



HP OpenVMS Strategy and Futures

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Agenda



- OpenVMS Business Profile
- What's New/Roadmaps
- ISV Update
- Marketing Update
- Customer Wins/Testimonials
- OpenVMS Integrity Summary



OpenVMS business highlights

OpenVMS Profile

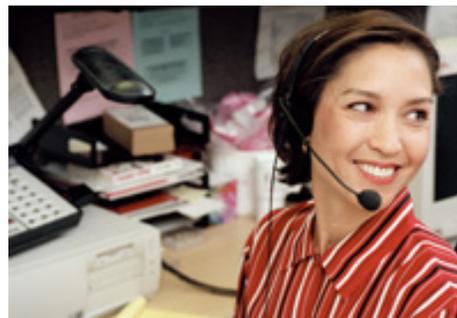
- OpenVMS Users: Millions of users around the globe
- OpenVMS Systems in use (VAX, Alpha, Integrity): 300,000 in production
- New Customers: via Vertical Value Added Resellers (VARs)

Market Profile:

- #1 rated in Healthcare
- 30% of mobile phones billed in the world
- 50% of the world's SMS transactions
- Significant world presence in top Exchanges
- Significant world presence in Lottery systems
- Leading supplier to Semiconductor manufacturers worldwide

Differentiators:

- *Availability* – Disaster Tolerant
- *Clustering* – Scalable to 96 nodes upto 800 kms apart, multi-architecture
- *Security* – System and Cluster
- *TCO* – Best in class
- *Integration* – Premier technologies



Focus on 5 Industry sets

Telecoms



- Network equipment providers
- Mobile Billing
- Media Provision

Financial Services Industries



- Retail Banking
- Wholesale Banking
- Capital Markets
- Exchanges

Manufacturing and Distribution



- Automotive & Suppliers
- Distribution
- Utilities
- Semi-conductor
- Pharmaceutical

Public Sector



- Defense, Intelligence & Public Safety
- Civilian Agencies
- Education
- Gaming

Healthcare



- Clinical IS
- Management IS
- Decision Support
- Scheduling

OpenVMS's Strategic Investment Areas

- Continuation of the **HP Integrity** server family:
 - New systems, Performance and Scalability enhancements
- Support for current and next generation **storage** architectures
- **System and Server Management S/W**: OpenView, Global WorkLoad Manager, System Insight Manager,...
- **Virtualization**: Clustering, Disaster Tolerance, Virtual Machine, Utility Pricing,...
- **Industry Standards**: Integrity, PCI, PCI-X, Kerberos, IPsec, IPv6, LDAP,...
- **Open Source**: Apache, Samba, Netbeans, SNORT, WBEM,...
- **Application Integration**: Web Services, .NET, J2EE, ...
- **ISV support**: UNIX portability, early access, porting assistance, WhitePapers, workshops, etc
- **Security**: Privilege levels, Encryption, Buffer Overflow Protection, ACME Login, CDSA,...

OpenVMS Business Continuity

Excellence in Cluster/DT Features and Services



OpenVMS Features + *HP Service Offerings* = *Excellence in Disaster Tolerance*

- **OpenVMS Clustering**

- Rolling Upgrades
- Built-in Failover model
- Centralized cluster management

- **Fibre Channel Storage**

- Direct access to remotely located storage
- Distances up to 800km
- Hardware Mirroring (CA)

- **Inherent Disaster Tolerance Capabilities**

- Distances to 500 miles
- Mirroring via Host Based Volume Shadowing

- **Service Offerings at increasing levels**

- Bronze/Silver/Gold Support Contract
- Business Continuity Consulting Services (BCS)
- Disaster Tolerant Cluster Services (DTCS)

- **Rapid Business Recovery**

- Virtually undetectable failover from one site to another
- Application Failover in minutes
- Data Access Recovery in seconds



In a Disaster, Your Business stays Running !

