What is new with OpenVMS V8.4?

Aditya B S,

OpenVMS Engineering

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Agenda

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  - **Customer requirements and Technology Trends**
  - **Rackmount rx2800 i2 server**
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  - **Software Features**
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  - **Bug Fixes**
- **Q&A**

Themes guiding release of updates

Key TCE Issues

Key TCE Issues

- "Golden Disk" – ability to move system disk between machines

- 2 node clusters based on shared storage

- Console Performance on i2 Servers

    - Forces usage of polled mode console

    - Prevented provisioning using HPSIM

- No Add-on Graphics Card on rx2800 i2 Server

    - No supported PCIe card with OpenVMS

    - No Multihead or Xinerama

- LAN failover issues

Customer requirements and Technology Trends

Customer Requirements and Technology Trends

- Increased Capacity of IO devices
- Increased Bandwidth – Storage and LAN
- Newer Devices
- Focus on compliance and security

Rackmount rx2800 i2 Server

Need for Rack Mount Server

- Bladed environment may not be right for all environments
    - Process control environments
    - Co-location of x86 and IA64 blades not required
    - May not have need to co-locate enough servers for a blade chassis

- Cost Effectiveness
    - Not enough servers to share cost of common blade infrastructure

rx2800 i2: Compared to rx2660

rx2800 i2 offers higher performance and more configuration capacity

	rx2800 i2	rx2660
CPU type	Intel® Itanium® 9300 series	Intel® Itanium® 9100 series
# Processors	2 or 1	2 or 1
# Cores (max)	**4 or 2 (8 core)**	**2 or 1 (4 cores)**
CPU frequencies	• 2-core 1.6 GHz/10 MB • 4-core 1.46 GHz/16 MB • 4-core 1.73 GHz/20 MB	• 1-core1.6 GHz/12 MB • 2-core 1.42 GHz/12 MB • 2-core 1.66 GHz/18 MB
Memory	**24 DIMM slots DDR3** 384 GB max	**8 DIMM slots DDR2** 32 GB max
I/O & Networking	**6 PCIe I/O slots** **4 x1 GbE NICs**	4 PCI-X or **2 PCIe I/O slots** **2 x1 GbE NICs**
Internal storage	8 Hot-Plug SFF SAS HDDs 7.2 TB max **SATA DVD drive**	8 Hot-Plug SFF SAS HDDs 2.4 TB max **USB DVD drive**
Management	iLO3 Advanced Pack (included)	iLO2 Advanced Pack (optional)
Form factor	2U rackmount Desk-side option	2U rackmount Desk-side option

Hardware Enablements

Hardware Enablements (1/4)

- On BL8x0c i2 and rx2800 i2 Servers

  - 16 GB DIMM support
  - 450 GB and 600 GB SAS disk
  - SSD support
    - SSD Gas Gauge Monitoring Interfaces
    - New $GETDVI system service/lexical item codes (DVI$_SSD_USAGE_REMAINING & DVI$_SSD_LIFE_REMAINING)

- On rx2800 i2 Servers

  - SATA DVD-ROM or DVD+RW
  - HP Smart Array P411 Controller
  - HP Smart Array P812 controller (AM312A)
  - HP Integrity PCIe Dual-port 10 GbE Ethernet Controller (AM225A, AM232A and AM233A)
  - SCSI support (Tape only) on rx2800 i2 servers with HP Integrity PCIe Ultra320 SCSI adapter

Hardware Enablements (2/4)

- HP StorageWorks LTO-5 Ultrium Tape Drives
- HP Virtual Connect FlexFabric 10 Gb/24-port module
- HP Smart Array P711m Controller (PCIe Mezz Card) on BL8x0c i2 Servers
- HP 6 Gb/s SAS BL Switch
- HP P2000 G3 SAS array
- HP D2200sb Storage Blade

571956-B21
Virtual Connect FlexFabric
10Gb/24-port Module

HP Ultra320 SCSI HBA

HP Smart Array P711m
SAS Controller

HP 6Gb SAS Switch

HP P2000 G3 MSA Controller

HP D2200sb
Storage Blade

Hardware Enablements (3/4)

- HBA mode support on HP Smart Array P410i and P411 controllers
    - EFI utilities – Setting UDID for HBA mode disks and Display the device name
    - BOOT_OPTIONS.COM enabled to support devices connected to P410i and P411 controller in HBA mode
    - MSA$UTIL enhanced to
        - SET/DISPLAY UDID for external disks attached to P411 controller in HBA mode
        - Display Controller Mode: RAID or HBA mode
    - SDA CLUE extension can be used to check whether HBA mode is enabled

- Enhancements to USB Stack to make it Robust

Hardware Enablements (4/4)

- ATI FireMV 2250 Features
    - Dual Head Capable
    - DVI / VGA Support
    - 256 MB DDR2 Memory
    - Low Power Consumption Design
    - Low Noise Variable Fan

- OpenVMS Graphics Driver for FireMV Card
    - DVI / VGA Support
    - Multihead and XINERAMA Support
    - **Beta Kit Available** - Support enabled only for Single Head on Single FireMV Card
    - **Final Release** supports **Dual Head capability** of FireMV

Coming Soon!!!

