

Brochure

Stay Always-On

HPE Integrity servers and HP-UX 11i v3



Hewlett Packard
Enterprise

To get more information about the latest HP-UX 11i v3 release and its benefits, visit: hpe.com/info/hpux

Powering workloads vital to your enterprise

To compete effectively in today’s business climate, you need to maintain continuous operations. Now that our global economy operates 24x7, consumers expect access to products and services anytime, anywhere. In response, you must make sure that core business processes driving customer interactions are Always-On and available. This requires a proven, reliable infrastructure you can trust to keep your critical workloads up and running while providing you the flexibility and scalability to meet increased demands.

When you need this level of reliable computing for operational workloads that are vital to your enterprise, HP-UX is the answer. As a highly integrated UNIX® system, HP-UX delivers built-in resiliency and self-healing features, stability, and predictable performance at the hardware and operating system (OS) level, so you can count on the uptime your critical applications demand—and that includes data-driven core enterprise workloads like enterprise resource planning, billing, and databases.

“Everyone has experienced a performance increase as a result. One of the finance guys asks, ‘Did you guys do something?’ They noticed.”

– HPE Integrity customer that recently upgraded to the newest Superdome 2 server

A future-ready infrastructure to meet your demanding challenges

With more than 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 HPE Integrity servers, based on the Intel® Itanium® Processor 9700 Series, we designed them with your future in mind.

With these servers you can realize up to at least 30 percent performance gains.¹ Together with these improvements, the HP-UX operating environment’s latest release further advances the value you get from this technology.²

The cumulative reasons to consider HP-UX are compelling. In fact, industry analyst IDC estimates that over a five-year period, the companies in a recent study saw their refresh of HPE Integrity servers generate \$230,096 USD in benefits per 100 users within the HPE Integrity and HP-UX environment and recorded a return on investment of 325 percent for the upgrade.³

Designed and integrated for Always-On business

HPE Integrity and HP-UX are integrated by design for business continuity to provide a robust platform that enables your business to be Always-On, while delivering on the foundational values of the mission-critical compute.

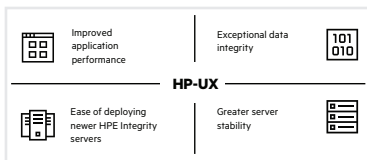


Figure 1. HP-UX business value⁴

¹ Based on HPE lab testing that compares the performance of databases hosted on traditional storage with those hosted on next generation NVMe accelerators. There are many ways to achieve this performance. One sample: In the case of Oracle database workloads, the database can be placed on NVMe storage. This provides more than 30% increase in throughput compared to the use of traditional disk-based storage. (Tested by HP-UX Storage team, April 2017, Bangalore, India)

^{2, 3, 4} IDC white paper, sponsored by HPE and Intel®, **“The Value of Scaling Up to HP-UX and Business-Critical Servers.”** document #249119, June 2014.

Available—HPE Integrity and HP-UX are designed for high availability, helping your mission-critical workloads be Always-On, and secure without compromise.

- HP-UX and Integrity servers provide built-in, single-system resiliency from self-healing hardware to hot-pluggable components so your infrastructure keeps running without disruption and can be rapidly repaired.
- HPE Serviceguard solutions enable robust high availability and disaster recovery, protect against faults within a local network, and enable downtime-free maintenance and upgrades.
- HP-UX protects your environment with a comprehensive security portfolio, encompassing systems and data protection, role-based access controls, and cross-platform directory integration. In addition, HP-UX has multiple security certifications and a system-hardening tool that is Center for Internet Security-certified.

Efficient—With HPE Integrity and HP-UX, you can scale up or down to dynamically manage your mission-critical workloads in response to service-level requirements. That gives you the flexibility and scalability to make instant adjustment to business demands while reducing the cost of common data center tasks.

