

Adding Support for Newly Released Versions of Operating Systems

November 2022

To install the ZENworks agent on newly released versions of operating systems that are supported after the ZENworks release, you need to externalize the OS targets. This document provides information on:

- ♦ [“Documentation Updates” on page 1](#)
- ♦ [“Externalizing OS Targets” on page 1](#)
- ♦ [“Cleaning up the Custom ostarget Entries” on page 6](#)
- ♦ [“Display Custom ostarget Entries” on page 6](#)
- ♦ [“Sample custom_ostargets.xml Files” on page 6](#)
- ♦ [“Legal Notice” on page 17](#)

Documentation Updates

The following table contains information on the documentation content changes that were made in this document after the initial release:

Date	Items Added or Updated
November, 2023	<p>Added Windows 11, 23H2 section in “Windows” on page 6.</p> <p>Added Red Hat Enterprise Linux 9 in “Linux” on page 12.</p>

Externalizing OS Targets

As a part of externalizing OS targets, you need to create a `custom_ostargets.xml` file with details of the latest platform version (supported after the ZENworks release) on which you want to install the ZENworks agent. You then need to run the configure action to ensure that the content of the `custom_ostargets.xml` file is updated in the Primary Server database.

IMPORTANT: The default OS Dynamic Groups would not be available in ZCC after applying the official FTFs for the new major OS version supported. Based on requirements, you can manually create the OS dynamic groups.

For example: In ZENworks 2020 Update 2, by default, Windows 11 Dynamic group is not available. After applying the Windows 11 official FTF/Custom Target support changes, you need to create the required OS dynamic group for Windows 11.

NOTE: ZENworks only recognizes and uses the custom ostargets that are listed in the custom_ostargets.xml file.

From 2020 Update 3 onwards, the custom OS targets will be replicated to other Primary Servers in the zone, automatically, within a few minutes [depending on the availability of loader on the other servers.]

Ensure that you have all the required custom OS platforms in the same XML file. If you remove any platforms from this XML file and run the configure action, then those platforms will be removed from the database and other Primary Servers.

When ZENworks natively supports a platform, that platform can be removed from the custom_ostargets.

Even if a new Primary Server is added to the existing 20u3 zone much later, the custom_ostargets.xml file will be replicated to the new primary server.

To generalize, when the loader executes the designated handler for updating custom targets on existing or new Primary Server in the zone, the following tasks will be performed:

- ♦ The new custom_ostargets.xml file will be created if not present on the Primary Server and the custom targets data will be replicated from the database to the xml file.
 - ♦ The windowsVersionMapping.properties file is installed on each server by default and only its content gets updated.
-

This section provides information on:

- ♦ [“Creating a custom_ostargets.xml File” on page 2](#)
 - ♦ [“ostargets.xml Content Format” on page 3](#)
 - ♦ [“Adding an entry in the windowsVersionMapping.properties on Primary servers” on page 4](#)
 - ♦ [“Running the Configure Action” on page 5](#)
 - ♦ [“Restart Loader Service” on page 5](#)
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NOTE: Ensure that you perform the above sections in the specified order to avoid any issues.

Creating a custom_ostargets.xml File

Create a new custom_ostargets.xml file on the ZENworks Primary Server in the following location:

- ♦ Windows Servers: %ZENSERVER_HOME%\conf\
 - ♦ Linux Servers: /etc/opt/microfocus/zenworks/
-

NOTE: For information on the content that needs to be included in the custom_ostargets.xml file, see [“Sample custom_ostargets.xml Files” on page 6](#).

ostargets.xml Content Format

The content within the `ostargets.xml` file should be in the following format:

```
<ostargets>
  <ostarget>
    OS information for OS 1
  </ostarget>
  <ostarget>
    OS information for OS 2
  </ostarget>
  <ostarget>
    OS information for OS x...
  </ostarget>
</ostargets>
```

NOTE: For the OS-specific information of supported platforms, which needs to be included in the `ostargets.xml` file, see [“Sample custom_ostargets.xml Files” on page 6](#).