OpenVMS security

Many layers – single domain

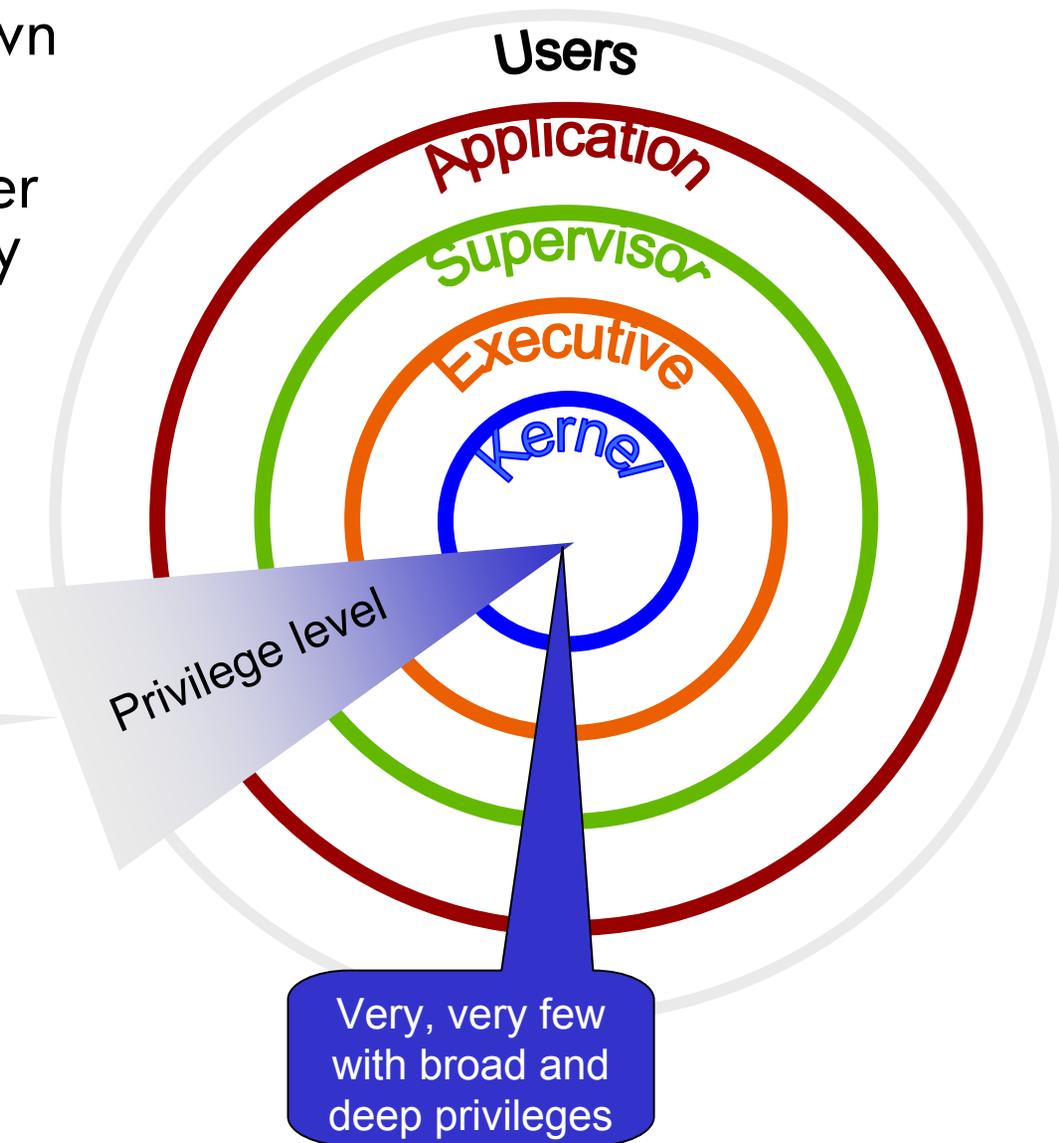


- Each layer requires its own privileges
- A breach in any one layer does not compromise any other layer
- Result:
 - Maximum protection
 - Minimum worry

Many with very limited privileges

Privilege level

Very, very few with broad and deep privileges



OpenVMS Quality Highlights

- OpenVMS scores high (90's) in Third Party Customer Satisfaction Survey in the areas of Quality, Availability and Security
- Expanded Testing and Automation – TCP/IP, Debugger, Linker/Librarian, Regression Test Suites
- Storage Interlock and Performance collaboration
- Integration cluster improvements – Added additional hardware including Integrity systems for developers to unit test code.
- Hardware Validation – OpenVMS Quality Group expanded to include Integrity hardware validation
- Major Test Tools ported to Integrity
- Increased in - house testing of Partner “Mission Critical Applications”



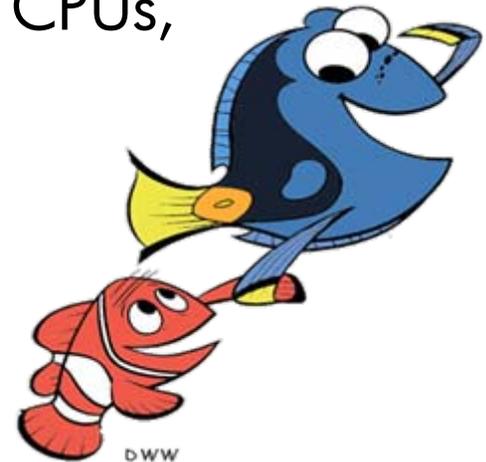
What's new...roadmaps

OpenVMS V8.2-1 for Integrity Servers



September 2005

- OpenVMS support for Madison9 cell-based systems including:
 - rx8620: 4 cells, up to 16 CPUs
 - rx7620: 2 cells, up to 8 CPUs
 - Superdome: Hard partitions of up to 16p/4 cells
 - Primary differences: More I/O slots, More CPUs, and different architecture
- 96-node cluster support



OpenVMS for Integrity Servers Rollout Plan



February 2005

Version 8.2

- rx1620
- rx2620
- rx4640 up to 8P/8C
All speed variants supported on these platforms

