
HP User Society


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HP Integrity Server Overview & Roadmap
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HP Processor / Core naming conventions

In this presentation, a PROCESSOR is the component that plugs into a processor socket – it may contain more than one processor core.

A CORE is the actual data-processing core within a Processor – there may be multiple cores within a single processor.

Examples:

product	old vendor naming	using HP's "P/C" naming
HP rx4640-8 with Itanium 9M (single core)	"4 processors"	4P / 4C (may be abbreviated 4P or 4C)
HP rx4640-8 with Montecito (dual core)	"8 processors"	4P / 8C

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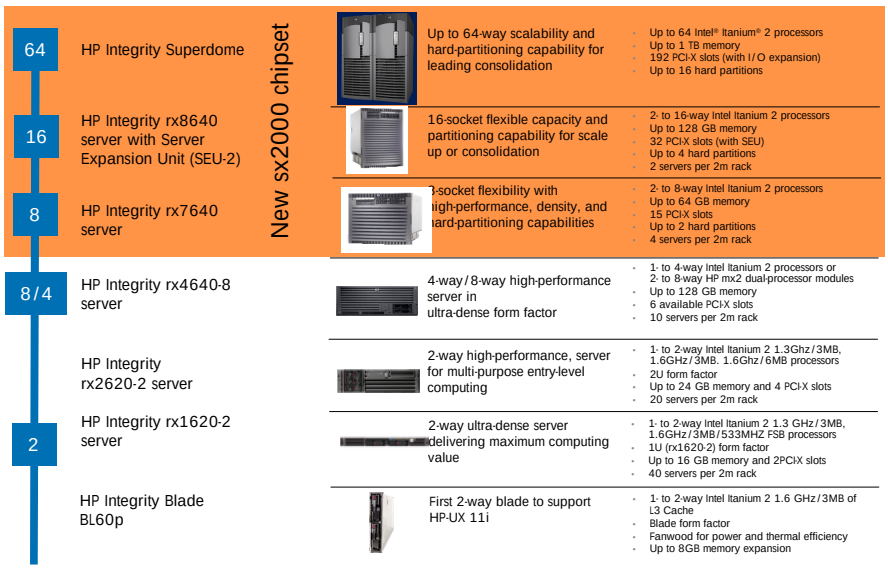
HP Integrity servers: The broadest line of Enterprise systems



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Unparalleled choice of 64-bit operating systems

HP-UX 11i Version 2	Proven quality, availability and manageability
Windows Server 2003	Industry standard MS Windows now available on 64-bit servers
redhat, SuSE, Linux	Openness, flexibility and cost savings
OpenVMS	Secure, feature rich, stable and with investment protection

Choice of operating systems gives you maximum flexibility for deployment and redeployment in an adaptive enterprise.

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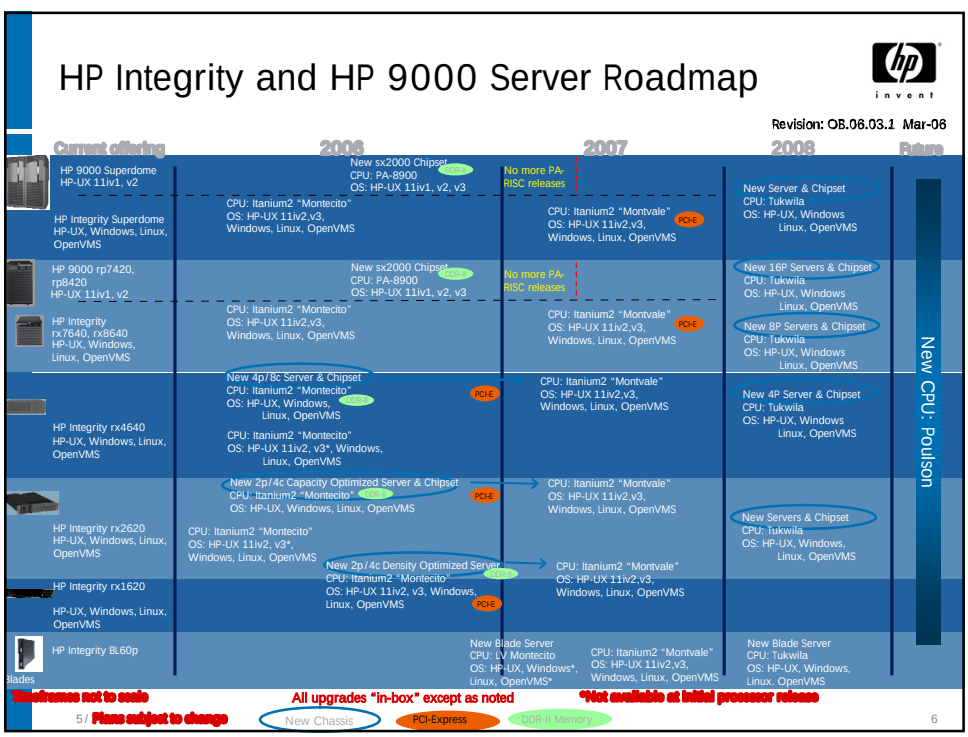
HP Integrity and HP 9000 Server Roadmap



