OpenVMS roadmap update and more

Ken Surplice, Category Manager, HP Servers EMEA

Introduction

VAX
- OpenVMS v1 11/780, 11/750
- MicroVAX
- Ultrix

Alpha
- OpenVMS
- Servers product manager EMEA
- Tru64 UNIX

Integrity
- OpenVMS
- Integrity servers
- HP-UX
- Project Odyssey
- Large ProLiant

Ken

Technical   Product Manager   Category manager

Role today:

OpenVMS, HP-UX, Serviceguard

Integrity servers DL980 DragonHawk

Objectives for today

Understand the market

Rapid change

- Goodbye stability
- Hello change
- Where we (you) are headed

OpenVMS plans

The facts

- Trends
- Dates
- Development
- Help

What next

Where do we go?

- The next 11 years of OpenVMS
- What else is on the horizon?

Change in RISC/Itanium market (Integrity, Power, SPARC)

Mission-critical computing

What is on customers' minds?

- Customer trends

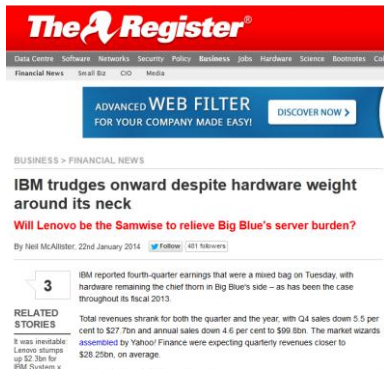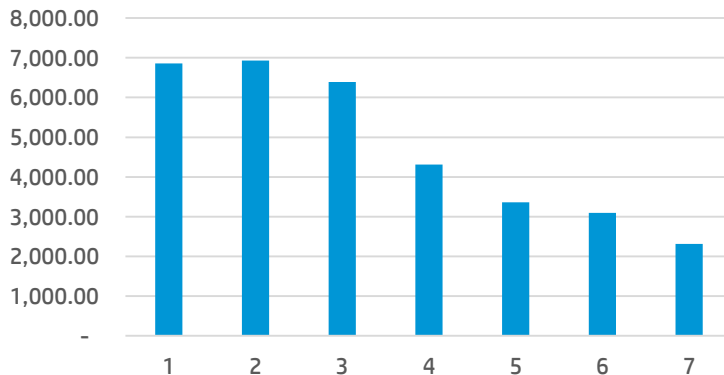**NonStop growth**

I'm moving to x86

I want to stay on UNIX

I'm refreshing my OpenVMS

EMEA traditional mission critical market, $M

During a conference call with financial analysts on Tuesday, IBM CFO Martin Schroeter pointed to Big Blue's storage business, its System x line, and its **Power servers** as particular problem areas for the hardware group. Revenues for those three categories were **down** 13 per cent, 16 per cent, and **31 per cent from the year-ago quarter**, respectively.

