



# OpenVMS Strategy and Futures

OpenVMS Division,  
Hewlett-Packard



# Agenda



- OpenVMS Today
- OpenVMS Tomorrow
- Integrity Update
- Summary

# OpenVMS Today



# The OpenVMS Mission Statement

*The OpenVMS Division is committed to delivering the OpenVMS roadmaps on time and with outstanding quality. The capabilities that customers have come to rely on in OpenVMS - leadership clustering, high availability, excellent quality, exceptional security and “bullet-proof” operations - will continue to be delivered and enhanced by HP, ensuring product leadership now and in the future.*



# OpenVMS

## Celebrating 29 years across 3 computer architectures

- **Differentiating product attributes**

- **Availability:** Disaster Tolerance
- **Clustering:** Scalable to 96 nodes, up to 500 miles apart
- **Security:** System and Cluster
- **Best TCO** in class
- Strong **Integration** technology

- **Core Markets**

- **Finance:** Capital Markets, Retail Banking, Wholesale Banking,
- **Telecommunications:** Mobile Billing, SMS, Prepaid, HLR, Cable & Satellite TV
- **Healthcare:** Clinical, MIS, Decision Support, Scheduling
- **Public Sector:** Defense Systems, Emergency Services, Gaming
- **Manufacturing:** Semi-Conductors, Pharmaceutical, Utilities, MRP

