HP OpenVMS version 8.3-1H1 for Integrity server systems

New Features & Benefits

HP OpenVMS version 8.3-1H1 continues support for all of the Integrity server systems and options supported in OpenVMS versions 8.2-1 and 8.3, including the latest generation of Industry standard Itanium processors from Intel, the BladeSystem c-Class BL860c.

OpenVMS version 8.3-1H1 includes all the capabilities of previous versions of OpenVMS, plus new features added to the OpenVMS operating system. BladeSystem system management functionality has been enhanced to include support for provisioning and providers using HP SIM. HP SIM running on an HP ProLiant server with Microsoft Windows supports provisioning of OpenVMS on HP Integrity rx3600 servers, rx6600 servers, and BL860c Server Blades.

OpenVMS version 8.3-1H1 will begin shipping in H2 2007, and is a replacement for OpenVMS version 8.3 on Integrity servers. OpenVMS version 8.3 remains the current version on AlphaServer systems.

This document describes the new features and enhancements included in OpenVMS version 8.3-1H1 for Integrity server systems and its associated products.

Note: The information included in this document is subject to change.

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Warranted Pairs, Migration Support and Upgrade Paths	
FEATURE	**BENEFIT**

Supported v8.3-1H1 Upgrade Paths and Warranted Configurations:
• Supported v8.3-1H1 Upgrade Paths:
  • Integrity: from v8.2-1 or v8.3
• Warranted configurations:
  • v8.3 Alpha and v8.3* Integrity
  • v7.3 VAX and v8.3 Alpha
• Migration support:
  • v7.3-2 Alpha, v8.2 Alpha
  • v8.2 Integrity, v8.2-1 Integrity
	• Agility
	• Retains high RoIT
	• Improves scalability

System Support	
FEATURE	**BENEFIT**
OpenVMS support for the newest Integrity server systems including new entry level, mid-range and high-end systems, which are based on the latest generation of Industry standard Itanium processors • BL860c Server Blade (2P/2C; 2P/4C); 1.6GHz/6MB, 1.4GHz/12MB, 1.6GHz/18MB • rx2620, 2P/4C; 1.4Ghz/12MB; 1.6Ghz/18MB • rx2660, 2P/4C; 2P/2C; 1.4Ghz/12MB, 1.6GHz/18MB, 1.6GHz/6MB • rx3600, 2P/4C; 1.4Ghz/12MB; 1.6Ghz/18MB • rx6600, 4P/8C; 1.4Ghz/12MB; 1.6Ghz/18MB; 1.6Ghz/24MB • rx4640, 4P/8C; 1.6Ghz/18MB; 1.6Ghz/24MB • rx7640, 8P/16C; 1.4Ghz/12MB; 1.6Ghz/18MB • FAST Bundle: rx7640 2-, 4 , 8-, 12-, and 16-core SMP Base Systems • rx8640, 16P/32C; 1.4Ghz/12MB; 1.6Ghz/18MB; 1.6Ghz/24MB • FAST Bundle: rx8640 4-, 8-, 16-, 24-, and 32-core 1.6Ghz/24MB SMP Base Systems • Superdome/sx2000, 64P/128C - maximum nPAR partition size 4 Cells; 1.6Ghz/18MB; 1.6Ghz/24MB; maximum 128GB memory per cell	• Provides customers with the ability to run their OpenVMS applications on the latest Industry Standard HP Integrity servers • Run increased workloads over earlier versions of Integrity servers • Provides the ability to consolidate systems and reduce footprint in labs, and reduce power consumption
Continued support of Integrity Servers supported in OpenVMS v8.2-1 and v8.2: • rx1600 2P/2C; 1.0 GHz • rx1620 1.6GHz/3MB 267FSB (DP) • rx1620 1.3GHz/3MB (DP) • rx2600 2P/2C; 1.0, 1.3, 1.4, 1.5 GHz • rx2620 1.6GHz/3MB (DP) • rx2620 1.3GHz/3MB (DP)	• Provides customers with investment protection through the ability to continue to run their OpenVMS applications on previously supported Integrity servers

• rx2620 1.6GHz/6MB • rx4640 4P/4C; 1.3, 1.5 GHz • rx4640 8P/8C (dual-core); 1.1 GHz • rx4640 1.5GHz/4MB • rx4640 1.6GHz/6MB • FAST Bundle: rx4640 4CPU confiig 1.6GHz/9MB • rx7620: 2 cell, 8P/8C; 1.5 GHz/4MB, 1.6GHz/6MB, 32GB memory per cell • FAST Bundle: rx7620, 2-, 4-, 6-, and 8-core SMP Base System • rx8620; 4 cell, 16P/16C; 1.5 GHz/4MB, or 1.6GHz/6MB, 32GB memory per cell • FAST Bundle: rx8620, 2-, 4-, 8-, 12-, and 16-core SMP Base System • Superdome: Hard partitions of 4 cells; 1.6/9MB, 64GB memory per cell • Superdome/sx1000, 64P, 64C; maximum nPAR partition	

