HP-UX 11i version 3 Operating Environment Update Release (OEUR) for March 2009

We are pleased to announce the latest release of HP-UX 11i v3 March 2009 Operating Environment Update Release ("March 2009 HP-UX OEUR" or HP-UX 11i v3 Update 3). This latest update offers important new features for both users of HP Integrity (Intel® Itanium® based) systems and HP 9000 (PA-RISC based) systems. The March 2009 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 2009 update</td>
<td>Standard name and DVD labels</td>
</tr>
<tr>
<td>HP-UX 11.31</td>
<td>VUF name</td>
</tr>
</tbody>
</table>

Beginning in February 2009, HP only offers the new HP-UX 11i v3 Operating Environments which were introduced in March 2008. These new operating environments offer a broader set of software, extending the OE’s integration, testing, and ease of deployment to include mission-critical virtualization. The new Operating Environments for HP-UX 11i v3 are:

<table>
<thead>
<tr>
<th>Operating Environment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base OE</td>
<td>Base OE (BOE) provides an integrated HP-UX operating environment for customers requiring less complex installations.</td>
</tr>
<tr>
<td>Virtual Server OE</td>
<td>Virtual Server OE (VSE-OE) is designed for customers seeking higher resource utilization or who are embarking on consolidation projects and need virtualization for a flexible UNIX environment.</td>
</tr>
<tr>
<td>High Availability OE</td>
<td>High Availability (HA-OE) is designed for customers requiring continuous access to data and applications, and delivers the protection of Serviceguard and related software.</td>
</tr>
<tr>
<td>Data Center OE</td>
<td>Data Center OE (DC-OE) delivers built-in business-critical virtualization, featuring HP Serviceguard—the most widely used cluster software in the industry—HP’s leadership Virtual Server Environment components, and the complementary software to ensure uninterrupted and optimized data center technology.</td>
</tr>
</tbody>
</table>

The four HP-UX 11i v3 OEs listed above reduce software costs up to 52% compared to purchasing the software stand-alone, while eliminating stand-alone software support cost for software now included in the OEs. More information about these OE’s (including detail on their contents) can be found at: [www.hp.com/go/hpux11ioe](http://www.hp.com/go/hpux11ioe)

Customers that have original HP-UX 11i Operating Environments under support contracts and/or under Software Update Service can move to the new HP-UX 11i v3 Operating Environments for no additional cost, while receiving additional software in all transition cases. HP grants access for systems that have HP-UX 11i Operating Environments under support contracts and/or under Software Update Service to install...
and use the additional products included in the HP-UX 11i v3 operating environments according to the ‘original HP-UX 11i OE to HP-UX 11i v3 OE’ transition mapping below.

- Systems with Foundation OE licenses under support may request and use the Base OE media and any additional products included therein
- Systems with Technical Computing OE licenses under support may request and use the Base OE media and any additional products included therein
- Systems with Enterprise OE licenses under support may request and use the Virtual Server OE media and any additional products included therein
- Systems with Mission Critical licenses under support may request and use the Data Center OE media and any additional products included therein

Customers can maintain their current configuration with the same software as the original OEs by deseleting the additional software included in the new v3 OEs, or they may elect to take advantage of the additional products, for which HP grants the rights to use for systems that have original OEs under support. Note: customers are granted rights to use the additional software products only in conjunction with a new HP-UX 11i v3 OE installation, and not as an independent software install loaded on an original OE. More information on transitioning to the new HP-UX 11i v3 Operating Environments can be found at: www.hp.com/go/tov3oes

**Key Features in HP-UX 11i v3 Update 4**

The HP-UX 11i v3 Update 4 delivers important new enhancements designed to cut costs, not confidence, from your mission-critical environment. Additionally, new features to avoid downtime and risk translate to avoided costs, and performance enhancements drive productivity and growth.

**Enhancements to cut costs**

- Dynamic p-states feature adds new controls to reduce active processor energy use: go green with HP-UX 11i v3’s savings from power-managed processors, I/O and cells
- Mass Storage Stack enhancements include SAN port congestion relief that enables less costly storage provisioning with higher performance
- New mediainit option provides built-in disk sanitization, for DoD-compliant erase-in-place convenience