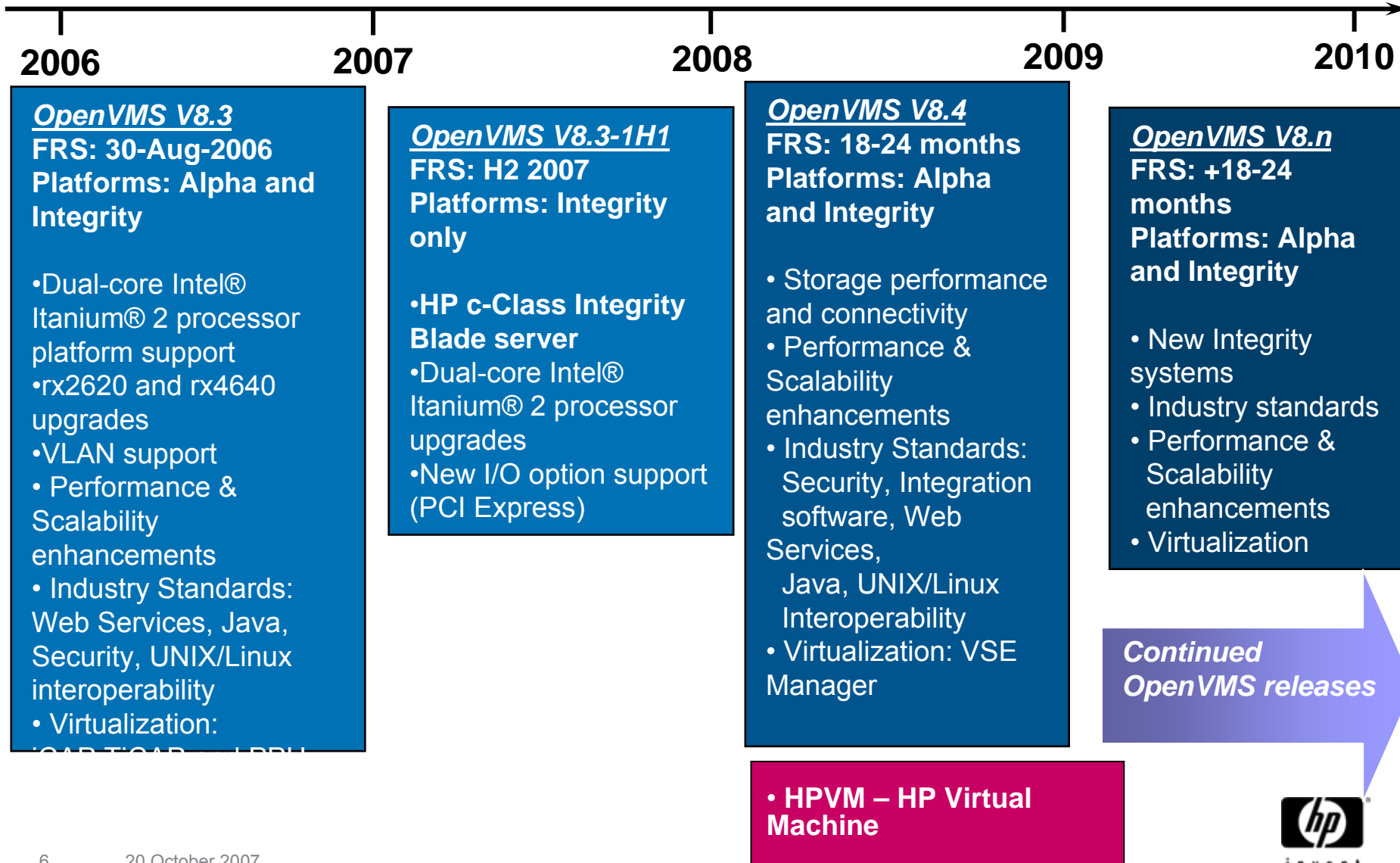
- **Some key Customers**

- |                      |             |
|----------------------|-------------|
| Vodafone             | Toys R Us   |
| Deutsche Borse       | Renault     |
| Ikea                 | USPS        |
| Verizon Wireless     | Fraport     |
| USAF                 | Commerzbank |
| Mayo Foundation      | Intel       |
| Indian Railways      | PKE         |
