HP-UX 11i version 3 Operating Environment Update Release (OEUR) for March 2013

The latest release of HP-UX 11i v3 March 2013 Operating Environment Update Release ("March 2013 HP-UX OEUR" or HP-UX 11i v3) is now available for HP Integrity (Intel® Itanium® based) systems. New enhancements are provided: to simplify and unify IT (system management); and for: always-on resiliency (high availability and security); dynamic optimization (virtualization and infrastructure management); and investment protection (development tools and server pre-enablement). The March 2013 HP-UX OEUR is available to customers with a valid support agreement. The information in this document is intended to assist in determining whether this release is right for you. This update to HP-UX 11i v3 is known by both of the following names:

<table>
<thead>
<tr>
<th>Name</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-UX 11i version 3 March 2013 update</td>
<td>Standard name and DVD labels</td>
</tr>
<tr>
<td>HP-UX 11.31</td>
<td>VUF name</td>
</tr>
</tbody>
</table>

**Important Changes and Notes:**

**Electronic Software Notifications and Delivery**

As of June 2012, the HP-UX 11i v3 electronic software delivery model has been extended from Americas, Europe, Middle East and Asia, to include China and Japan. The download consists of ISO images of each OE. Each ISO image is burned to DVD at the customer's site, and then installed in the same manner as the physical DVDs. Electronic licenses and media are quoted and ordered from the price list in the same manner as the physical licenses and media.

Since July 2011, all software update notifications and most deliveries are provided electronically. As a result of moving to electronic software downloads, shipments of software media kits are no longer widely available.

*Note: Operating Environment / Operating System Products - HP-UX, OpenVMS, True64 will continue to be available in both physical and electronic delivery form.*

**Obsolete and removed from OE media (starting March 2013):**

TC097AA (Older version of HP Operations Agent) will no longer be shipped on OE media. This has been replaced by TC097CA on the OE media.

TC097CA is Version 11.11 of HP Operations Agent. It helps you monitor the health and performance of the system. With additional licenses, you can use the HP Operations agent in an environment managed by HP Operations Manager (HPOM). This has been added as a recommended (default-installed) product in the DC-OE, HA-OE, and VSE-OE of 1303. See HP Operations agent release notes at http://h20230.www2.hp.com/selfsolve/manuals. (Requires HP Passport after logging in, search for “Operations Agent.”)
What's New:

- Some of the most impactful enhancements in the HP-UX 11i v3 March 2013 update release include:
- **Reduce planned downtime of Superdome 2** system maintenance and updates with faster SoftReboot (supported by Dynamic Root Disk).
- **Enhance security** with HP Secure Development Lifecycle Code Signing for guaranteed verification of authentic HP software
- **Transition secure HP 9000 environments:** With new “trusted mode” support, consolidate HP 9000 servers with enhanced security onto HP Integrity servers
- Increase server availability with vPars v6.2 dynamic memory by reconfiguration
- Increase availability of virtualization workload availability by doubling the storage access paths per VM to your storage
- Reduce costs by enabling vPars and VMs to coexist on the same server or hard partition (nPartition).
- Reduce costs by flexing and sharing I/O with new Emulex FibreChannel cards that virtualize Fibre Channel (through N-Port ID Virtualization.)
- Support boot disks up to 16 TB.
- Easier troubleshooting during boot up with monitoring & notification of IPMI events logged before boot up is completed
- Unicode 6.1 support

Detailed information on the changes in the March 2013 HP-UX OEUR can be found at www.hp.com/go/hpux-core-docs. Select the HP-UX 11i Version 3 September 2012 Release Notes and begin with Chapter 3: "What is New at a Glance."

Other OE product structure and delivery notes:

Virtualization:

- HP Online Migration software (T8717AC) remains available for stand-alone purchase, or as part of: HP-UX 11i v3 VSE-OE or DC-OE, or the Matrix OE.
- Stand-alone, electronically-delivered Integrity Virtual Machines v4.3 is required for those customers needing support for: Virtual I/O, legacy DSF files or OpenVMS guests. The software download includes both HPVM v4.3 and also the HP-UX 11i v3 Base Operating Environment (based on the required September 2011 release). **Note: factory integration is no longer available for this product.**
- HP-UX Virtual Partitions (vPars) v5 will continue to exist on the OEs, as an alternative option for Superdome 2 servers, and factory integration remains available for this product on either the stand-alone product (T1335DC), or with the HP-UX 11i v3 VSE-OE or DC-OE.
**Filesystem Enhancement for POSIX AIO**

- POSIX AIO provides a mechanism to wait for the completion of multiple Asynchronous I/O (AIO) requests through a system call, `aio_reap(2)`.
- AioEnh delivers the POSIX AIO functionality wherein `aio_reap(2)` waits for the completion of specified number of AIO requests when the outstanding AIO requests are less than the number of I/O requests that `aio_reap(2)` has been asked to reap. This avoids the need for multiple `aio_reap(2)` calls to reap all the requests.

