Monitoring the Virtual Infrastructure with HP OpenView

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Agenda

- The Adaptive Enterprise
- HP Open View Strategic Direction
- VirtualCenter
- ITSM
- HP OpenView Operations
- nworks SPI for VMware
Creating Value Beyond the Building Blocks

Key growth initiatives

- Management software
- Mobility
- Rich digital media
- Security solutions
HP’s Adaptive Enterprise

It’s the ultimate state of fitness in a world where every business decision triggers an IT event.

- Architect and integrate heterogeneous IT environments for stability and control
- Establish and maintain a dynamic link between business and IT for business efficiency
- Optimize resource utilization so supply flows to meet demand for maximum business agility
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HP’s Virtualization Portfolio

Complete IT Utility

Optimize all heterogeneous resources so supply meets business demand in real time

- Datacenter Architecture Services
- Grid computing
- HP Managed Services (Strategic outsourcing)

Integrated Virtualization

Optimize multiple elements to automatically meet service level agreements

- HP Virtual Server Environment (VSE)
- HP Storage Grid
- HP BladeSystem
- HP Consolidated Client Infrastructure (CCI)
- HP Disaster Tolerant Solutions (DTS)

Element Virtualization

Optimize utilization of Server, storage, and networking resources

- Partitions
- Clustering
- Instant Capacity Pay per Use
- Rapid deployment
- Workload management
- HP Storage solutions
  - EVA
  - Virtual Replicator
Ongoing Innovation

Automation

- Automated actions for blades
- Automated storage provisioning
- Unified server and storage management
- Physical/virtual server migration

Virtualization

- Virtual machines for Integrity servers

Infrastructure Management

- Visualization of physical and virtual relationships
- Unified server, & network storage management
- Expanded storage grid architecture

Business driven automation

- Auditing of automated actions
- Management of virtual work units (server, storage, network) as services

Business insight dashboards and reporting

- Automated IT service lifecycle management

2005 2006 Future

Auditing of automated actions

Business driven automation

Automated IT service lifecycle management

Future
Where Are We Today?

- IT resources
- IT services
- Business processes
- Technology provider
- Service provider
- Business partner
- Adaptive Enterprise
- Business value
- Agility
- Efficiency
- Stability
- IT maturity
Adaptive Enterprise Journey

HP solutions for Management of the Adaptive Enterprise

Stable: Techno-Centric
- System Insight Manager
- OpenView Operations for Windows
- Network Node Manager
- Inventory Manager
- Management Portal

Efficient: Service-Centric
- OpenView Operations for Windows
- OpenView Internet Services
- OpenView Transaction Analyzer
- Application-specific plug-ins
- OpenView Radia OS Manager
- OpenView Radia Application Manager
- OpenView Radia Patch Manager

Adaptive: Business-centric
- OpenView Business Process Insight
- OpenView SOA Manager
- OpenView Automation Manager

Level of agility
Discrete partitioned → Integrated clustered → Virtualized federated

Business
Resources & Operations
A Complete Solution

VirtualCenter

OpenView Operations

SPI for VMware

Systems Insight Manager

Vulnerability Scan and Patch VMs and Host*

*VMware GSX and Microsoft Virtual Server

Deploy ESX, Linux or Windows

ESX Server & Service Console

Associate, monitor, control measure, & move
ESX Server insulates the BIOS / Operating System / Applications from the physical hardware, so many systems can share hardware, or be moved to different hardware with no service interruption.
VMware VirtualCenter

- Infrastructure Management
- Administrator’s Console
- VMotion
- VMware Specific
Management Solutions For the Adaptive Enterprise

Industry Focuses:
- Manufacturing
- Financial Services Industry
- Public Sector
- Network & Service Providers

Business Management:
- Business Service Management

Infrastructure Management:
- Network
- Server
- Client
- Storage
- Printer
- Blades

Application Management:
- Custom Applications
- Packaged Applications
- Web Services/SOA

Governance:
- Configuration Management
- Governance

Identity Management:
- Consolidated Service Desk
- Service Driven Operations
- IT Transformation

IT Service Management:
- IT Service Management

Virtualization:
- VMworld 2005
- virtualize now
HP OpenView ITSM

Business & Service Management

HP OpenView Service Desk

Service & Operations Management

For Windows

HP OpenView Operations
SPI for VMware

For Unix

Operations & Hardware Management

SAP
Exchange
Active Directory
Siebel
Citrix

Windows/Netware/Linux
HPUX/AIX/Solaris

HP Systems Insight Manager
Virtual Management Module
VMware VirtualCenter

IBM Director
HP OpenView Operations

- Central admin – distributed mgmt
- Service oriented
- Manage more per person
- Integrated event and perf. mgmt.
- Ops efficiency and effectiveness
- Heterogeneous management
  - Hardware – X86, HP-PA, IBM Power, SPARC
  - Software – Operating systems/Applications
  - Vendor – HP, Dell, IBM, Sun, etc
- Standard responses = higher service levels
VMware Service Management

- Integrate into Enterprise Management solution
- Integrate into Service Management processes
- Maximize ESX Server Project ROI
- Visualization of virtual environment
- Hardware performance reporting
  - Long-term
  - Short-term
  - Operationally
- Performance Management
- Event Management
SPI for VMware

- Full HP OpenView Operations integration
  - Events/Performance/Configuration/State
  - Service view of VMware ESX Servers
  - Reporting and Graphing
- Completes the VMware/HP solution
  - VMware VirtualCenter
  - HP SIM: Virtual Management Pack (VMM)
  - SPI for VMware for OpenView Operations
SPI for VMware

- HP OpenView operations
- HP OpenView certified
- ESX Server as a service
- OVO
  - Performance
  - Configuration
  - Events
  - Monitors
  - State
- Reporting and graphing
Architecture

- No software in ESX Virtual Layer
- Licensed per ESX Server
- One OVAgent per VEM

VMware ESX Monitor
(can be mgmt server)
(can be virtual)
Event Management
Operational Tools
On Demand Graphing
Custom Reporting

- Configuration information
  - Version
  - Virtual machines/OS
  - ESX Servers

- Host
  - Memory
  - CPU
  - Disk
  - Network

- Guest
  - Memory
  - CPU
  - CPU affinity
  - Network
  - Disk