| Korean Exchange      | HKJC        |
| Veterans Association | Volvo       |

- **Market Profile**

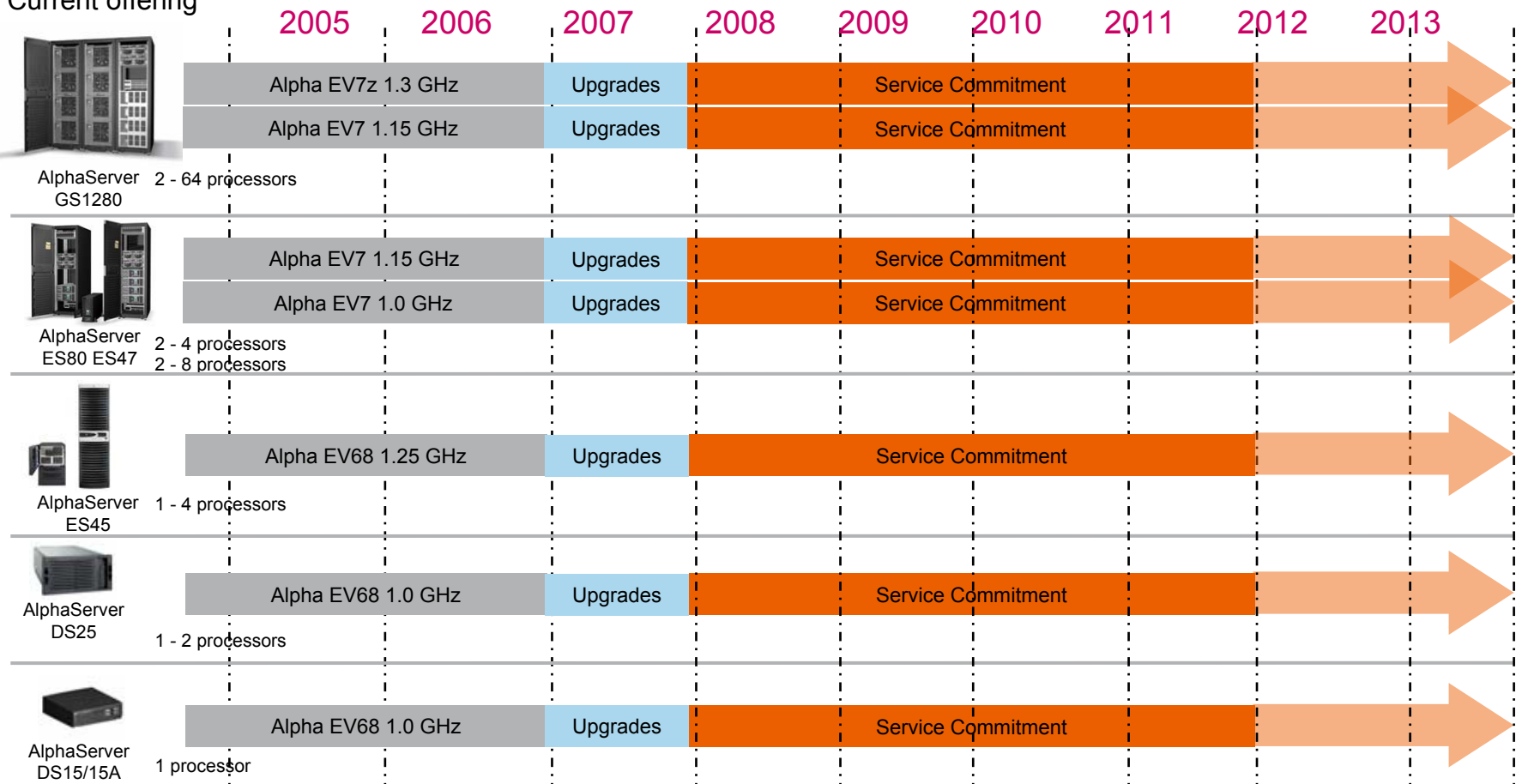
- **#1** rated in Healthcare
- **90%** of manufacturing of the world's CPU chips
- **30%+** of mobile phones billed in the world
- **Over 50%** of the world's SMS transactions
- **66%** of the world's funds transfers
- **6 of the world's top 10** Exchanges
- **Over 80%** of the world's automated Lottery systems