Example

To create the `ostargets.xml` file for Windows 20H2 64-bit Professional and Windows 20H2 64-bit Enterprise edition operating systems, the file should contain the following content:

```
<ostargets>
  <ostarget>
    <name>windows10-2009-pro-gen-x64</name>
    <product_name>Windows 10 Professional x64 Version 20H2</product_name>
    <platform>Windows</platform>
    <version>10.0.2009</version>
    <arch>x86_64</arch>
    <vendor>Microsoft</vendor>
    <support_pack>0</support_pack>
    <build_number>19042</build_number>
    <pkgmgr>msi</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<OSVersion substring="Windows 10 2009 64 Professional
(Build 19042)" />]]></detect>
  </ostarget>

  <ostarget>
```

```

    <name>windows10-2009-ent-gen-x64</name>
    <product_name>Windows 10 Enterprise x64 Version 20H2</product_name>
    <platform>Windows</platform>
    <version>10.0.2009</version>
    <arch>x86_64</arch>
    <vendor>Microsoft</vendor>
    <support_pack>0</support_pack>
    <build_number>19042</build_number>
    <pkgmgr>msi</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<OSVersion substring="Windows 10 2009 64 Enterprise (Build
19042)" />]]></detect>
  </ostarget>
</ostargets>

```

Adding an entry in the windowsVersionMapping.properties on Primary servers

This following entry is applicable only for Windows 10 21H1 or later or Windows 11 21H2 or later

On Linux Primary Servers

Modify /etc/opt/microfocus/zenworks/windowsVersionMapping.properties by adding the following entry as per the Windows Operating System mentioned below:

- ♦ Windows 10 21H2 / Windows 11 21H2
21H2=2109
- ♦ Windows 10 22H2 / Windows 11 22H2
22H2=2209
- ♦ Windows 11 23H2
23H2=2309

On Windows Primary Servers

Modify %ZENSERVER_HOME%\conf\windowsVersionMapping.properties by adding the following entry as per the Windows Operating System mentioned below:

- ♦ Windows 10 21H2 / Windows 11 21H2
21H2=2109
- ♦ Windows 10 22H2 / Windows 11 22H2
22H2=2209
- ♦ Windows 11 23H2
23H2=2309

NOTE: ♦Ensure that you do not delete any of the existing entries in the file.

- ♦ Bundles with system requirements might fails if mapping entry is not added in the properties file. The Antimalware enforcement policy also might fail as the Antimalware bundles has system requirements set for Windows versions. Hence, mapping entry must be added to windowsVersionMapping.properties file.
-

Running the Configure Action

At the command prompt on the ZENworks Windows Server or a Linux console, run the following commands:

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

```
microfocus-zenworks-configure -c SettingsConfigureAction -Dtype=CustomOSTarget -Dadd
```

As part of this configure action, a queue action is created for each Primary Server in the zone to update the contents of the `ostargets.xml` file with that of the `custom_ostargets.xml` file, which will be used by the agents during registration.

After running the configure action, the new custom targets mentioned in the `custom_ostargets.xml` file will be updated in the database.

NOTE: ♦ If you have more than one Primary Server in the zone, you can create the `custom_ostargets.xml` file and run the following commands from any of the Primary Servers.

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

```
microfocus-zenworks-configure -c SettingsConfigureAction Dtype=CustomOSTarget -Dadd
```

If the `custom_ostargets.xml` file has OS information that is already supported by ZENworks, it will not be added. The name and service pack combination will be used to determine whether the platform is unique or not. In case the `custom_ostargets.xml` includes platforms that are already supported by ZENworks, they will be displayed on the screen when the configure action runs.

- ♦ Ensure that you have all the required custom OS platforms in the same XML file. If you remove any platforms from this XML file and run the configure action, then those platforms will be removed from the database and other Primary Servers.
 - ♦ When ZENworks natively supports a platform, that platform can be removed from the `custom_ostargets.xml` file.
-

Restart Loader Service

The following steps need to be performed only when you update the `windowsVersionMapping.properties` file with new entry as specified in the [“Adding an entry in the windowsVersionMapping.properties on Primary servers” on page 4](#) section.

