



Installation of non-default VxFS and VxVM software version on HP-UX 11i v3 2019 Operating Environment Update Release

Ver. 1.0

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Introduction

The default VxFS version for HP-UX 11i v3 2019 Operating Environment Update Release (OEUR) is VxFS 6.1. HP-UX 11i v3 2019 Operating Environment Update Release (OEUR) ships only VxFS/VxVM 6.1 products and does not include non-default versions of VxFS/VxVM (like 5.0, 5.0.1 or 5.1 SP1). You may refer to table in [Appendix section](#) that provides information about VxFS/VxVM products that are shipped with HP-UX 11i v3 2019 and prior OEUR. HP-UX 11i v3 2019 OEUR installation requires VxFS 6.1 to be selected by default.

There are situations where the default VxFS 6.1 should not be installed. For example:

- VxFS 6.1 is only supported and installable on Itanium 9500 Processor Series-based platforms or later. Systems based on older processor platforms must run a previous version of VxFS supported on HP-UX 11i v3 (e.g. VxFS 5.1SP1).
- VxFS/VxVM 6.1 is integrated with Serviceguard Storage Management Suite (SG/SMS) A.05.00 or later. Systems that are part of a cluster running SG/SMS A.04.0x or earlier must run a previous version of VxFS/VxVM for compatibility unless SG/SMS is also updated to A.05.00 together.

There might be a business need to do a cold installation of HP-UX 11i v3 2019 OEUR on pre-Intel Itanium 9500 Processor Series-based platforms or update OE on a system with the existing version of VxFS/VxVM unchanged.

This paper provides instructions for the following:

- Updating a system to HP-UX 11i v3 2019 OEUR without updating the existing installed version of VxFS and VxVM (4.1 or 5.0 or 5.0.1 or 5.1 SP1)
- Cold installation of HP-UX 11i v3 2019 OEUR with 4.1 or 5.0 or 5.0.1 or 5.1 SP1 version of VxFS and VxVM (which are not default included in 11i v3 2019 OEUR) using customized depot

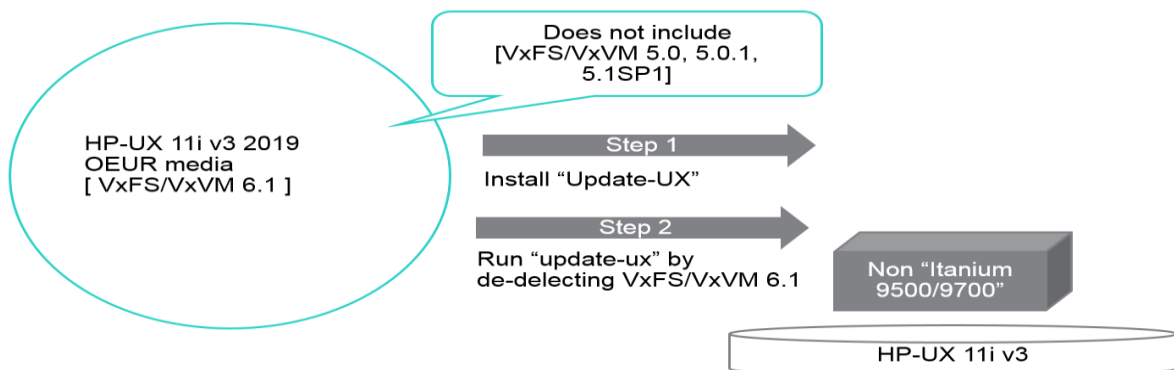
IMPORTANT NOTES:

- In HP-UX 11i v3 2019 OEUR, VxFS version 6.1 is installed by default. "Base-VxFS-61" is now a "Required" bundle of the OEUR and cannot be de-selected during cold install.
- VxFS/VxVM version 6.1 products are supported and installable only on Intel Itanium 9500 Processor Series-based platforms or later
- During an update to HP-UX 11i v3 2019 OEUR, "Base-VxFS-61" can be de-selected if you need to have the existing version of VxFS unchanged. If you do not de-select, VxFS will be upgraded to VxFS 6.1 from older version on Intel Itanium 9500 Processor Series-based platforms or later

For more information on VxFS/VxVM 4.1 or 5.0 or 5.0.1 or 5.1 SP1 or 6.1 see the Release Notes of the respective versions available at: <http://www.hpe.com/info/hpux-LVM-VxVM-docs>.