# HP OpenVMS Operating System Rolling Roadmap

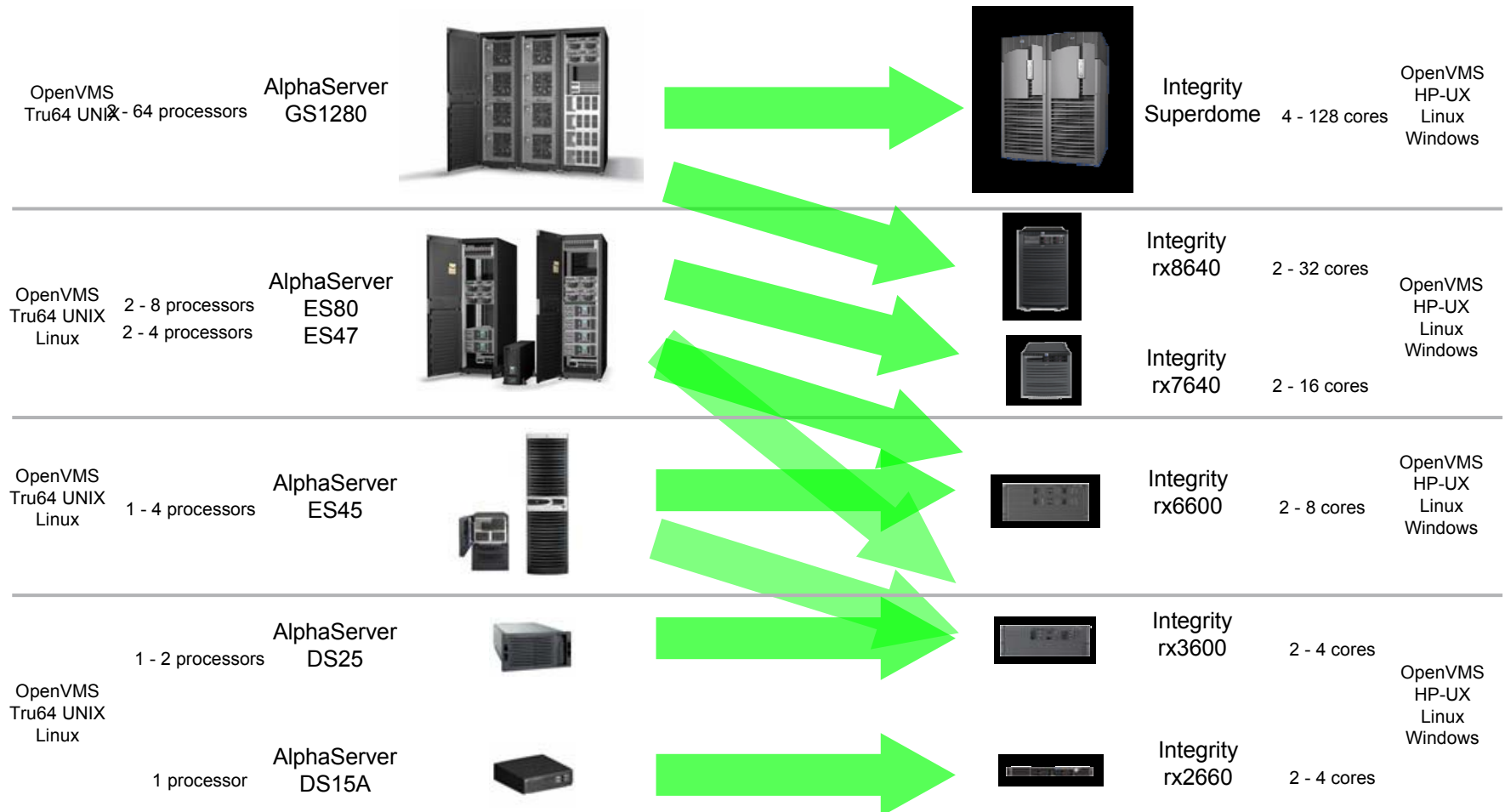


# Alpha Life Cycle Roadmap

Current offering



# HP AlphaServer Evolution





# 2006 Accomplishments:

## Integrity and AlphaServers:

- **OpenVMS Version 8.3**
- Common Internet File System (CFIS) evaluation release (based on Samba)
- global Work Load Manager (gWLM)
- OpenView Performance Agent for OpenVMS

## Integrity only:

- BASEstar V3.2 (OpenVMS Integrity)
- ACMS V5.0, DECforms V4.0
- GNAT Ada Pro for Integrity
- Oracle Rdb V7.3
- Oracle 10gR2 for Integrity- **NEW AS OF TODAY!**

<http://www.oracle.com/technology/software/products/database/oracle10g/htdocs/10202openvmsitanium.html>

# OpenVMS ISV porting status



As of September 2006, 1125 applications and services from 544 partners are committed to be ported, 720 are available already, including Oracle and Rdb

For a complete list see the Applications Status Report:  
[http://h71000.www7.hp.com/solutions/matrix/i64partner\\_A.html](http://h71000.www7.hp.com/solutions/matrix/i64partner_A.html)



**OpenVMS**

**Future**



# OpenVMS's Strategic Investment Areas

<b>HP Integrity Servers</b>	New systems, Performance and Scalability enhancements
<b>Storage</b>	Support for next generation storage architectures (SAN, Tapes, SCSI/SAS)
<b>Sys &amp; Server S/W Mgt</b>	OpenView, Global WorkLoad Manager, System Insight Mgr., Partition Mgr, VSE Mgr, Visualization technologies...
<b>Virtualization</b>	Clustering, Disaster Tolerance, Virtual Machine, Utility Pricing (iCAP, PPU), Capacity Advisor
<b>Security</b>	Privilege levels, Encryption, Buffer Overflow Protection, ACME Login, CDSA,...
<b>Industry Standards</b>	PCI, PCI-X, Kerberos, IPsec, IPv6, LDAP,...
<b>Open Source</b>	Apache, Samba/CIFS, Netbeans, WBEM,...
<b>Application Integration</b>	Web Services (Provides .NET Integration), J2EE, Java, JBOSS
<b>ISV support</b>	UNIX portability, porting assistance, White Papers, workshops, transition, etc.