Why we are here

Not business as usual

HP Enterprise Group in mid 2012

- Networking ▲
- Storage ▼
- Servers ▼

Rethink 2H2012–1H2013
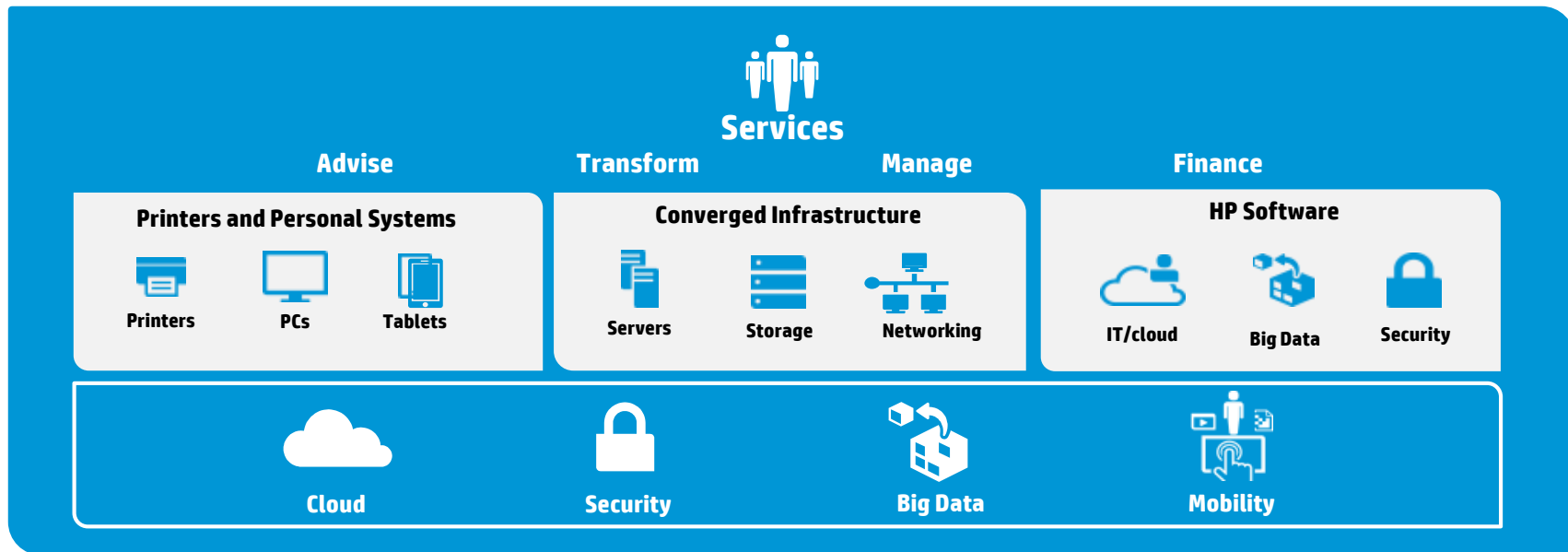
- Roadmaps frozen
- Strategy reworked

Mid 2013

- Where to invest
- Where not to invest
- New plans, impacting OpenVMS

HP adapts to change: Solutions for the New Style of IT

Services

Advise   **Transform**   **Manage**   **Finance**

Printers and Personal Systems

Printers   PCs   Tablets

Converged Infrastructure

Servers   Storage   Networking

HP Software

IT/cloud   Big Data   Security

Cloud   Security   Big Data   Mobility

Wait! Change? Not for me....

Until now our products have not changed much

The market evolves with growth in compute power, number of devices, data.

80% of servers sold are on 2-sockets/ 16 cores, 16 DIMMs giving 128GB, 8 cores/ socket.

This will go up to 2s-64c by 2019, with 16 DIMMs driving 2-4TB.

IOPs will go from 150 to 700,000. PCI 3 includes optolink to run PCIe over photonics. LOMs to go from 10Gb to 100Gb, maybe more.

With this capacity, there is no room for single points of failure. We have to harden all O/S and all servers.

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OpenVMS plans

June 2013

- Freezing of OpenVMS. No Integrity i4 support.
- Sales to end 2015. Support to end 2020

Since June

- Meet customers
- Understand need for extended support and supply
- Investigate transition options
- Build customer assistance team
- Run Transition Discovery Seminar
- More customer engagement

Why an end date for OpenVMS?

Not sustainable in long term, despite use of common components and low cost labs
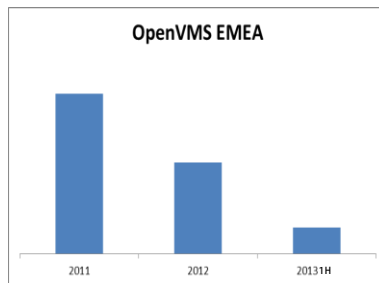
Rapidly changing market

- Customers moving to cloud, big data, mobile
- Software development is on x86
- x86 popularity increasing
- Latest x86[†] processors becoming mission-critical

Traditional mission-critical declines

- 66% down in six years
- 30% decline last year alone

OpenVMS also declines

- Smaller than UNIX business

OpenVMS EMEA

2011   2012   20131H

Customers not moving

- Most on Alpha
- Relatively few using Integrity i2.