**Enhancements to avoid and minimize downtime and risk**

- Integrity Online VM Migration enables guest migration with no downtime
- Serviceguard 11.19 delivers 83% faster failover, complete elimination of planned downtime associated with cluster maintenance and configuration, and fully integrated advanced resource management to eliminate custom scripting, avoid human error and ensure a fully supported environment
- Serviceguard Enterprise Cluster Master Toolkit now includes toolkits for DB2, Sybase and MySQL at no extra charge, and speeds deployment of Oracle ASM into a cluster by 13%
- Dynamic Root Disk (DRD) now enables online upgrades from HP-UX 11i v3 to a later v3 release, with only the reboot time left as planned downtime
- Logical Volume Manager (LVM) enhancements eliminate downtime when making a provisioning change to volumes when your requirements grow or shrink, improves performance up to 88% in volume group scan and import operations, and allows upgrade L1 volume group layouts in place to the highly scalable, modern L2 layout
Enhanced Bastille enables system security hardening with simplified auditor reporting, with set-up wizards to reduce time and expertise required to secure your HP-UX 11i system.

Enhancements to increase productivity

- Serviceguard Manager now delivers more virtualization integration, tooltips, and cluster wizards to minimize time and expertise required for cluster set-up & maintenance.
- Memory file system (MemFS) for HP-UX 11i v3 doubles the performance of temporary file operations in memory, compared to v2.
- Expanding control, single-pane system management with System Management Home Page now includes configuration wizards and graphical icons.

HP recommends that existing customers update to the latest release of HP-UX 11i v3 when business permits, for its performance, scalability, high availability, virtualization, and management advantages over earlier releases. Now, Dynamic Root Disk with Update-UX make those updates simpler and with less downtime than ever before.


The March 2009 HP-UX OEUR is supported on all the following servers:

**HP 9000 (PA based)**
- rp3410, rp3440, rp4410, rp4440
- rp7405, rp7410, rp7420, rp8400, rp8420
- Superdome

**HP Integrity (Intel® and Itanium2 ®)**
- BL860c, BL870c
- cx2600, cx2620
- rx1600, rx1620, rx2600, rx2620, rx2660, rx3600
- rx4640, rx5670, rx6600
- rx7620, rx7640, rx8620, rx8640
- All HP Integrity Superdome Servers

A complete listing of supported servers for HP-UX 11i can be found at: www.hp.com/go/hpuxservermatrix.

**IMPORTANT NOTES:**

- Legacy HP 9000 product families, including D, K, R, T and V-Class are **NOT** supported on HP-UX 11i version 3.
• HP does **NOT** support direct updates from HP-UX 11i v1 to HP-UX 11i v3. To install HP-UX 11i v3 on a supported system that is currently operating HP-UX 11i v1, you must first update to HP-UX 11i v2 or remove HP-UX 11i v1 from the system and do a clean (cold) install of HP-UX 11i v3.

**Hardware Enablement Patch Bundle**

The HWEnable11i bundle provides support for new PCI-Express I/O adapters in HP Integrity Servers, and HP-UX support for HP servers with PA8900 processors and the sx2000 chipset. Minimal HP-UX support requires other HWE components from this OE Update release that includes diagnostics, I/O driver bundles, along with the Ignite-UX product. HP recommends a full update to the desired OE option from the latest 11i OE Update release for full HP-UX support with the updated versions of the manageability and configuration tools.

This HWEnable11i bundle includes new 11.31 patches that improve PCIe Error Recovery (ER) and support of new PCIe devices. New patches were also added for CPU and memory On-Line Addition/Deletion (OLAD) for future HP platforms.

**Additional Software in the March 2009 HP-UX 11i v3 OE Shipments**

**Software Pack**

Software Pack content will be delivered on OE media in the HP-UX 11i v3 March 2009 release. Content previously delivered on the web prior to the March 2009 release will also be included on the OE media. All Software Pack content will be delivered as Optional on the OE.

New Software pack content for March 2009 includes:

- ContainmentExt
- MemFS
- Pax Enhancement
- PHI11i3
- UmountallEnh
- KRBS5Client

Previously delivered content includes:

- HP-UX Swapoff
- IPv6 Upgrade for HP-UX 11iv3
- Kerberos Client (KRBS5CLIENT)
- MallocNextGen
- Numeric User Group Name
- Dynamic System V Semaphore Tunables
- HP-UX Role Based Access Control Infrastructure
- Libc enhancements
- Library for Atomic APIs
- HP-UX Audit Extensions
- HP-UX Getenv Performance Enhancements
HP-UX 11i Operating Environment Extension Release for March 2009

We are pleased to announce that in December 2006, HP began to offer a new Extension Release process to eligible HP-UX OE support contract customers.