# Intel® Itanium® Processor Family Roadmap

## Optimized for *Enterprise*

<b>Itanium® 2</b> Processor (Madison 9M) <i>1.6 GHz, 9M, faster FSB</i>	<b>Montecito</b> <i>Dual core, 24MB, HT Technology</i>	<b>Montvale</b> <i>Dual core, HT Technology</i>	<b>Tukwila</b> <i>Multi-core</i>	<b>Poulson</b> <i>Multi-core</i>
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## Optimized for *High Performance Computing*

<b>Itanium® 2</b> Processor (Fanwood) <i>1.6 GHz, 3M, faster FSB</i>	<b>Montecito</b> <i>HPC Optimized</i>	<b>Montvale</b> <i>HPC Optimized</i>	<b>Tukwila/ Dimona</b> <i>HPC Optimized</i>	<b>Future</b> <i>HPC Optimized</i>
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## Optimized for *Low Power/ High Density*

<b>LV Itanium® 2</b> Processor (LV Fanwood) <i>1.3 GHz, 3M</i>	<b>LV Montecito</b> <i>Low Voltage</i>	<b>LV Montvale</b> <i>Low Voltage</i>	<b>LV Dimona</b> <i>Low Voltage</i>	<b>Future</b> <i>Low Voltage</i>
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2005

2006

2007

2008

Future

### New Technologies

- Dual core
- Hyper-Threading Technology
- Intel® Virtualization Technology
- Cache reliability (Pellston)
- Enhanced data integrity (Lockstep)

- Multi-core
- Common platform architecture with Intel® Xeon™ processor MP
- Enhanced RAS
- Enhanced virtualization
- Enhanced I/O & memory

All products, dates, comparisons, and information are preliminary and subject to change without notice.

20 October 2007



# Version 8.4 New Feature Potentials

- >32 core support on Integrity
- 2TB LBN file system support
- iSCSI support
- Shared Stream I/O (SSIO)
- Clusters over IP
- Virtualization tools – Capacity Advisor, Virtualization Mgr.
- Performance enhancements – signaling and condition handling improvements, Threads, I/O, system service dispatching, floating point register save/restore
- New TCP/IP release featuring IPSEC

## Version 8.3-1H1:

- Integrity only hardware release
- HP c-Class Integrity Blades support
- New I/O support (PCI Express)
- Dual-core Intel® Itanium®2 upgrade



# BL860c Server Blade

Three IO Mezzanine Sockets

12 DIMM Slots

Montecito Processors

2 SAS Drive Bays



# OpenVMS on Blades



- All the benefits of Blades technology
  - Lower TCO
  - Common unified management
  - Consistent industry standards
  - Flexibility
  - Dynamic Provisioning
  - Multiple OS's in the same enclosure

PLUS

- Multiple OpenVMS nodes in a Blades enclosure
  - Simpler clustering model, active/active V active/passive
- Increased availability
  - Rolling OS upgrades without taking environment down
  - Clustering
    - Within Blades enclosure
    - Within Datacenter
    - Multiple sites
- Increased Security at the OS level
- At least 66% of OpenVMS customers buy the size of Server which could be incorporated into a Blades infrastructure<sup>1</sup>
- Available in 2007 H2

# Integrity Update



# Accelerating OpenVMS momentum for Integrity servers in 2006

## ✓ Solid growth

- HP Integrity servers revenue up 131% Q2 over Q1 2006

## ✓ Over 1000 applications committed today for Integrity servers

## ✓ HP Integrity servers leadership positions:

- One of the largest **Stock Exchanges** in the world
- One of the leading **Cancer Research Institutions** in the world
- One of the leading **Telecommunications** providers in South America
- The largest **Postal Service** in the world
- Two of the largest **Electronics Manufacturing** companies in the world

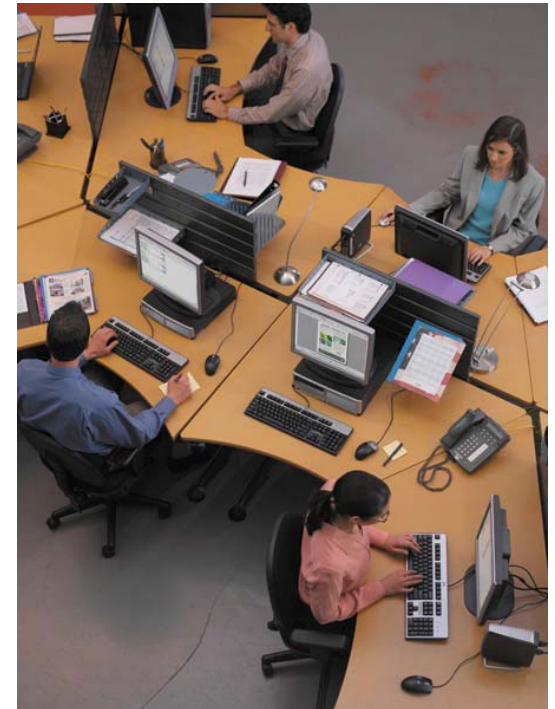
## ✓ 9 of top 10 global companies run Itanium®-based servers