Result

- Future OpenVMS development difficult to sustain
- The most loyal OpenVMS customers are most impacted

† Intel Xeon E7 v2

OpenVMS updated plans

June 2013
- Freezing of OpenVMS. No Integrity i4 support
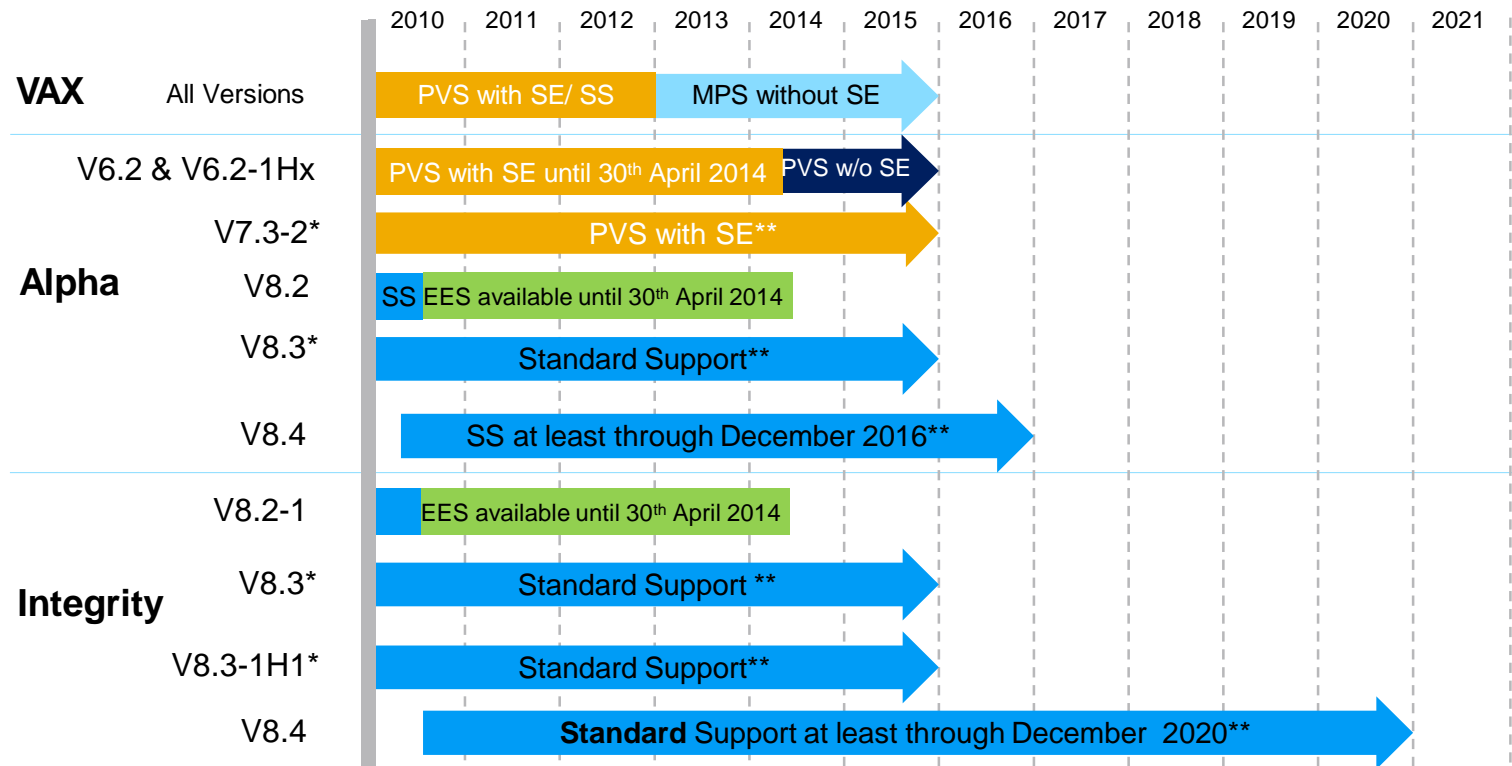- Sales to end 2015. Support to end 2020