Processors: Deerfield, Madison6&9

Note: No McKinley support

Note: OpenVMS will not be supported on the rx5670

Sept. 2005

Version 8.2-1

- rx7620
- rx8620
- Superdome

Processor: *Madison 9*

16 processors per hard partition

mx2 not supported

Pre-enabled support for Montecito updates of rx1620, rx2620, rx4640 (available Q2 2006)

2006

Version V8.3

System upgrades:

- rx1620
- rx2620
- rx4640

Montecito support:

- rx7620
 - rx8620
 - Superdome
- New 2P/4C, 4P/8C servers & chipset

CPU: *Montecito Dual Core*

12-18 months
After V8.3

Version V8.4

New Integrity Platforms

HP OpenVMS Operating System Rolling Roadmap



2005

OpenVMS V8.2

FRS: February 2005

Major New Platform Release: Alpha & Integrity

- First production release for Integrity servers
- Mixed Alpha & Integrity clusters with shared fibre channel storage, up to 16 nodes
- Integrity server support, up to 8 CPU's
- Standards
- Infrastructure changes to support future new features
- Host Based MiniMerge

V8.2-1, Sept. 2005 Integrity Only

- Superdome, rx8620, 7620 support
- 96 node support

2006

OpenVMS V8.3 *

FRS: 2006

Platforms: Alpha and Integrity

- Montecito support for Superdome, rx8620 and rx7620
- Performance & Scalability
- Standards: Web Services, Java, Security, UNIX/Linux interoperability
- Soft partitioning
- Expanded mixed Alpha & Integrity cluster support
- Virtualization: PPU, gWLM

V8.2-1 based, Q1 2006

- rx1600, rx2600 & rx4640

Montecito upgrades

2007

OpenVMS V8.4

FRS: +12-18

months

Platforms: Alpha and Integrity

- New Integrity systems
- Performance & Scalability
- Standards: security, integration software
- Adaptive Enterprise futures