Restarting the Loader Service on all Primary Servers

- ♦ [“On Linux Primary Server” on page 5](#)
- ♦ [“On Windows Primary Server” on page 6](#)

On Linux Primary Server

Perform the following steps to restart the loader server on Linux Primary Servers:

1. On SLE12 and SLES15 servers, stop the services using `systemctl stop <service>` command

```
systemctl stop microfocus-zenloader.service
```

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

2. For all other Linux Primary Servers (other than SLE12 and SLE15):

```
/etc/init.d/microfocus-zenloader stop
```

```
/etc/init.d/microfocus-zenloader start
```

On Windows Primary Server

On Windows Primary Server, perform the following steps:

1. Click Start, click Run, and then type services.msc.
2. Restart the Micro Focus ZENworks Loader service on the server.

Cleaning up the Custom ostarget Entries

To clean up and delete custom added OS target entries you need to run the following configure action on the ZENworks Servers:

```
microfocus-zenworks-configure -c SettingsConfigureAction -Dtype=CustomOSTarget -Dremove
```

Display Custom ostarget Entries

To display the custom added OS target entries you need to run the following configure action on the ZENworks Servers:

```
microfocus-zenworks-configure -c SettingsConfigureAction -Dtype=CustomOSTarget -Ddisplay
```

To view the help, run the following configure action:

```
microfocus-zenworks-configure -c SettingsConfigureAction -Dtype=CustomOSTarget --help
```

Sample custom_ostargets.xml Files

This document includes examples of the `custom_ostargets.xml` files for the following platforms:

- ♦ [“Windows” on page 6](#)
- ♦ [“Linux” on page 12](#)

Windows

Using the following `custom_ostargets.xml` file you can install the ZENworks agent on the following platforms:

- ♦ [“Windows 10 21H2” on page 7](#)
- ♦ [“Windows Server 2022, 21H2” on page 10](#)
- ♦ [“Windows 11, 23 H2” on page 10](#)

Windows 10 21H2

For Windows 10 21H2, the following content should be added in the `custom_ostargets.xml` file. You can use the following examples to include specific versions of the Windows 10 21H2 platform:

- ♦ [“Windows 10 21H2, 64-bit Professional” on page 7](#)
- ♦ [“Windows 10 21H2, 32-bit Professional” on page 7](#)
- ♦ [“Windows 10 21H2, 64-bit Enterprise” on page 8](#)
- ♦ [“Windows 10 21H2, 32-bit Enterprise” on page 8](#)
- ♦ [“Windows 10 21H2, 64-bit Education” on page 8](#)
- ♦ [“Windows 10 21H2, 32-bit Education” on page 9](#)
- ♦ [“Windows 10 21 H2, 32-bit Enterprise LTSC” on page 9](#)
- ♦ [“Windows 10 21 H2, 64-bit Enterprise LTSC” on page 9](#)

Windows 10 21H2, 64-bit Professional

```
<ostargets>
  <ostarget>
    <name>windows10-21H2-pro-gen-x64</name>
    <product_name>Windows 10 Professional x64 Version 21H2</product_name>
    <platform>Windows</platform>
    <version>10.0.2109</version>
    <arch>x86_64</arch>
    <vendor>Microsoft</vendor>
    <support_pack>0</support_pack>
    <build_number>19044</build_number>
    <pkgmgr>msi</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<OSVersion substring="Windows 10 21H2 64 Professional
(Build 19044)" />]]></detect>
  </ostarget>
</ostargets>
```

Windows 10 21H2, 32-bit Professional

```
<ostargets>
  <ostarget>
    <name>windows10-21H2-pro-gen-x86</name>
    <product_name>Windows 10 Professional Version 21H2</product_name>
    <platform>Windows</platform>
    <version>10.0.2109</version>
    <arch>i386</arch>
    <vendor>Microsoft</vendor>
    <support_pack>0</support_pack>
    <build_number>19044</build_number>
    <pkgmgr>msi</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<OSVersion substring="Windows 10 21H2 Professional (Build
19044)" />]]></detect>
  </ostarget>
</ostargets>
```