December 2013
- Support extended (Integrity and Alpha)
- Supply extended case-by-case, after 2015

January 2014
- HP VM v4.3 support under investigation
- Other investigations

HP OpenVMS Service Support Roadmap June 2013

Timeline years: 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

VAX — All Versions
- PVS with SE/ SS
- MPS without SE

Alpha
- V6.2 & V6.2-1Hx: PVS with SE until 30th April 2014 | PVS w/o SE
- V7.3-2*: PVS with SE**
- V8.2: SS | EES available until 30th April 2014
- V8.3*: Standard Support**
- V8.4: SS at least through December 2016**

Integrity
- V8.2-1: EES available until 30th April 2014
- V8.3*: Standard Support **
- V8.3-1H1*: Standard Support**
- V8.4: **Standard** Support at least through December 2020**
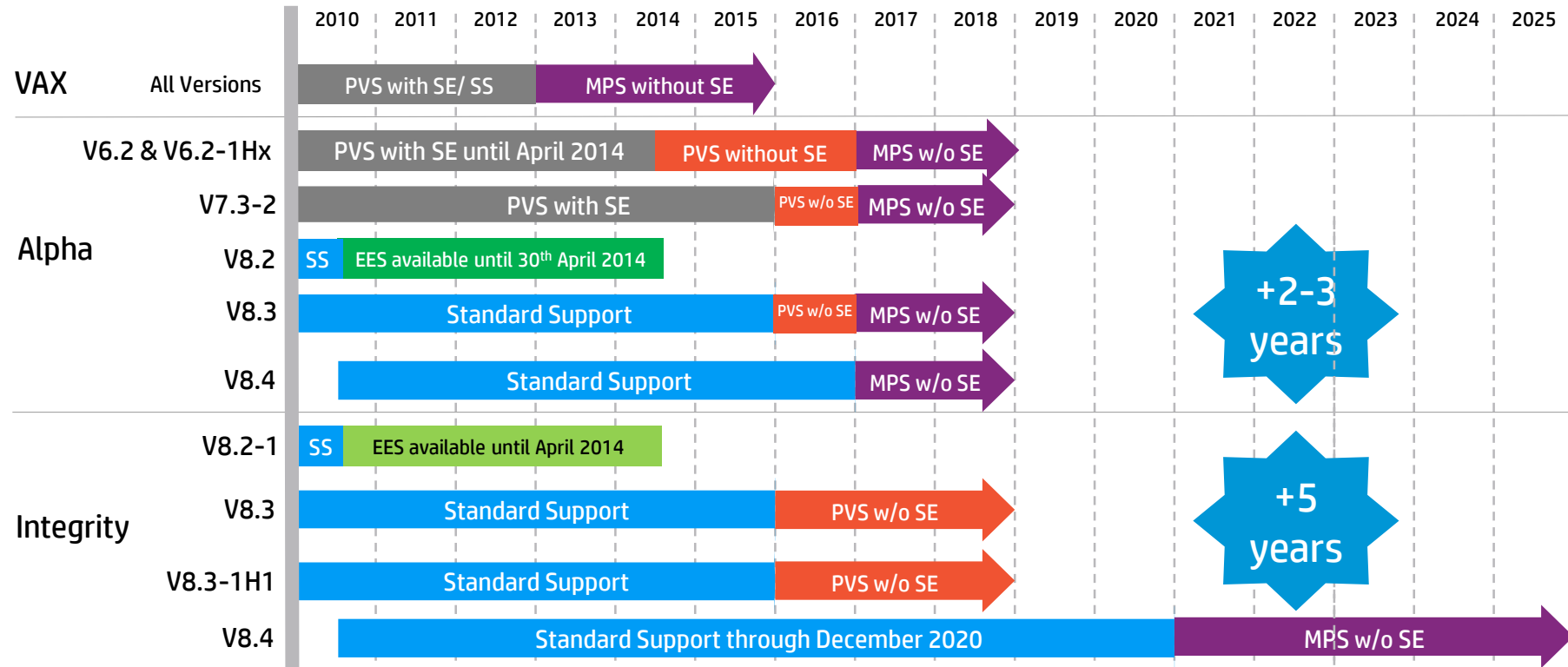
- • * Prior Version Support (PVS) or Standard Support will be provided on these versions at least through December 2015.
- • ** w/24 months prior expiration notice: A 24-month notification will be provided before support is ended.
- • Standard Support ends when the 2nd subsequent release ships. HP supports the current version and one back.
- • Extended Engineering Support (EES) will be available at additional cost.