2008

OpenVMS V8.n

FRS: +12-18

months

Platforms: Alpha and Integrity

- New Integrity systems
- Ongoing standards
- Adaptive Enterprise futures

2009

Continued OpenVMS releases

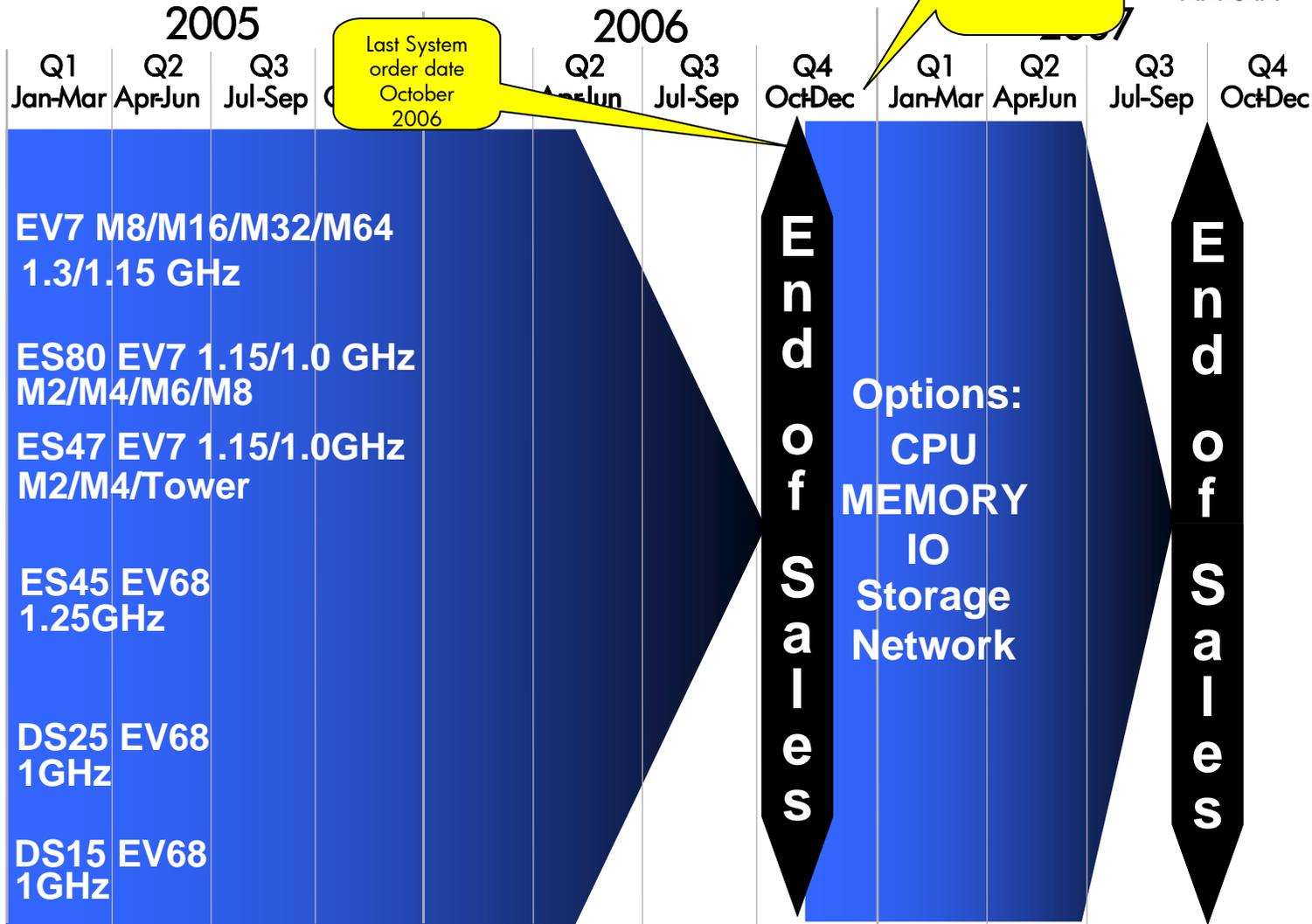
* Planning phase subject to change

HP AlphaServer Roadmap



Last System ship date
December 2006

Last System order date
October 2006



GS1280



ES80/ES47



ES45



DS25



DS15



Support at least until 2011

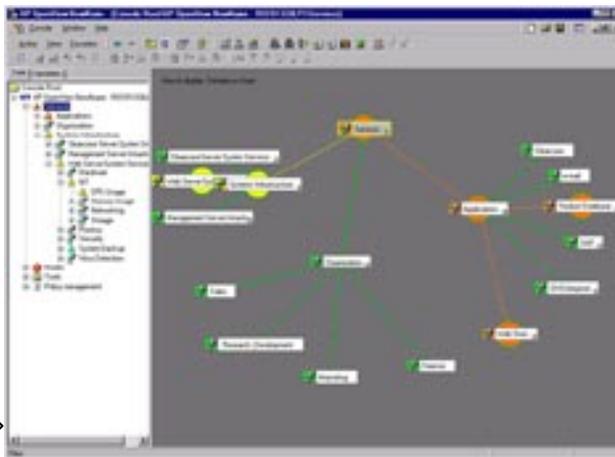
HP OpenView Portfolio Roadmap



OpenView Operations console



service management

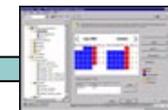


management information portal

Q305 SPI for Oracle
Q106 SPI for Rdb



applications



backup & restore

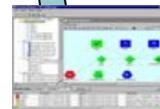
OpenView Data Protector



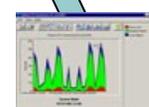
server



network



storage



performance

Radia Software Manager
Radia Patch Manager

software distribution

OpenView Operations for UNIX
OpenView Operations for Windows
OpenView VMS v7 SPI
H206 OpenView VMS v8 SPI

OpenView NNM (Network Node Manager)
OpenView TEMIP

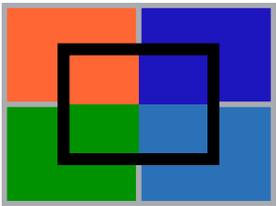
Storage Essentials
OpenView Storage Provisioner
OpenView Storage Allocator

GlancePlus
OpenView Performance Agents Q405
Availability Manager Events (GlancePlus) Q305

