

HP-UX to Sun Migration

Get Business Value from IT.
Take the Easier Road with Sun



Issues Addressed

- > Legacy platforms made End-of-Life (EOL)
- > Total cost of ownership (TCO) increasing
- > Operations management more complex
- > Business continuity through committed support and solid technology roadmaps

Objectives

- > Improving service levels
- > Consolidating IT
- > Enhancing flexibility

Sun Solution™ Program Benefits

- > Lower TCO
- > Improve service levels and application performance
- > Greater performance, scalability, flexibility and resilience
- > Choice of applications and protection of legacy applications
- > Enhanced ROI through creative financial options
- > Business continuity through ongoing support, solid roadmaps and once-only migration



Delivering long-term business value and competitive advantage is the ultimate goal for IT organizations. However, solving technical issues, especially ones caused by a vendor's technology roadmaps, can impede business value. Sun helps out by providing a stable technology roadmap that supports long-term IT ROI. Compared to HP, it:

- > Guarantees compatibility of applications across hardware platforms and OS versions, rather than forcing migrations
- > Truly protects hardware investments with standards-based, upgradeable products and supportive services and finance, rather than demanding costly hardware changes
- > Offers wide Independent Software Vendor (ISV) and community support, rather than leaving you with orphaned, unsupported technology
- > Delivers proven, record-setting technology performance. You get true choice of processor architectures and operating systems, rather than untested platforms and restricted hardware options.

Over the last few years, HP has continued to change its technology roadmap and has end-of-lifed (EOL) the HP 9000 HP-UX (PA-RISC) platform system. Many committed HP-UX users are faced with either continuing to run an EOL platform, or making the transition to a new platform.

What is the impact of a legacy HP 9000 HP-UX environment?

Running an EOL'd HP 9000 HP-UX platform raises a number of issues:

- > A cut in HP support and engineering resources as it focuses on investments in Intel's Itanium and HP Integrity platform, raising the cost of daily operations and application support
- > Increasingly uncompetitive performance, scalability, availability and security as the product ages and support is withdrawn

HP's alternative is a migration to Itanium, which has its own major issues:

- > Continued Intel Itanium delays, including late-to-market dual-core processors with reduced performance expectations in chip speed, front-side bus speed, and cache memory
- > Lack of ISV adoption and major vendor support, e.g. IBM, Dell and Microsoft have withdrawn Itanium support. In fact, HP itself has discontinued its investment in Itanium workstations. HP-UX's future is solely dependent on the future of Itanium and Intel's investment in this architecture. HP-UX is not supported on any industry-standard architecture
- > HP 9000 HP-UX applications have to be recompiled and/or rewritten in order to take advantage of Itanium's EPIC architecture. Some HP-UX HP 9000 applications may run in emulation mode on Itanium systems; but tests have shown that Itanium and HP-UX actually offer little, if any, application performance improvements, in emulation, compared to older PA-8800 based HP 9000 systems.

“HP recommended we switch to its new Itanium technology which didn't really satisfy our needs; we don't want blue-sky technology.”

Data Action CEO, Brian McCulloch

Options for HP 9000 HP-UX customers

1. Keep running on legacy HP 9000

Although HP 9000 HP-UX customers will eventually be faced with a forced migration to Itanium, they can decide to postpone that decision. This is valid when the current server environment is meeting user service level needs and there is no desire to reduce costs and complexity in the data center or deploy new business services. However, the uncertainties of the Intel and HP's roadmap forces many HP customers to consider alternatives before continuing strategic investments in HP.

2. Migrate to HP-UX Itanium Platform

Migration of your HP-UX environment requires a structured, smooth and cost-effective approach. There are significant costs and risks associated with migration to the HP-UX Itanium platform – for example: lack of available ISV applications, porting and development issues with Itanium compilers and tools, testing, integration and retraining of administrator and developer skills.

3. Migrate to Sun

Replace the uncertainty of HP's roadmap with one that's established, predictable and that emphasizes compatibility and investment protection. Sun has the vision, technology innovation, relationships, and the choice of business models to help you:

- > Keep up with the high service expectations of today's and tomorrow's enterprise
- > Meet your objectives to provide secure, high-quality IT services in line with business cost expectations
- > Ensure alignment with your business's strategy.

Sun helps HP customers migrate and consolidate EOL systems, often resulting in a TCO reduction of up to 50%, savings in hardware and software support costs, up to 4 times increase in application performance, and 100% Return On Investment on migration projects within 3 years. Here are the products and services that form Sun's proven, end-to-end solutions.