Serial-Attached SCSI (SAS)

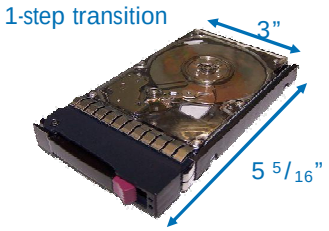
Investment protection
- Small Form Factor (SFF) SAS will become the new universal drive

Higher reliability
- 1.7 million MTBF (vs. 1.5 million for 3.5" SCSI)

Flexible configurations
- Mix and match SAS and SATA drives
- Increased Drive Bays

Better performance
- Serial point-to-point connections
- More spindles per platform

Greater efficiency & improved thermals
- Half the power consumption – 9 Watts
- Smaller form factor enables better airflow



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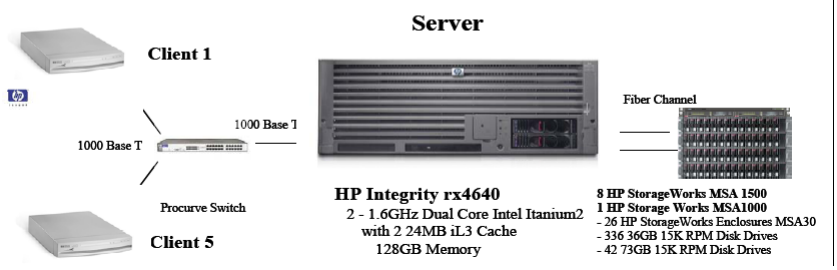
rx4640 TPC-C HP-UX Benchmark (2/4/8)

	HP Integrity rx4640			TPC-C Revision 5.6 Report Date: March 21, 2006
Total System Cost	TPC Throughput	Price/Performance		Availability Date
$551,406	200,829 tpmC	$2.75/tpmC		September 1, 2006
Server Processors/Cores/Threads	Database Manager	Operating System	Other Software	Number of Users
2/4/8 Dual-Core Intel Itanium2 1.6GHz	Oracle Database 10g Enterprise Edition	HP-UX 11.i, v2 64-bit	TUXEDO 8.0	158,400



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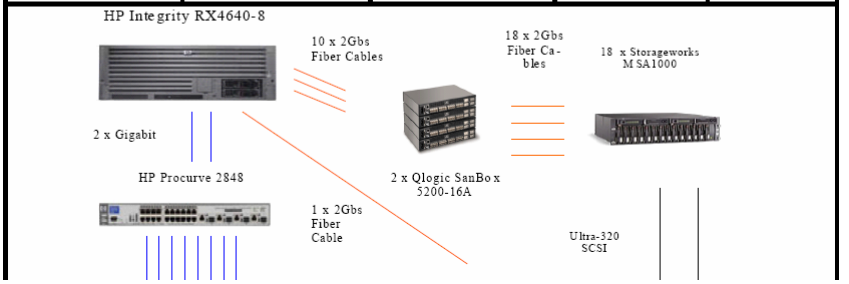
rx4640 TPC-C Windows Benchmark

(4/8/16)

