Foundation for tomorrow

Transition from HP 9000 to HP Integrity servers and HP-UX 11i v3

Strengthen your mission-critical infrastructure

Reap refresh benefits

Make the move from HP-UX 11i v1 or v2 to HP Integrity servers and HP-UX 11i v3

• Save data center space and power through HP 9000 server consolidation on HP Integrity servers

• Protect your investments in legacy applications

• Reduce migration costs by using free tools

• Realize outstanding total cost of ownership (TCO) savings

Improve scalability and performance without sacrificing availability when you transition from a PA-RISC environment on HP-UX 11i v1 or v2 to HP Integrity servers and HP-UX 11i v3.

Why refresh?

As you decide to refresh your PA-RISC servers, consider these compelling insights: A recent IDC analysis[1] shows that HP customers upgrading HP Integrity servers and the HP-UX operating system to the latest versions are seeing a 325 percent return on investment (ROI) that pays for itself in nine months. This includes:

• 28 percent lower footprint costs

• 23 percent lower power costs

• Reduced impactful unplanned downtime per user from more than one hour to four minutes per year

• Increased non-IT employees' productivity through better application performance and instilled confidence in IT systems and services

Why HP Integrity i4 servers and HP-UX?

With three decades delivering proven value, HP-UX continues to evolve to help you address current market trends such as the cloud, mobility, and security, as well as the increasingly challenging requirements of your mission-critical environment. When we set out to build the latest generation of HP Integrity servers, based on the Intel® Itanium® Processor 9500 series, we designed it with your future in mind. If you are still running older versions of the operating environment, the time to upgrade to HP-UX 11i v3 is now. You will save costs, get added performance, and enjoy the benefits of HP's continued innovation on HP-UX, which is focused on the HP-UX 11i v3 version.

HP Integrity servers offer RAS features in key hardware subsystems—processor, memory, and I/O—and provide the ideal foundation for the HP-UX 11i v3 operating environment. HP-UX 11i v3 reflects the growing emphasis on availability by ensuring that your business is always on and providing availability through a layered approach that offers application, file system, and operating system protection. HP-UX 11i v3 is available in four operating environments (OEs) to best fit your application:

• HP-UX 11i v3 Base OE—For basic installations or single-system management applications

• HP-UX 11i v3 High Availability OE (HA-OE)—For large, business-critical applications requiring clustering capability

• HP-UX 11i v3 Virtual Server OE (VSE-OE)—For applications requiring high resource utilization for workloads that can be virtualized and consolidated

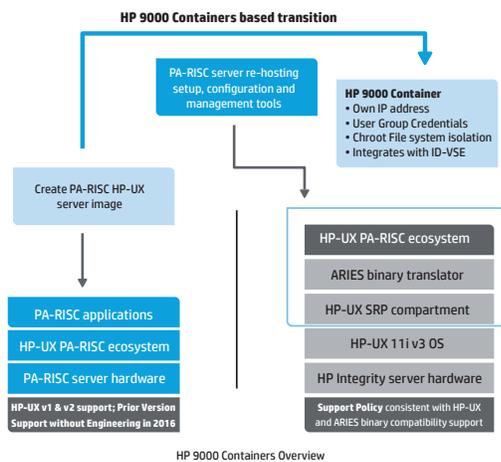• HP-UX 11i v3 Data Center OE (DC-OE)—For a superset of all HP-UX 11i v3 versions

HP-UX 11i v3 and HP Integrity servers provide a comprehensive RAS strategy that covers all layers—from application data to hardware components.

[1] Source: The Value of Scaling Up to HP-UX and Business-Critical Servers, IDC, June 2014

How to refresh

Transitioning from your PA-RISC environment on HP-UX 11i v1/v2 to HP Integrity servers running HP-UX 11i v3 is easy and future-proofs your environment. Because the two server families are highly compatible, the transition is extremely straightforward. The HP-UX 11i v3 license provides a porting tool set including HP 9000 Containers that enable smooth transitioning of your environment without any hassle.

HP 9000 Containers are built on the ARIES Dynamic Translator that transparently executes all versions of 32-bit and 64-bit HP 9000 HP-UX applications on HP-UX 11i v3 on HP Integrity servers. It's dynamic and transparent. No user intervention is needed once it is set up.

