

hp-ux manageability
solution brief



the hp-ux advantage
manage seamlessly
and optimize dynamically



the bar has been raised

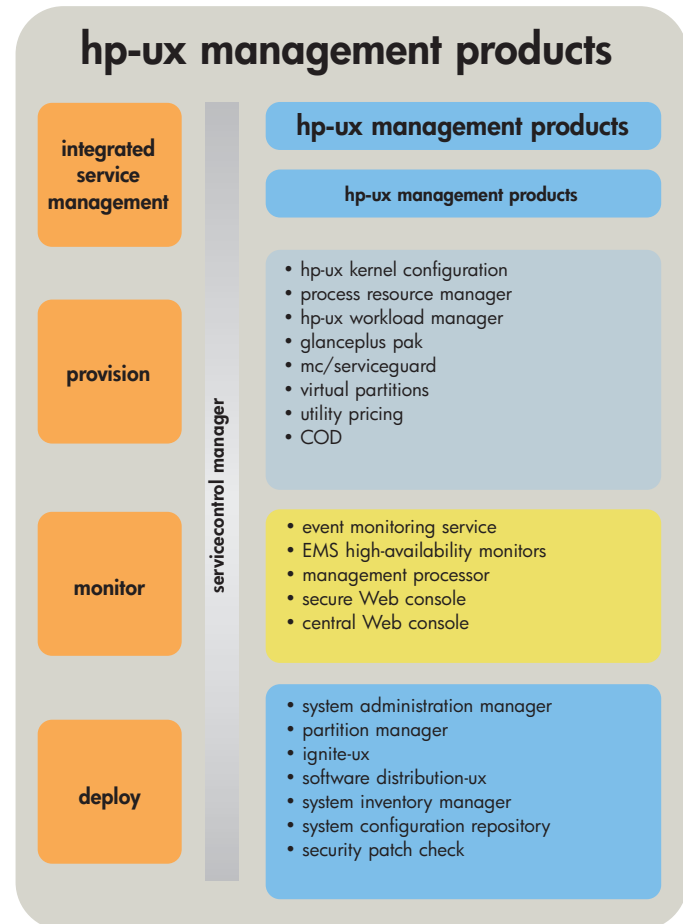
Success in business today requires more than an innovative idea, an outstanding plan, and a willing group of investors. It requires masterful decision-making and relentless dedication to detail. When it comes to IT infrastructure, that means not only purchasing reliable high-performance servers but also ensuring that the servers you purchase work efficiently, that they require minimal human intervention, and that they can prevent faults before they occur. In short, the servers must be highly manageable.

that's where hp-ux manageability solutions come in

Yes, HP-UX is known for outstanding stability, flexibility, and high availability, but at HP we help you get even more from your HP-UX servers by making them extremely, uniquely, and seamlessly manageable. Our vast array of management applications are building blocks in a utility computing environment. They make deployment, monitoring, and provisioning of your servers easier and more efficient. The results: your business is responsive, your employees are productive, and you are always reaping the most from your technology investments. Our innovations, developed through close industry partnerships, are primed and ready for you to incorporate into an always-on Internet infrastructure that you can design effectively, manage seamlessly, optimize dynamically, and evolve intelligently to meet your challenges head on.

servicecontrol manager

HP-UX Servicecontrol Manager is the central point of administration for management applications that address the centralized deployment, monitoring, and provisioning management requirements of an always-on Internet infrastructure. With the discipline of a mainframe solution, Servicecontrol Manager maintains both effective and efficient management of computing resources. It integrates with most of the HP-UX-specific system management tools discussed in this solution brief. It enhances their capabilities through its role-based security, consistent grouping mechanisms, strong audit trails, and multi-system execution ability. HP Servicecontrol Manager also offers a Linux agent to manage Linux-based servers in a multi-OS environment.



