



Securing your future with HP

A transition guide for Tru64 UNIX customers



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Executive summary

AlphaServer systems running Tru64 UNIX have provided an excellent solution for you, delivering the performance, reliability and stability required in your IT environment. Through the years, HP has developed increasingly capable AlphaServer systems, culminating in the release of the EV7-based AlphaServer, which provide nearly linear performance and excellent stability. However, in 2001, when making technology projections to plan the follow-on products, it became apparent that the EV8 Alpha microprocessors would be very difficult to design and build. AlphaServer engineers compared notes at the Microprocessor Forum and saw that the Intel Itanium microprocessor would eclipse the performance advantage of Alpha EV8. With the cost of processor fabrication plants now costing billions of dollars, Intel would also have the manufacturing scale to deliver lower-cost microprocessors than Alpha EV8 or any of its RISC competitors.

As a result, HP announced plans to standardize on Intel® Itanium® processors and to design and build standards-based, flexible systems (now called HP Integrity servers) that would surpass AlphaServer performance across a broad spectrum of workloads, deliver excellent price/performance, be easier to manage, and provide more efficient power and cooling. HP Integrity servers extend the capabilities of the Intel Itanium 2 Series 9000, dual-core processor through high-performance system chipsets that deliver balanced performance and excellent memory and I/O

subsystem scalability, with tremendous resiliency, reliability, and reparability.

Following the Compaq-HP merger, HP concluded that while Tru64 UNIX on AlphaServer is an excellent product, it needed to focus its development investment on only one UNIX version to provide "best-in-class" enterprise UNIX capabilities. The decision was made to standardize on HP-UX as the enterprise UNIX for Integrity servers, and to provide both AlphaServer customers and HP 9000 customers with a robust enterprise UNIX that delivered the enterprise capabilities they needed.

HP announced that it would stop selling AlphaServer systems running Tru64 UNIX in 2006 and developed the Alpha RetainTrust (ART) program to assure customers that HP would continue to support their business needs and help them transition to Integrity server running HP-UX when those needs caused them to do so. HP is committed to provide AlphaServer hardware support for a minimum of five years after the last AlphaServer sales date, and to provide ongoing support for Tru64 UNIX through at least 2012. The ART program has developed tools, resources, and business practices to ensure a smooth transition to HP-UX 11i on Integrity server. Because many Tru64 UNIX customers also plan to use Linux or Windows in their IT infrastructures, HP and its partners have developed tools and expertise to help customers smoothly transition to those operating systems. This document contains critical dates to help you develop your upgrade or transition plans.

Meeting your enterprise requirements

Information Technology (IT) is integral to your business success. Most IT environments have too many applications, too much customization and too much complexity. You need to reduce cost and improve efficiency. Data center hardware, software, power and cooling are too costly. IT management and maintenance is expensive and consumes resources better applied to delivering innovative solutions that increase business value. You may have underutilized server capacity because your computing resources are inflexible and do not meet changing requirements. You struggle to meet service-level agreements and response times for critical application workloads. Improved data management is critical to meeting regulatory compliance requirements.

HP's strategy to address these needs is called the HP Adaptive Infrastructure. An Adaptive Infrastructure helps you move from high-cost IT islands to lower-cost pools of IT assets. It achieves this by breaking down the isolated discrete systems, enabling you to re-provision valuable computing and storage resources and share them among different applications in real time. You deliver IT resources and applications as a set of standard services available to authorized users via a shared and protected infrastructure. To deliver this essential capability requires a flexible, industry-standard server design.

Searching for a suitable server platform

In 2000, Compaq engineers evaluated requirements for systems that would follow the EV7-based AlphaServer systems. They estimated the cost to design and build the next generation of Alpha microprocessors and compared that with likely competition when these systems began shipping. At the Microprocessor Forum, an annual industry event, Intel presented the Itanium architecture and future roadmap. Following the forum, under Non-Disclosure Agreement (NDA), Intel shared details of their five-year Itanium roadmap. The Compaq engineers concluded that the Alpha processor's performance advantage was not sustainable, and Intel would drive the Itanium manufacturing cost lower than Compaq could for EV8 and successive generations.

As a result, in June 2001, Compaq announced that it would stop further Alpha processor development and stop selling AlphaServer systems in 2006. Compaq sold intellectual property and assets (Alpha microprocessor technology, compilers, and assets) to Intel and announced plans to utilize Intel Itanium microprocessors in their next generation of servers and to focus development efforts on other elements of the system—high-performance system chipsets, robust enterprise operating environments that provided flexible capacity, simplified management and secured availability. Shortly afterward, HP merged with Compaq. Independently, HP engineers had reached the same conclusion—to replace their PA-RISC microprocessors with Itanium processors and create a server line based on industry-standard Intel Itanium 2 microprocessors.

Moving towards an Adaptive Infrastructure

To provide the increased performance, lower cost, and flexibility required for an Adaptive Infrastructure, HP developed HP Integrity servers. These servers extend the capabilities of the Intel Itanium 2 Series 9000, dual-core processor through high-performance system chipsets that deliver balanced performance, excellent memory and I/O subsystem scalability, as well as tremendous resiliency, reliability, and reparability. The HP sx2000 chipset adds greater performance, scalability, reliability, and manageability to mid-range and high-end Integrity servers—and support both single and dual-core Intel Itanium processors—with larger bandwidths and lower latencies. The HP zx2 chipset for entry-level Integrity servers has a well-balanced architecture that maximizes the performance of the Itanium 2 Series 9000, which has dual-core processors and delivers excellent mission-critical capabilities at a very competitive price point.

Both Tru64 UNIX and HP-UX 11i are excellent products. However, as HP converged its proprietary server architectures onto Integrity server, Linux was gaining acceptance and likely to become a larger part of your IT infrastructure. HP invested to provide enterprise Linux solutions on our full line of Integrity servers. We also knew that we would need to standardize on one enterprise UNIX. After careful

consideration, HP chose to standardize on HP-UX 11i, making it the natural successor to Tru64 UNIX. HP works to deliver the best enterprise UNIX available in the market, providing excellent performance, scaling, reliability and breakthrough features, such as integrated virtualization, secured availability, and simplified management. These features will enable you to continue to reduce the cost to operate your IT infrastructure. HP pioneered the development of commercial UNIX, shipping the first HP-UX release in 1983, and is building on a long history of quality, capability, and stability. Throughout its lifetime, the focus of HP-UX has been on enhanced reliability, security, manageability and partitioning. It combines an extraordinarily robust UNIX kernel with an integrated suite of advanced features designed to help you meet your most demanding business requirements and maximize your return on IT investment.

Meeting our commitments to you

In 2001, HP made several commitments to you. HP would:

- Safeguard your AlphaServer investment, ensuring that you gained the business benefits that you projected when you purchased the system.
- Design and build standards-based, flexible systems that provide excellent price/performance across a broad spectrum of workloads and ensure a smooth transition from AlphaServer to Integrity server.