- HP-UX delivers built-in integration of virtualization and management software to enhance your IT infrastructure dynamically.
- Automatic allocation of resources among multiple workloads increases server utilization and meets service levels for high-priority applications.
- Seamless HP-UX management within your common, modular bladed infrastructure means a reduction of management costs—and fewer headaches for your IT staff.

Stable—HP-UX is a proven operating environment that plays a central role in the daily operations of most of the world's largest corporations, including many Fortune 1000 companies. You can trust your mission-critical workloads to HPE Integrity and HP-UX with the assurance of focused innovation, decades of support, and compelling value.

- HP-UX provides more than 10 years of support per release and a low frequency of mandatory updates to avoid unnecessary and costly application retesting.
- HP-UX provides a stable infrastructure that gives you the peace of mind you need when it comes to your critical applications.
- HP-UX independent software vendor partners are committed to deliver continued innovation to meet increasing mission-critical demands.

“The competitive environment requires businesses to both deliver applications faster and improve productivity. These requirements become challenging because of the complexity of server environments and the fact that they are inflexible, difficult to change, and costly to manage. The most advanced HPE Integrity servers directly address these problems.”

– IDC, “The Value of Scaling Up to HP-UX and Business-Critical Servers,” document #249119, June 2014

For more details on OEs, refer to the HP-UX 11i v3 Operating Environments data sheet available at: hpe.com/info/hpux

Streamline your operations with the right operating environment package

HP-UX 11i v3 comes in four different operating environment (OE) packages designed to ease your UNIX experience and address your individual requirements: Base OE, High Availability OE, Virtualization Server OE, and Data Center OE—which combines the Virtualization Server and High Availability OEs. These software stacks run on the full range of the HPE Integrity server family and come pre-integrated and tested by HPE Engineering, so you can be assured your UNIX environment is complete and built to work together. With these high-value software packages you don't need to buy and integrate the software yourself, or obtain costly external services and manage the additional software and its support separately.

HP-UX is common to all four operating environments, which translates into reliability for your solutions—from the smallest project to large-scale data center deployments. You can order OEs and comprehensive support using a single part number for each. HP-UX is available in traditional DVD media kits, downloadable worldwide via e-delivery, or can be factory installed on new HPE Integrity servers. E-delivery gives you the ability to download HP-UX OEs from the HPE secure distribution server to your local site, where you can burn DVDs and reduce the time required for obtaining the latest software from days to hours. When you use e-delivery, you also join us in our efforts to reduce environmental impact while increasing your flexibility to access licensed copies of HP-UX.

Your resource optimization and workload availability requirements determine which package best fits your individual needs. Figure 2 provides a high-level, functional description of what is included within each OE.

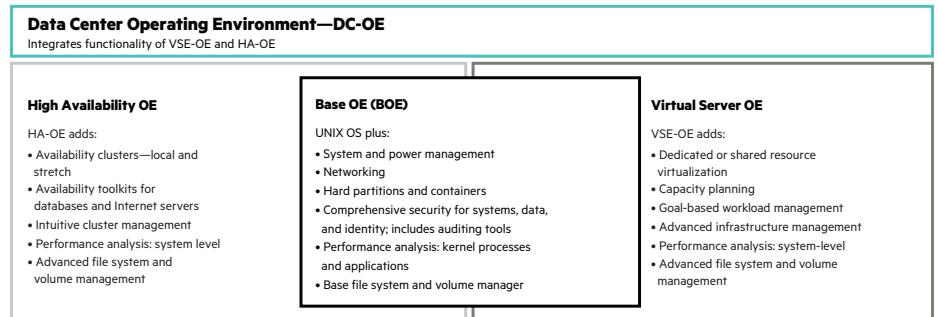


Figure 2. HP-UX 11i vs. High-level OE functionality

“Although the competitive vendors reduced their prices drastically, we decided to stick with HPE for the simple reason of technology, and for its reliability. We had been users of HPE for the previous six years, and that gave us an additional reason to choose them—we felt very confident that HPE was supporting the hardware and software for the long-term.”

– Anil D'souza, General Manager—IT, Greaves Cotton Ltd.