Current

Planned

Not currently planned



HP Virtual Server Environment Roadmap



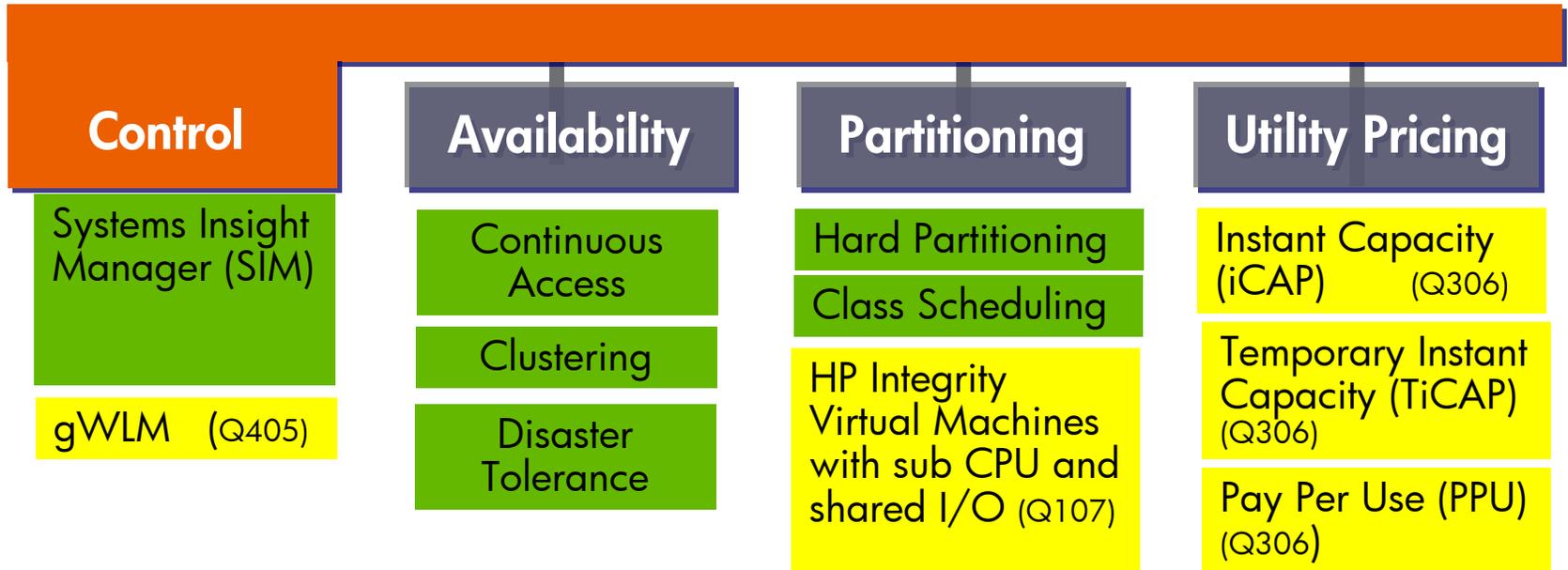
HP Virtual Server Environment (VSE)

**Consolidates & Virtualizes server resources for
Maximum utilization**

Intelligent policy engine



Virtual servers



= Current

= Planned



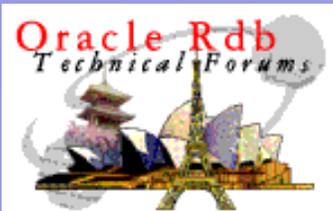
OpenVMS ISV update

OpenVMS ISV porting status



As of August 1, 2005, 886 apps and services from 424 partners were committed to be ported – 386 are available already. Here are some of the companies who are ready now or will be ready soon.





Oracle Rdb Roadmap

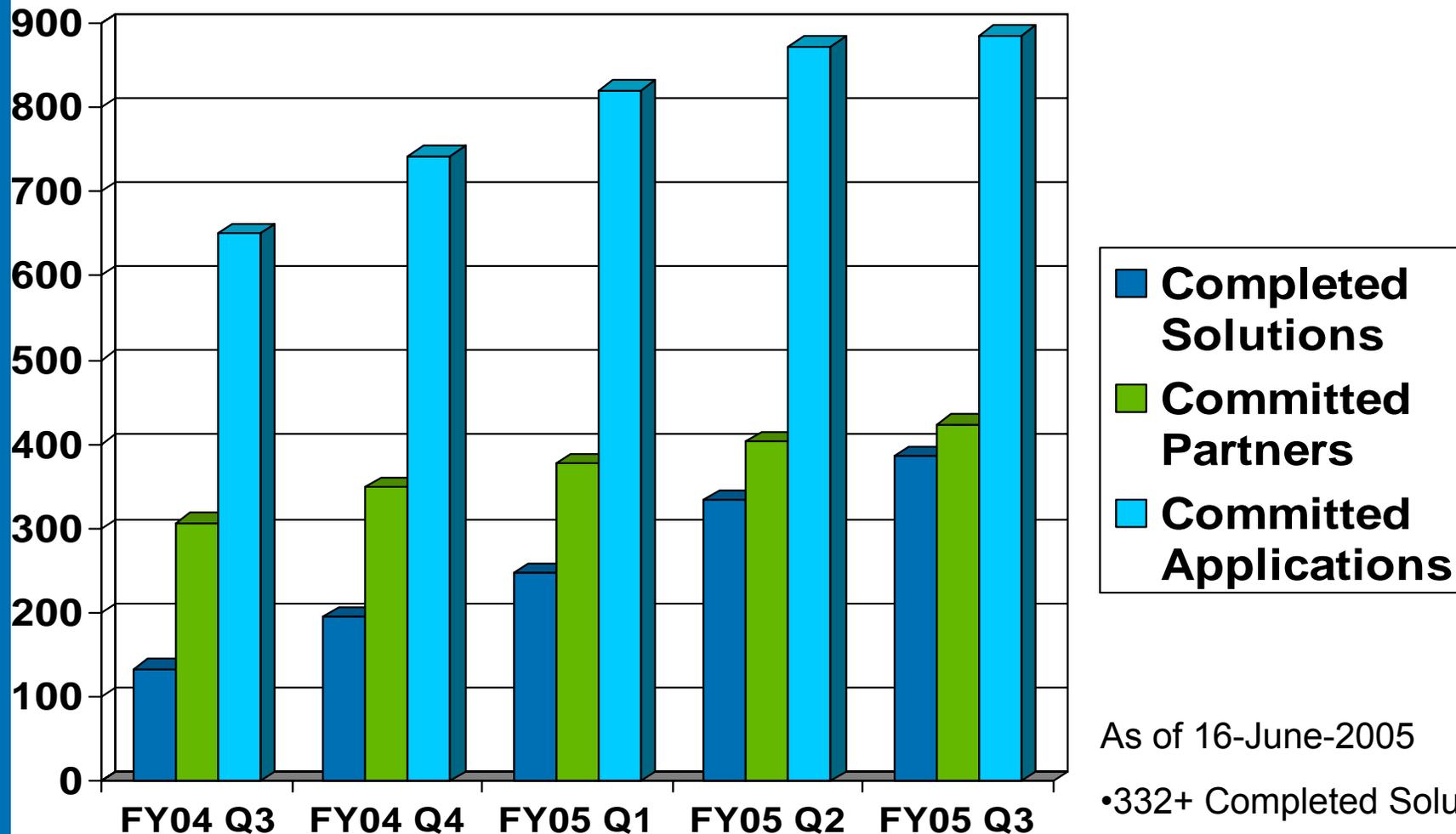
Development Stream	Q1 CY05	Q2 CY05	Q3 CY05	Q4 CY05	Q1 CY06	Q2 CY06	Q3 CY06	Q4 CY06
Rdb 7.0 VAX & Alpha	7.0.8 Maintenance Release + VMS 8.2		7.0.8.1 Maintenance Release		Maintenance Release		Maintenance Release	
Rdb 7.1 Alpha	7.1.4 Maintenance Release + VMS 8.2		7.1.4.1 Maintenance Release		Maintenance Release		Maintenance Release	
Rdb 7.2 IPF & Alpha	Beta 1	Beta 2	Beta 3	V7.2 Production Release	V7.2.0.1 Maintenance Release	V7.2.0.2 Maintenance Release	V7.2.1.0 Feature Release	V7.2.1.1 Maintenance Release