- Provide advance notice of its intention to continue selling AlphaServer systems for five more years, providing customers with a timeline on which to base their purchases.
- Standardize on HP-UX 11i as the leadership enterprise UNIX operating system to deliver superior virtualization, security, system and resource management, and expanded ISV support.
- Deliver enterprise Linux on Integrity server and comprehensive Linux affinity within HP-UX 11i to enable Linux to complement HP-UX 11i.
- Work with ISV partners to deliver a complete HP-UX 11i ecosystem to support your business needs.

HP-UX 11i

HP focuses on delivering the capabilities you need to adapt and grow, so that your business and information technology are synchronized to capitalize on change. That's why, with HP-UX 11i, you get a full portfolio of technologies built on top of the base operating environment, including virtualization, high availability, management, and security—all designed to work seamlessly together or individually, based on your specific requirements. Coupled with the added power and versatility of HP Integrity servers, you can capitalize on the advantages of HP-UX 11i in a multi-operating system environment and deliver breakthrough value and agility to respond to your business challenges. Key features are shown in Table 1.

Table 1. Key features and benefits of HP-UX 11i v2

Features	Benefits
Mission-critical virtualization	HP Virtual Server Environment for HP-UX 11i—achieve a greater return on IT investments by improving server resource utilization in real-time based on business priorities.
High availability (HA)	HP Serviceguard for high availability—protect application availability while maintaining service-level objectives between partitions all the way to multiple data centers.
Disaster-tolerant solutions	Disaster tolerance—gain automated and push-button disaster tolerance to protect data and maintain business continuity between partitions, systems, and multiple data centers over any distance.
Flexible security	Security—layered approach that ensures that server security is not compromised. Compartmented processing isolates threats and protects against threats with real-time host intrusion detection. A flexible array of network protection features filters harmful traffic, while policy-based identity management systems provide access to authorized personnel only. It automatically separates those with access from those who are barred. A layered approach keeps HP-UX 11i processes and files safe and secure.
Intelligent management and control	Intelligent management—simplify and automate many low-level administrative tasks with integration to enterprise management, helping administrators make decisions more accurately and more quickly.
Superior scalability for a broad platform	Scalability—support growth cost-effectively to meet long-term business requirements and leverage existing industry standards.

HP-UX 11i roadmap

You can see in Table 2 that HP's strategy is to release major versions of HP-UX 11i every two-to-three years. The target release date for the HP-UX 11i Version 3, the next major version, is late 2006, and will take HP-UX to the next level of virtualization and automation. It will help you simplify your data center operations, with policy-based server provisioning.

It will add increased flexibility through dynamic reconfiguration and automatically tunable parameters, including cell on-line add/replace (OLAR), a robust mass storage and I/O stack to deliver simplified storage management, leadership I/O performance, extensive mass storage interoperability, and tremendous scalability, including native multi-pathing to deliver increased throughput and meet anticipated future requirements. Plus, we're continuing to enhance the strong security features, including encrypted file systems and trusted computing services. The Encrypted Volume and File System (EVFS), the only UNIX file encryption system provided as a service of the operating system and supported by the operating system vendor (other UNIX vendors rely on third-party file encryption methods not integrated and enforced by the operating system).

High availability

Tru64 UNIX has an excellent clustering product called TruCluster Server. It builds on the Advanced File System (AdvFS), a log-based file system that provides a cluster

file system across multiple nodes, automatic failover and recovery, and a single system image (SSI) across all cluster nodes. Initially, HP planned to port AdvFS and TruCluster Server to HP-UX 11i. After careful investigation and customer discussion, HP determined that this strategy was not feasible for several reasons. Integrated virtualization and manageability were rapidly becoming key requirements and an enabling technology to reduce IT infrastructure cost and increase flexibility. The integration of TruCluster Server into HP-UX 11i would also require a lengthy development cycle that would delay the availability of this solution for not only AlphaServer customers, but HP 9000 customers as well. Strong virtualization integrated with robust clustering for both HP 9000 and AlphaServer customers is a key enabler to reducing datacenter costs while increasing flexibility. Thus, HP made the business decision to stop porting TruCluster Server to Integrity server, and deepened its partnership with VERITAS (now Symantec). This enhanced partnership is delivering functionality similar to TruCluster Server and has accelerated the availability of VERITAS' Cluster File System on HP-UX 11i on Integrity server, which began shipping in December 2005.

Tight integration of all the elements of the HP-UX operating environments, including virtualization, HP Serviceguard clustering, and VERITAS software provides an excellent solution for customers. HP Serviceguard is multi-operating system (HP-UX, Linux) and multi-platform (Integrity, HP 9000, ProLiant), using

Table 2. HP-UX 11i roadmap — extending mission-critical virtualization

2003 HP-UX 11i v2 Enterprise UNIX for HP Integrity and H9000 servers	2006 HP-UX 11i v3 Next level of virtualization and automation	2008/2009 HP-UX 11i v4 24x7 lights-out computing	Beyond HP-UX 11i v5 Next-generation
Virtual Server Environment; extended core abilities: availability, security, manageability, scalability	Policy-based server provisioning, increased availability, enhanced dynamic reconfiguration	Policy-based services provisioning, zero-downtime virtualization	Next wave of enterprise computing
Shipping	Coming soon	In development	Planning stages

- Major releases about every two-three years
- Continuing enhancements to shipping releases
- Investment protection:
 - Binary compatibility from release to release
 - 10+ years of support life for releases

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one set of tools to manage virtual resources, essential to increasing agility. In addition, this strategy reduces management costs for customers that utilize VERITAS products on other server platforms. Many of the TruCluster SSI (Single System Image) capabilities (i.e., install the operating system once, common view of storage and the ability to manage down nodes) will be delivered via a different but functionally comparable mechanism. Finally, HP has developed tools to help you move easily from TruCluster Server to Serviceguard/VERITAS, and you receive trade-in credit for existing TruCluster Server licenses.

HP Serviceguard is a proven high-availability clustering solution with over 150,000 licenses sold worldwide. As an integrated virtualization component, it gives you the flexibility to add other key technologies to a Serviceguard environment when your business needs require. This lets you increase application and database availability, data protection, and disaster tolerance, as well as maximize resource utilization. In addition to the support of major ISVs, including Oracle® and SAP, for fully-integrated, high-availability solutions, key partnerships have paved the way for unique solutions that provide continuous application availability, whether within a single datacenter or across continents.

Cluster component comparison

Table 3 compares the various components of TruCluster Server and HP Serviceguard clusters.

HP Virtual Server Environment (VSE)

VSE is where the benefits of HP-UX 11i over Tru64 UNIX and TruCluster Server show the most strongly. In addition, while TruCluster Server provided an excellent solution to scale a single cluster, the VSE can be used to manage multiple, independent servers. Most IT infrastructures are static and inflexible, sized to handle peak workloads, resulting in costly excess server capacity. Industry analysts at Gartner Group estimate that hardware and software acquisition plus support contracts are only 25% of IT costs. The remaining 75% are ongoing support costs, including labor, facility, and change costs. Virtualization is appealing because it helps customers rationalize their IT infrastructure, making it more responsive.

