HP OpenVMS Technical Update and Roadmaps

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Agenda

- OpenVMS Roadmap Highlights
- HP Support Policies
- Technical Update
- OpenVMS Technical Futures
OpenVMS V8.2-1 for Integrity Servers

Integrity only release – Available Now!
- Replaces OpenVMS V8.2 for Integrity servers. Support for V8.2 on Integrity will end about June 2006.
- Introduce OpenVMS support for larger Integrity servers (Madison 9 only):
  - rx8620: 4 cells, up to 16 CPUs
  - rx7620: 2 cells, up to 8 CPUs
  - Superdome: Hard partitions of up to 16p/4 cells
- Low-cost 2-node Multi-host SCSI cluster
- 96-node AlphaServer/Integrity clusters
- Performance and scaling enhancements
- Improved hardware fault handling
- Power saver feature to reduce electricity use
HP Integrity Servers: OpenVMS support

OpenVMS V8.3 will support Montecito based upgrades and new systems.

HP AlphaServer Roadmap

Support at least through 2011
OpenVMS Clusters Facilitate Integrity Adoption

NOTE: Support for VAX and Integrity mixed environment is supported for migration purposes only.

HP OpenVMS Operating System Rolling Roadmap

OpenVMS V8.3
FRS: H2 2006
Platforms: Alpha and Integrity
- New Platform support with Montecito
- rx2620 & rx4640 Montecito upgrades
- VLAN support
- Performance & Scalability enhancements
- Industry Standards: Web Services, Java, Security, UNIX/Linux interoperability
- Virtualization: iCAP, TiCAP and PPU

OpenVMS V8.4
FRS: +12-18 months
Platforms: Alpha and Integrity
- New Integrity systems
- Storage performance and connectivity enhancements
- Performance & Scalability enhancements
- Industry Standards: Security, Integration software, Web Services, Java, UNIX/Linux interoperability
- Virtualization: VSE Manager

OpenVMS V8.n
FRS: +12-18 months
Platforms: Alpha and Integrity
- New Integrity systems
- Industry standards
- Performance & Scalability enhancements
- Virtualization

Continued OpenVMS releases

Next Generation HP Blade Server
- H2 2007
- HPVM – HP Virtual Machine V3 on Montecito chipsets
Operating environments for OpenVMS on HP Integrity servers

OpenVMS I64 Mission Critical Operating Environment (MCCE)

OpenVMS I64 Enterprise Operating Environment (EOE)

Add to Foundation:
- RMS Journaling
- VolumeShadowing
- DECram
- OpenVMS Management Station
- Availability Manager

Add to Enterprise:
- OpenVMS Clusters
- OpenVMS RTR Backend

Easier to order
Easier license management
Straight forward installation of OE’s from a single DVD
Simpler support contracts
Higher customer satisfaction

One DVD media for all 3 OE’s
Subject to change

OpenVMS IBM SNA Solutions

Support for HP OpenVMS SNA product set on OpenVMS Version 8.2 Alpha in February 2006

IBM SNA product port to Integrity
Supporting OpenVMS V8.2-1 September CY2006
- HP SNA 3270 Terminal Emulator for OpenVMS
- HP SNA Remote Job Entry for OpenVMS
- HP SNA Application Programming Interface for OpenVMS
- HP SNA 3270 Data Stream Programming Interface for OpenVMS
- HP SNA APPC/LU6.2 Programming Interface for OpenVMS
- HP SNA Printer Emulator for OpenVMS
- HP SNA Data Transfer Facility “Client & Server” for OpenVMS

Support for HP OpenVMS SNA product set on OpenVMS V8.3 H2 2006
Advanced Server, PATHWORKS for OpenVMS & PATHWORKS 32

2005 2006 2007 2008 2009

Advanced Server V7.3a ECO4 for OpenVMS V8.2 Alpha – Available Now!

Samba V3.0 evaluation release for Integrity only Dec CY2005

Samba V4.0 Production release Alpha & Integrity H2 CY2006

PATHWORKS for OpenVMS V6.1
- Support for OpenVMS V7.3-2 release
- No IPF Integrity support planned


HP Support Policies
HP Support Policy

- Unless otherwise agreed to by Hewlett-Packard Company (HP), HP provides HP Support Services only for the current and immediately preceding versions of HP software, and only when the software is used with hardware that is included in HP-specified configurations. A version is defined as a release of a software product that contains new features, enhancements, and maintenance updates."