Update to HP-UX 11i v3 2019 OEUR on systems without updating to 6.1 versions of VxFS/VxVM

To update a system to HP-UX 11i v3 2019 OEUR and continue using the non-default version of installed VxFS/VxVM, you must complete the [steps](#) provided in this section.



You can update the target system to HP-UX 11i v3 2019 OEUR and continue using the non-default version of installed VxFS/VxVM with steps as given below:

1. Install the latest version of Update-UX product on the target system from HP-UX 11i v3 2019 OEUR DVD. Insert HP-UX 11i v3 2019 OEUR DVD in DVD drive


```
# mount <h/w path of DVD> /dvdrom
# swinstall -s /dvdrom Update-UX
```
2. Run update-ux by explicitly de-selecting VxFS/VxVM 6.1.


```
# update-ux -s dvdrom OE_Identifier !Base-VxFS-61 !Base-VxTools-61 !Base-VxVM-61 !B3929IB
```

 - The *OE_Identifier* is HPUX11i-BOE or HPUX11i-VSE-OE or HPUX11i-HA-OE or HPUX11i-DC-OE.

Note:

If you want to update a system to VxFS/VxVM 5.x & HP-UX 11i v3 2019 OEUR from a prior version of VxFS/VxVM & prior version of HP-UX 11i v3 OEUR, then it is advised to upgrade first VxFS/VxVM version as described in Veritas Installation Guide and then update the OE to HP-UX 11i v3 2019 OEUR as described above.

VxVM version 6.1 is included in the HP-UX 11i v3 2019 OEURs or AR media. VxVM 6.1 bundles should be explicitly de-selected to avoid inadvertently upgrading to VxVM 6.1.

OnlineJFS 6.1 (B3929IB) is a “Recommended” bundle and will be installed by default in the DC-OE, VSE-OE, and HA-OE.

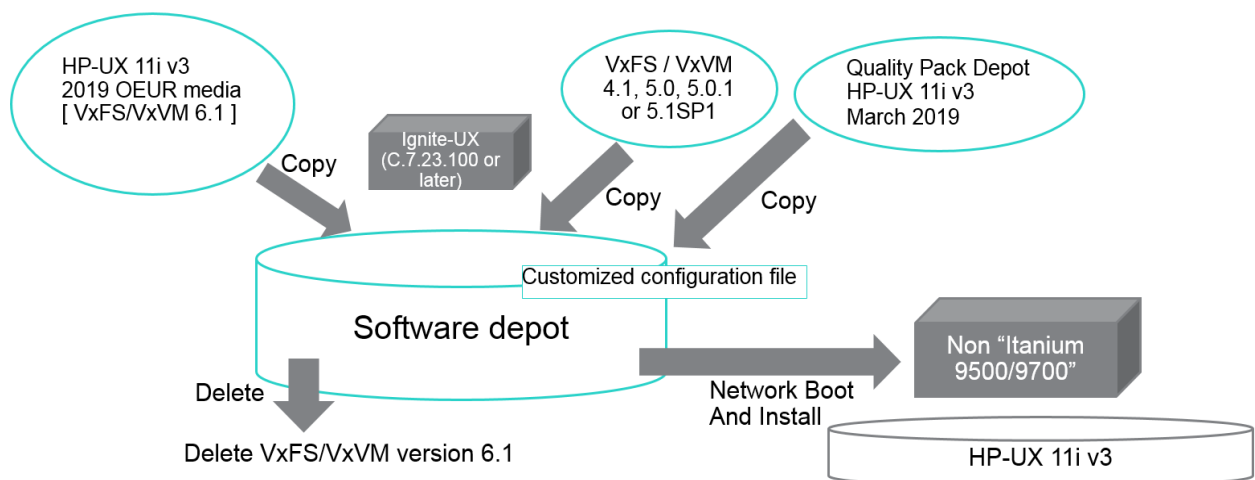
Caution:

If you choose to create a customized depot for update by simply copying HP-UX 11i v3 2019 OEUR into an SD depot & adding VxVM 5.1SP1 patches, then ensure to include PHKL_44775 VRTS 5.1 SP1RP3P10 VRTSvxvm Kernel Patch or later & PHCO_44774 VRTS 5.1 SP1RP3P10 VRTSvxvm Command Patch or later. This is required to avoid ending up with an updated system that would have VRTSvxfs 5.1 SP1 and VRTSvxvm 6.1, which is an unsupported incompatible configuration.