HP Integrity rx4640-8				TPC-C Revision 5.6
Total System Cost	TPC-C Throughput	Price/Performance	Report Date	Availability Date
$788,155 USD	290,644 tpmC	2.71 USD per tpmC	March 27, 2006	Sept 1, 2006
Procs/Cores/Threads	DataBase Manager	Operating System	Other Software	Number of Users
Srvr - 4/8/16 Dual Core Itanium 2 Processor 9050 @ 1.6GHz Client - 8 x 2/2/4 Intel Xeon @ 3.6 GHz	Microsoft SQL Server 2005 Enterprise Itanium Edition SP1	Microsoft Windows Server 2003, Enterprise Edition for Itanium-based Systems, SP1	Microsoft Visual C++ Microsoft COM+ Transaction Monitor	231,740



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rx4640 / Montecito TPC-C Configuration

- zx1 chip set (400 MHz FSB)
- 2 Montecito 1.6GHz / 24MB processors (4 Montecito cores)
- 128 GB memory
- Oracle Database 10g Enterprise Edition
- HP-UX 11i v2

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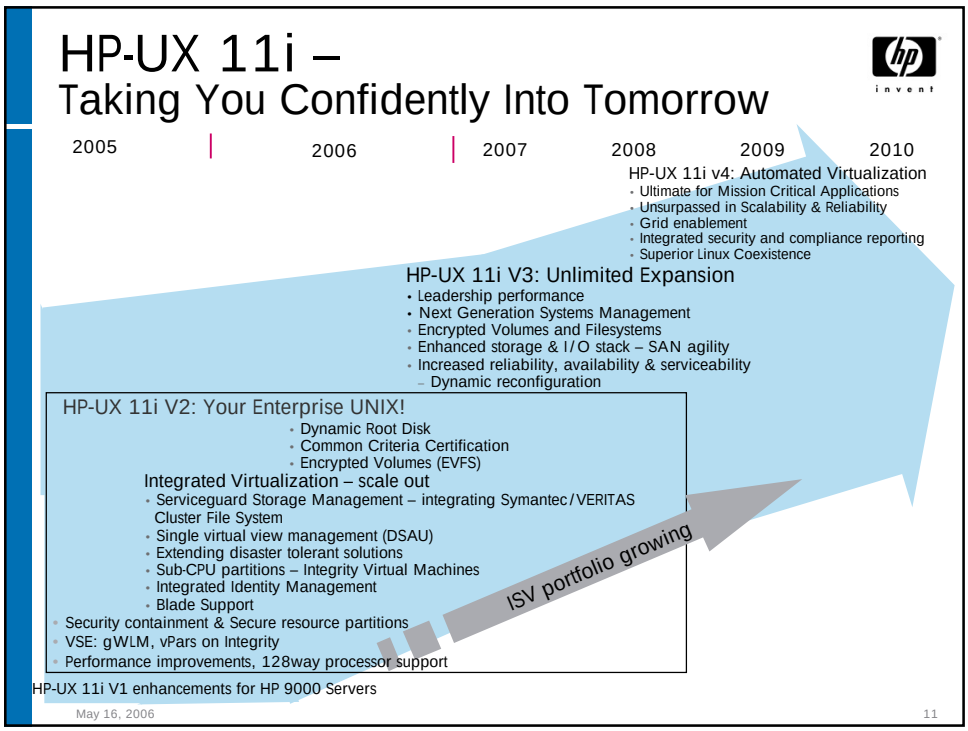
HP-UX 11i –
Taking You Confidently Into Tomorrow
2005
2006
2007
2008
2009
2010
HP-UX 11i v4: Automated Virtualization
• Ultimate for Mission Critical Applications
• Unsurpassed in Scalability & Reliability
• Grid enablement
• Integrated security and compliance reporting
• Superior Linux Coexistence
HP-UX 11i V3: Unlimited Expansion
• Leadership performance
• Next Generation Systems Management
• Encrypted Volumes and Filesystems
• Enhanced storage & I/O stack – SAN agility
• Increased reliability, availability & serviceability
– Dynamic reconfiguration
HP-UX 11i V2: Your Enterprise UNIX!
• Dynamic Root Disk
• Common Criteria Certification
• Encrypted Volumes (EVFS)
Integrated Virtualization – scale out
• Serviceguard Storage Management – integrating Symantec/VERITAS Cluster File System
• Single virtual view management (DSAU)