VSE is the perfect complement to Integrity server, helping customers consolidate, virtualize, and automate server resources. It lets customers pool and share resources among applications to balance workloads while maintaining service levels. VSE includes automated, goal-based workload management, exceptional unified infrastructure management, industry-leading availability, a broad partitioning continuum, and a breadth of utility pricing options. Tight integration of VSE with HP Serviceguard high-availability solutions provides mission-critical virtualization. VSE supports all operating systems that run on Integrity server: HP-UX 11i, Microsoft® Windows® Server 2003, Linux, and OpenVMS, with many components, such as HP Systems Insight

Table 3. TruCluster and Serviceguard component comparison

TruCluster server component	HP-UX 11i Serviceguard component
Cluster Application Availability (CAA)	Serviceguard Package Manager
Cluster File System (CFS)	VERITAS Cluster File System
Single System Image/Shared Root (SSI)	Distributed System Administration Utilities (DSAU) and System Management Homepage (SMH)/no shared root
Distributed Lock Manager (DLM) API	No direct equivalent. Cases requiring an API for synchronizing activities between processes on different nodes should incorporate locking into the application layer.
Memory Channel	Gigabit Ethernet, Infiniband
Memory Channel API (MC/API)	No equivalent
Cluster Alias (CLUA)	IP Alias/no Cluster Alias
Device Request Dispatcher (DRD)	VERITAS CVM/HP SLVM and SAN storage
EVM (Cluster-wide events)	EMS (Cluster-wide view via Systems Insight Manager (SIM))
Connection Manager (CNX)	Serviceguard Membership Manager
Cluster Volume Manager (CLSM)	VERITAS CVM, HP SLVM

Manager and HP Integrity Virtual Machines, designed specifically for a multi-operating system environment. HP developed HP VSE Reference Architectures for HP-UX 11i, integrated and pre-tested configurations of HP VSE components with key applications such as those from SAP, Oracle and BEA.

Linux is complementary to HP-UX 11i

One option for you is to transition from Tru64 UNIX to Linux on Integrity servers. The relentless drive to reduce IT infrastructure cost may cause consideration of whether Linux can address the requirements more cost-effectively than alternatives. HP sees Linux emerging across the whole ecosystem that serves the enterprise, with solutions available for the Financial Services, Utilities, Telecommunications, Healthcare, High Performance Computing and Government market segments, as well as scale-out and scale-up for secure database markets.

Linux complements HP-UX 11i, providing cost savings, performance and the benefits of open-source technology. Linux on Integrity server is typically used when requirements exceed x86-architecture capabilities. By working closely with the leading Linux distributions—including Red Hat and Novell (SUSE)—HP is helping to shape the capabilities of Linux to leverage the full potential of Integrity server. HP adds value to the Linux environment through:

- Secured availability, with high reliability, availability, and serviceability built into the core of the Integrity server, plus HP Serviceguard for Linux clustering and proven security at all levels.
- Simplified management with HP Integrity Essentials for Linux tools and a unified management infrastructure that spans the customer's enterprise.
- Simplified Linux server deployment (Linux Customer Reference Architectures).

Many of our customers plan to use Linux on ProLiant servers as part of their IT infrastructure. It's important to emphasize that HP delivers Linux on industry-standard servers using both x86 or Itanium processors. An excellent example is the HP BladeSystem c-Class, where you can employ either x86 or Itanium processors. HP offers an extensive Linux professional services portfolio spanning software engineering, consulting and support to enable successful enterprise

implementation of Linux-based solutions. Applications can be moved easily from x86 Linux to Linux on Integrity servers.

If you want to run both Linux and HP-UX on Integrity server, we emphasize that:

- Linux and HP-UX 11i can run in separate, secure hard partitions on Integrity server.
- HP-UX 11i's strong affinity for Linux and Java™ lets customers develop applications with open-standards tools, including J2EE and XML, as well as many popular Linux open source tools.
- Applications developed on Linux can be re-compiled and deployed on HP-UX 11i or other operating systems such as Sun Solaris and IBM AIX.

Open Source and HP-UX

HP has a rich tradition of supporting Open Source. HP-UX was based on the original Open Source distribution, UNIX Berkeley Systems Distribution (BSD). In continuing this tradition, HP offers a wealth of Open Source software to enhance the ROI of your HP-UX 11i platform. HP provides open source in a variety of ways, as an integral part of HP-UX 11i included as part of the core operating system and in a variety of bundles that are available for free download. Many of the most popular open source products are integrated with the base HP-UX 11i software distribution. Others are available via free download. HP-UX 11i Open Source Reference Architecture (OSRA) for Web Services consists of configured, tested, proven, and documented open source software components for HP-UX 11i, including popular components such as Jboss, MySQL, Apache Web Server and Red Hat Directory Server to provide a foundation for successful Web solutions deployment. Complementing this is a comprehensive array of consulting, integration, and support services, removing the risk associated with implementing open source-based technologies on HP-UX 11i.

Relative price and performance comparison—AlphaServer and Integrity server

A comparison of AlphaServer and Integrity server may help you decide which is appropriate for your business. Table 4 (pg. 6) compares price and performance for comparably-configured Enterprise, Departmental, and Workgroup-class systems.

Across the board, Integrity servers carry dramatically lower prices, while delivering substantially more performance than AlphaServer systems

- Enterprise: Integrity Superdome has 41% lower list price, and delivers 63% more performance than a comparably-configured AlphaServer GS1280.
- Departmental: The new rx6600 Integrity system is priced 72% lower than an AlphaServer ES80, and provides 79% more performance.
- Workgroup: The new rx3600 is priced 83% below the comparable AlphaServer ES47, yet delivers double the performance.

Continued operating system and compiler improvements, coupled with future Integrity server enhancements, will widen this performance advantage. For many customers, the high-level choice is clear. The only decisions to make are when do business needs warrant replacement of AlphaServer and which elements of the IT infrastructure should be addressed first. Moving some Tru64 UNIX applications to Integrity servers and moving other applications to AlphaServer systems to address near-term capacity needs or reduce TCO are complementary activities. A good example of this is moving the database tier to an Integrity server and consolidating the application tier on AlphaServer.

AlphaServer continues to perform well for Tru64 UNIX customers

While there are excellent benefits from transitioning to Integrity server, you may also need to enhance your present AlphaServer environment, and the newest AlphaServer systems have been an excellent choice. From the entry-level to high-end systems, HP AlphaServer systems deliver the same set of core capabilities—balanced systems performance, and dynamic, multi-path I/O to provide a reliable, scalable I/O subsystem for demanding workloads, along with outstanding reliability and availability. All EV7-based systems (HP AlphaServer ES47, ES80 and GS1280) have the same core capabilities—hard partitions, clustering, dynamic multi-path I/O, RAID memory, and integrated server management tools. HP has ensured that all AlphaServer systems and their components are RoHS-compliant (Reduction of Hazardous Substances) and added support for new StorageWorks storage arrays, storage controllers and backup peripherals enable you to continue to enhance your AlphaServer to meet your business needs.

HP understands that this is not an overnight process and has made investments to ensure smooth co-existence of AlphaServer systems running Tru64 UNIX and Integrity servers running HP-UX 11i.