Cold-Install of HP-UX 11i v3 2019 OEUR with Non-default VxFS/VxVM from an Ignite-UX Server

This section describes the process to cold-install a system with HP-UX 11i v3, with Veritas VxFS and VxVM version 4.1 or 5.0 or 5.0.1 or 5.1 SP1, using an Ignite-UX server. It is assumed that some depot servers must have been set up containing two depots, one with the HP-UX 11i v3 2019 Operating Environment (OE) containing VxFS 6.1 and VxVM 6.1, and one with the Veritas VxFS/VxVM 4.1 or 5.0 or 5.0.1 or 5.1 SP1 software. Note that Veritas VxVM 6.1 and VxFS 6.1 are included in the 11i v3 OE starting in 2018 OEUR and VxFS/VxVM 4.1 or 5.0 or 5.0.1 or 5.1 SP1 needs to be copied from Software Depot at <https://h20392.www2.hp.com/portal/swdepot/index.do>

Note: Ensure to copy the needed patches of the respective versions of VxFS or VxVM from Quality Pack Depot for HP-UX 11i v3, March 2019 at <http://www.hp.com/support/hpesc> into the depot containing VxFS and VxVM version 4.1 or 5.0 or 5.0.1 or 5.1 SP1 so that all of them can be installed in one reboot.



Preparing the Ignite-UX Server

To prepare the Ignite-UX server:

1. Enter the `swinstall` command to install Ignite-UX version C.7.23.100 or later (to be downloaded from Software Depot at <https://h20392.www2.hp.com/portal/swdepot/index.do>) on an Ignite-UX server.
You can confirm the Ignite software version:
`swlist | grep -i ign`, or by viewing the contents of the `/opt/ignite/Version` file.
2. Copy the HP-UX 11i v3 2019 OEUR into a SD depot `<1131_customOE_depot>`
3. Delete the VxFS and VxVM version 6.1 bundles from the depot (created in step 2):
`swremove -d -x enforce_dependencies=false B3929IB Base-VxFS-61 Base-VxTools-61 Base-VxVM-61 \`
@ `<1131_customOE_depot>`
4. Create the configuration file for the HP-UX 11i v3 OE depot:
 - A. # `cd /var/opt/ignite/data/Rel_B.11.31`
 - B. # `/opt/ignite/bin/make_config \`
-x `allow_missing_content \`
-s `<depot_server>:<1131_customOE_depot> \`
-c `<OE_config_filename>_cfg`
 - C. Test the configuration file:
`/opt/ignite/bin/instl_adm -T -f <OE_config_filename>_cfg`

IMPORTANT NOTES:

- The option “-x allow_missing_content” is needed as “Base-VxFS-61” is now a “Required” bundle and this procedure is replacing the “Required” VxFS bundle from the OE with a different version.
- When such a configuration is created, the following warning messages are displayed:

```
WARNING: Required content:"Base-VxFS-61" of OE:"HPUX11i-VSE-OE" was not found in the depot.
WARNING: Recommended content: "B3929IB" of OE: "HPUX11i-VSE-OE" was not found in the depot.
NOTE: Optional content: "Base-VxTools-61" of OE: "HPUX11i-VSE-OE" was not found in the depot.
NOTE: Optional content: "Base-VxVM-61" of OE: "HPUX11i-VSE-OE" was not found in the depot.
```

These are expected as we are intentionally changing the version of VxFS in the Ignite-UX depot.

5. Copy 4.1 or 5.0 or 5.0.1 or 5.1 SP1 software into a SD depot. (Copy only one/same version of VxFS/VxVM into the depot. Do not use multiple versions VxFS/VxVM as such depot can lead to unsupported configuration)
6. Download Quality Pack Depot for HP-UX 11i v3, March 2019 from <http://www.hp.com/support/hpesc> and copy the bundles into the Veritas depot created in the above step..

```
# swcopy -x enforce_dependencies=false -s <depot location of quality pck> QPKBASE QPKAPPS \
@ <1131_Vx*41_OR_50_OR_501_OR_51_QPK_depot>
```

7. Create the configuration file for the depot created above (`1131_Vx*41_50_501_51_QPK_depot`)
 - i. # `cd /var/opt/ignite/data/Rel_B.11.31`
 - ii. # `/opt/ignite/bin/make_config \`
-s `<1131_Vx*41_OR_50_OR_501_OR_51_QPK_depot>`-c `<Veritas_QPK_config_filename>_cfg`
 - iii. # `vi <Veritas_QPK_config_filename>_cfg`
sw_source "`<1131_Vx*41_OR_50_OR_501_OR_51_QPK_depot>`" {
 source_type = "NET"
 sd_server = "xx.xx.xx.xx"
 sd_depot_dir = "`<1131_Vx*41_OR_50_OR_501_OR_51_QPK_depot>`"
 source_format = SD
 load_order = 1
}