HP 9000 Containers based transition

PA-RISC server re-hosting setup, configuration and management tools

HP 9000 Container
• Own IP address
• User Group Credentials
• Chroot File system isolation
• Integrates with ID-VSE

Create PA-RISC HP-UX server image

| HP-UX PA-RISC ecosystem |
| ARIES binary translator |
| HP-UX SRP compartment |

| PA-RISC applications |
| HP-UX PA-RISC ecosystem |
| PA-RISC server hardware |
| **HP-UX v1 & v2 support; Prior Version Support without Engineering in 2016** |

| HP-UX 11i v3 OS |
| HP Integrity server hardware |
| **Support Policy** consistent with HP-UX and ARIES binary compatibility support |

HP 9000 Containers Overview

Just copy your application ecosystem and run it in a HP 9000 Container on an HP Integrity server running HP-UX 11i v3. Here's why it is easy:

• No need to recompile applications

• No need to prepare application inventories

• No need to identify application dependencies, including configuration data

• No need to reconstruct application environment

• Ideal for time-sensitive, resource-constrained projects and complex legacy applications

• Built on top of two free HP-UX technologies with HP ARIES binary translator and HP-UX containers

HP 9000 Containers provide a way to rehost the complete HP 9000 user-space environment without the need to recompile or reinstall individual applications. The transitioned application resides in a container environment, with its own IP address and login credentials. This container has full control. Just like a real system, it can be started, stopped, modified, exported, imported, and deleted. It cannot support applications that are kernel intrusive, system administration commands, and system management related applications inside it.

Fully integrated, high-availability solutions with HP Serviceguard feature either the traditional application model for fast failovers or the packaged container model for easy configuration.

Experience significant cost reductions as you transition

As you consider refreshing your infrastructure, you may think it's better to do nothing. Simply continue using your tried-and-true HP legacy server, adding more capacity as needed. But have you examined the cost and risk of doing nothing? Your company's IT budget at this time may be flat, if not shrinking. Declining budgets usually mean insufficient resources for launching new projects. Compounding the budgetary challenges are increasing costs for non-discretionary items such as maintenance and licensing, as well as a steady skills decline. Let's get started by looking in to a recent HP TCO study on two configurations to understand the customer benefits and savings when transitioning from a PA-RISC environment running HP-UX 11i v2 to the latest Integrity servers on HP-UX 11i v3.

ROI > 200%

Payback of seven months (including installation period)

Reduce database licensing requirement by 56 percent

Example one: If you are running a HP 9000 rp8420 with 24 cores on HP-UX 11i v2, you can transition to HP Integrity BL860i4 with eight cores on HP-UX 11i v3. The overall reduction in the hardware expenditure reduces the overall data center footprint and also significantly impacts the power cost. Outstanding savings on software and hardware support costs lead to an ROI greater than 200 percent with a payback of seven months, including installation period.

2 X HP 9000 rp8420-32
PA-8900 1100 12p 24c
running HP-UX 11i v2

2 X HP Integrity BL860i4
Itanium 9560 1p 8c
running HP-UX 11i v3

Outstanding savings
- 61% on software support costs[2]
- 73% on power costs[3]
- 98% on hardware support costs[2]
- 64% IT cost savings over three years

Example two: A PA-RISC HP Superdome with sx1000 chipset running 32 processors or 64 cores can refresh to the latest HP Integrity Superdome 2 with sx3000 chipset again reducing the power consumption significantly, by 89 percent. This offers an outstanding ROI greater than 200 percent and a payback of seven months.

2 X HP Superdome
sx1000 PA-890;
32 processors/64 cores
running HP-UX 11i v2

2 X HP Integrity
Superdome 2 (sx3000)
Itanium 9540 6p 48c
running HP-UX 11i v3

Outstanding savings
- 54% on software support costs[2]
- 89% on power costs[3]
- 97% on hardware support costs[2]
- 61% IT cost savings over three years

The time to refresh is now

HP provides transition tools and technologies to simplify your transition onto HP-UX 11i v3 from other platforms. The full spectrum of HP-UX 11i v3 virtualization offerings and management tools enable efficient consolidation of your older PA-RISC applications. What's more, HP 9000 Containers ease application transition by providing the ability to clone and re-host the whole HP 9000 environment on HP Integrity servers. An HP 9000 Container is an isolated execution environment that closely resembles a stand-alone system but can be partitioned and virtualized to allow for improved consolidation. Don't wait any longer to migrate up to HP-UX 11i v3 on Integrity i4 servers. Start now to realize cost savings, improved scalability, and performance—without sacrificing availability.

For more information on transitioning from HP-UX 11i v1/v2 to the latest HP Integrity servers running HP-UX 11i v3 visit:
HP Integrity servers: hp.com/go/integrity
HP-UX: hp.com/go/hpux

[2] Based on HP list price and Technology Services customer operations quote
[3] Based on HP results using Alinean, Inc. TCO/ROI tools and power

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