HP-UX 11i v3 Base OE (BOE)—Run your critical applications with comprehensive security and system management

The HP-UX 11i v3 BOE delivers the entire UNIX operating system plus comprehensive, integrated security for systems, data, and identity, as well as hard partitions and containers. The BOE includes HPE Systems Insight Manager functionality with power management, health check, and deployment tools. It also provides full-performance analysis tools for kernel processes and applications, as well as base file system and volume management.

HP-UX 11i v3 High Availability OE (HA-OE)—Achieve the highest levels of uptime

In addition to the Base OE, HP-UX 11i v3 HA-OE supplements the BOE with integrated HPE Serviceguard Solutions for high availability, fault protection, downtime-free maintenance, and system-level performance analysis with advanced file system and volume management. HPE Serviceguard delivers high service availability and supports both local and stretch clusters for cost-effective disaster recovery. Additionally, tested and proven Serviceguard toolkits enable you to protect key databases, including Oracle Real Application Clusters (RACs) and SAP®, all easily managed with intuitive GUI-based cluster management software.

HP-UX 11i v3 Virtualization Server OE (VSE-OE)—Increase server efficiency with flexibility and agility

In addition to the Base OE, HP-UX 11i v3 VSE-OE integrates advanced file system and volume management with system-level performance analysis, plus a full complement of HP-UX virtualization and infrastructure management software including capabilities for dedicated or shared resource virtualization, goal-based workload management, capacity planning, automated infrastructure provisioning, and advanced physical and virtual infrastructure management.

HP-UX 11i v3 Data Center OE (DC-OE)—Reach the highest levels of flexibility and availability for your vital workloads

HP-UX 11i v3 DC-OE delivers the complete set of HP-UX mission-critical UNIX software in a single package, combining the value in the HA-OE and VSE-OE—both of which include the BOE software. The DC-OE is the ideal environment for resiliency and efficiency, leveraging the tight integration of HPE advanced infrastructure management software for high availability, virtualization, workload management, and performance optimization.

Depending on your individual needs, you can also add software, available for any system licensed with any HP-UX 11i OE, including C/C++ for developers and multi-system I/O virtualization. In addition, HPE Serviceguard extensions and options provide for greater solution integration and protection. HPE Instant Capacity and HPE Pay per use offerings provide flexible payment options that allow you to pay only for the resources you use. HPE CloudSystem Matrix with HP-UX is designed for your private cloud deployments.

325 percent ROI and payback in nine months

28 percent lower server footprint costs

Four minutes unplanned downtime per user each year, down from more than one hour downtime per user each year

Increased productivity for non-IT employees through better application performance and confidence in IT systems and services

⁵ IDC white paper, sponsored by HPE and Intel, [“The Value of Scaling Up to HP-UX and Business-Critical Servers”](#) document #249119, June 2014.

Figure 3. Upgrading existing HPE Integrity services and HP-UX offers measurable benefits⁵

“The old system would already have been unable to cope—we would have been on about 99 percent CPU, but at the moment we’re sitting at 15 percent CPU. It’s a massive change—we would have been happy with a 50 percent improvement, but we’ve got almost an 80 percent increase”

– Leon Rawlins, Business Systems Manager, Burson Automotive

Evolve your mission-critical environment confidently

HP-UX has served as a solid foundation for critical workloads for decades, and HPE is committed to delivering innovations to this platform. With our sustainable road map and long lifecycle, you can be confident your investment in HP-UX is protected. When you choose one of our integrated OEs—as opposed to buying the Base OE plus the individual layered software separately—you can reduce your software license costs by more than 50 percent.⁶

What’s more, our partners continue to experience source and binary compatibility with each update, which means your applications can keep running without the need for additional development. For example, applications written for HP-UX 11.0, which shipped in 1997, can run today on HP-UX 11i v3 and HPE Integrity servers.