EES	Extended Engineering Support
MPS	Mature Product Support
PVS	Prior Version Support
SE	Sustaining Engineering
SS	Standard Support

Investment protection and stability

Continuously delivering mission-critical solutions for over 35 years

Current

- Industry-leading **clustering** solutions
- **Secure** and **reliable** from CPU to solution
- Integrated **virtualization** and **management** to optimally scale resources
- Enable customers to **upgrade** from AlphaServer to Integrity

Future

- **3PAR Storage** enablement ✓
  - StoreServ 10000 series
  - StoreServ 7000 series
- **Security** updates
  - SSL, SSH, DECwin, TCP/IP, Java, Apache, PHP, SeaMonkey, Firefox, WSIT
- Updated **Middleware**
  - Qualification & Support of RTR on Linux and Windows ✓

On-going releases

This is a rolling (up to three year) Roadmap and is subject to change without notice.

Integrity i2 availability (=i4 lifecycle)

i2 Systems:

- **No change to public dates**
- **Can do a private deal**

Dec 31 2013	Dec 31 2014	Dec 31 2015	Dec 31 2016	Future

i2 system sales | upgrades

i2 supply from HP stock

i2 supply from customer stock

i2 supply from HP Renew[1]

i2 supply from the market

[1] As long as supplies last

OpenVMS summary

1. HP special stock arrangements
2. HP Renew
3. Customer stock / last time buy

New server sales ➤ Alternative supply ➤

OpenVMS standard support ➤   OpenVMS mature support ➤

2014 ➤ 2015 ➤ 2016 ➤ 2017 ➤ 2018 ➤ 2019 ➤ 2020 ➤ 2021 ➤ 2022 ➤ 2023 ➤ 2024 ➤ 2025

Help

From HP

- Supply – ask
- Advice – transition discovery seminar at your company
- Consulting

From Partners

- Independent advice
- Tools
- Conversions

From users

- Share experience via Interexperience

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The next 11 years with OpenVMS

Hardware frozen and supported

- We have what we have
- If not on Integrity i2, consider a refresh to i2 for longest support life

Software frozen and supported

- If not on v8.4, consider an update for longest support life

Getting support for your environment

- Most flexibility: now
- Best support: now – 2020
- Continuing support 2020-2025

What is on the horizon

Protect each businesses

Segment the market
- Separate product families
- Mainframe, else RISC, else x86

Standing still

Proprietary
- Hold on to high value business
- Avoid open standards

Diverge

Locked-in solution stacks
- Closed. No standardization.
- Inflexible

Go with the market

Not against it
- New IT
- Open standards

Move quickly

Adapt, accelerate
- Flexibly handle all workloads
- Investment in future

Converge

Standard solution stacks
- Reuse building blocks
- Innovate for the enterprise

OTHERS

HP

HP: Solutions for the New Style of IT

Services

Advise   **Transform**   **Manage**   **Finance**

Printers and Personal Systems   **Converged Infrastructure**   **HP Software**

Printers   PCs   Tablets   Servers   Storage   Networking   IT/cloud   Big Data   Security