Oracle on OpenVMS

	Now	Q3CY05	Q1CY06	Future
<i>Database Releases</i>	<ul style="list-style-type: none"> •8iR3(8.1.7.4) w/OPS •9iR2(9.2.0.5) w/RAC •20% perf boost •10gR1(10.1.0.2) w RAC 	<ul style="list-style-type: none"> •9.2.0.6 	<ul style="list-style-type: none"> •Oracle10gR2 w/RAC Production on Alpha and Itanium 	<ul style="list-style-type: none"> •Next Major Database release Itanium only •Alpha 9i/10g patchsets
<i>Application Server</i>	<ul style="list-style-type: none"> •10g (9.0.4) Split Configuration 		<ul style="list-style-type: none"> •10g (10.1.x) Split Configuration 	
<i>E-Business Suite</i>	<ul style="list-style-type: none"> •11.0.3 w/8.1.7 (Split Configuration) •11.5.8 w/8.1.7 (Split Configuration) 			
<i>OS Cert</i>	<ul style="list-style-type: none"> •VMS 7.3, 7.3-1, 7.3-2, 8.2 w/8iR3 •VMS 7.3, 7.3-1, 7.3-2, 8.2 w/9iR2 	<ul style="list-style-type: none"> •VMS 8.2 10g 		
<p>•Split Configurations allow backend database to reside on OpenVMS. Apps must be on supported middle-tier: HP-UX PA-RISC, Tru64 UNIX, Linux, Windows</p>				



FastTrack and Itanium Partner Status



As of 16-June-2005

- 332+ Completed Solutions
- 403+ Committed Partners

Joint Intel/HP Developer's Forum



- 4 events planned for 2005 in North America
 - Tampa FL
 - Washington DC
 - San Diego CA
 - Houston TX
 - Similar porting programs in Europe
- First two events of 2005 held
 - 31 participants
 - Languages: C, C++, Fortran, COBOL, BASIC, Macro32, etc.
 - Some solutions ported from VAX directly to Integrity
 - 16 Solutions ported at workshop
 - User mode and privileged code

Other things HP is doing to help customer

- **Multi- day workshops** to evaluate the current environment and plan for transition and integration
 - <http://tec.inet.cpqcorp.net/>
- **Consulting Expertise Centers:** jointly staffed with HP and Intel experts
 - <http://hpintelco.net/>
- **Worldwide Porting Centers:** for validating ISV and custom applications on Integrity servers
 - on-line support including **“test drive”** systems for application testing over the net
 - <http://fluid.inet.cpqcorp.net/>
- Comprehensive portfolio of **white papers** with **“how to”** transitioning information

Application migration whitepapers

New application migration whitepapers:

- *Porting RPG: Moving a Compiler to Itanium* by Migration Specialties International, Inc.
- *Acucorp porting of extend® technologies to OpenVMS on I64 Integrity* by Acucorp
- *ABC (Archive Backup Client™) for Tivoli Storage Manager* by STORServer
- *Porting PRIMO•S to Itanium* by ABB Automation GmbH