# Providing assistance with OpenVMS HP Integrity server transition

- **Joint Intel/HP Developer's Forums**
  - Held in:
    - North America
    - Europe
  - Languages: C, C++, Fortran, COBOL, BASIC, Pascal, Macro32, Java, Bliss, DCL, Dibol
  - Some solutions ported from VAX directly to Integrity
- **Multi- day workshops** - to evaluate the current environment and plan for transition and integration
- **Consulting Expertise Center** - jointly staffed with HP and Intel experts
- **Worldwide Porting Centers** - for validating ISV and custom applications on Integrity servers
- Comprehensive portfolio of **white papers** with “how to” transitioning information



# Recent Integrity Successes

“...I feel compelled to say that the HP INTEGRITY SERVER has awakened the OpenVMS sleeping giant.”

John Buonaugurio  
Knowa Corporation

Knowa™

“As the world’s leading provider of Investment management, brokerage and business process management solutions, DST International is very pleased that HP has made the decision to offer OpenVMS on its entire Integrity Server line. The robustness, security and high-availability of OpenVMS is a preferred choice of our clients. We are proud to work with HP to continue to enable the most effective and trusted software solutions on the market to

Rhonda Lepsch”  
CEO, Asia  
DST International



Computerized Bookmaking Systems Inc. (CBS), of Las Vegas, the largest seller of race and sports systems, recently completed a successful migration of their application software on OpenVMS from VAX to Alpha, then from Alpha servers to hp’s new Integrity servers with OpenVMS. CBS runs mission-critical applications on OpenVMS due to the security and stability of the system—their customers cannot afford to experience any downtime and OpenVMS delivers the reliability they need.

Karl, Director of Research and Development for CBS, was impressed by the cost-effectiveness of Itanium, so instead of migrating their VAX customers to Alphas, he decided to migrate them directly to Integrity. “When compared to the Alpha platform, the cost of buying Itanium is less for the same performance,” he said. “Alpha has served us very well, but Itanium is definitely the choice for future growth.”



Today the Itanium based servers are essentially on the same price/performance curve as the x86 based servers for CLICK XT. The explanation is that Enterprise server class machines, requires essentially the same structure with redundant power supplies, hot plug capabilities, large and Fast ECC memories, thus the CPU chip is a fairly small fraction of the total system cost.

Håkan Winbom, OMX Technology





# OpenVMS Customer Lab

- Do you need to know exactly how fast your OpenVMS application will run on Integrity servers
  - The OpenVMS Customer lab is the answer
- The perfect place to establish the proof points you need to size your OpenVMS solutions on Integrity



Contact Name: [John.Egolf@hp.com](mailto:John.Egolf@hp.com)

# The first production OpenVMS Superdome!



**Welcome to HP OpenVMS Industry Standard 64 Operating System, Version V8.2-1**

**\$ show sys**

**OpenVMS V8.2-1 on node SDOME1 23-AUG-2006 04:16:30.15 Uptime 341 18:11:21**

From the customer

Today's uptime screen... 341 days uptime with the first official release of OpenVMS for Superdome, (we had to reboot to go from 8.2 to 8.2-1) BTW in the meantime the current application was upgraded twice, the IP address changed and other partitions rebooted at least once, (I noticed there is at least one Linux partition, because they had to reboot it and I was informed..not sure of others).

All done without having to reboot our OpenVMS hard partition.

Did I mention this system is connected directly to the internet? (no firewall at all)

Please congratulate the OpenVMS engineering group for their commitment to a excellence.