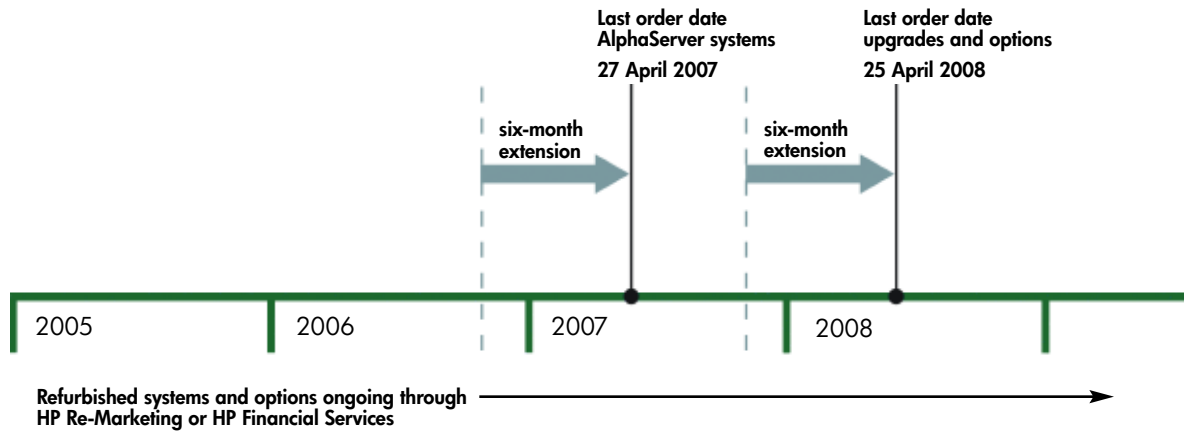
Table 4. AlphaServer and Integrity server comparison

System	U.S. system list price*	Relative list price	Performance**	Relative performance
Enterprise				
GS1280 64P, Alpha EV7 1.3 GHz	\$3,200,000	100%	16.0	100%
Superdome 32P/64C, Itanium dual-core 1.6 GHz 24M	\$1,900,000	59%	26.0	163%
Departmental				
ES80 8P, Alpha EV7 1.15 GHz	\$240,000	100%	1.9	100%
rx6600 4P/8C, Itanium DC 1.6 GHz 24M	\$67,000	28%	3.4	179%
Workgroup				
ES47 4P, Alpha EV7 1.15 GHz	\$110,000	100%	1.0	100%
rx3600 2P/4C, Itanium DC 1.6 GHz 18M	\$19,000	17%	2.0	200%

*U.S. list price includes 2 GB memory per CPU, minimum I/O, O/S; no storage or adapters

**Geometric mean of SPECint_rate, SPECfp_rate, and tpm; normalized to ES47 4P

Figure 1. Important AlphaServer sales dates



The situation today

AlphaServer product availability

It is important that you understand the key dates and conditions of the last sales order date for AlphaServer systems (Figure 1). Customers requested a six-month extension to the original last sales date of 27 October 2006 to give them more time to assess their AlphaServer requirements. The planned last sale date for AlphaServer systems has passed, and we have checked remaining materials inventory and are able to continue general availability sales while inventory lasts, through no later than 27 April 2007. You should submit your AlphaServer order as soon as possible to ensure that the system configuration you need is available. HP will sell upgrades and options for these systems for one year following the revised last sales date. HP built flexibility into this process and will ensure that your business needs are addressed satisfactorily. If you have special circumstances that need addressing, please contact your authorized HP representative.

Finally, HP sells refurbished systems on an ongoing basis, based on the inventory of returned lease equipment and trade-ins (HP Financial Services for Americas, and HP Re-Marketing for the rest of the world). These programs offer you a comprehensive portfolio of completely remanufactured HP products at competitive and attractive prices. HP warranty covers

the same period as a new product and quality is assured, as all refurbished products undergo the same rigorous process as new products.

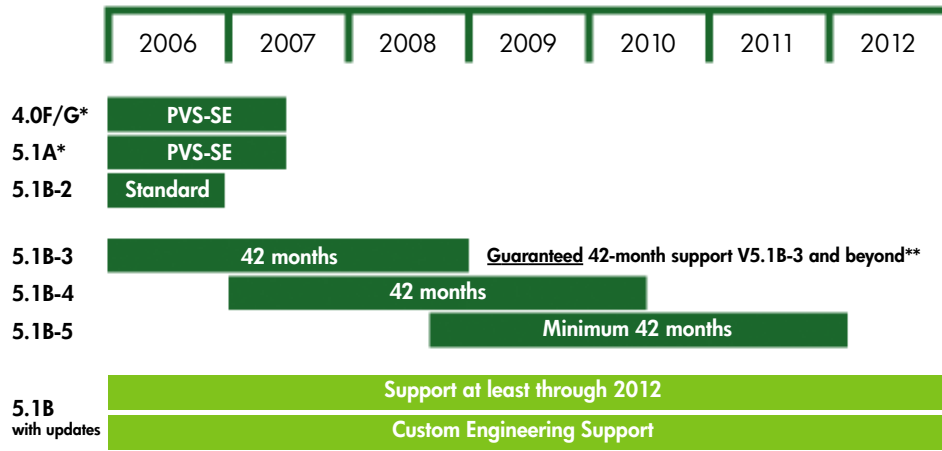
Tru64 UNIX service and support commitment

As shown in Figure 2 (pg. 8), HP guarantees Tru64 UNIX support through at least 2012. HP policy is to provide support for the server platform for at least five years after end of new product sales. However, HP Services' business practice is to continue support as long as there is a viable support capability. As of December 2006, all AlphaServer platforms introduced since 1993 are still supported. When HP Services determines an end-of-service-life date for a given server platform, customers are notified at least twelve months in advance. Where appropriate, HP can work with you to develop and implement a custom support plan to meet your specific needs.

Extending the value of your Tru64 UNIX investment

HP is committed to preserving value for customers that continue to use Tru64 UNIX and AlphaServer. Most ISVs have identified their target final release for Tru64 UNIX to signal to customers that if they require the new functionality, they should plan to transition to Integrity server. For example, Oracle has identified Oracle database 10gR2 as the last release of Oracle database supported on Tru64 UNIX. Future revisions of Tru64 UNIX 5.1B will preserve binary compatibility to ensure ongoing compatibility with ISV applications

Figure 2. Tru64 UNIX support roadmap



*Restricted configurations. (PVS-SE: Prior Version Support —Sustaining Engineering)
 **Certain features may require update to latest release.

certified on the Tru64 UNIX V5.1B stream, and add support for new external StorageWorks storage and backup products.

When you are ready to transition to Integrity server, the primary path forward for Tru64 UNIX enterprise UNIX customers is Integrity server running HP-UX 11i, a robust enterprise UNIX that includes key capabilities such as virtualization, workload management, and disaster tolerance that are not available on Tru64 UNIX. Depending on the workload, many customers will consider transition to Linux on either Integrity or ProLiant servers.