Coming in June:

- *Porting OpenVMS to HP Integrity Servers* by Clair Grant
- *Porting to Itanium* by Bruce Claremont

Website for Whitepapers and technical documents:

<http://h71000.www7.hp.com/openvms/integrity/resources.html>

Press Releases



Whitepapers

Advertorials

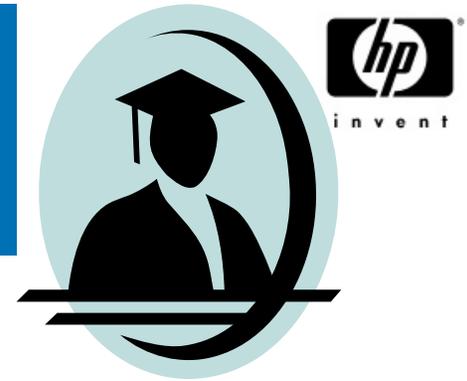
OpenVMS Marketing Activities

OpenVMS Marketing Highlights



- **Transforming Your Enterprise brochure June 2005**
- **OpenVMS on Integrity servers TCO Report distributed to over 300,000 customers**
 - **New OpenVMS TCO calculator helps customers make informed buy decision**
- **OpenVMS HealthCare Editorial**
 - *Advance for Health Information Executives'* June '05 issue
- **Press Releases**
 - **Compuware OpenVMS/Integrity**
 - **Mimer/Voltdata Press Release**
- **Customer Success Stories:**
 - **PKE Electronics AG**
- **New Marketing Whitepapers:**
 - **Details HP OpenVMS platform benchmarks at International Securities Exchange**
- **News Articles:**
 - **COMPUTERWORLD article highlights OpenVMS clustering**
 - **ServerWatch article highlights OpenVMS on Integrity servers**
 - **ComputerWire article - OpenVMS/ Integrity Plans (available soon)**

OpenVMS Education Program



- New webpage off the OpenVMS Home page
- Three different Edu Options for Education Institutions
- 189 Different Education Establishments are involved
- 13 Countries (Austria, Belgium, Brazil, Canada, China, France, Germany, Poland, Russia, Slovenia, Switzerland, UK, USA)

OpenVMS Hobbyist Program



- In place since DECUS Cincinnati May 1997
- 644025 Paks Generated to date
- 40662 in the last 6 months
- Currently a contest for the coolest application on <http://www.openvms.org>
- More information <http://www.openvmshobbyist.com>
- Susan Skonetski – Program Manager





Customer Wins/Testimonials

Some of our customers



Recent New Customer Wins



Lagos State Lottery (Nigeria) – Brand new lottery won by local consortium using the Intralot system.



A new integrated trading and clearing platform for its derivatives products delivered by OMX



Pakistan National Commodity Exchange selected Patsystems to provide their new Trading system

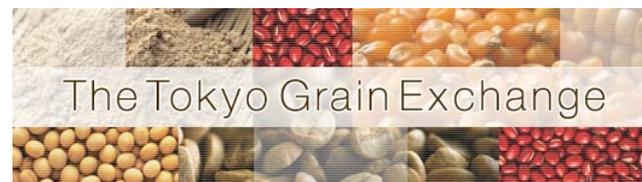
Additional New Customer Wins



The world's first combined equities and derivatives trading platform, powered by technology from OMX.



Northern Health in British Columbia, Canada recently selected Cerner Healthcare for their new Clinical Information System



Patsystems has won the development contract with the Tokyo Grain Exchange to provide the technological infrastructure for delivering a continuous market in rice futures.

“We have successfully ported security applications to HP OpenVMS on Integrity servers and realized a 30% performance gain of cryptographic algorithms. In the next years, the Polytech will increase greatly it’s size and scope. So also the computing infrastructure must be extremely flexible, scalable, cost-effective and preserve today’s investments. We are confident that HP can give us, in the future as in the past, all these values.”

Marco Mezzalama
Vice-Chancellor
Turin Polytech





“We are using OpenVMS on AlphaServers today for our high available trading and clearing systems, especially for Eurex Exchange. As the transaction volume of this exchange is year-to-year growing, we are looking forward to OpenVMS on Integrity servers because it enables us to introduce new infrastructure with the same operating system in a cost efficient manner. We just ported the complete software of the Eurex Exchange, which consists currently of 5 million lines of source code, to OpenVMS on Integrity servers. This is currently in test with a big success already. Next year we are planning to introduce mixed clusters adding Integrity servers to our current AlphaServer environment.”

Gerd Koebschall

Director

Head of Department VMS and XETRA/EUREX Operations

Deutsche Börse Systems AG





“CommuniGate Systems is the technology leader in messaging and collaboration solutions for a multitude of operating systems. Our CommuniGate Pro customers demand security, performance, scaling, and clustering for 5 nine uptime. OpenVMS on Integrity servers provides this exceptionally well. We worked with HP on the porting project of OpenVMS to Integrity servers, and found their UNIX to OpenVMS toolkit and the HP engineering team support to be the best we have seen in the industry. We already have several customers who are preparing implementations of the CommuniGate Pro Dynamic Cluster on OpenVMS for Integrity servers.”