- iv Test the configuration file:


```
# /opt/ignite/bin/instl_adm -T -f <Veritas_QPK_config_filename>_cfg
```
- 8. Combine both configuration files into one Ignite-UX INDEX configuration clause:
 - i.

```
# vi /var/opt/ignite/INDEX
```
 - ii. Append a new configuration clause:


```
cfg "HP-UX B.11.31_May2019_OE-Vx41_50_501_51" {
description "B.11.31_2019_OE-Vx41_50_501_51 – 2 depots"
"/opt/ignite/data/Rel_B.11.31/config"
"/var/opt/ignite/data/Rel_B.11.31/<OE_config_filename>_cfg"
"/var/opt/ignite/data/Rel_B.11.31/<Veritas_QPK_config_filename>_cfg"
"/opt/ignite/data/Rel_B.11.31/hw_patches_cfg"
"/var/opt/ignite/config.local"
}
```
 - iii. Test all the configuration files in the INDEX file:


```
# /opt/ignite/bin/instl_adm -T
```
- 9. If you plan to LAN boot the client, add its boot entry in the appropriate file on the server. This step is not required if you plan to initiate the cold-install from the Ignite-UX server and the client is up.
 - A. For an Intel® Itanium®-based client:
 - i.

```
# vi /etc/bootptab
```
 - ii. Update the System-IPF entry with client_hostname and other relevant values.
 - B. For PA-RISC client:
 - i.

```
# vi /etc/opt/ignite/instl_boottab
```
 - ii. Append an entry for the client using the following format:


```
<client_IP_addr>:<client_MAC_addr>::reserve # <client_hostname>
```

Cold-installing the client

To cold-install the client:

1. Boot the client, whose hardware supports B.11.31. For a list of supported systems, see the HP-UX Server Support Matrix at <http://www.hpe.com/info/hpuxservermatrix>.
2. Use Ignite-UX to cold-install using the two depots referenced in the Ignite-UX server INDEX configuration clause created in previous section. On the Basic tab Configurations line, make your selection, such as "HP-UX B.11.31_2019_OE-Vx41_50_501_51"
3. Use the Ignite-UX interface to select the volume manager. On the Basic tab File System line, select the following: VERITAS Volume Manager (VxVM) with VxFS
4. Use the Ignite-UX interface to select the respective version of VxVM and VxFS software as needed. On the Software tab, select the following:

CASE A: For VxFS/VxVM 4.1

Base-VXFS Base VxFS File System 4.1 Bundle for HP-UX

Base-VXVM Base VERITAS Volume Manager Bundle 4.1 for HP-UX

CASE B: For VxFS/VxVM 5.0

Base-VxFS-50 Veritas File System Bundle 5.0 for HP-UX

Base-VxTools-50 VERITAS Infrastructure Bundle 5.0 for HP-UX

Base-VxVM-50 Base VERITAS Volume Manager Bundle 5.0 for HP-UX

CASE C: For VxFS/VxVM 5.0.1

Base-VxFS-501 Veritas File System Bundle 5.0.1 for HP-UX



Base-VxTools-501 VERITAS Infrastructure Bundle 5.0.1 for HP-UX
 Base-VxVM-501 Base VERITAS Volume Manager Bundle 5.0.1 for HP-UX

CASE D: For VxFS/VxVM 5.1 SP1

Base-VxFS-51 Veritas File System Bundle 5.1 SP1 for HP-UX
 Base-VxTools-51 VERITAS Infrastructure Bundle 5.1 SP1 for HP-UX
 Base-VxVM-51 Base VERITAS Volume Manager Bundle 5.1 SP1 for HP-UX

5. Make any other configuration choices needed using the Ignite-UX interface and then select Go to cold-install the client.

Note: You may see the following warning message as part of the Installation. This is expected and can be ignored.