Windows 10 21H2, 64-bit Enterprise

```
<ostargets>
  <ostarget>
    <name>windows10-21H2-ent-gen-x64</name>
    <product_name>Windows 10 Enterprise x64 Version 21H2</product_name>
    <platform>Windows</platform>
    <version>10.0.2109</version>
    <arch>x86_64</arch>
    <vendor>Microsoft</vendor>
    <support_pack>0</support_pack>
    <build_number>19044</build_number>
    <pkgmgr>msi</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<OSVersion substring="Windows 10 21H2 64 Enterprise (Build
19044)" />]]></detect>
  </ostarget>
</ostargets>
```

Windows 10 21H2, 32-bit Enterprise

```
<ostargets>
  <ostarget>
    <name>windows10-21H2-ent-gen-x86</name>
    <product_name>Windows 10 Enterprise Version 21H2</product_name>
    <platform>Windows</platform>
    <version>10.0.2109</version>
    <arch>i386</arch>
    <vendor>Microsoft</vendor>
    <support_pack>0</support_pack>
    <build_number>19044</build_number>
    <pkgmgr>msi</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<OSVersion substring="Windows 10 21H2 Enterprise (Build
19044)" />]]></detect>
  </ostarget>
</ostargets>
```

Windows 10 21H2, 64-bit Education

```
<ostargets>
  <ostarget>
    <name>windows10-21H2-edu-gen-x64</name>
    <product_name>Windows 10 Education x64 Version 21H2</product_name>
    <platform>Windows</platform>
    <version>10.0.2109</version>
    <arch>x86_64</arch>
    <vendor>Microsoft</vendor>
    <support_pack>0</support_pack>
    <build_number>19044</build_number>
    <pkgmgr>msi</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<OSVersion substring="Windows 10 21H2 64 Education (Build
19044)" />]]></detect>
  </ostarget>
</ostargets>
```


Windows 10 21H2, 32-bit Education

```
<ostargets>
  <ostarget>
    <name>windows10-21H2-edu-gen-x86</name>
    <product_name>Windows 10 Education Version 21H2</product_name>
    <platform>Windows</platform>
    <version>10.0.2109</version>
    <arch>i386</arch>
    <vendor>Microsoft</vendor>
    <support_pack>0</support_pack>
    <build_number>19044</build_number>
    <pkgmgr>msi</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<OSVersion substring="Windows 10 21H2 Education (Build
19044)" />]]></detect>
  </ostarget>
</ostargets>
```

Windows 10 21 H2, 32-bit Enterprise LTSC

```
<ostarget>
  <name>windows10-21H2-Ent-LTSC-x86</name>
  <product_name>Windows 10 Enterprise LTSC Version 21H2</product_name>
  <platform>Windows</platform>
  <version>10.0.2109</version>
  <arch>i386</arch>
  <vendor>Microsoft</vendor>
  <support_pack>0</support_pack>
  <build_number>19044</build_number>
  <pkgmgr>msi</pkgmgr>
  <primary_role>Workstation</primary_role>
  <detect><![CDATA[<OSVersion substring="Windows 10 21H2 Enterprise LTSC (Build
19044)" />]]></detect>
</ostarget>
```

Windows 10 21 H2, 64-bit Enterprise LTSC

```
<ostarget>
  <name>windows10-21H2-Ent-LTSC-x64</name>
  <product_name>Windows 10 Enterprise LTSC x64 Version 21H2</product_name>
  <platform>Windows</platform>
  <version>10.0.2109</version>
  <arch>x86_64</arch>
  <vendor>Microsoft</vendor>
  <support_pack>0</support_pack>
  <build_number>19044</build_number>
  <pkgmgr>msi</pkgmgr>
  <primary_role>Workstation</primary_role>
  <detect><![CDATA[<OSVersion substring="Windows 10 21H2 64 Enterprise LTSC
(Build 19044)" />]]></detect>
</ostarget>
```