Now is the time to upgrade to HP-UX 11i v3

If you are still running older versions of the operating environment, the time to upgrade to HP-UX 11i v3 is now. You can save costs, get added performance, and enjoy the benefits of HPE’s continued innovation on HP-UX, which is focused on the HP-UX 11i v3 version.

When you upgrade from HP-UX 11i v2 to v3 on HPE Integrity servers, you can take advantage of standard support available at least through 2025. You benefit from a potential break in support costs, as software products previously supported individually are included in the integrated v3 OEs. HP-UX 11i v2 support is currently Prior Version Support with Sustaining Engineering, which includes bug fixes. It does not include new features or new server and peripheral hardware enablement offered only via standard support.

Double your HP-UX license value on new Integrity servers with per-socket licensing


When you upgrade your HPE Integrity or HPE 9000 system to the latest HPE Integrity servers, you can double the value of HP-UX. For systems running the HP-UX 11i v3 March 2010 release or later, licenses are sold on a per-socket basis vs. the per-core basis of prior versions.

Upgrading—a free benefit to support contract customers—pays dividends. Applying the HPE concept of “a socket is a socket,” you can transition your HP-UX licenses from an old two-core-per-socket server to a four-core-per-socket server—that’s twice the cores for the same price. Whether you look at it as doubling the horsepower (in cores) for the same HP-UX licenses or as stretching your HP-UX licenses to cover twice as many cores, you get added performance for no extra cost. Consider your current HP-UX needs, and ask your sales representative to put the savings in motion, in the form of an upgrade to HP-UX 11i v3.

Unparalleled uptime for an Always-On world


With HPE Serviceguard Solutions, a suite of high-availability software, we help you protect your business with mission-critical availability—mitigating and managing risks and enabling IT to drive business results. Serviceguard solutions protect against faults and enable downtime-free maintenance through uncompromising resiliency in every component. You can boost availability with self-healing features, fault-tolerant technologies, and live upgrades.

⁶ HPE Price List Comparisons, BOE vs. value OEs, March 2015.



“We chose HPE partly because we were already working with HP-UX, the HPE version of UNIX, and we didn’t want to have to migrate from that. Our database size is increasing day by day, and the HPE system gives us the performance we need to respond, both now and in the future”

– A Shiju Rawther, AVP & Head—IT Infrastructure, Credit Information Bureau (India) Limited



HPE Serviceguard is the foundation of every HPE Serviceguard Solution, monitoring the availability and accessibility of your critical IT services, such as packaged and customized applications and databases. Those applications—and everything they rely on to do their job—are meticulously monitored for any fault in hardware, software, operating system, virtualization, storage, or networking. When a failure or threshold violation is detected, HPE Serviceguard automatically and transparently moves your application to a safe location resuming normal operations in seconds.

Achieve optimum workload flexibility

Respond to business demands automatically and supply computing resources as required by dynamically flexing and enhancing mission-critical compute with the built-in integration of HP-UX virtualization and infrastructure management software. This comprehensive portfolio is part of the HP-UX 11i v3 Virtual Server Environment OE (VSE-OE), and is also the foundation for the private cloud solution HPE CloudSystem Matrix with HP-UX. Our HP-UX 11i v3 VSE-OE gives you all of the technology and licensing to meet your virtualization demands. This full virtualization continuum provides you with the choices to confidently and securely deploy your critical applications and services via appropriate virtualization technology from hard partitions to a full private cloud. Additionally, through the tight integration of HP-UX virtualization and infrastructure management with high availability, disaster recovery, and utility pricing, you can maintain service levels, even in the event of downtime, and pay for spare capacity as needed.

Simplify your IT environment and consolidate applications

With HPE Systems Insight Manager (SIM) software, you can unify around a single management tool to increase the efficiency and productivity of IT staff by using one common interface and consistent processes to manage your server and storage infrastructure. HPE SIM provides a common, centralized interface to systems management, across Integrity and ProLiant servers, network, and storage. HPE SIM is easily extensible, integrating with other HPE management products and value-added plug-ins such as the HPE Matrix Operating Environment, HPE Insight Control management software suites, and the individual HPE Insight Foundation products. Individual system management capability is provided through HPE Integrated Lights-Out 2 (iLO 2), the HPE Insight Display for rack-mounted servers, and the HPE System Management Homepage (SMH).