**PCIInfo-00**

- A new PCI ID Information Driver (PCIInfo-00) was added to the Operating Environment.
**HP-UX Updates**

**Release Roadmap for HP-UX 11i v1, v2 and v3**

We are committed to providing our customers with new functionality to meet the needs of today's enterprises. To best meet these needs and assist our customers for planning purposes, the current HP-UX Update release schedule is noted below. *(Please note that the information in this chart is subject to change without notice, and will be updated by HP as needed on a quarterly basis)*:

<table>
<thead>
<tr>
<th>HP-UX 11i version</th>
<th>Ship Timeframe</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-UX 11i v1</td>
<td>December 2009</td>
<td>HP updated the Quality Pack (QPK) patch bundles for HP-UX 11i v1. The HP-UX 11i v1 QPK is available on Support Plus media to all customers under a then current support agreement. The HP-UX 11i v1 QPK is also available via the ITRC web site at: <a href="http://www.hp.com/go/hpsc">http://www.hp.com/go/hpsc</a></td>
</tr>
<tr>
<td>HP-UX 11i v2</td>
<td>December 2010</td>
<td>This is a reminder to our valued HP-UX customers that HP-UX 11i v2 reached End of Sales on 31 December 2010. HP recommends that customers running HP-UX 11i v2 upgrade to HP-UX 11i v3. Please visit <a href="http://www.hp.com/go/hpux11iv2">www.hp.com/go/hpux11iv2</a> for more information. HP provided the final update to HWEnable11i and Quality Pack (QPK) patch bundles for HP-UX 11i v2 in December 2010. The Support Pack media is available to customers under a current support agreement. HP-UX systems shipped from HP with Instant Ignition option will have June 2008 OE release and Dec. 2010 QPK bundles after this date. Optional Core Enhancements for HP-UX 11i v2 is also available on Support Pack media. The HP-UX 11i v2 HWE and QPK bundles are also available via the ITRC web site at: <a href="http://www.hp.com/go/hpsc">http://www.hp.com/go/hpsc</a></td>
</tr>
<tr>
<td>HP-UX 11iv3</td>
<td>September 2011</td>
<td>Full update release * of HP-UX 11i v3 delivered on the new HP-UX 11i v3 Operating Environments only</td>
</tr>
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<tr>
<td>HP-UX 11i v3</td>
<td>March 2014 (Planned Ship Release Date)</td>
<td>Full update release * of HP-UX 11i v3 planned to be delivered on the new HP-UX 11i v3 Operating Environments only</td>
</tr>
</tbody>
</table>

* Full update release: Update to the Operating Environment (OE), Quality Pack (QPK) patch bundles, Hardware Enablement (HWE) patch bundle, and Software Pack (SPK) media for the designated OS version. The Application Release (AR) is updated only for HP-UX 11iv3 Release.
Discontinuance Strategy for HP-UX 11i v1, v2, and v3

The following table shows the current discontinuance (removal from the Corporate Price List) and end of factory support dates for current HP-UX 11i releases:

<table>
<thead>
<tr>
<th>HP-UX Version</th>
<th>Introduction Date</th>
<th>End of Sales</th>
<th>End of Factory Support *</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-UX 11i v3 ***</td>
<td>February-2007</td>
<td>31-December-2014</td>
<td>31-December-2020 (on HP 9000 servers)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31-December-2017</td>
<td>31-December-2022 (on HP Integrity servers)</td>
</tr>
<tr>
<td>11i v2</td>
<td>September-2003</td>
<td>31-December-2010</td>
<td>31-December-2015****</td>
</tr>
<tr>
<td>11i v1</td>
<td>December-2000</td>
<td>31-December-2009</td>
<td>31-December-2015****</td>
</tr>
<tr>
<td>11i v1 Workstation **</td>
<td>December-2000</td>
<td>31-December-2007</td>
<td>31-December-2013</td>
</tr>
<tr>
<td>11.0</td>
<td>November-1997</td>
<td>1-February-2005</td>
<td>31-December-2006</td>
</tr>
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Discontinuance Strategy for HP-UX 11i v1, v2, and v3

The following table shows the current discontinuance (removal from the Corporate Price List) and end of factory support dates for current HP-UX 11i releases:

* Support no longer available from HP Factory Support, but Limited Support may be offered for an additional duration.
** End of Sales date for HP PA-RISC Workstations was December 31, 2007. HP will take orders on a material available basis through this date. End of Factory Support for HP-UX 11i v1 on Workstations is December 31, 2013.
*** End of Sales date for the original OE product offering for HP-UX 11i v3 OE's i.e.: FOE, TCOE, EOE, was January 1, 2009
**** Previous Version Support with Sustaining Engineering (PVS w SE) will be offered for HP-UX 11i v1 and 11i v2 for the period 1st Jan 2014 to 31st Dec 2015.