Windows Server 2022, 21H2

For Windows Server 2022, 21H2, the following content should be added in the `custom_ostargets.xml` file. You can use the following examples to include specific versions of the Windows Server 2022, 21H2 platform:

- ♦ [“Windows Server 2022 21H2 64 bit \(Server Standard Edition\)” on page 10](#)
- ♦ [“Windows Server 2022 21H2 64 bit \(Datacenter Edition\)” on page 10](#)

Windows Server 2022 21H2 64 bit (Server Standard Edition)

```
<ostarget>
  <name>win2022-21H2-se-x64</name>
  <product_name>Windows Server 2022 Standard Edition x64 Version 21H2</
product_name>
  <platform>Windows</platform>
  <version>10.0.2109</version>
  <arch>x86_64</arch>
  <vendor>Microsoft</vendor>
  <support_pack>0</support_pack>
  <build_number>20348</build_number>
  <pkgmgr>msi</pkgmgr>
  <primary_role>Server</primary_role>
  <detect><![CDATA[<OSVersion substring="Windows Server 2022 21H2 64 Server
Standard Edition (full installation) (Build 20348)"/>]]></detect>
</ostarget>
```

Windows Server 2022 21H2 64 bit (Datacenter Edition)

```
<ostarget>
  <name>win2022-21H2-dc-x64</name>
  <product_name>Windows Server 2022 Datacenter Edition x64 Version 21H2</
product_name>
  <platform>Windows</platform>
  <version>10.0.2109</version>
  <arch>x86_64</arch>
  <vendor>Microsoft</vendor>
  <support_pack>0</support_pack>
  <build_number>20348</build_number>
  <pkgmgr>msi</pkgmgr>
  <primary_role>Server</primary_role>
  <detect><![CDATA[<OSVersion substring="Windows Server 2022 21H2 64 Server
Datacenter Edition (Build 20348)"/>]]></detect>
</ostarget>
```

Windows 11, 23 H2

For Windows 11, 23 H2, the following content should be added in the `custom_ostargets.xml` file. You can use the following examples to include specific versions of the Windows 11, 23 H2 platform:

- ♦ [“Windows 11 23H2, 64-bit Professional” on page 11](#)
- ♦ [“Windows 11 23H2, 64-bit Professional N” on page 11](#)
- ♦ [“Windows 11 23H2, 64-bit Enterprise” on page 11](#)
- ♦ [“Windows 11 23H2, 64-bit Education” on page 12](#)

IMPORTANT: If Antimalware is enabled in your zone, then ensure that you apply FTF 964 or above before updating the custom_ostargets.xml file. For more information, see [ZENworks Patch Updates](#).

Windows 11 23H2, 64-bit Professional

```
<ostarget>
  <name>windows11-23H2-pro-gen-x64</name>
  <product_name>Windows 11 Professional x64 Version 23H2</product_name>
  <platform>Windows</platform>
  <version>11.0.2309</version>
  <arch>x86_64</arch>
  <vendor>Microsoft</vendor>
  <support_pack>0</support_pack>
  <build_number>22631</build_number>
  <os_edition>30</os_edition>
  <pkgmgr>msi</pkgmgr>
  <primary_role>Workstation</primary_role>
  <detect><![CDATA[<OSVersion substring="Windows 11 23H2 64 Professional
(Build 22631)" />]]></detect>
</ostarget>
```

Windows 11 23H2, 64-bit Professional N

```
  <name>windows11-23H2-pro-ws-N-x64</name>
  <product_name>Windows 11 Professional N x64 Version 23H2</product_name>
  <platform>Windows</platform>
  <version>11.0.2309</version>
  <arch>x86_64</arch>
  <vendor>Microsoft</vendor>
  <support_pack>0</support_pack>
  <build_number>22631</build_number>
  <os_edition>A2</os_edition>
  <pkgmgr>msi</pkgmgr>
  <primary_role>Workstation</primary_role>
  <detect><![CDATA[<OSVersion substring="Windows 11 23H2 64 Pro for
Workstations N (Build 22631)" />]]></detect>
</ostarget>
```