Sun Solaris™ 10 Operating System

Sun's UNIX® platform-based Solaris 10 Operating System, the most advanced OS on the planet, is the risk-free platform of choice for those migrating from HP-UX. Key features for those moving from HP include:

- > **Improved performance.** The Solaris 10 OS delivers performance advantages as well as massive scalability. Industry-leading virtualization features like Solaris Containers maximize utilization and let you safely consolidate, isolate, and protect thousands of applications on a single server, making migration and testing as smooth as possible
- > **More open platform choice.** Solaris 10 is fully supported on more than 500 SPARC® processor-based and x64/x86-based systems from top manufacturers, including systems from Sun, Dell, HP, and IBM. The Solaris OS is a proven 64-bit platform that runs on your choice of hardware—whether 32- or 64-bit, Intel, AMD or Sun UltraSPARC® processor. The OpenSolaris™ project makes Solaris 10 open to community developers to enhance and broaden support
- > **Application Investment Protection.** Full binary compatibility helps ensure your applications are protected between versions, lowering costs and simplifying upgrades. Over 10,000 ISV software applications are available for Solaris. Oracle has even selected the Solaris 10 Operating System as its preferred open-source 64-bit development and deployment environment. Linux application compatibility is also available on Solaris x86
- > **Higher availability levels.** New Solaris 10 OS features, such as Predictive Self Healing, maximize system uptime

> **Quality support and services.** Sun can help you extract maximum value from the Solaris 10 Operating System. We'll support your choice with our 14 years' experience performing UNIX platform migrations.

“Sun best met our criteria regarding price-performance, technological robustness and ability to provide a complete solution. By selecting a long-term vendor, we're saving the province at least 25 percent on hardware costs alone on an ongoing basis.”

Susan Sparks, Director of Corporate Information Systems, Department of Finance, Province of Nova Scotia

Sun Fire™ Servers

According to Gartner, 80% of data centers are constrained by heat and power; 40% need to upgrade their HVAC. Hardware heat load density has more than quadrupled over the past 5 years. To respond you must deploy servers that are better designed to support modern-day workloads, and consolidate workloads onto fewer servers. As organizations rely on each server to support multiple workloads, servers will need to be ever more highly reliable and, as their number increases, servers need to become more efficient in their use of space and power to manage growing costs. Sun understands the issues, and Sun servers, using SPARC or AMD Opteron™ processors, deliver.

Sun Fire Servers with CoolThreads™ Technology

Sun Fire T1000 and T2000 servers are based on Sun's Chip Multi-Threading technology, the UltraSPARC T1 processor. They deliver:

- > Massive performance improvements on common application workloads – up to 5x that of competitors' servers. CoolThreads technology servers have set records in major independent benchmarks
- > Power and heat efficiency. The UltraSPARC T1 processor, with CoolThreads technology,

- supports up to 32 CPU threads and consumes under 80 Watts of power – less than 3 Watts per thread. In just three years, 100 Sun Fire servers with CoolThreads technology could save you more than \$370,000 in power and cooling costs alone
- > Space efficiency. Each Sun Fire Throughput server fits in a compact footprint as small as a quarter the size of equivalent servers, cutting facilities costs
- > Higher reliability. These servers use up to 60% fewer parts than competitive servers and have sophisticated RAS features.

Sun Fire servers using CoolThreads Technology bring dramatic performance improvements to thread intensive tasks, while supporting future growth and improving service reliability. Measured in terms of power consumption, space and performance, these servers are the best Web Tier and application servers on the planet.

UltraSPARC IV+ Processor-Based Servers

Sun has an excellent record for long-term binary and hardware compatibility, providing investment protection, reduced TCO and greater operating efficiencies than competitive environments. Sun is also the only vendor to offer three generations of OS within the same system range. The UltraSPARC IV+ processor is the next generation in a roadmap of processors particularly well suited to data facing workloads. The UltraSPARC IV+ processor doubles performance relative to its predecessor within the same power envelope. These midrange and high-end servers boast the following unique characteristics:

- > Has a 5-7 year hardware lifecycle where the chassis does not have to be replaced
- > Provides fault-isolated and dynamic system domains, dramatically improving system availability and increasing utilization
- > Allows non-disruptive addition of new, faster CPUs to a running system, with the Dynamic Reconfiguration Technology
- > Allows mixing of CPUs of different generations running at their maximum native speeds in the same chassis

- > Benefits from Sun's experience as the leader in worldwide UNIX® platform server shipments (Source: IDC Worldwide Quarterly Server Tracker, Q3CY05, November 2005).

Sun x64 Systems

Companies have been increasingly deploying industry-standard x86 systems in their IT infrastructure to lower costs. Now these businesses are discovering hidden costs and complexity in their x86 infrastructure. The reality is that more racks and floor space were required, power and cooling costs were higher and management complexity has increased.