manage



seamlessly



software distributor-ux

Software Distributor-UX (SD-UX) is another valuable tool that is integrated with HP Servicecontrol Manager. SD-UX creates depots to house software and patches; HP Servicecontrol Manager gives SD-UX a “push” capability.

system administration manager

HP Servicecontrol Manager makes the HP-UX System Administration Manager (SAM) multi-system aware, meaning the key tasks of SAM can be distributed to multiple systems and delegated using role-based security. In a multi-system environment, HP Servicecontrol Manager allows SAM to manage accounts for users and groups, perform auditing and security, and handle disk and file system management, kernel configuration, and peripheral device management.



simple, rapid deployment

The faster you can get a new server deployed and online, the faster you can reap its benefits. HP has created several tools to help speed deployment, simplify it, and reduce the redundancies involved in it. And we don't just consider the initial deployment—we also consider the ongoing need to deploy updated software and patches. Each application discussed below is extraordinarily effective on its own at improving the deployment process, but combined they are able to perform a dazzling array of multi-system configuration, customization, tracking, and troubleshooting functions.

ignite-ux

Ignite-UX addresses the need for HP-UX system administrators to perform fast deployment for one or many servers. It provides the means for creating and reusing standard system configurations, enables replication of systems, permits post-installation customizations, and supports both interactive and unattended operating modes.

*“HP-UX 11i
#1 ranked
UNIX OS
in the
world!”*

*Based on 2002 UNIX
Function Review
D.H. Brown Associates*

system configuration repository and system inventory manager

By integrating HP's System Configuration Repository tool, HP Servicecontrol Manager offers centralized change management and tracking across multiple systems, and can create an audit trail of all changes and actions taken on all systems. Administrators can compare nodes and get "before and after" snapshots to determine what has changed in the system configuration.

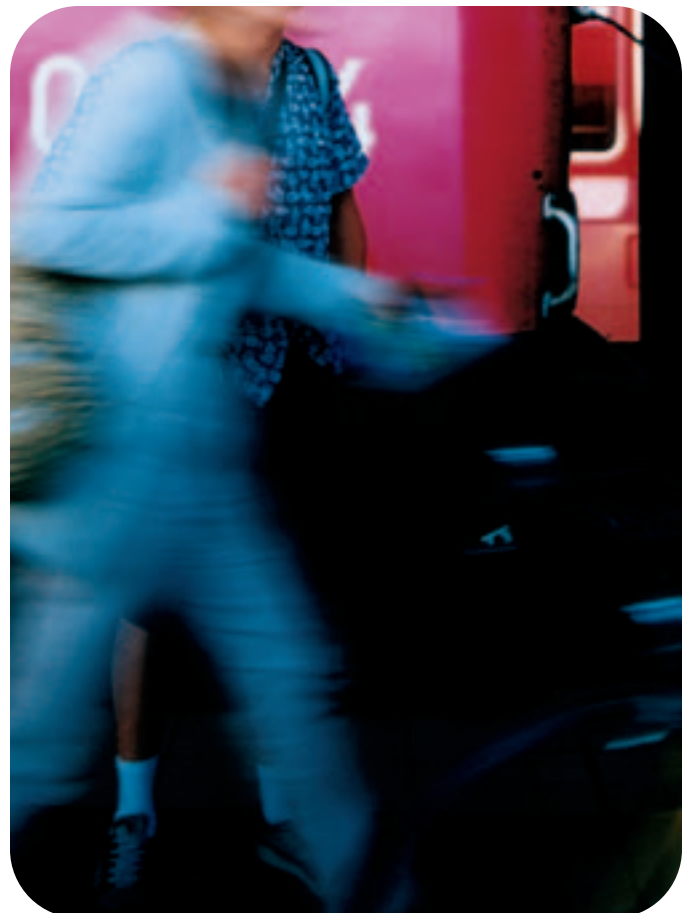
System Inventory Manager is a new tool for change and asset management and will replace System Configuration Repository. It provides an easy-to-use, Web-based interface, superior performance, and enhanced reporting capabilities, and it is enabled to support servers running multiple operating systems.

