

Introduction

The HP Virtual Server Environment (VSE) is an integrated solution for both HP 9000 and HP Integrity server platforms that delivers the highest degree of integrated virtualization for allowing your business to quickly respond to changing business demands. Through the seamless integration of several virtualization technologies, VSE provides a flexible computing environment that maximizes usage of server resources. Since management of the VSE is automated, it provides an environment that dynamically grows and shrinks based on the requirements of your business applications.

HP Global Workload Manager (gWLM) is a multi-system, multi-OS workload manager, an intelligent policy engine in the HP Virtual Server Environment. It will integrate with resource management (whole processor and sub-CPU allocation mechanisms within a single operating system) and virtual partitioning techniques to dynamically reallocate resources to applications based on application performance or business policy. This will improve server utilization while maintaining and monitoring service levels across many servers.

HP Global Workload Manager has been designed for data center environments where a central IT organization is acting as a service provider to internal customers. gWLM will allow standard resource allocation policies to be quickly and easily deployed across a consolidated, virtualized data center.

Features and Benefits:

- Improving CPU utilization
 - Dynamic, policy-based CPU allocation
 - Manage vPars, nPars with iCAP, pSets, and Fair Share Scheduler (FSS: sub-CPU) groups on HP-UX (HP-UX 11i v1 for HP 9000 servers; HP-UX 11i v2 for HP Integrity and HP 9000 servers)
 - Manage Processor Sets and Class Scheduler (sub-CPU) groups on OpenVMS Integrity
 - OpenVMS Integrity 8.2-1 and above
 - Manage Galaxy Partitions, Processor Sets, and Class Scheduler (sub-CPU) groups on OpenVMS Alpha
 - OpenVMS AlphaServer 7.3-2 and above
- Ease of management for large numbers of systems
 - Central management server
 - Web-based GUI integrated with HP Systems Insight Manager
 - Central policy management
 - Central monitoring and reporting
 - Real time and historical utilization, demand, & resource allocation
 - Discovery of virtual partitions and resource partitions
 - Out of box support for common, easy to understand configurations
 - Own/borrow policy
 - Fixed entitlement policy
 - CPU utilization policy
 - Single policy can be applied to multiple resource partitions
 - Most sites only need several variations of factory supplied policies
 - Custom policy available for flexible goal-based resource management
 - Role-based access
 - System administrators have full access
 - Read-only access for viewing reports
- Building Trust in dynamic capabilities
 - Ensure tool is configured as planned and will behave as expected
 - Advisory mode
 - Realtime Reporting
 - Historical reports
 - application owners can see results
 - CPU resources can be guaranteed

QuickSpecs

- Fixed Policy
 - Own/Borrow (PolicyMin, owned)
 - Utilization (PolicyMin)
 - Audit reports
 - To prove each workload got what was guaranteed
 - Show when workloads got more resources than the guaranteed minimum
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Hardware Requirements

- gWLM will operate on HP 9000 Servers, HP Integrity Servers and HP OpenVMS AlphaServers.
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Software Requirements

- gWLM will operate on HP-UX 11i Version 1 and HP-UX 11i Version 2
 - gWLM will operate on OpenVMS Integrity 8.2-1 and above
 - gWLM will operate on OpenVMS AlphaServer 7.3-2 and above
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