Windows 11 23H2, 64-bit Enterprise

```
<ostarget>
  <name>windows11-23H2-ent-gen-x64</name>
  <product_name>Windows 11 Enterprise x64 Version 23H2</product_name>
  <platform>Windows</platform>
  <version>11.0.2309</version>
  <arch>x86_64</arch>
  <vendor>Microsoft</vendor>
  <support_pack>0</support_pack>
  <build_number>22631</build_number>
  <os_edition>4</os_edition>
  <pkgmgr>msi</pkgmgr>
  <primary_role>Workstation</primary_role>
  <detect><![CDATA[<OSVersion substring="Windows 11 23H2 64 Enterprise (Build
22631)" />]]></detect>
</ostarget>
```

Windows 11 23H2, 64-bit Education

```
<ostarget>
  <name>windows11-23H2-edu-gen-x64</name>
  <product_name>Windows 11 Education x64 Version 23H2</product_name>
  <platform>Windows</platform>
  <version>11.0.2309</version>
  <arch>x86_64</arch>
  <vendor>Microsoft</vendor>
  <support_pack>0</support_pack>
  <build_number>22631</build_number>
  <pkgmgr>msi</pkgmgr>
  <primary_role>Workstation</primary_role>
  <detect><![CDATA[<OSVersion substring="Windows 11 23H2 64 Education (Build
22631)" />]]></detect>
</ostarget>
```

Linux

Using the following custom_ostargets.xml file you can install the ZENworks agent on the following platforms:

- ♦ [“openSUSE Leap 42.3” on page 12](#)
- ♦ [“openSUSE Leap 15” on page 13](#)
- ♦ [“openSUSE Leap 15.2” on page 13](#)
- ♦ [“openSUSE Leap 15.3” on page 14](#)
- ♦ [“SUSE Linux Enterprise Server 15 SP2” on page 14](#)
- ♦ [“SUSE Linux Enterprise Server 15 SP3” on page 15](#)
- ♦ [“SUSE Linux Enterprise Server for SAP Applications 15 SP 3” on page 16](#)
- ♦ [“SUSE Linux Enterprise Desktop 15 SP3” on page 16](#)
- ♦ [“Red Hat Enterprise Linux \(RHEL\) Server 9” on page 16](#)
- ♦ [“Red Hat Enterprise Linux \(RHEL\) Workstation 9” on page 17](#)

openSUSE Leap 42.3

```
<ostargets>
  <ostarget>
    <name>osl-42-x86_64</name>
    <product_name>openSUSE Leap 42</product_name>
    <version>42</version>
    <arch>x86_64</arch>
    <vendor>SUSE</vendor>
    <pkgmgr>rpm</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect>
      <file source="/etc/os-release" substring="opensuse:leap:42.3" />
    </detect>
  </ostarget>
</ostargets>
```

NOTE: To include the OS information of multiple platforms in the `ostargets.xml` file, refer to [“ostargets.xml Content Format” on page 3](#) for information on the content structure within the XML file.

openSUSE Leap 15

```
<ostargets>
  <ostarget>
    <name>osl-15-x86_64</name>
    <product_name>openSUSE Leap 15</product_name>
    <version>15</version>
    <arch>x86_64</arch>
    <vendor>SUSE</vendor>
    <pkgmgr>rpm</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect>
      <file source="/etc/os-release" substring="opensuse:leap:15" />
    </detect>
  </ostarget>
</ostargets>
```

NOTE: To include the OS information of multiple platforms in the `ostargets.xml` file, refer to [“ostargets.xml Content Format” on page 3](#) for information on the content structure within the XML file.

openSUSE Leap 15.2

IMPORTANT: ♦ Ensure that you have installed the `libicu60_2` package. If the package is not installed, then run the `zypper install libicu60_2` command to install the package.