Table 5 shows the Tru64 UNIX roadmap. Tru64 UNIX V 5.1B-3, which shipped in 2005, added resiliency enhancements, enhanced stability and code hardening, HP-UX 11i compatibility tools, StorageWorks storage options support, plus the latest patch kit. Note the deliberate use of patch levels to denote new releases—it emphasizes the guaranteed binary compatibility across versions.

HP will support Tru64 UNIX V5.1B and its enhancements at least through 2012. For customers planning to continue using AlphaServer, V5.1B is the recommended, long-term release for continued Tru64

Table 5. Tru64 UNIX release roadmap

V5.1B with updates support at least through 2012		
June 2005 V5.1B-3	Q4 2006 V5.1B-4	2008 V5.1B-5
Storage options	Storage options	Storage options
Resiliency enhancements	Resiliency enhancements	Resiliency enhancements
ISV support	Performance enhancements	ISV support
HP-UX 11i compatibility tools	Enhanced cluster interconnect distance	Applications updates
Applications updates	ISV support	
	Applications updates	

← Maintain binary compatibility, continued focus on quality, stability and security →

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UNIX "standard" support. HP also has provided more time for customers who cannot upgrade to V5.1B to plan and implement their transition to HP Integrity servers by extending Prior Version Support—Sustaining Engineering (PVS-SE) status for several older Tru64 UNIX versions (V4.0F, V4.0G, and V5.1A) through June 2007. Tru64 UNIX V5.1B-4 will ship in late 2006, and will add performance enhancements, notably for Oracle database, enhanced cluster interconnect distance, resiliency enhancements, and StorageWorks device support.

If you are planning to continue using your AlphaServer, but are not yet using Tru64 UNIX Version 5.1-B, then we strongly recommend that you do so if possible. It will help you continue using your AlphaServer with the highest achievable performance and lowest possible support costs. Future releases of the Version 5.1-B stream will improve the robustness and performance of the operating system. You should ensure that you have a support contract with right-to-new version (RTNV) coverage. This will allow you 100% trade-in credit for the equivalent HP-UX 11i software and smooth your transition to Integrity server when your business needs necessitate change.

Smooth transition to Integrity server

Alpha RetainTrust Program

HP's Alpha RetainTrust (ART) program has two purposes: to ensure that customers planning to

continue using their existing AlphaServer systems or planning to purchase new AlphaServer systems are confident that HP will support them to meet their business needs. The second is to develop tools, guides, business practices, and services to help customers plan and implement their transition to Integrity servers. Its key components are:

- Strong ISV support – Working with our ISV partners to ensure a smooth transition to Integrity server, providing continued support for existing ISV application releases on AlphaServer, while new application revisions are ported to Integrity server.
- Extensive tools, services, and resources – Transition planning, design and implementation tools, training, and services to help minimize disruption and cost while adding business value.
- Compelling business practices – A suite of investment protection options, including generous trade-in, leasing and upgrade programs.

Transition life cycle and HP resources

HP has developed comprehensive programs, tools, and support for AlphaServer customers—when and where they need it, throughout the transition lifecycle, as shown in Table 6. With the shipment of Integrity servers based on Intel dual-core Itanium processors and the availability of key ISV applications on these servers, many customers are at the planning stage. A brief explanation of key tools is provided here.

Table 6. Five phases of the transition life cycle

Awareness	Plan	Design	Implement	Manage
Considering transition Exploring options Asking HP for assistance	Assess business drivers and product roadmaps Inventory current environment to determine application availability, platform and storage information Form team to develop transition plan	Identify the major subcomponents and timing of the project HP experts share knowledge and best practices	Create transition procedure drill down to detailed steps/tasks; prototyping and testing	Follow-up tasks, fine-tuning, documentation, monitor and control the environment
<ul style="list-style-type: none"> • Executive forums • Account consulting sessions • White papers • Web portals • Customer briefings • Channel partner training • User conferences • Account planning 	<ul style="list-style-type: none"> • Transition workshops • Transition modules • Binary scanners • Porting guides • Web-based training • ISV availability DB • Stack assessments • Customer training • HP demo centers, HP-Intel solution centers; TestDrive • Proposal/RFP support • ROI analyst tool 	<ul style="list-style-type: none"> • Transition modules • Assessments • Design engagements • Web-based training • Software transition kits • ISV availability DB • Prototype solution development • Benchmarks 	<ul style="list-style-type: none"> • Transition modules • Porting guides • References/success stories • Tru64 UNIX migration environment • Software transition kits • Application/solution integration 	<ul style="list-style-type: none"> • Training • Tuning guides performance • Monitoring tools • Ongoing relationship • Performance characterization and tuning

- During the Awareness phase, you weigh the business benefits of transitioning to Integrity servers.
- The Planning phase starts with your assessment of your business needs, and identifies which systems are top priorities for replacement and which systems continue to meet your business needs. Few customers can replace all of their AlphaServer systems at once, and want to have AlphaServer work cooperatively with Integrity servers for a period of time. You will develop a transition plan that defines your IT requirements, service-level objectives, required functionality or ISV solution stack, transition schedule and required resources.
- During the Design phase, you are ready to put that transition plan in motion. The first step is to size the system to address workload requirements and identify the tools and methods needed to move data and applications to the target server and transition timeframe parameters. You may find it helpful to do a proof of concept to verify that the design will meet your business objectives. HP developed tools and techniques that help customers design a smooth transition to HP Integrity servers.
- During the Implementation phase, you are on the path to a smooth transition to Integrity server. You will run data migration tests, pre-migration tests, and post-migration validation tests. You will do verification in your test environment, tune for optimal performance, and introduce it into your production environment.
- When you have reached the Management phase, your Integrity servers are now integrated into your IT infrastructure. HP provides numerous operating system features and tools to ensure that you maximize your business benefits. HP also provides tools to help you measure and optimize performance, so your ROI continues to grow.

Transition scenarios

Customers have differing strategies for how quickly they plan to move from AlphaServer to Integrity server. HP has developed tools and services to help you implement any of these scenarios. Generally when transitioning, customers choose one of four implementation scenarios as shown in Table 7.

Transition services and tools

Many of the planning resources and transition tools are available at no charge to customers. Typically, customers who are re-platforming or moving existing applications to an Integrity server are able to implement the transition using complimentary tools and services only. These complimentary tools are available to HP internal teams, HP channel partners, and customers. Other transitions that are more complex, for example, re-architecting a new solution stack, require specialized expertise that is available to customers under typical HP Services engagements or HP authorized partner engagements.

Table 7. Transition scenarios

Scenario	Description
Re-platform	Move applications on the existing server to a new server—customers are typically satisfied with the solution stack, but need better performance or reliability.
Consolidate multiple systems to reduce TCO	Typically, customers are satisfied with both the solution stack and AlphaServer, but want to reduce their TCO and increase the reliability of their IT infrastructure, and lengthen the useful life of their AlphaServer investment by consolidating on new AlphaServer systems.
Integrate new systems into existing infrastructure	Many customers will identify a project to try out Integrity. This is a low-risk method to gain experience with Integrity server. Customers can integrate Integrity server running HP-UX 11i with AlphaServer running Tru64 UNIX. Customers using TruCluster Server need to move completely to Integrity server running Serviceguard and VERITAS CFS.
Re-architect	Customers that are not satisfied with their present solution stack may want to re-design the solution stack and their IT infrastructure to be more responsive to their business needs. HP's own IT transformation used this approach.