security patch check

Security Patch Check determines how current a systems security patches are, recommends patches for continuing security vulnerabilities, and warns administrators about recalled patches still present on the system.

partition manager

Partition Manager creates and manages nPartitions—hard partitions for HP-UX high-end servers. Once the partitions are created, the systems running on those partitions can be managed consistently with all the other tools integrated into Servicecontrol Manager.



extraordinary monitoring capability

Carefully monitored servers simply work better. They have fewer failures, they are repaired more quickly, and they operate at optimum efficiency. However, most servers are not monitored as closely as they should be simply because administrators do not have the right tools.

At HP, however, we have developed tools that give HP-UX administrators detailed insight into the performance of each server so they can anticipate issues and capacity expansion needs, and take proactive measures to deal with these things before they become problems. The result is an incredibly reliable and remarkably cost-effective system.



event monitoring service

Highly integrated with HP Servicecontrol Manager, HP's Event Monitoring Service (EMS) keeps the administrator of multiple systems aware of system operation throughout the cluster, and notifies the administrator of potential hardware or software problems before they occur. HP Servicecontrol Manager can launch the EMS interface and configure EMS monitors for any node or node group that belongs to the cluster, resulting in increased reliability and reduced downtime.



EMS high availability (HA) monitors

Designed to help ensure the highest availability by notifying you about events before they affect you, EMS HA monitors can poll hardware, disks, clusters, network interfaces, and system resources and then send that information to your management console. An event can simply be defined as something you want to know about, such as a disk failure or file space dropping below a predefined level. HP's HA monitors can also give you improved productivity and application availability by enabling automatic detection of HA disk-component failures. In addition, they monitor logical and physical volumes, including mirrored copies of data, network interface cards, file system status, and number of users.

secure Web console

The HP Secure Web Console (SWC) is a small appliance that redirects the console port to a secure Web-based console. It allows any PC with either a Microsoft® or a Netscape browser to access HP-UX server consoles over a corporate intranet for the purpose of remote management.

central Web console

The HP Central Web Console (CWC) provides a single, secure console access point for multiple systems and devices across the data center. It features a unique graphical user interface (GUI), convenient Web-based access capabilities, and unmatched scalability. The CWC allows HP-UX servers or Linux servers to be connected and managed from one central location, eliminating a multitude of system consoles, saving precious floor space, and reducing management complexity. It also allows administrators to share in coordinated maintenance sessions and supports back-end connectivity via terminal servers, LAN consoles, and generic telnet sessions.

dynamic provisioning

Regardless of the size of your business or the industry you are competing in, HP has the tools you need to provision new applications and services seamlessly, activate new customers quickly, and establish flexible, usage-based billing. These tools will help you set goals, allocate resources, change configurations, maximize node usage, collect data, and respond to failures—all key elements of an efficient, available infrastructure.

hp-ux kernel configuration*

The new HP-UX Kernel Configuration tool allows users to tune both dynamic and static kernel parameters quickly and easily from a Web-based GUI to optimize system performance. This tool also sets kernel parameter alarms that notify you when system usage levels exceed thresholds.

process resource manager

HP's Process Resource Manager (PRM) controls the resources that processes use during peak system load. PRM can manage the allocation of CPU, memory resources, and disk bandwidth. It allows administrators to run multiple mission-critical applications on a single system, improve response time for critical users and applications, allocate resources on shared servers based on departmental budget contributions, provide applications with total resource isolation, and dynamically change configuration at any time—even under load.

hp-ux workload manager

A key differentiator in the HP-UX family of management tools, HP-UX Workload Manager (WLM) provides automatic CPU resource allocation and application performance management based on prioritized service-level objectives (SLOs). In addition, WLM allows administrators to set real memory and disk bandwidth entitlements (guaranteed minimums) to fixed levels in the configuration. The use of workload groups and SLOs improves response time for critical users, allows system consolidation, and helps manage user expectations for performance.

