on page 35 : New chapter introduced.
Chapter 3, “Appliance Migration,” on page 51	Section 3.1, “Prerequisites,” on page 51 : Updated the prerequisites. Section 3.2, “Preparing the ZENworks 2020 Appliance for Migration,” on page 52 : Updated step 3. Section 3.5, “Post migration,” on page 54 : Updated this section.
Chapter 7, “Upgrading Servers in a Vertica-enabled Zone,” on page 77	New chapter introduced