System Management	
FEATURE	**BENEFIT**
Provisioning • Automatic configuration, reconfiguration and upgrading of BladeSystems and Integrity servers	• Provisioning is the process of installing or upgrading an operating system. With provisioning support, HP Systems Insight Manager (HP SIM) installs or upgrades the OpenVMS operating system quickly and easily on up to eight servers simultaneously. Provisioning support also facilitates installing or upgrading OpenVMS on HP Integrity servers and BladeSystems that do not include a CD/DVD drive.
WBEM Infrastructure • This release supports Web Based Enterprise Management (WBEM), which is currently based on OpenPegasus V2.5.0	• WBEM allows customers to manage their systems consistently across multiple platforms and operating systems, providing integrated solutions that optimize the infrastructure for greater operational efficiency. This capability has been extended to OpenVMS on the BL860c Server Blade system, and the rx3600 and rx6600 members of the HP Integrity server family. Additional Integrity servers will be certified soon.
WBEM Providers • WBEM providers enable the monitoring of hardware and the operating system	• HP WBEM Providers are the management instrumentation that provides data such as device type and memory configurations and performs actions on a specified device. The following providers are available with OpenVMS v8.3-1H1 for Integrity Servers: ◦ Environmental instance provider ◦ CPU instance provider ◦ EMS wrapper provider ◦ Memory instance provider ◦ Firmware revision instance provider ◦ MP instance provider ◦ Enclosure manager instance provider ◦ Operating system CIM provider ◦ Computer system CIM provider ◦ Process and process statistics CIM provider
HP Smart Plug-in for Oracle Rdb on OpenVMS Integrity and Alpha • Proactively monitor distributed enterprise-wide Oracle Rdb Database environments from a central, best-in-class console via Smart Plug-in (SPI)	• The HP Smart Plug-in for Oracle Rdb brings market-leading HP management and control capabilities to Rdb environments. It enables business-centric service management, event management and performance monitoring on multiple Rdb environments in support of critical business processes. The SPI helps administrators increase Rdb availability and performance and lower the overall cost of maintaining single or multiple Rdb databases across the network.

Performance and Scaling Enhancements	
FEATURE	**BENEFIT**
No-IOLOCK8 • Each FibreChannel port driver (SYS$PGQDRIVER, SYS$PGADRIVER and SYS$FGEDRIVER) device uses its own port-specific spinlock instead of IOLOCK8 to synchronize its internal operations	• Significantly decreases the amount of time each CPU spends waiting for the IOLOCK8 spinlock as well as some increase in the FibreChannel I/O rate

Storage, I/O, and LAN	
FEATURE	**BENEFIT**
USB 2.0 High-Speed	• Speeds up USB installation
Smart Array P-800 Lite (AD335A)	• Connects PCI-E systems to SAS backplane RAID
PCI-X 266 mhz 10Gigabit Ethernet (AD385A)	• High performance 10 Gigabit Ethernet NIC for PCI-X I/O slots, with highest performance in PCI-X 266 MHz slots
HP Lights-out Advanced KVM Card (AD307A)	• Supported on rx7640, rx8640, Superdome • Enables iLO2 (Integrated Lights-Out) on cellular platforms • Also provides a USB connection
Ultrium 448c Tape Blade	
SB40c Storage Blade	• Half-height c-Class storage Blade with 6 SFF SAS disk
PCI express	• Supported on rx7640, rx8640, SuperDome
Graphics Console • Provides a method to boot an Integrity server using a VGA display and USB keyboard and mouse as the operator console	• Allows sites to perform server consolidation with racks of systems connected and managed using Keyboard Video Mouse (KVM) switches

Other	
FEATURE	**BENEFIT**
Virtual Connect • A set of interconnect modules and embedded software for HP BladeSystem c-Class enclosures • OpenVMS supports HP 1/10 GB and 4GB virtual connect Ethernet modules for c-Class BladeSystems	• Simplifies the setup and administration of server connections
Virtual Media • Part of the iLO2 enhanced feature set • OpenVMS supports vMedia on BL860c, rx2660, rx3600, rx6600, rx7640, rx8460, and Superdomes with sx2000 chipset	• vMedia devices appear as local USB disk devices to the host system • Use vMedia devices to boot, install, or upgrade OpenVMS from over the network

Time Zones
• Eight time zones have been added:
  • America/Atikokan
  • America/Blanc-Sablon
  • America/North_Dakota/New_Salem
  • Europe/Guernsey
  • Europe/Isle_of_Man
  • Europe/Jersey
  • Europe/Podgorica
  • Europe/Volgograd
	• Continuing enhancements to time zone support

Licensing • Tier C licenses	• New licensing tier for OpenVMS on BladeSystems