• Extending disaster tolerant solutions
• Sub-CPU partitions – Integrity Virtual Machines
• Integrated Identity Management
• Blade Support
• Security containment & Secure resource partitions
• VSE: gWLM, vPars on Integrity
• Performance improvements, 128way processor support
ISV portfolio growing
HP-UX 11i V1 enhancements for HP 9000 Servers
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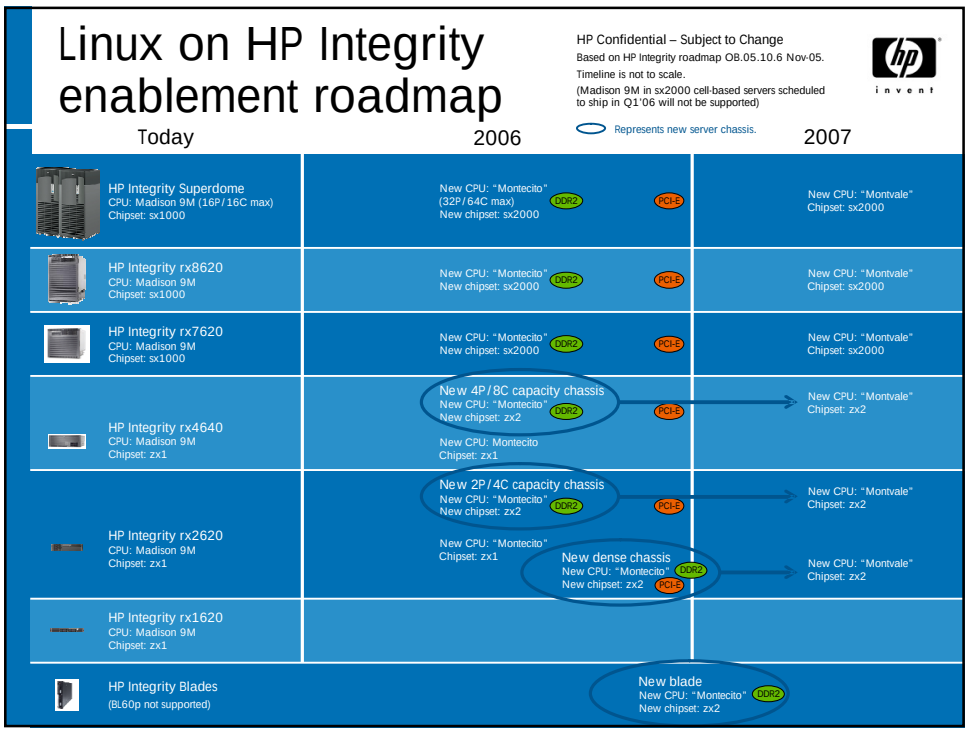
Linux on HP Integrity
enablement roadmap
HP Confidential – Subject to Change
Based on HP Integrity roadmap OB.05.10.6 Nov-05.
Timeline is not to scale.
(Madison 9M in sx2000 cell-based servers scheduled to ship in Q1'06 will not be supported)
Represents new server chassis.
Today
2006
2007
HP Integrity Superdome
CPU: Madison 9M (16P/16C max)
Chipset: sx1000
New CPU: "Montecito"
(32P/64C max)
New chipset: sx2000
DDR2
PCI-E
New CPU: "Montvale"
Chipset: sx2000
HP Integrity rx8620
CPU: Madison 9M
Chipset: sx1000
New CPU: "Montecito"
New chipset: sx2000
DDR2
PCI-E
New CPU: "Montvale"
Chipset: sx2000
HP Integrity rx7620
CPU: Madison 9M
Chipset: sx1000
New CPU: "Montecito"
New chipset: sx2000
DDR2
PCI-E
New CPU: "Montvale"
Chipset: sx2000
HP Integrity rx4640
CPU: Madison 9M
Chipset: zx1
New 4P/8C capacity chassis
New CPU: "Montecito"
New chipset: zx2
DDR2
PCI-E
New CPU: Montecito
Chipset: zx1
New CPU: "Montvale"
Chipset: zx2
HP Integrity rx2620
CPU: Madison 9M
Chipset: zx1
New 2P/4C capacity chassis
New CPU: "Montecito"
New chipset: zx2
DDR2
PCI-E
New CPU: "Montecito"
Chipset: zx1
New dense chassis
New CPU: "Montecito"
New chipset: zx2
DDR2
PCI-E
New CPU: "Montvale"
Chipset: zx2
New CPU: "Montvale"
Chipset: zx2
HP Integrity rx1620
CPU: Madison 9M
Chipset: zx1
HP Integrity Blades
(BL60p not supported)
New blade
New CPU: "Montecito"
New chipset: zx2
DDR2