Has been running continuously for 1  
year already

# Summary



# Recent OpenVMS Events



- OpenVMS V8.3 announcement
- OpenVMS Technical Advisory Forum – June 20-22
- OpenVMS Advanced Technical Boot Camp – end of May - 200 attendees - sold out!
- OpenVMS Customer Conference in France
- BCS Executive Council
- Joint Intel/HP Developers Workshops in Dallas, Seattle, Peabody
- HP Technology at Work in Berlin
- Customer events in Argentina and Chile - May / June
- Synergex User conferences in Boston and London - May and June respectively
- Rdb Technical Forums in Japan
- 14 Account Consulting Sessions in 9 countries – Jan to June
- LUGs: NYC, Philadelphia, Washington D. C., Chicago, Atlanta

# Additional OpenVMS resources

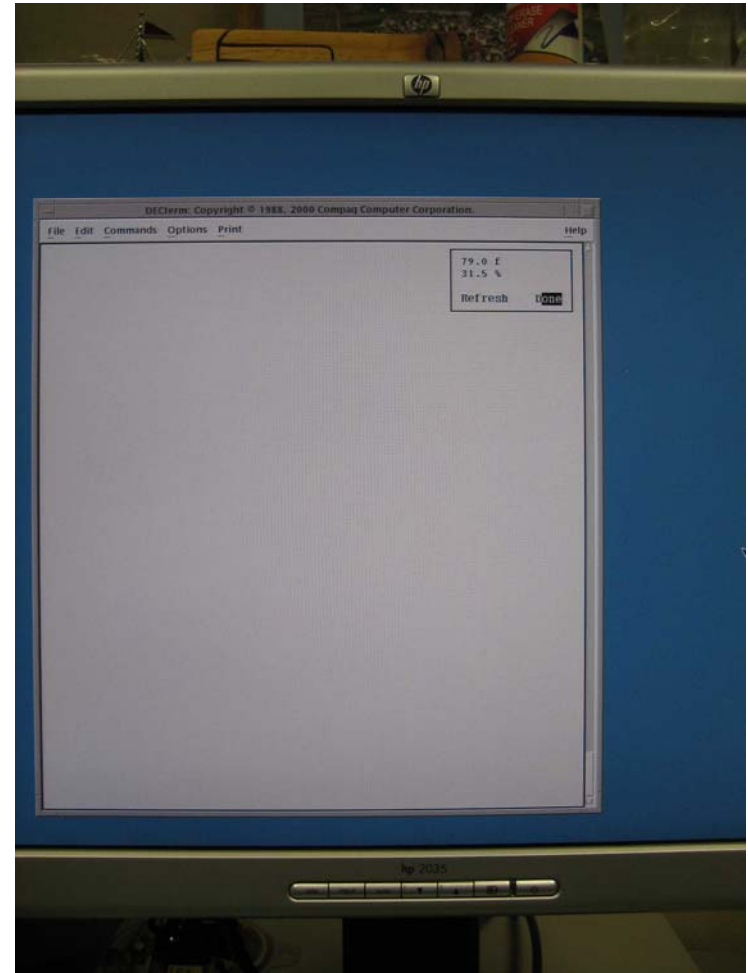
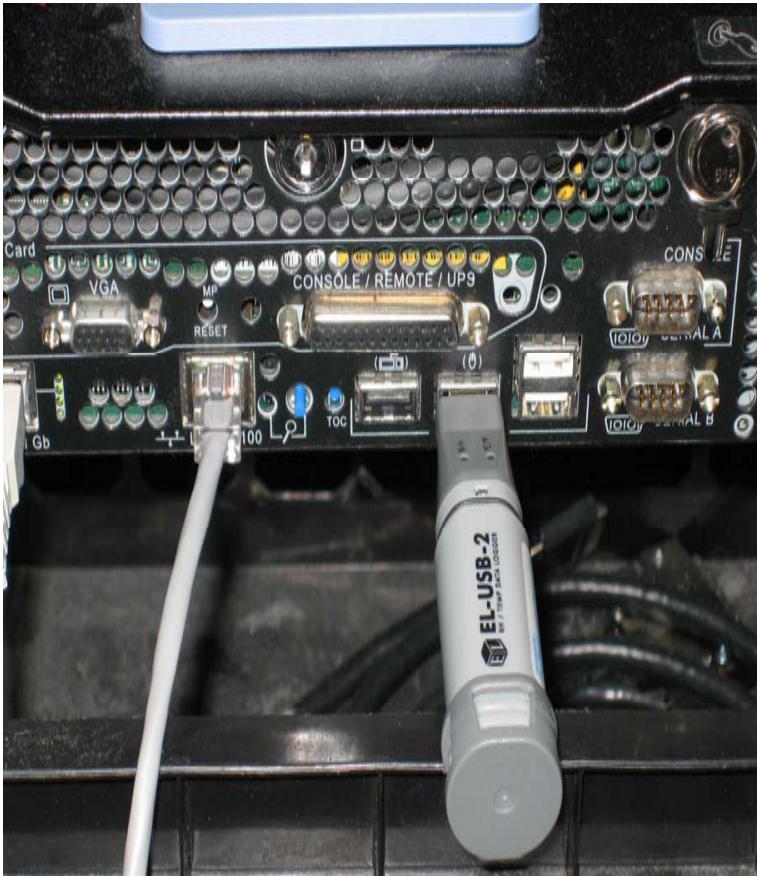
- OpenVMS Customer Lab (contact [john.egolf@hp.com](mailto:john.egolf@hp.com))
  - The opportunity to test/benchmark/POC your application on the latest Alpha and/or Integrity hardware with the latest software
- Limited Customized Engineering – (contact [jill.wiener@hp.com](mailto:jill.wiener@hp.com))
  - We can provide support for your environment with versions of the OS outside the normal support window
  - Can develop customised engineering projects to suit your environment.
- Transition Workshops – (contact [mark.silverberg@hp.com](mailto:mark.silverberg@hp.com))
  - A review of your application(s) and what would be involved in porting from Alpha to Integrity
- Personalized Porting Workshops – (contact [john.egolf@hp.com](mailto:john.egolf@hp.com))
  - We have the potential of putting together an individual porting workshop (Alpha to Integrity) focused on your particular application(s) and helping with the actual port