WARNING: The following was found while selecting software:
 No software in the source depot was found to match the following software specs:

Base-VxFS-61,r=B.06.10.03,a=HP-UX_B.11.31_IA/PA,v=HP

Confirming the Client

After the system boots, confirm the client has the intended software and configuration. To confirm the software and the configuration:

1. Confirm the hostname:

```
# hostname
```

The output of the above command shows the hostname:

```
# hostname
```

```
server1
```
2. Confirm the OE version:

```
# swlist | grep HPUX | grep OE
```

The output of the above command shows the OE version currently installed on the system:

```
# swlist | grep HPUX | grep OE
```

```
HPUX11i-DC-OE B.11.31.1905 HP-UX Data Center Operating Environment
```
3. Confirm installation of the Base VERITAS Volume Manager Bundle for HP-UX 11i v3:

CASE A: For VxVM 4.1

```
# swlist Base-VXVM
```

CASE B: For VxVM 5.0

```
# swlist Base-VxVM-50
```

CASE C: For VxVM 5.0.1

```
# swlist Base-VxVM-501
```

CASE D: For VxVM 5.1 SP1

```
# swlist Base-VxVM-51
```

The output of the above command shows the details of the VxVM product installed on the system.

4. Confirm installation of the VERITAS File System Bundle for HP-UX 11i v3:

CASE A: For VxFS 4.1

```
# swlist Base-VXFS
```

CASE B: For VxFS 5.0

```
# swlist Base-VxFS-50
```

CASE C: For VxFS 5.0.1

```
# swlist Base-VxFS-501
```

CASE D: For VxFS 5.1 SP1

```
# swlist Base-VxFS-51
```

The output of the above command shows the details of the VxFS product installed on the system.



Appendix

HP-UX 11i v3 2019 OEUR includes the following bundles:

- VxFS 4.1 (Base-VXFS bundle) — required* and installed in all OEs
- OnlineJFS 4.1 (B3929EA bundle) — optional*** in all OEs
- VxFS 6.1 (Base-VxFS-61 bundle) — required* and installed in all OEs
- OnlineJFS 6.1(B3929IB bundle) —recommended** and installed in DCOE,VSEOE and HAOE(default)
- VxVM 6.1 (Base-VxVM-61 bundle) — optional*** in all OEs

* Required – A bundle which is always selected and cannot be de-selected from OEUR

** Recommended – A bundle which is automatically selected for installation but can be de-selected by user

*** Optional – A bundle which is not automatically selected for install. Users need to explicitly select the same for installation.

As described above, among the above VxFS/VxVM products shipped with the OEUR, some are required (thus always selected) to be installed with all OE bundles while some are optional (selectable). The following table provides a more detailed comparison among earlier OEURs.

HP-UX OEUR - May 2018 to May 2019

| Shipped VxFS Bundles | Comments |
|-------------------------|--|
| Base-VXFS (VxFS 4.1) | Required and Always Installed |
| B3929EA (OnlineJFS 4.1) | Optional (Installed only if explicitly selected) |
| Base-VxFS-61 (VxFS 6.1) | Required and Always Installed |
| B3929IB (OnlineJFS 6.1) | Recommended Default Installed in all OE's (except BOE) |

HP-UX OEUR - March 2014 to May 2017

| Shipped VxFS Bundles | Comments |
|-----------------------------|--|
| Base-VXFS (VxFS 4.1) | Required and Always Installed |
| B3929EA (OnlineJFS 4.1) | Optional (Installed only if explicitly selected) |
| Base-VxFS-51 (VxFS 5.1 SP1) | Required and Always Installed |
| B3929HB (OnlineJFS 5.1 SP1) | Recommended Default Installed in all OE's (except BOE) |

HP-UX OEUR - March 2012 to March 2013

| Shipped VxFS Bundles | Comments |
|------------------------------|--|
| Base-VXFS (VxFS 4.1) | Required and Always Installed |
| B3929EA (OnlineJFS 4.1) | Optional (Installed only if explicitly selected) |
| Base-VxFS-5.0.1 (VxFS 5.0.1) | Required and Always Installed |
| B3929GB (OnlineJFS 5.0.1) | Recommended Default Installed in all OE's (except BOE) |

HP-UX OEUR - Prior to March 2012

| Shipped VxFS Bundles | Comments |
|------------------------------|--|
| Base-VXFS (VxFS 4.1) | Required and Always Installed |
| B3929EA (OnlineJFS 4.1) | Optional (Default Installed in all OE's (except BOE)) |
| Base-VxFS-5.0.1 (VxFS 5.0.1) | Optional - Recommended (from 1109 and onwards) |
| B3929GB (OnlineJFS 5.0.1) | Recommended Default Installed in all OE's (except BOE) |
| Base-VxFS-5.0 (VxFS 5.0) | Optional (Default Installed from 0909 to 1103) |
| B3929FB (OnlineJFS 5.0) | Optional (Default Installed from 0909 to 1103 in all OE's except BOE)] |



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