HP Integrity Servers: Broadest line of Itanium® 2–based systems supporting Windows Server 2003

Windows Server 2003 Datacenter Edition Windows Server 2003 Enterprise Edition	HP Integrity Superdome		Up to 64p scalability, support for dual-core Itanium2 processors and hard partitioning capability for leading consolidation
Windows Server 2003 Datacenter Edition Windows Server 2003 Enterprise Edition	HP Integrity rx8620 server rx8640 server		16p scalability, support for dual-core Itanium2 processors and hard partitioning capability for consolidation
Windows Server 2003 Datacenter Edition Windows Server 2003 Enterprise Edition	HP Integrity rx7620 server rx7640 server		8p flexibility, support for dual-core Itanium2 processors, high-performance, density, and partitioning capabilities
Windows Server 2003 Enterprise Edition	HP Integrity rx4640 server		4p high-performance server in ultra-dense and highly scalable models with support for dual-core Itanium2 processors
Windows Server 2003 Enterprise Edition	HP Integrity rx2620 server		2p ultra-dense, power-packed server redefines entry-level computing
Windows Server 2003 Enterprise Edition	HP Integrity rx1620 server		2p ultra-dense, entry level server optimized for price and performance

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HP OpenVMS roadmap

	06	07	08	09	10
HP AlphaServer Systems HP Integrity servers	V8.3, H2 2006 • Production Integrity and Alpha release • Montecito upgrades • Security enhancements • iCAP & TiCAP	V8.4, +12-18 months Functional releases on AlphaServer and HP Integrity servers • New Integrity systems • Scalability • Ongoing standards	V8.n, +12 – 18 months Continued functional releases on AlphaServer and HP Integrity servers	V8.n, +12 – 18 months Continued functional releases on AlphaServer and HP Integrity servers	

Continued enhancements, sales of AlphaServer systems at least until 2006, with support at least until 2011

Integrity Server support:
- Support for new Montecito platforms plus upgrades for rx2620 and rx4640 supported in OpenVMS V8.3
- Support for Next Generation HP Blade Server with OpenVMS in H2 2007

- Focus areas:
- Virtualization: Global Workload Manager, Pay Per Use, iCAP, TiCAP
- OpenView support for OpenVMS: Network Node Manager, Data Protector,Storage Area Manager, OVO Agent available today; adding Performance Agent, database SPI, upgrade to OVO v8, Storage Essentials
- Continued enhancements in performance and scaling, disaster tolerance, security and standards
- Support for current and next generation storage architectures
- Continued J2EE and .Net support
- Mixed Alpha and Integrity cluster support with shared fibre channel storage today

Services
- Full set of tools/services to support ISVs and customer transition to HP Integrity servers
- Investment protection through Alpha RetainTrust Program

ISV support
- Nearly 1,000 applications committed for porting to OpenVMS for Integrity servers
- FastTrack program to assist with ISV support

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Where to find more information

- On the web
  - http://www.hp.com/go/hpux
  - http://www.hp.com/go/rx7640
  - http://www.hp.com/products1/unix/operating/filesystems.html
- Whitepapers & Books
  - http://www.docs.hp.com/en/oshpux11iv2.html#LVM%20Volume%20Manager
    - LVM Limits White Paper; LVM Online Disk Replacement (LVM OLR); When Good Disks Go Bad: Dealing with Disk Failures under LVM
  - http://www.hp.com/go/hpbooks (e.g. Virtual Server Environment)
- Tools & Utilities
  - http://www.visiocafe.com
  - http://www.desktop-assistance.com/hp
  - http://hpux.asknet.de
  - http://software.hp.com

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