Vladimir Butenko
CEO
CommuniGate Systems



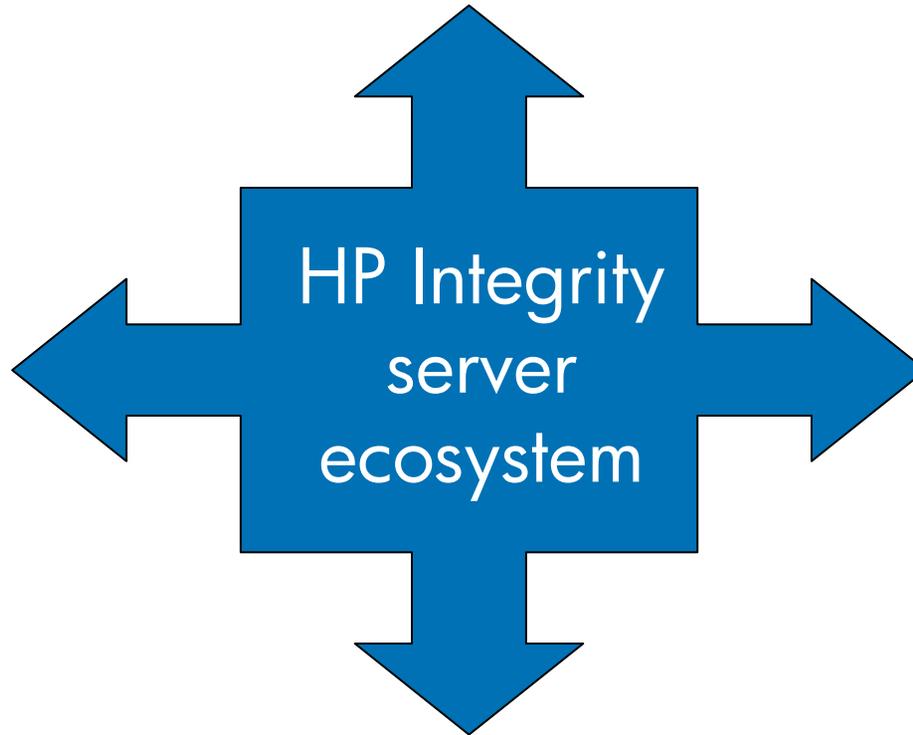


OpenVMS Integrity highlights

Integrity investments are driving results

\$3 billion investment
over 3 years

Over 4,000
applications
and growing



\$1 billion in sales
in FY04



Intel® Commitment to Itanium® Architecture – “Deep and Unwavering”



✓ 4 generations of Itanium® 2-based products in definition & development

✓ >1000 Intel software engineers working on Itanium 2-based tools, compilers, ecosystem

✓ ~3000 applications available

✓ x86 apps run unchanged via IA-32 Execution Layer technology

- **General RISC replacement:**
 - Two processors and higher
- **Mainframe class:**
 - Greater than 4 processor systems
- **High performance computing:**
 - One of fastest-growing on the top 500 fastest supercomputers list.



Broad Ecosystem Support

Application Choice

Operating System Choice

System Vendor & Platform Choice



We're committed to the Itanium processor family, and the Itanium processor family is the scale-up solution for the most demanding database and line-of-business applications running on Windows.

...Later this year, we'll expand Itanium support to Visual Studio 2005, .NET Framework 2005 and SQL Server 2005. And we're working with our partners to deploy more than 1,000 Itanium 2-based systems in our labs for "Longhorn"-server test and development. – Bob Muglia, Microsoft, 4/11/05

- 32-bit application support with IA-32 Execution Layer

Windows*, Linux*, and Unix* support

- >75 vendors selling today
- >15 large SMP systems
- 2-way to 512-way systems
- 8 of 9 RISC vendors support

Combining the System scale and Unix you expect with RISC with Industry-Standard Choice

*Third-party brands and names are the property of their respective owners.

2005 Enabling Focus: Intel and HP team to focus on vertical enabling

**Public Sector
Govt & Edu**

**Public
Sector
Healthcare**

**Manufacturing
And
Distribution**

**Financial
Services**

**Network
Service
Provider**



- **GS&A**
- **Security & Def**
- **Education**
- **Providers**
- **Life Sciences**
- **Payers**
- **Healthcare**
- **High Tech**
- **Automotive**
- **Oil and Gas**
- **Utilities**
- **Pharmaceuticals**
- **Retail**
- **Exchanges & Clearing**
- **Brokerage, Mgt**
- **Trading & Asset Mgmt**
- **Payments**
- **Banking**
- **Insurance**
- **Billing/Cust Care**
- **Integrated Svc**
- **Mobile Svc & Messaging**
- **Infrastructure**

HP OpenVMS – The Evolution