When a protected application product is ONLY being updated on the Application Release media and that protected application product is a part of an Operating Environment offering that is not updated, customers will be notified of this product update in their notification letter as a separate offering.

Example for March 2009 is:

- March 2009 HP-UX 11i v3 Operating Environment
- March 2009 HP-UX 11i v1 Applications
- March 2009 HP-UX 11i v2 Applications
- March 2009 HP-UX 11i v3 Applications
  - N/A        HP-UX 11i v1 Support Plus Released in June and Dec
- March 2009 HP-UX 11i v1 Extension Release
- March 2009 HP-UX 11i v2 Extension Release

Customers will then be able to request the application release media and a special codeword that will allow access to the applicable software. These releases are only offered physically. Select the appropriate version of the Extension Software release EX1903 (EXVymm) (V for Version) on the notification entitlement mailing form to receive the application media and special codeword.

Updates are on the Application media ONLY as the HP-UX 11i v1 and v2 Operating Environment media are not updating in March 2009.

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>HP MPI B6060BA Sept 2007</td>
<td>B6821AA Technical Computing</td>
<td></td>
</tr>
<tr>
<td>HP Serviceguard SW T1905CA March 2008</td>
<td></td>
<td>B8483AA Mission Critical</td>
</tr>
<tr>
<td>HP ECM Toolkit T1909BA</td>
<td></td>
<td>B8483AA Mission Critical</td>
</tr>
</tbody>
</table>
## Future 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>Schedule Ship Timeframe</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-UX 11i v1</td>
<td>June 2008</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 and will be ignited on all HP-UX systems shipped from HP after that date. The HP-UX 11i v1 QPK is also available via the ITRC web site at: <a href="http://itrc.hp.com">http://itrc.hp.com</a>.</td>
</tr>
<tr>
<td>HP-UX 11i v2</td>
<td>June 2008</td>
<td>HP updated the Quality Pack (QPK) patch bundles and Online Diagnostics for HP-UX 11i v2. This software is available on Support Pack media to all customers under a then current support agreement and will be ignited on all HP-UX systems shipped from HP after that date. Optional Core Enhancements for HP-UX 11i v2 are also available on Support Pack media. The HP-UX 11i v2 QPK is also available via the ITRC web site at: <a href="http://itrc.hp.com">http://itrc.hp.com</a>. HP delivered 2 updated drivers and an update to Ignite-UX on OE media for 11i v2.</td>
</tr>
<tr>
<td>HP-UX 11i v3</td>
<td>September 2008</td>
<td>Full update release * of HP-UX 11i v3 delivered on the new HP-UX 11i v3 Operating Environments only.</td>
</tr>
<tr>
<td>HP-UX 11i v1</td>
<td>December 2008</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 and will be ignited on all HP-UX systems shipped from HP after that date. The HP-UX 11i v1 QPK will also be available via the ITRC web site at: <a href="http://itrc.hp.com">http://itrc.hp.com</a>.</td>
</tr>
<tr>
<td>HP-UX 11i v2</td>
<td>December 2008</td>
<td>HP updated the Quality Pack (QPK) patch bundles and Online Diagnostics for HP-UX 11i v2. This software will be available on Support Pack media to all customers under a then current support agreement and will be ignited on all HP-UX systems shipped from HP after that date. Optional Core Enhancements for HP-UX 11i v2 will also be available via the ITRC web site at: <a href="http://itrc.hp.com">http://itrc.hp.com</a>.</td>
</tr>
<tr>
<td>Operating Environment</td>
<td>Release Dates</td>
<td>Notes</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------</td>
<td>-------</td>
</tr>
<tr>
<td>HP-UX 11i v3</td>
<td>March 2009/April 2009</td>
<td>Full update release * of HP-UX 11i v3 on the new HP-UX 11i v3 Operating Environments only</td>
</tr>
<tr>
<td>HP-UX 11i v1</td>
<td>June 2009/July 2009</td>
<td>HP will update the Quality Pack (QPK) patch bundles for HP-UX 11i v1. The HP-UX 11i v1 QPK will be available on Support Plus media to all customers under a then current support agreement and will be ignited on all HP-UX systems shipped from HP after that date. The HP-UX 11i v1 QPK will also be available via the ITRC web site at: <a href="http://itrc.hp.com">http://itrc.hp.com</a>.</td>
</tr>
<tr>
<td>HP-UX 11i v2</td>
<td>June 2009/July 2009</td>
<td>HP will update the Quality Pack (QPK) patch bundles for HP-UX 11i v2. This software will be available on Support Pack media to all customers under a then current support agreement and will be ignited on all HP-UX systems shipped from HP after that date. Optional Core Enhancements for HP-UX 11i v2 will also be available on Support Pack media. The HP-UX 11i v2 QPK will also be available via the ITRC web site at: <a href="http://itrc.hp.com">http://itrc.hp.com</a>.</td>
</tr>
<tr>
<td>HP-UX 11i v3</td>
<td>September 2009/October 2009</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>
<tr>
<td>HP-UX 11i v1</td>
<td>December 2009/January 2010</td>
<td>HP will update the Quality Pack (QPK) patch bundles for HP-UX 11i v1. The HP-UX 11i v1 QPK will be available on Support Plus media to all customers under a then current support agreement and will be ignited on all HP-UX systems shipped from HP after that date. The HP-UX 11i v1 QPK will also be available via the ITRC web site at: <a href="http://itrc.hp.com">http://itrc.hp.com</a>.</td>
</tr>
<tr>
<td>HP-UX 11i v2</td>
<td>December 2009/January 2010</td>
<td>HP will update the Quality Pack (QPK) patch bundles for HP-UX 11i v2. This software will be available on Support Pack media to all customers under a then current support agreement and will be ignited on all HP-UX systems shipped from HP after that date. Optional Core Enhancements for HP-UX 11i v2 will also be available on Support Pack media. The HP-UX 11i v2 QPK will also be available via the ITRC web site at: <a href="http://itrc.hp.com">http://itrc.hp.com</a>.</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 for all OS versions.
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-2012</td>
<td>31-December-2017</td>
</tr>
<tr>
<td>11i v2</td>
<td>September-2003</td>
<td>31-December-2009</td>
<td>31-December-2013</td>
</tr>
<tr>
<td>11i v1</td>
<td>December-2000</td>
<td>31-December-2009</td>
<td>31-December-2013</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>
</tbody>
</table>