Complimentary services and tools

Customer engagement

Account Consulting Sessions are half-day working sessions between HP Business Critical Server technical and business personnel, the account team and key members from the customer account. Each consulting session is designed to resolve information technology issues and discuss key business issues/requirements for your short- and long-term planning.

Transition Consulting Workshops are customized two- to three-day planning and problem-solving workshops tailored to your key business and IT requirements. Transition experts from the HP Transition Engineering and Consulting group who have a broad range of experience working with customers on upgrades and transitions staff these workshops.

To request an Account Consulting Session or Transition Consulting Workshop, please contact your authorized HP account representative.

Business Value Assessment Workshop using ROI Analyst Tool

Today, customers scrutinize technology purchases to ensure they will deliver the business benefits that they require and immediately improve business efficiency. HP offers no-charge Business Value Assessment Workshops in North America and EMEA. More than 750 HP people in 45 countries are trained to use this tool.

The credibility of the HP TCO/ROI analysis is derived from its sources:

- Industry data defaults come from Alinean Inc., an industry expert focused on IT TCO and ROI.
- Server data derived from public sources to deepen credibility.
- Prices are "country list price," less discounts and allowances.
- All values and equations are visible and customizable; all assumptions documented.

ISV applications

Over the past few years, HP has worked continuously with the ISV community to help them to port their applications to HP Integrity server and has developed tools to simplify the process. These robust tools are available to customers who have developed in-house applications. At the same time, HP worked with ISVs

to specify their last release on AlphaServer and their ongoing support policies.

HP Enterprise Solutions Alliances group tracks ISV activities in its ISV Application Status Database, which can help you confirm that an application is available on Integrity server or when it will be available. An external view of this database is available to you.

The *Developer and Solution Partner Program (DSPP)* helps ISVs, developers and system integrators create solutions on HP servers and operating systems. Members are ISVs who may not have an HP partner manager or customers who develop their own software. The program includes a personalized portal for access to equipment, business and technical services programs, sales and marketing support, product information and access to application migration and testing centers. HP and Intel jointly sponsor Integrity Porting Workshops for both ISVs and customers who develop in-house applications on an ongoing basis. HP and Intel provide porting assistance and created a specially-priced package that includes three days of interactive lectures, an entry-level Integrity server with choice of operating system (HP-UX 11i, OpenVMS, Red Hat Linux (64-bit), or Windows Server 2003), software development tools, and porting assistance.

The *Itanium Solutions Alliance* is a global community of hardware, operating system and application vendors formed to accelerate the adoption and ongoing development of Itanium 2-based solutions. Formed in September 2005, the Alliance is comprised of the most influential companies in the computing industry with a shared strategic commitment to deliver enterprise and technical computing solutions based on the Itanium 2 architecture. Founding sponsors include Bull, Fujitsu, Fujitsu-Siemens Computers, Hitachi, HP, Intel, NEC, SGI and Unisys. Charter members include BEA, Microsoft, Novell, Oracle, Red Hat, SAP, SAS and Sybase. The Alliance has delivered a suite of enablement programs, including Developer Days and the Itanium Solution Developer's Network, a collaborative network of centers to facilitate and expedite the porting and optimization of applications.

ISV Stack Assessment Service and Recruit-to-Win

The HP Transition Engineering and Consulting group offers an ISV Application Stack Assessment Service. Available globally, this complimentary service helps

you build a transition timeframe. By working across many accounts, HP flags ISV applications that are not yet available on Integrity server, and works to recruit the ISV to port to Integrity server. ISVs typically port to Integrity server when approached in this manner. Ask your account manager for more information on getting an assessment.

Tru64 UNIX to HP-UX 11i Transition Modules

Implementing a smooth transition requires excellent blueprints and tools. HP invested extensively in the development of Transition Modules (TMs), a consolidation of HP-developed tools, documentation, best practices, white papers, porting guides and software tools. TMs are mapped to the transition phases to identify requirements, timing and required resources for each step, ensuring a smooth transition from Tru64 UNIX on AlphaServer systems to HP-UX 11i on Integrity servers. The modules save time and reduce risk in planning and designing the transition to Integrity servers by providing:

- A method and framework to approach your transition planning and design.
- Guidance to estimate level of effort and transition duration.
- Help in identifying areas within each module that require further planning or design, and those that do not pertain to the transition.
- Help in defining a customized plan for those areas that require further planning and design.

The Transition Modules address key topic areas of the transition process, including platform infrastructure (servers, operating systems, storage, and tape devices), custom code applications, packaged applications from independent software vendors, and Oracle databases. They are modular, with cross-references to other modules to avoid repetition. These "living tools" incorporate periodic improvements gained from our successful transition experiences. Descriptions of these Transition Modules are shown in Table 8.

Table 8. Tru64 UNIX to HP-UX 11i on Integrity server Transition Modules

Module	Description
Platform infrastructure	<p>Provides high-level planning information and recommendations to help assess what is required to transition platform infrastructure, including servers, operating systems, storage, and tape devices.</p> <p>Discusses key platform change topics such as data endian differences, storage transition, clustering considerations, archived data transfer, system management, security and server sizing information.</p>
Custom code	<p>Provides high-level planning and design information and recommendations to help assess your efforts to transition custom code applications and addresses programming-related transition issues.</p> <p>Includes a set of complimentary application transition tools, plus detailed information, including project estimation tools, application development tools, development environment differences, API differences, and a description of the online application transition tools.</p>
Packaged applications	<p>Provides planning and design information and recommendations to help identify what is required to transition packaged ISV applications from the source platform to the destination platform.</p>
Database for Oracle	<p>Focuses on planning the pre-migration, data migration and post-migration operational and technical tasks to ensure a completely safe static or dynamic transition for an Oracle database. Often a key component of transitions to Integrity server, this module includes a number of tools to ensure a smooth Oracle database transition, including:</p> <ul style="list-style-type: none"> • Using Oracle export and import utilities. • Oracle streams for replication and data synchronization in a dynamic migration scenario. • HP <i>DBFastTableCopy</i> to help copy data from large tables directly to the target database relatively quickly and without the need for intermediate files. • HP <i>DBCompare</i> utility to verify successful table data migration to the target database. • HP <i>Database migration script set</i>, a collection of script tools HP developed to help you generate and execute static database migration.

SAP Smooth Transition Method

In close cooperation with Oracle and SAP, the HP SAP Competence Center has developed a streamlined procedure called *SAP Smooth Transition Method (STM)* that overcomes the limitations (resource consumption, downtime window for productive applications) of the standard SAP migration procedure to transition Tru64 UNIX SAP customers to Integrity server. These tools are platform-independent and will also work on other source operating systems (e.g., AIX or Solaris) and destination operating systems (Linux and Windows 2003 Server). Coupled with HP's Oracle Database transition tools, this greatly simplifies the transition of AlphaServer customers running SAP and Oracle to Integrity server. Contact your authorized HP account representative for more information.