glanceplus pak

HP OpenView Glanceplus Pak 2000 is an integrated product for managing a system's availability and performance. With the combined features of OpenView Glanceplus, Performance Agent, and Single-System Event and Availability Management, Glanceplus Pak 2000 offers real-time diagnostic capabilities, historic data collection capabilities, and system monitoring capabilities. Glanceplus works with PRM and WLM to provide administrators with the information required to make intelligent resource allocation decisions.

*Does not integrate with HP Servicecontrol Manager.

optimize

dynamically

"First Union has had measurable success using HP's Process Resource Manager to manage multiple Oracle databases for traditional and Web applications.

The goal-based capabilities of Workload Manager will further enhance our e-servicecenter's ability to deliver the service levels our customers demand."

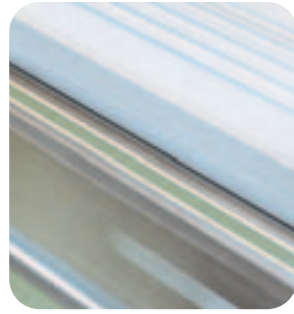
*Rob Young
First Union Corporation
December 1999*

mc/serviceguard

HP multi-computer/serviceguard (MC/Serviceguard) is a specialized facility for protecting mission-critical applications from a wide variety of hardware and software failures. With MC/Serviceguard, multiple nodes are organized into an enterprise cluster that delivers highly available application services to LAN-attached clients. MC/Serviceguard monitors the health of each node and quickly responds to failures in a way that minimizes or eliminates application downtime. MC/Serviceguard integrates with PRM and WLM, providing you a mechanism to dynamically re-allocate system resources in the event of a system failure and also utilize the resources when there are no system failures.

virtual partitions

HP-UX Virtual Partitions (vPars) is a powerful, flexible tool that makes it possible to run multiple workloads—each with unique OS configuration requirements—on the same server at the same time. Virtual Partitions is also extremely well suited for making more effective use of underutilized server nodes, and it's ideal for testing new or enhanced products in a production environment without the need to duplicate the entire environment. WLM and vPars work together to dynamically move CPU resources between virtual partitions so you can prioritize SLOs across multiple OS instances.



utility pricing

HP utility pricing delivers greater flexibility than traditional purchasing and financing models by aligning technology costs more closely with the usage and revenue patterns of our customers' businesses. Our industry-leading portfolio of pricing solutions provides our customers with increasing flexibility to address new opportunities and accommodate fluctuations in demand. WLM can activate and de-activate Pay-Per-Use CPUs in response to SLOs, taking advantage of a system's additional capacity when it is required—and minimizing your cost when the resources are idle.

iCOD

Designed for customers with growing demand, HP's Instant Capacity on Demand (iCOD) pricing allows customers to order technology with extra capacity and pay for that extra capacity only when it is needed. iCOD simplifies capacity planning and eliminates costly delivery and installation delays. WLM can activate iCOD CPUs in response to failing SLOs, increasing the system's ability to meet the SLOs without intervention.

utility data center

The ultimate provisioning solution, the HP Utility Data Center (UDC) pools all data center resources into a single infrastructure, allowing you to consolidate and standardize IT resources and automate data center processes. The HP UDC allows data center infrastructures to be wired once, provisioned virtually, and managed on the fly. With the HP UDC, you can dramatically reduce over-provisioning of expensive IT assets while gaining access to virtually unlimited computing capacity.