Future-proof mission-critical compute

We know your critical applications and services demand a low-risk, stable, and efficient infrastructure that delivers value for the long term. With HP-UX, you can be assured your investment is protected into the future. We have announced extended factory support for HP-UX 11i v3 through at least 2025, giving you continued value for the long term. We introduced a new generation of Integrity servers expressly designed to accelerate IT modernization and ensure business continuity, and remain committed to preserving customer investments in their HP-UX environments with ongoing hardware and software enhancements to boost efficiency and performance. This includes periodic future integrations with the evolving Non-Volatile Memory Express (NVMe) technology, continued software innovation via yearly update releases, and extended support through at least 2025, making Integrity and HP-UX the preferred choice for customers desiring balanced and real-world performance of an integrated solution environment for the long-long term. HPE will also preserve the stability of customers’ HP-UX environments by providing an additional solution choice in the future. HPE will enable customers to re-host their HP-UX workloads on Linux® containers running on high-speed, industry-standard x86 based servers. You can realize a full mission-critical experience today and look forward to continued innovations into the future. Our stable infrastructure gives you the peace of mind you need when it comes to your critical applications. HP-UX is the ideal platform to deploy the core workloads that are vital to your enterprise, because your business is Always-On.


“HP-UX is a very stable environment, everything is very smooth, and it’s simple to manage,” says Mr. D’souza. “We feel assured in the resilience of the system.”

For more information on our services portfolio visit HPE Technology Services at hpe.com/info/services

⁷ IDC white paper, sponsored by HPE and Intel, “[The Value of Scaling Up to HP-UX and Business-Critical Servers](#)” document #249119, June 2014.

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Take your mission-critical workloads to the private cloud

Looking for a UNIX platform for your private cloud and Infrastructure-as-a-Service (IaaS) mission-critical environment? HPE CloudSystem Matrix with HP-UX combines the latest HPE Integrity server blades with HP-UX, and Serviceguard provide the robustness, security, and resiliency needed to deploy your mission-critical workloads via private cloud. According to IDC, the flexible computing demands seen in cloud computing can be addressed by HPE Integrity servers as cloud computing moves increasingly to provide enterprise-level business services.⁷

OpenStack® for HP-UX offers customers the ability to use Integrity based servers and HP-UX Operating System in private cloud-based environments. This product offering is ideal for organizations that are looking to modernize their infrastructure and move towards private cloud paradigm. This product is an extension to HPE Helion OpenStack 4.0. It adds support for Integrity based servers and HP-UX Operating System through HPE Helion OpenStack.

[Read here](#) for more details.

Enjoy a proactive, personalized, and simplified support experience with HPE Technology Services

To build an infrastructure that is reliable, highly available, and rooted in proven best practices, HPE Technology Services gives you a support experience that proactively avoids problems by leveraging a dedicated team of experts, automation, and tools. You can get faster problem resolution with reactive and proactive hardware and software support, enhance performance and efficiency with a range of per event services and keep your systems up-to-date with delivery of new updates.

We offer several choices for ongoing customer support services and a comprehensive set of added-value service offerings you can deploy depending on your individual needs, ranging from HPE Foundation Care for reactive hardware and software support, to HPE Proactive Care Services for higher-value, high-performance, focused support helping you with proactive problem prevention and enhanced call handling if there is a problem, to HPE Datacenter Care for flexible environmental-level support designed to help you consistently meet your service-level targets and other business objectives.

Additional value-add service offerings include HPE LiveCycle Event Services and Installation and Deployment Services, plus HPE Factory Express that provide customization and deployment services for your storage and server purchases.

These services will continue to evolve to match your changing business needs.

Learn more at hpe.com/info/hpux

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