Tru64 UNIX to HP-UX 11i software transition tools

HP provides detailed information on porting applications to HP-UX 11i on Integrity server, including transition considerations and an online application transition tutorial that shows you how to use the binaryScan utility and Software Transition Kit. These tools are available to customers, partners, and ISVs. The binaryScan utility is an application transition assessment tool that reports the compatibility levels of application programming interfaces (APIs) or application binary interfaces (ABIs) from a source operating system to a destination operating system. The utility scans any dynamically linked executables and produces a compatibility report for APIs on the HP-UX, Tru64 UNIX, or Solaris operating systems and for ABIs on HP-UX 11.0.

Tru64 UNIX to HP-UX Software Transition Kit (STK) helps identify and resolve application compatibility issues between HP-UX and Tru64 UNIX. It contains extensive documentation, including white papers, best practices, usage guide, porting guide, and file scanning utilities that identify required changes.

Tru64 UNIX Migration Environment for HP-UX is a runtime environment installed on your HP-UX 11i V2 system that contains Tru64 UNIX APIs, development tools, commands and utilities to help transition Tru64 UNIX custom applications to the HP-UX 11i.

Tru64 UNIX to HP-UX system administration transition tools

HP has developed a number of tools to help system administrators complete their transition to Integrity server and manage a mixed environment of

AlphaServer Tru64 UNIX and HP-UX 11i on Integrity server, including:

- *Tru64 UNIX Remote Printer Queue Migration Tool*: A remote printer transition tool that provides automatic configuration on HP-UX 11i v2 of remote printers previously installed and configured on Tru64 UNIX systems.
- *Tru64 UNIX Password Migration Tool*: A script to migrate Tru64 UNIX user account password data to HP-UX 11i .
- *Tru64 UNIX TruCluster Server to HP-UX 11i Serviceguard Migration*: A comprehensive guide to help you plan, design, and implement the transition from TruCluster Server to Serviceguard Cluster, including defining and configuring defining and configuring Oracle 9i/10g (RAC or non-RAC) using Serviceguard HA Cluster with and without VERITAS Cluster File System.
- *HP-UX 11i/Tru64 UNIX System Administration Interoperability User Guide*: A user guide that describes differences in system administration tasks on Tru64 UNIX and HP-UX 11i.
- *Interoperability Translator Quick Reference Tool*: A side-by-side comparison of system administration commands on Tru64 UNIX and HP-UX 11i.

Tru64 UNIX to HP-UX transition training

HP has developed a comprehensive online transition training curriculum specifically for HP Tru64 UNIX customers and partners to learn about HP-UX 11i. This curriculum includes self-study training courses and complimentary Webinars. Training is divided into two areas. The first area, "Concepts and Facilities," includes complimentary resources such as white papers, reference tools and "side-by-side Tru64 UNIX and HP-UX" Webcasts. The second area, "fundamentals," takes a Tru64 UNIX perspective to help you quickly become familiar with HP-UX 11i.

These self-paced, Web-based courses are available at no charge to all HP Tru64 UNIX customers and partners using an e-coupon, where the normal fee for these courses is waived. Two courses are available, including *Tru64 UNIX to HP-UX System Admin* (course #u5451aae) and *Tru64 UNIX to HP-UX Application Transition* (course #u8447aae). Contact your authorized HP representative to request an e-coupon. HP Education Services also offers instructor-led classroom training specifically recommended for customers that choose HP-UX 11i as their target transition platform.

"By moving to HP Integrity servers running HP-UX 11i, we gain a common, standards-based platform that delivers the high performance and reliability our life-critical applications demand today – with the scalability to support next generation 9-1-1 applications in the future."

Stephen Meer, Chief Technology Officer, Intrado, Inc.

For-fee services and tools

Porting and migration services from HP and our Partners

Transition to the HP Integrity server environment typically requires porting or re-engineering both packaged ISV applications and custom-developed applications. HP Services tools assist customers and help ISVs port their applications to HP Integrity servers. HP has proven project-based porting and migration services that are available with a fixed price, scope and timeframe, backed by rapid deployment capability. Other software services include application consolidation, designing and deploying applications for high-availability, enterprise application integration, and using HP "pre-compiled software modules" to speed development, test and deployment. These capabilities leverage HP expertise and development and get customers operational on Integrity servers faster and more safely than competitors. HP not only provides porting assistance to move Tru64 applications to HP-UX 11i, but also can provide Linux, Windows 2003 Server, and OpenVMS porting and migration services. In addition, many of these services are available through HP's authorized partners and systems integrators.

Proof-of-concept

HP maintains HP Solution Centers staffed with technical experts to provide the infrastructure to develop and deploy benchmarks and proof-of-concepts and furnish worldwide technical benchmarking capability, demonstrate key ISV and SI solutions, and

facilitate teaming of HP and partner resources to deliver the solution to the customer.

There are also three HP-Intel Solution Centers located in Cupertino, California; Grenoble, France; and Shanghai, China. The unique combination of equipment and technical expertise at the HP-Intel Solution Centers brings customers a full set of services to perform proof of concept, testing, sizing exercises and scalability tests.

The *TestDrive Program* provides online access to test applications quickly on HP Integrity servers running HP-UX and Linux. TestDrive is useful to customers that have ported their custom-code applications and want to see how these applications will perform on HP Integrity server.

For more information on these programs, see the Resources section of this document.

Implementation services

HP has several service organizations that are well versed in the transition tools, in addition to their specific applications expertise. The Transition Engineering and Consulting (TEC) organization has developed a number of tools and services to simplify the transition. In addition, many customers will want to re-architect their IT solutions to gain increased business benefit from new solutions innovations.

Leveraging HP Services is a tremendous advantage to help you achieve your business objectives. When you are ready to move to Integrity server, your account

manager can utilize these organizations to help you plan and design the implementation. Organizations include HP Services, HP Consulting & Integration, TSG EMEA ESS Competency Center, and Systems Technology & Software Division (STSD). In some cases, your account team will partner with one of the HP Services organizations to deliver transition implementation services.

Business practices—hardware trade-in

HP provides generous trade-in programs that are implemented at the regional level, so check your local program for details. During your transition, HP provides concurrent usage of your previous server(s) and your new server(s). Standard practice is for 90 days. If more time is required, discuss your situation with your HP or HP partner representative. In addition, HP Financial Services offers a complete array of leasing and financial lifecycle management services to help you increase the return on your IT investment, reduce risk, and get the most from your HP solution while improving your cash flow and reducing your total cost of ownership. Please contact your HP account representative or HP partner account manager for more information on system trade-in programs.