**Enhanced OpenVMS Service Support Roadmap**

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- Prior Version or Standard support will be provided on these versions at least through 2011.
- **w/24 mo. Notice**: A 24-month notification will be provided before support is ended.
- Future version shipment dates are estimates.
**Enhanced** OpenVMS Service Support Roadmap

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Guaranteed Support at least through 2011*

* Prior Version or Standard support will be provided on these versions at least through 2011.
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OpenVMS Technical Update
OpenVMS V8.3

- Target shipment date = H2 2006
- Highlights:
  - New Integrity platform support
  - New Hardware option support
  - General User enhancements
  - UNIX Portability features
  - Security Enhancements
  - Virtualization: iCAP, TiCAP and PPU
  - Continued Java, web services updates
  - Performance improvements

Hardware and Options support

- AlphaServers
  - Limit 32 CPUs
- Montecito based systems
  - Maximum 32 cores (4 cells)
- 10gb Ethernet NIC
- 4gb Fibre channel
- DVD Record: easily record locally mastered volumes/files onto optical media
- USB MUX serial terminal connections
- VLAN: Reduces the number of NICs required for connectivity
General User Features V8.3

- LMF terminology update – Integrity only
- AES encryption support in BACKUP
- Performance improvements to BACKUP, Queue Manager & Copy
- New lexical functions
- Queue job limit increased to 65535 jobs!
- "Live view" of Process Quota consumption
- Cluster satellite boot for Integrity
- Automatic/Restartable MiniCopy

Unix Portability (UP) V8.3

OpenVMS will be like any other “UNIX flavor” for easy application portability

- POSIX style pathname support
- Symbolic Links
- Byte range locking
- GNV update
V8.3 Performance & Scaling Enhancements

- RMS Global Buffers in P2 Space
- File not found errors perform much faster on IA64
- Reduced alignment faults in numerous OS components
- Installed Resident Images now have code in S2 space
- Support for shared address data for installed images
- Improvements in the code to Probe access to virtual address
- Improvements for PEDRIVER Block Transfers
- Reduced the time to write an IA64 crash dump

V8.3 Performance & Scaling Enhancements

- Complete removal of IOLOCK8 spinlock usage for Fibre Channel – for both Emulex and Qlogic drivers
- More alignment fault reduction in the OS and in DECnet Phase V
- Lock Manager improvements for computing group grant mode
- Eliminate usage of the SCHED spinlock for PFW and PFC upcalls
Security Enhancements

- Secure Software Delivery
  - allows verification of authenticity of downloads and installations of OpenVMS software with cryptographic signature of kits
- ACME Login (real external authentication!)
  - LDAP ACME
  - Kerberos ACME
- AES Encryption
  - Industry standard, stronger encryption included in the base operating system
- SSL as a SIP
  - Automatically part of operating system installation script

TCP/IP Version 5.6

Highlights:
- NFS Server support for Integrity
- SCP/SFTP preserves OpenVMS file attributes
- TCP/IP$CONFIG.COM enhancements (failSAFE IP)
- SSH upgrades with Kerberos support
- DNS/BIND 9 Resolver and v9.3 Server
- DNSSEC
- NTP Security Update (SSL), NTP AutoKey
- SMTP Multi-Domain Zone (Mail improvements)
- TELNET Server Device Limit
- IPv6 support for LPD and TELNETSYM
- FTP Performance Boost for VMS Plus - FTP Performance improvement
- Improved Management Utilities (ifconfig etc.)

Other Networking
- Support of DECnet and X.25 on V8.3
- SNA and Advanced Server will come later
Integration and System Management

- Web Services Integration Toolkit (WSIT) 1.1
  - additional ease of use features and JSP support
- Java releases:
  - Java 1.4.2 update on Integrity
  - Java 5.0 release on Alpha
- Certification of BEA WebLogic Server 8.1 SP3 on Integrity
- OpenView Performance Agent

OpenVMS Future Directions
Post V8.3 Potentials

- New Integrity Platforms
- Next Generation Integrity Blade
- >32 core support on Integrity
- PCI Express
- iSCSI support
- HP Integrity VM OpenVMS guest
- Shared Stream I/O (SSIO)
- Samba
- IP Routable clusters
- Virtualization tools – Capacity Advisor, Virtualization Manager
- Performance enhancements – signaling and condition handling improvements, …