- ♦ Ensure that you create a symbolic link `"libhd.so.15"` in `/usr/lib64` using the following command. If the device does not have the `/usr/lib64/libhd.so.21.70` library, use the library that is available on the device.
`ln -s /usr/lib64/libhd.so.21.70 /usr/lib64/libhd.so.15`

```
<ostargets>
  <ostarget>
    <name>osl-15-x86_64</name>
    <product_name>openSUSE Leap 15</product_name>
    <platform>Linux</platform>
    <version>15</version>
    <arch>x86_64</arch>
    <vendor>SUSE</vendor>
    <support_pack>2</support_pack>
    <pkgmgr>rpm</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect>
      <![CDATA[<file source="/etc/os-release" substring="opensuse:leap:15.2" /
>]]>
    </detect>
  </ostarget>
</ostargets>
```

NOTE: To include the OS information of multiple platforms in the `ostargets.xml` file, refer to [“ostargets.xml Content Format” on page 3](#) for information on the content structure within the XML file.

openSUSE Leap 15.3

IMPORTANT: ♦Ensure that you have installed the `libc60_2` package. If the package is not installed, then run the `zypper install libc60_2` command to install the package.

- ♦ Ensure that you create a symbolic link `"libhd.so.15"` in `/usr/lib64` using the following command. If the device does not have the `/usr/lib64/libhd.so.21.72` library, use the library that is available on the device.
`ln -s /usr/lib64/libhd.so.21.72 /usr/lib64/libhd.so.15`
-

```
<ostargets>
  <ostarget>
    <name>osl-15-x86_64</name>
    <product_name>openSUSE Leap 15</product_name>
    <platform>Linux</platform>
    <version>15</version>
    <arch>x86_64</arch>
    <vendor>SUSE</vendor>
    <support_pack>3</support_pack>
    <pkgmgr>rpm</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect>
      <![CDATA[<file source="/etc/os-release" substring="opensuse:leap:15.3"/
>]]>
    </detect>
  </ostarget>
</ostargets>
```

NOTE: To include the OS information of multiple platforms in the `ostargets.xml` file, refer to [“ostargets.xml Content Format” on page 3](#) for information on the content structure within the XML file.

SUSE Linux Enterprise Server 15 SP2

IMPORTANT: ♦Ensure that you have installed the `libc60_2` package. If the package is not installed, then run the `zypper install libc60_2` command to install the package.

- ♦ Ensure that you create a symbolic link `"libhd.so.15"` in `/usr/lib64` using the following command. If the device does not have the `/usr/lib64/libhd.so.21.71` library, use the library that is available on the device.
`ln -s /usr/lib64/libhd.so.21.71 /usr/lib64/libhd.so.15`
-

```

<ostargets>
  <ostarget>
    <name>sles-15-x86_64</name>
    <product_name>SUSE Linux Enterprise Server 15</product_name>
    <platform>Linux</platform>
    <version>15</version>
    <arch>x86_64</arch>
    <vendor>SUSE</vendor>
    <support_pack>2</support_pack>
    <pkgmgr>rpm</pkgmgr>
    <primary_role>Server</primary_role>
    <detect>
      <![CDATA[<file source="/etc/os-release" substring="SUSE LINUX Enterprise
Server 15"/>]]>
    </detect>
  </ostarget>
</ostargets>

```

NOTE: To include the OS information of multiple platforms in the `ostargets.xml` file, refer to [“ostargets.xml Content Format” on page 3](#) for information on the content structure within the XML file.

SUSE Linux Enterprise Server 15 SP3

IMPORTANT: ♦ Ensure that you have installed the `libc60_2` package. If the package is not installed, then run the `zypper install libc60_2` command to install the package.