Business practices—software license trade-in

To facilitate the transition to HP-UX 11i on Integrity server, you can trade your Tru64 UNIX software license(s) in for license(s) for the equivalent HP-UX 11i

products on HP Integrity server. Customers with support contracts with right-to-new-version (RTNV) get 100% trade-in credit. Customers without these support contracts receive 60% trade-in credit toward the purchase of new software licenses. Further, to simplify the transition for TruCluster Server customers, HP offers investment protection for transition to HP-UX 11i Mission Critical Operating Environment (MCOE), equivalent HP layered products and Serviceguard with Symantec Cluster File System bundles. To ease transition and ordering, Serviceguard with Cluster File System bundles are packaged together with Mission Critical Operating Environment (MCOE), under a single license product number. The trade-in map is shown in Table 9.

Evaluate your options

HP wants to reinforce that your business needs will indicate your best path forward. Each option is designed to maximize the business benefit you can obtain from your investment. We understand that you need to prioritize the transition activities that result in immediate business benefits, while ensuring the continuity of the rest of your IT environment. The options listed in Table 10 (pg. 16) should help you achieve the stability you need, to free the resources you require to develop innovative solutions that deliver value to your business.

Table 9. Trade-in map for Tru64 UNIX to HP-UX on Integrity

Trade-in Tru64 UNIX licenses	Toward the purchase of HP-UX licenses	Trade-in credit
Operating Environment (OE) license trade-ins		
A Tru64 UNIX Base, SMP Extensions, User and Server Extension	HP-UX Foundation Operating Environment (FOE)	<ul style="list-style-type: none"> • 100% trade-in credit if on support/RTNV • 60% trade-in credit if not on support/RTNV
B Licenses from Section A plus Advanced File System Utilities	HP-UX Enterprise Operating Environment (EOE)	<ul style="list-style-type: none"> • 100% trade-in credit if on support/RTNV • 60% trade-in credit if not on support/RTNV
C Licenses from Sections A and B plus TruCluster Server	Choice of one of the following HP-UX Mission-critical Operating Environment (MCOE) with Serviceguard (SG) Cluster File System (CFS) bundles: <ol style="list-style-type: none"> 1. MCOE with SG CFS or 2. MCOE with SG CFS Oracle or 3. MCOE with SG CFS Oracle RAC 	<ul style="list-style-type: none"> • 100% trade-in credit if on support/RTNV • 50% trade-in credit if not on support/RTNV (due to Symantec royalty)
Individual product (à la carte) license trade-ins		
D Advanced File System Utilities (à la carte product trade-in)	Symantec/VERITAS VxFS (Online JFS) 4.1	<ul style="list-style-type: none"> • 100% trade-in credit if on support/RTNV • 40% trade-in credit if not on support/RTNV (due to Symantec royalty)
E Logical Storage Manager (à la carte product trade-in)	Symantec/VERITAS VxVM (Volume Manager) 4.1	<ul style="list-style-type: none"> • 100% trade-in credit if on support/RTNV • 40% trade-in credit if not on support/RTNV (due to Symantec royalty)

Develop your plan— identify and prioritize projects

Determine your plan for extending your AlphaServer environment

- Ensure that you have the hardware and software support contracts that you need.
- Upgrade current AlphaServer to latest Tru64 UNIX 5.1 version stream, if possible.
- Upgrade to new AlphaServer to increase capacity or reduce TCO and order AlphaServer prior to last sales date to ensure availability.
- Consider IT consolidation to lower management costs and stretch IT resources and budget.

Assess readiness to move to Integrity server

- Modernize your storage infrastructure to provide the flexibility to support a mixed environment of AlphaServer and Integrity server.
- Identify and prioritize projects to improve your IT infrastructure.

- Ensure that your storage configuration enables you to transition easily to Integrity server.
- Request an ISV Solution Stack Assessment to verify that all elements of your solution are available on Integrity or identify when they will be available.
- Work with HP or your HP partner to schedule a complimentary Account Consulting Session (ACS) or Transition Workshop to plan for your needs.
- Request Business Value Assessment workshop to validate the business case for moving forward with Integrity server.
- If you're ready to port your custom code, attend a porting workshop.

The secret to a smooth transition lies in careful planning, design, and implementation. We encourage you to contact HP or its authorized partners to start the process to ensure that we help you continue to meet the needs of your business.

Table 10. Transition options

Option	Rationale
Keep present AlphaServer and upgrade Tru64 UNIX to Version 5.1-B stream	<ul style="list-style-type: none"> • Enhanced capabilities, new StorageWorks device support, networking support • Move from prior version support to standard support
Upgrade Storage Environment to enable multi-platform transition	<ul style="list-style-type: none"> • Modernize your storage infrastructure to provide the flexibility to support a mixed environment of AlphaServer and Integrity server • Improve performance, reliability and cost-effectiveness of your storage solution
Upgrade/consolidate on AlphaServer	<ul style="list-style-type: none"> • Improve RAS profile of AlphaServer Tru64 UNIX environment, add enhanced Tru64 UNIX capabilities, performance and resiliency enhancements, increased cluster interconnect distance, storage device support, networking device support • Move from prior version support to standard support • AlphaServer meets functional requirements of your business and is not yet in the critical path for IT infrastructure modernization • Business growth is anticipated and you will need additional performance and capacity • Consider IT consolidation to lower management costs and stretch IT resources and budget. Server and Storage Consolidation is an intermediate step along the road to an Adaptive Infrastructure. • Free resources to work on higher priority projects that deliver increased value to the business
Transition to Integrity server	<ul style="list-style-type: none"> • Prioritize applications to transition to Integrity that will yield the greatest immediate ROI • Application is available on Integrity server or source code and can be easily ported • Price/performance comparison greatly favors Integrity server as compared to AlphaServer • Move from prior version support to standard support

Resources

Web sites

Alpha RetainTrust Program: www.hp.com/go/alpha-retaintrust

Tru64 UNIX: www.hp.com/go/tru64unix

HP-UX: www.hp.com/go/hpux

HP Virtual Server Environment: www.hp.com/go/vse

AlphaServer Transition Planning: www.hp.com/go/alphaplanning

Integrity ISV Application Database: http://h71000.www7.hp.com/solutions/matrix/i64partner_a.html

Linux on Integrity Server: <http://h71028.www7.hp.com/enterprise/cache/321122-0-0-0-121.html>

HP Software Licensing Trade-in Information: <http://licensing.hp.com/swl/view.slm?page=index>

Tru64 UNIX to HP-UX 11i Transition Modules: www.hp.com/go/transitionmodules

Tru64 UNIX to HP-UX 11i Transition Tools: www.hp.com/go/transitiontools

HP-Intel Solution Centers: www.hpintelco.net

HP TestDrive Centers: www.testdrive.hp.com

Tru64 UNIX Transition Benefits Calculator: www.hp.com/go/artvalue

HP Customer Training: www.education.hp.com

White papers

Tru64 UNIX to HP-UX 11i Transition Options & Timeline Evaluation

<http://h30097.www3.hp.com/transition/final-transition-060605.pdf>

Streamline your transition to the Integrity server family

<http://h71028.www7.hp.com/ERC/downloads/4AA0-3891ENW.pdf>

Giving Your Business the Competitive Edge: Transitioning to HP Integrity Servers, a low-risk, high-return, trouble-free process

<http://h71028.www7.hp.com/ERC/downloads/c00708322.pdf>

To learn more, visit www.hp.com

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