At the heart of the HP UDC is HP's utility controller software, which simplifies the design, allocation, and billing of IT resources for applications and services. Based on open standards, the HP UDC can accommodate servers, storage, and network equipment from HP and other vendors, facilitating an intelligent evolution from your current environment to HP's flexible utility data center architecture.

hp OpenView

Each of the server management tools listed above is intentionally product and process-specific in its functionality. However, at HP we know that some of our HP-UX customers will be seeking a higher-level solution—something that allows them to manage an entire network of hardware, software, and services from a single pane of glass. For those customers we offer HP OpenView—our enterprise-level portfolio of software solutions for managing and optimizing data and voice services as well as the infrastructure they run on. Comprising network, systems, storage, application, and service management solutions, HP OpenView includes:

- **hp OpenView network node manager (NNM):** A comprehensive solution that increases network uptime and lowers costs by allowing you to manage networks more intelligently and identify potential problems before a failure occurs.
- **hp OpenView operations:** A distributed client/server software solution that allows full control of distributed IT resources from a central management console.
- **hp OpenView omniback II:** A software solution providing 24 x 7 media management and automated data protection and backup for servers and heterogeneous data center environments. HP's server management tools are well integrated into OpenView and, when combined, result in the most manageable data center solutions available.

why hp?

hp-ux workload management

HP is an industry leader in workload management in the UNIX® environment. PRM has sold more than 15,000 licenses. WLM is the first and only goal-based resource manager available in the UNIX world today. Guided by administrator-set service-level objectives and priorities, HP-UX workload management products maximize the efficiency of your HP-UX servers by consolidating multiple applications on fewer servers (as opposed to the traditional “one application per server” usage model). That way, mission-critical applications always get the resources they need in times of peak demand, but fewer servers are needed. HP’s experience in workload management and the ability to manage workloads based on prioritized service-level objectives are unique to HP and are key competitive advantages.

multi-OS system-level management direction

HP is dedicated to helping our customers not only by providing them with innovative new hardware and software but also by helping them to leverage their existing infrastructure investments. Our multi-OS systems-level management direction means that we plan to merge the best HP-UX management products with HP’s other hardware management products to create a single multi-OS management architecture. This will allow our new management products to work seamlessly with our clients’ existing operating systems, maximizing their earlier investments.

utility data center

By launching the Utility Data Center, HP is the first to market with true utility computing—an idea many technology companies are talking about but few will ever be capable of providing.

hp OpenView

Recognized throughout the industry as a leading performer, OpenView is an all-encompassing management solution. HP’s server management tools are well integrated with OpenView, and result in the most manageable data center solutions available.

always-on Internet infrastructure

One of the guiding principles governing everything we do at HP is the desire to help our customers achieve an always-on Internet infrastructure—always available, always scalable, always connected, always secure, and always manageable. We offer a utility computing infrastructure that is astoundingly reliable and that allows our customers to conduct e-business with their suppliers and clients around the world—with no glitches, no delays, and no downtime.

HP system-level and workload management solutions are a key component of an always-on Internet infrastructure strategy. These solutions prioritize computing resources and optimize managed services cost-effectively—reducing the likelihood of downtime, increasing productivity, and bringing customers closer to an ideal business environment.

where to find the products

Many of the products listed in this brief are available with the HP-UX operating system. HP-UX is delivered via five operating environments (OEs). The HP-UX 11i base, minimum technical, and technical computing OEs include System Administration Manager, Servicecontrol Manager, System Configuration Manager, System Inventory Manager, HP-UX Kernel Configuration, Software Distributor-UX, and Ignite-UX. The HP-UX 11i Enterprise operating environment includes all of the products in the base OE, plus Process Resource Manager, OpenView Glanceplus, EMS, and the EMS HA monitors, as well as other tools. The HP-UX 11i Mission Critical operating environment builds on the Enterprise OE and adds WLM and MC/Serviceguard, as well as other tools.

Finally, some of the tools are also provided as a download from the HP Software Depot, located at www.software.hp.com.

for more information

To learn more about HP’s family of server management tools, please contact your HP sales representative or visit us at www.hp.com/go/servicecontrol

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