Sun's x64 (64-bit x86) servers, based on the AMD Opteron processor and Sun system technologies, are an alternative that provide faster, more reliable and energy efficient computing platforms for your enterprise. The Sun Fire x64 servers offer a choice of operating system, including Linux, Solaris 10 and Windows for your existing workloads – all supported by Sun Services. For EOL HP 9000 HP-UX customers considering a migration to Xeon-based HP ProLiant systems, Sun and VMware offer you the ability to migrate and consolidate your existing IT infrastructure, with up to a 5:1 server reduction ratio.

Migration Services

Sun offers the services, tools and methodologies you need to help complete your migration project and reap the benefits of predictable service levels, reduced costs and improved manageability. With a proven methodology, tools and 14 years of UNIX platform migration success, Sun can help you minimize the time, risk, and costs of a migration process to Solaris 10 and Sun hardware.

Components include:

- > Migration TCO calculation tools and assessments
- > Consultancy and design services
- > Tools for UNIX system code parsing and conversion, data migration and migration services from Sun and specialized partners
- > Sun Technology Transfer

- > IT skills educational training courses
- > Financial Enablers
- > Sun Multi Vendor Support, Asset and Configuration Management Services
- > Access to Sun experts for your developers, to gain technical advice, resource guides, porting tools, and planning strategies.

Sun's migration services approach begins with a justification review service designed to provide an assessment of your current environment and the feasibility and benefits of migrating to Sun platforms. A specific migration strategy will be recommended, which includes timelines and a financial estimate for the overall project, taking into account the project's complexity and size. Sun will then work with you to design and implement your migration project, including application and data migration, producing comprehensive reports and proposals at every stage to keep you informed and help ensure that objectives are met.

A detailed assessment of management tools and processes and people skills will also be conducted and specific recommendations will be made to complete the migration successfully. Once the implementation is complete, Sun offers a range of services to optimize ongoing management.

SunSM Managed Services

Sun Managed Services give you choice, flexibility and control. Sun manages only what you want managed, and only for the length of time you want it managed. Our solutions encompass product, people and process options across security, storage, operations management and more – from the smallest to the most complex jobs. We work with you to configure a package of services to meet your business needs, and you can adjust the scope at any time as your business needs change. Unlike traditional outsourcing models, with Sun Managed Services you remain in full charge of your IT resources.

Financial Enablers

Sun offers a wide range of financial options for HP 9000 HP-UX platform customers to help them acquire new Sun technology in the most cost-effective way. These include:

- > Trade-ins. Attractive trade-in offers are available for qualifying systems through the Sun Upgrade Advantage Program (UAP). The Sun UAP offers:
 - Flexible, comprehensive trade-up allowances
 - Upfront trade-in allowances
 - 90 days to migrate and test new Sun hardware
- > Leasing: Cost-effective operational lease programs and payment plans are also provided
- > TCO review and justification services.

Sun Solution Centers

At the global network of the Sun Solution Centers, you can access solutions and Sun Partner Advantage Program business offers to help solve your business problem. You can try out new concepts before buying any products, which enables you to find out what works now in a risk free environment. In the Sun Solution Center, your IT staff can leverage the community expertise of Sun engineers, consultants, world-class Sun Advantage partners — including system integrators, solution providers, ISVs, service providers and OEMs — all working together to share ideas and knowledge, and to focus on helping to minimize your business and technical risks, costs and implementation time for solutions.

Sun Solution Centers can give you the ability to get it right the first time.

Take the next step

For more information about HP-UX migration to Sun, visit

sun.com/datacenter/migration/hpux/

Migration to Sun Platforms for Developers

HP-UX to Sun Solaris OS — a clear path. Porting your applications to Sun platforms is a simple choice. When migrating from HP-UX to Solaris OS, your first advantage is staying within the UNIX platform environment. Since both HP-UX and Solaris OS are 64-bit UNIX systems, comply with industry standards and specifications, and use similar tools, APIs and libraries, it's easier for you to make a transition. Equally important, Sun offers comprehensive migration offerings to lighten your load. Developers gain access to tools, resource guides, Sun experts and more to ease the migration process.

HP-UX Migration Benefits from Sun:

- > The C/C++ libraries and other libraries and tool kits available for Solaris OS allow dynamic linking to new code, meaning HP-UX migrated code is feasible to run on Solaris OS
- > Sun migration tools streamline the porting of C/C++ applications, Java™ applications, and scripts from HP-UX to Solaris OS
- > Integrated development environment (IDE) tools for Solaris OS enable developers to quickly adopt new technologies.

For Application Migration Guides and Papers, please visit:

<https://partneradvantage.sun.com/partners/migration/do.html>

For Application Migration Tools, please visit:

<https://partneradvantage.sun.com/partners/migration/tools.html>