- ♦ Ensure that you create a symbolic link `"libhd.so.15"` in `/usr/lib64` using the following command. If the device does not have the `/usr/lib64/libhd.so.21.71` library, use the library that is available on the device.
`ln -s /usr/lib64/libhd.so.21.71 /usr/lib64/libhd.so.15`

```

<ostargets>
  <ostarget>
    <name>sles-15-x86_64</name>
    <product_name>SUSE Linux Enterprise Server 15</product_name>
    <platform>Linux</platform>
    <version>15</version>
    <arch>x86_64</arch>
    <vendor>SUSE</vendor>
    <support_pack>3</support_pack>
    <pkgmgr>rpm</pkgmgr>
    <primary_role>Server</primary_role>
    <detect><![CDATA[<file source="/etc/os-release" substring="SUSE LINUX
Enterprise Server 15" />]]></detect>
  </ostarget>
</ostargets>

```

NOTE: To include the OS information of multiple platforms in the `ostargets.xml` file, refer to [“ostargets.xml Content Format” on page 3](#) for information on the content structure within the XML file.

SUSE Linux Enterprise Server for SAP Applications 15 SP 3

```
<ostargets>
  <ostarget>
    <name>sles_sap-15-x86_64</name>
    <product_name>SUSE Linux Enterprise Server For SAP Applications 15</
product_name>
    <platform>Linux</platform>
    <version>15</version>
    <arch>x86_64</arch>
    <vendor>SUSE</vendor>
    <support_pack>3</support_pack>
    <pkgmgr>rpm</pkgmgr>
    <primary_role>Server</primary_role>
    <detect><![CDATA[<file source="/etc/products.d/baseproduct"
substring="SLES_SAP:15" />]]></detect>
  </ostarget>
</ostargets>
```

NOTE: To include the OS information of multiple platforms in the `ostargets.xml` file, refer to [“ostargets.xml Content Format” on page 3](#) for information on the content structure within the XML file.

SUSE Linux Enterprise Desktop 15 SP3

```
<ostargets>
  <ostarget>
    <name>sled-15-x86_64</name>
    <product_name>SUSE Linux Enterprise Desktop 15</product_name>
    <platform>Linux</platform>
    <version>15</version>
    <arch>x86_64</arch>
    <vendor>SUSE</vendor>
    <support_pack>3</support_pack>
    <pkgmgr>rpm</pkgmgr>
    <primary_role>Workstation</primary_role>
    <detect><![CDATA[<file source="/etc/os-release" substring="SUSE LINUX
Enterprise Desktop 15" />]]></detect>
  </ostarget>
</ostargets>
```

NOTE: To include the OS information of multiple platforms in the `ostargets.xml` file, refer to [“ostargets.xml Content Format” on page 3](#) for information on the content structure within the XML file.

Red Hat Enterprise Linux (RHEL) Server 9

For RHEL Server 9, the following content should be added in the `custom_ostargets.xml` file:


```

<ostarget>
  <name>rhel-9-x86_64</name>
  <product_name>Red Hat Enterprise Linux Server 9</product_name>
  <platform>Linux</platform>
  <vendor>RedHat</vendor>
  <version>9</version>
  <support_pack>3</support_pack>
  <arch>x86_64</arch>
  <pkgmgr>rpm</pkgmgr>
  <primary_role>Server</primary_role>
  <detect><![CDATA[<file source="/etc/redhat-release" substring="Red Hat
Enterprise Linux release 9" additionalSourceType="file" additionalSource="/etc/
rhsm/syspurpose/syspurpose.json" additionalSubstring="Red Hat Enterprise Linux
Server" />]]></detect>
</ostarget>

```

Red Hat Enterprise Linux (RHEL) Workstation 9

For RHEL Workstation 9, the following content should be added in the custom_ostargets.xml file:

```

<ostarget>
  <name>rhel-9client-x86_64</name>
  <product_name>Red Hat Enterprise Linux Workstation 9</product_name>
  <platform>Linux</platform>
  <vendor>RedHat</vendor>
  <version>9</version>
  <support_pack>3</support_pack>
  <arch>x86_64</arch>
  <pkgmgr>rpm</pkgmgr>
  <primary_role>Workstation</primary_role>
  <detect><![CDATA[<file source="/etc/redhat-release" substring="Red Hat
Enterprise Linux release 9" additionalSourceType="file" additionalSource="/etc/
rhsm/syspurpose/syspurpose.json" additionalSubstring="Red Hat Enterprise Linux
Workstation" />]]></detect>
</ostarget>

```

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