Infrastructure that adapts to the real world

Your business must grow, increase profitability and gain competitive advantage. To achieve this, you need an IT infrastructure that helps you reduce operational costs, accelerate the speed of IT change and deliver higher quality of service to increase business efficiency. That is where the HP Adaptive Infrastructure comes into play. Through the use of technology, you can achieve better business outcomes.

Virtualisation is a catalyst in the transformation to an Adaptive Infrastructure. Virtualisation is an approach to pooling and sharing IT resources so that supply will always meet demand. With virtualisation solutions from HP, you can reduce costs, increase agility and improve the quality of your IT service delivery.

The HP Virtual Server Environment (VSE) for HP Integrity and HP 9000 servers enables you to optimise IT at the speed of business. The VSE delivers additional resources to critical applications during peak times by creating virtual servers that grow and shrink automatically according to business priorities. Through tight integration of intelligent control with partitioning, high availability and utility pricing, the HP VSE allows you to maintain service levels and pay for spare capacity on an as-needed basis.

The heart of the HP Virtual Server Environment is a fully integrated software family for planning, management and automation that includes:

- HP Integrity Essentials Capacity Advisor
- HP Integrity Essentials Virtualization Manager
- HP Integrity Essentials Global Workload Manager and HP-UX Workload Manager

These products all plug into HP Systems Insight Manager (SIM), HP’s unified infrastructure management platform. HP SIM provides a common management architecture that VSE applications use to discover and track server resources. It also applies a common look and feel to all menus, tabs and basic commands – making it very efficient to manage your Virtual Server Environment, because it operates within a familiar environment common to all HP infrastructure, virtualised or not.

Overview

- Match workloads to servers more precisely
- Improve server utilisation
- Reduce the time, effort and complexity associated with virtualisation management
- Connect IT resources to real business needs through automation
HP Integrity Essentials Capacity Advisor

HP Capacity Advisor is an easy-to-use tool that captures server utilisation data and virtualisation configuration scenarios so that you can perform ongoing capacity planning. It allows you to view historical resource usage data with an intuitive graphical interface and then use that data to pre-test different scenarios before you make changes to your critical applications. It also allows you to identify trends within the data and to project utilisation into the future for more accurate capacity forecasting. By running multiple scenarios before updating your system, you can make better decisions, match workloads to servers more precisely and get more from your existing server resources. HP Capacity Advisor supports HP-UX 11i, Microsoft® Windows® and Linux.

HP Capacity Advisor reduces the time, effort and complexity of virtualisation planning by:

- Tracking and importing historical workload utilisation data automatically, saving multiple steps and helping to make sure data is accurate
- Finding trends within the data and allowing you to forecast typical usage patterns in order to model future needs more accurately
- Integrating with the rest of the HP Virtual Server Environment, for automatic awareness of all real-time virtualisation elements under consideration for scenario analysis
- Providing an easy-to-use interface, designed for the general IT administrator but also suitable for the specialised capacity planner

HP Integrity Essentials Virtualization Manager

HP Virtualization Manager provides a central point of control for managing all the resources in your Virtual Server Environment. It is a powerful way to connect IT resources to real business needs.

HP Virtualization Manager includes an easy-to-use interface that lets you build a picture of your available virtual resources in seconds instead of taking hours or days to construct a picture of your virtual environment ‘manually’. It lets you see how virtual resources are being used and how they relate to your physical infrastructure and business applications in real time. HP Virtualization Manager can also be used to configure new virtualisation resources – and reconfigure existing ones – seamlessly for high efficiency. HP Virtualization Manager supports HP-UX 11i, Windows and Linux.

HP Virtualization Manager reduces the time, effort and complexity associated with virtualisation management by:

- Providing a graphic representation of the relationship between virtualised resources, applications and physical infrastructure in real time
- Unifying management of the VSE by integrating multiple management tools seamlessly into a single, consistent framework
- Providing contextually appropriate views for managing complex virtualised and physical environments
HP Integrity Essentials Global Workload Manager and HP-UX Workload Manager

HP Integrity Essentials Global Workload Manager (gWLM) and HP-UX Workload Manager (WLM) provide intelligent control for the HP Virtual Server Environment. They enable automated, dynamic allocation of server resources among applications according to pre-defined policies – improving resource utilisation and maintaining service levels. Each solution is best suited to a separate type of Virtual Server Environment deployment, but both provide the following capabilities:

- Managing the real-time resource allocation of many soft partitions (HP-UX virtual partitions [vPars], HP Integrity VMs, or Secure Resource Partitions)
- Shifting Instant Capacity licences between hard partitions (nPars) or servers based on business priorities, or resizing within or across servers based on demand by activating or deactivating Temporary Instant Capacity
- Synchronising resource management policies to re-allocate server resources in the case of a failover

Choosing between HP-UX WLM and HP gWLM

HP-UX Workload Manager is designed to manage workloads on a single system or high availability cluster. HP-UX WLM is a suitable solution for a line-of-business (LOB) consolidation in which the LOB owns its servers but relies on an IT team to manage them. WLM also gives you the ability to fine-tune policies to support specialised resource management needs.

HP gWLM is ideal for large-scale deployments with multiple servers. A typical example is a shared IT deployment, where a single IT department manages servers for multiple business units and where many applications run on a large number of servers – each with several partitions. HP gWLM’s ease-of-use features include centralised policy administration, pre-defined policies and reporting features that enable IT to set up, manage and track resource usage easily. These benefits also make gWLM a suitable solution for many common types of IT environments where fine-tuned policies and specialised resource management are not applicable.
HP Financial Services – put the power of the HP portfolio to work for you

In addition to having the industry’s strongest range of products, services, people, tools, methodologies and world-class partnerships, HP makes it easy on the balance sheet to put the power of the HP portfolio to work for you through HP Financial Services. For more information on these services, contact your HP sales representative, or visit:

www.hp.com/go/hpfinancialservices

Managing the HP Virtual Server Environment for improved server utilisation

Implementing the HP Virtual Server Environment is a significant and positive step toward establishing a more efficient, more highly utilised, more cost-effective IT architecture. This is neither the only step you can take, however, nor the final one. Making sure that your VSE is managed carefully and aggressively through the use of HP VSE management software will help ensure that it operates at maximum efficiency and delivers maximum benefits to your IT organisation and your company.

The sooner we start, the better the business outcome.

We are ready to put our vast resources and expertise to work to help you achieve better business outcomes. Let’s start with a discussion of your business strategies, tactics and goals. Contact your HP representative or HP Authorised Reseller today. Or learn more about managing the HP Virtual Server Environment at: www.hp.com/go/vse

To learn more, visit www.hp.com

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