# Sue's Fav's

- USB (VMS Engineering can provide demo code for)
  - Barcode Reader
  - Pertelian X2040 LCD display
  - USB temperature and humidity logger Lascar Electronics EL-USB-2
  - USB Missile Launcher
  - USB Postal scale (Radio Shack) no longer sold



# USB Temperature and Humidity



# Sue's Fav's

- Quintara – Joint product with HP – Web based email – looks like web but its VMS
  - <https://trysecureserver.com/>
    - New Features
      - Validated out of office response
      - External valid delivery (great for mobile and pda)
      - Improved GLOBAL message search  
15K messages in 19 seconds
        - Coming
      - Mass distribution lists up to 64K people
      - Personal web share
      - Personal notes
    - MamaVMS = Sue Skonetski
    - VMSgeek = Amanda Skonetski



# Sue's Favs

- OpenVMS.Org and associated sites (DCL, DBA. Italian and French)

<http://www.openvms.org/>

- Bruden-OSSG <http://www.brudenossg.com/>

- Hofflabs <http://www.HoffmanLabs.Org>

- Alpha Emulator [www.emulatorsinternational.com](http://www.emulatorsinternational.com)

- HP SITES

- Partners that have ported A – Z Index

- Customer Testimonials

- Test Drive

- Services Feedback Voice of the Customer Form <<http://voctool.hp.com>>

- TOC and White papers

- DSPP

[http://h21007.www2.hp.com/dspp/topic/topic\\_PETechnologyDetailPage\\_1DX/1,2603,10014,00.html](http://h21007.www2.hp.com/dspp/topic/topic_PETechnologyDetailPage_1DX/1,2603,10014,00.html)

# Sue's Fav's

- Email Distribution List – You will get email about VMS
- Boot Camp
  - Scholarships
- Technical Journal
- Technical Updated Days
- ITRC
- Ask the Wizard
- Digital Technical Journal