* Support no longer available from HP Factory Support, but Limited Support may be offered for an additional duration.
Please note that the end of sales information in the above chart is subject to change without notice, and will be updated by HP as needed.

** 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

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.

HP will continue to provide information on the plans for future releases through our online communications at: [http://www.hp.com/software/releases/releases-media2](http://www.hp.com/software/releases/releases-media2)

- Software Update News
- Software Update by Platform
  - Current HP-UX update releases
  - Prior HP-UX update releases
Instant Information CD-ROM

Beginning in September 2009, the online documentation in the Instant Information CD-ROM will be provided in PDF format only. HTML format will be discontinued. The PDF format provides the look and feel of the printed page, and offers the convenience of printing documentation on site when hardcopy is required.

HP-UX Internet Express

HP-UX Internet Express is a carefully selected compilation of Open Source packages which enriches HP-UX’s functionality in the areas of Web Services, Internet Services and Security services. The selected open source packages represent popular components in these areas. HP does not provide support for Open Source components shipped with HP-UX Internet Express. However, you can provide feedback or report a defect by email to the HP-UX Internet Express Team. In keeping with HP-UX’s high quality standards, Internet Express has been tested and qualified on HP-UX. Many Internet Express components can be installed and configured via the Web-based Webmin administration utility, which is shipped as part of the HP-UX Apache-based Web Server offering. Internet Express packages can also be downloaded from the following urls:

HP-UX 11i v2:

HP-UX 11i v3:

*** HP discontinued the 11i v1 version of Internet Express on June 15, 2008. Starting with the September 2008 release, there will no longer be Internet Express media included in the 11i v1 media kit.

Product Updates

VxFS

Please be advised that starting with the September 2009 HP-UX 11iv3 update, the default installation leads to VxFS 5.0 running over LVM. This is a change from the default installation for all previous HPUX 11iv3 updates, where the default installation was VxFS 4.1 running over LVM.

The September 2009 HP-UX 11iv3 update will continue to include VxFS 4.1. If customers wish to install it, they will need to specifically choose it during installation so as to override the default.

Serviceguard
The March 2009 release includes Serviceguard version A.11.19. The A.11.19 version will be the required as a base for rolling upgrade to future versions. In a rolling upgrade the Serviceguard software is updated one node at a time without bringing down your cluster. Serviceguard A.11.19 contains many new capabilities such as improved failover time, online configuration changes, and more flexible configurations. This version is specially engineered to handle the transition to the new capabilities and will be the required base for rolling upgrades to future Serviceguard versions. Even if there are no plans to upgrade to Serviceguard A.11.19 at this time, please obtain an application release DVD with that version to complete future upgrades.