Please note that the end of sales and end of factory support information in the above chart is subject to change without notice, and will be updated by HP as needed.
What's Planned for Future HP-UX 11i v3 Releases:

Replacing VxFS/VxVM 5.0.1 with VxFS/VxVM 5.1SP1 in OEUR”

VxFS/VxVM 5.0.1 continues to be the default version installed with the March 2013 update of HP-UX 11i v3. There are plans to replace VxFS/VxVM 5.0.1 with VxFS/VxVM 5.1SP1 in an upcoming HP-UX 11i v3 release update.

VxFS Disk Layout Version (DLV) 4 & 6 Deprecation announcement

Disk layout version (DLV) 4 & 6 will be deprecated in future versions of VxFS, meaning that file systems can no longer be created with DLV 4 or 6. Mounting of any existing file system at DLV 4 or 6, however, will continue to be supported for migration purposes only. As such, VxFS 5.1SP1 will be the last version on HP-UX 11i v3 to fully support DLV 4 and 6, including both file system creation and mounting.

HP recommends using DLV 7 or later for all file systems except for file systems containing kernel configurations, typically under the '/stand' directory. The HP-UX boot loader has a dependency on DLV 5 so file systems containing kernel configurations for booting must remain at DLV 5.

Please refer to "Veritas File System 5.1 SP1 Administrator's Guide HP-UX 11i v3" for a list of supported disk layout versions.

VFS-SHWRSPL-ENH has been added as an optional product in March 2013 OEUR

VFS-SHWRSPL-ENH bundle delivers the product VfsShwrspEnh, which uses new lock interfaces from the SyncShwrsp product to enhance the pathname traversal component of the HP-UX kernel to reduce vnode spinlock contention on Superdome servers (Single npar or stand lone system, having more than 128 processing units)

HP-UX Tomcat 5.5.x bundled with Apache-based Web Server v.3.x on HP-UX 11iv3 ends support starting March 2013.

Starting April 2013, HP-UX Tomcat 5.5.x bundled with Apache-based Web Server v.3.x will no longer be supported by HP on HP-UX 11iv3 and it will be replaced by newer HP-UX Tomcat 6.x version, which is based on ASF Tomcat 6.x version. Tomcat 6.x version is targeted to be the default version in HP-UX 11iv3 1303 Fusion release instead of Tomcat 5.5.x version.

It is recommended to migrate to the newer HP-UX Tomcat-based Servlet Engine v.6.0.35.x version available to download from HP. Migration guide from Tomcat 5.5.x to Tomcat 6.0.x is available at http://tomcat.apache.org/migration-6.html

HP-UX Tomcat-based Servlet Engine v.7.0.x version based on ASF Tomcat 7.0.x version for HP-UX 11iv3 is targeted for web release by March 2013.

Please note that Tomcat 5.5.x will continue to be supported on HP-UX 11i v1 and v2 till their respective support timelines or until further notice.
**WhiteListInf has been added as a required (always installed) bundle in March 2013 OEUR**


**HP-UX XNTP (Network Time Protocol)**

“HP-UX XNTP (Network Time Protocol) 3.5 will not be supported on HP-UX 11i v3 from April 2014. 11iv3 1403 Fusion Release will have NTP 4.2 as the replacement version for XNTP 3.5.

Please note that XNTP 3.5 will continue to be supported on HP-UX 11i v1 and v2 till their respective support timelines or until further notice.”

**PHP:**

HP-UX PHP 5.2.x bundled with Apache-based Web Server v.3.x on HP-UX 11iv3 ends support starting September 2013.

Starting 11.31 1403 Fusion, HP-UX PHP 5.2.x bundled with Apache-based Web Server v.3.x will no longer be supported by HP on HP-UX 11iv3 and it will be replaced by newer HP-UX PHP 5.4.x version, which is based on PHP 5.4.x version. PHP 5.4.x version is targeted to be the default version in HP-UX 11iv3 1403 Fusion release instead of PHP 5.2.x version.

It is recommended to migrate to the newer HP-UX PHP 5.4.x version available to download from HP. Migration guides are available for PHP 5.2.x to PHP 5.4.x migration at http://php.net/manual/en/migration53.php and http://php.net/manual/en/migration54.php.

Please note that PHP 5.2.x will continue to be supported on HP-UX 11i v1 and v2 till their respective support timelines or until further notice.

**Bind:**

HP-UX BIND 9.3.2 will not be supported on HP-UX 11i v3 after April 2014

From now till the end of February, 2014 the HP-UX BIND 9.3.2 11i v3 releases will only consist of fixes to critical defects. It is recommended to migrate to the newer BIND version "HP-UX BIND 9.7.3".

Please note that BIND 9.3.2 will continue to be supported on HP-UX 11i v1 and 11iv2 till their respective support timelines or until further notice.
Online communications for other future plans

Plans for future releases will be provided through our online communications at: http://www.hp.com/softwarereleases/releases-media2 within the:

- Software Update News
- Software Update by Platform
  - Current HP-UX update releases
  - Prior HP-UX update releases
  - HP-UX Web and Independent Releases
- Related links
  - HP-UX availability matrix overview
  - HP-UX release history
  - Software depot web site
  - HP Business Support Center (Firmware and drivers)