Software Features

Software Features (1/2)

- Increase in the maximum limit of Multi Block Count to 255

- Flex10 Support on BL8x0c i2 servers

- OpenVMS provides software support in following management areas:

    - Provisioning v4.1
    - WBEM Infrastructure
    - WBEM Providers

Software Features (2/2)

- File System Enhancements and Bugfixes
    - Better handling of Directory lookup
    - Root causes for a majority of directory corruption occurrences have been fixed.
    - Fixes for bugcheck due to inconsistent FID
    - Support for upto 4GB GH regions in XFC
    - Quality improvements for symlinks in RMS

- NFS Enhancements
    - NFS V3 Client
        - Compliant with RFC 1813
        - Released as part of TCP/IP 5.7 ECO 2 kit
        - Support for larger file sizes (upto 4GB)
        - Larger data transfer size (32 KB)

    - NFS Server – Resource Identifier based access
    - NFS Server – Read_Only

Bug Fixes

Bug Fixes

- BL8x0c i2 LAN failover
    - LAN Failover from one port to another port on **10GB LOM** takes more than 3 seconds

- MSA$UTIL enhanced to
    - Create RAID 50 or RAID 60 LUN on P410i and P411 controllers
    - Create/Expand/Extend a LUN greater than 1TB
    - LUN migration from RAID 50 or RAID 60 to other raid levels

- Autogen enhanced to
    - Handle Physical memory > 1TB (upto 2TB)
    - Handle volumes > 1 TB (upto 2TB)

Performance Focus

Performance Focus

- Alignment Faults
  - Shadowing Commands
  - Audit Server
  - Security
  - Cluster Components
  - LIBRTL

- Performance Improvements
  - PEdriver VC Flex10 support
  - Cluster over IP (IPCI)
  - rx2800 i2 Console
  - OTS$STRCMP routines
  - iMacro IA64_STF_SPILL_F0 – Zeroing large areas of memory

Other TIMA Releases

Product	Version	Alpha/I64	Key Features
DFO	3.1	I64 V8.3 to V8.4, Alpha V7.3-2, V8.3, V8.4	Support for 2TB volumes
SMH	2.2-1	V8.4 I64 (No Alpha)	Support for i2 Integrity servers
Fortran	8.2 ECO 1	I64 V8.3 to V8.4 (No Alpha)	Floating point updates, compiler uses new control registers, and remedial updates
SSL	1.4-467	Alpha V8.3 to V8.4 I64 V8.3 to V8.4	Opensource refresh - OpenSSL 0.9.8w and security fixes
DCPS Japanese	2.7	Alpha 7.3-2 - 8.4 I64 V8.3 - 8.4	Japanese port of V2.7
T4	4.4	Alpha 7.3-2 - 8.4 I64 V8.3 - 8.4	Additional Collectors added
OVO HTTPS Agent	8.6-2	Alpha V7.3-2 to V8.4 I64 V8.2-1 to V8.4	Remedial rollup
DECnet	8.4 ECO 2	Alpha and I64 - V8.4	Remedial rollup
CIFS	1.2 ECO 1	Alpha and I64 - V8.3 to V8.4	Remedial rollup
CSWS	2.2 Update 2	Alpha V7.3-2 - V8.4, I64 V8.3 - V8.4	Remedial rollup
ABS	4.5 1202	Alpha V7.3-2 to V8.4 I64 V8.2-1 to V8.4	Remedial rollup

HP OpenVMS V8.4 Update Summary

OpenVMS V8.4

Earlier Updates

- BL8x0c i2 blade server support
- Improved disaster tolerant clusters
- Guest OS support on Integrity VM
- Enhanced system management

Update V500

- rx2800 i2 rackmount server support
- Virtual Connect/Flex10 support

Update V600

- Advance power capping and IPM support
- 10 GbE cards on rx2800 i2 support
- P812 6G SAS support (with D2600/D2700) on rx2800 i2

Update V700

- SAS HBA mode support on rx2800 i2
- SSD support on i2 servers
- SCSI support on rx2800 i2
- P2000 G3 SAS array
- D2200sb Storage Blade
- VC FlexFabric 10 Gb /24-port module
- Smart Array P711m controller

Q & A

Questions/Comments

- **VMS Product Managers**
  - PDLVMSPrdManagers@hp.com

- **Office of Customer Programs**
  - OpenVMS.Programs@hp.com

Thank you