Cloud   Security   Big Data   Mobility

HP Enterprise Group vision

Converged Infrastructure

Converged Cloud

Software-Defined Data Center

HP Enterprise Group strategy

Best-of-breed components

Server
Networking
Storage

HP ProLiant & Integrity Server Blades

SL Portfolio
Density optimized

DL Portfolio
Rack

Moonshot

HP 3PAR StoreServ

HP StoreOnce

HP StoreVirtual Software-defined Storage

Flex Fabric
12900 switch & SDN

FlexCampus
10500 switch

FlexBranch
Branch in a Box
MSR router

SMB
Wireless Cloud

HP Enterprise Group strategy

With modern architectures, optimized for today and tomorrow's workloads and web services

Bridging from the traditional to the new style of IT

Based on open standards

Enabled through a broad ecosystem of partners

Delivered any way you want to consume it

Your outcomes

Enterprise Customers

Building your **mobility** foundation

A better way to **virtualize**

Increasing **workforce productivity**

Accelerating your journey to the **hybrid cloud**

Driving efficiency in the **remote or branch office**

Modernizing your IT

Building your **Big Data** foundation

SMB Customers

Just what you need – **just right IT**

Service providers

Building the **next generation SP data center**

HP delivers the right compute, for the right workload, at the right economics... every time

SMB to Enterprise   Micro to Mission Critical   Service Provider to Hyperscale

Established IT | Cloud | Software-Defined Data Centers

Web | **Hosting** | **Collaboration** | **Consolidation** | **Decision support** | **Business processing** | **Others...**

Hint: what can these do for you?

OneView

- Easier management

- Adapts to scale

iLO4

- Federated iLO

- Adapts to scale

Cats and cows

- RESTful states

- Cows adapt to scale

- Manage the herd

- Get better cows

Business critical outlook

Relentless demands driving the new style of IT

Cloud   Security   Mobility   Big Data

Megatrends present unique opportunities

IT requires more agility, efficiency, simplicity

User demands are escalating

By 2016

2x
VM growth

2x
User growth

3x
Device growth

6x
Data growth

Note. IDC Special Report Series : Converged Systems: State of the Market and Future Outlook September 2012, Slide 14.

HP mission-critical servers power the world around you

1.4B+
Credit and debit card transaction processing

375M+
Subscribers in advanced Telco network apps

100%
of Electronic companies in Global 100

100%
of the top 10 global manufacturers

100%
of Telecom companies in Global 100

Solutions designed for continuous business

Because customers never wait

- Payment systems

- Intelligent network apps

100%
Application availability

NonStop

Because your business is always on

- Enterprise Resource Planning

- Core databases, BI, DSS

#1
Customer satisfaction

Integrity and **UX**

Because mission-critical is changing

- I/O intensive workloads

- Large scale virtualization and consolidation

#1
Virtualization performance

Scale up x86

Leading mission-critical solutions for the New Style of IT

DL580

DL980

Integrity
rx2800

ENERGY STAR

Integrity
Server Blades

CloudSystem Matrix
with HP-UX

CloudSystem
CLOUD MAPS
SERVICE CATALOG
ORCHESTRATION
PROVISIONING
& MONITORING
CONVERGED
INFRASTRUCTURE

Integrity
Superdome 2

Integrity
NonStop

UX

35 years
OpenVMS

NonStop

**Unparalleled
availability**

**Massive
scalability**

**Decades
of Reliability**

HP Mission-critical actions

OpenVMS	Reduce investment	Stabilise	Extend support	Help customers transition
HP-UX	Maintain investment	Maximise market share	Enhance and improve TCO	Increase value to customers
NonStop	Increase investment	Win more customers	Integrity and standard x86	Build on standards
Linux	Increase investment	Protect with Serviceguard	Make Linux mission critical	Build on standards
Windows	Increase investment	Work with Microsoft	Make Windows mission critical	Build on standards

Reinventing the future of mission-critical computing

HP Project Odyssey
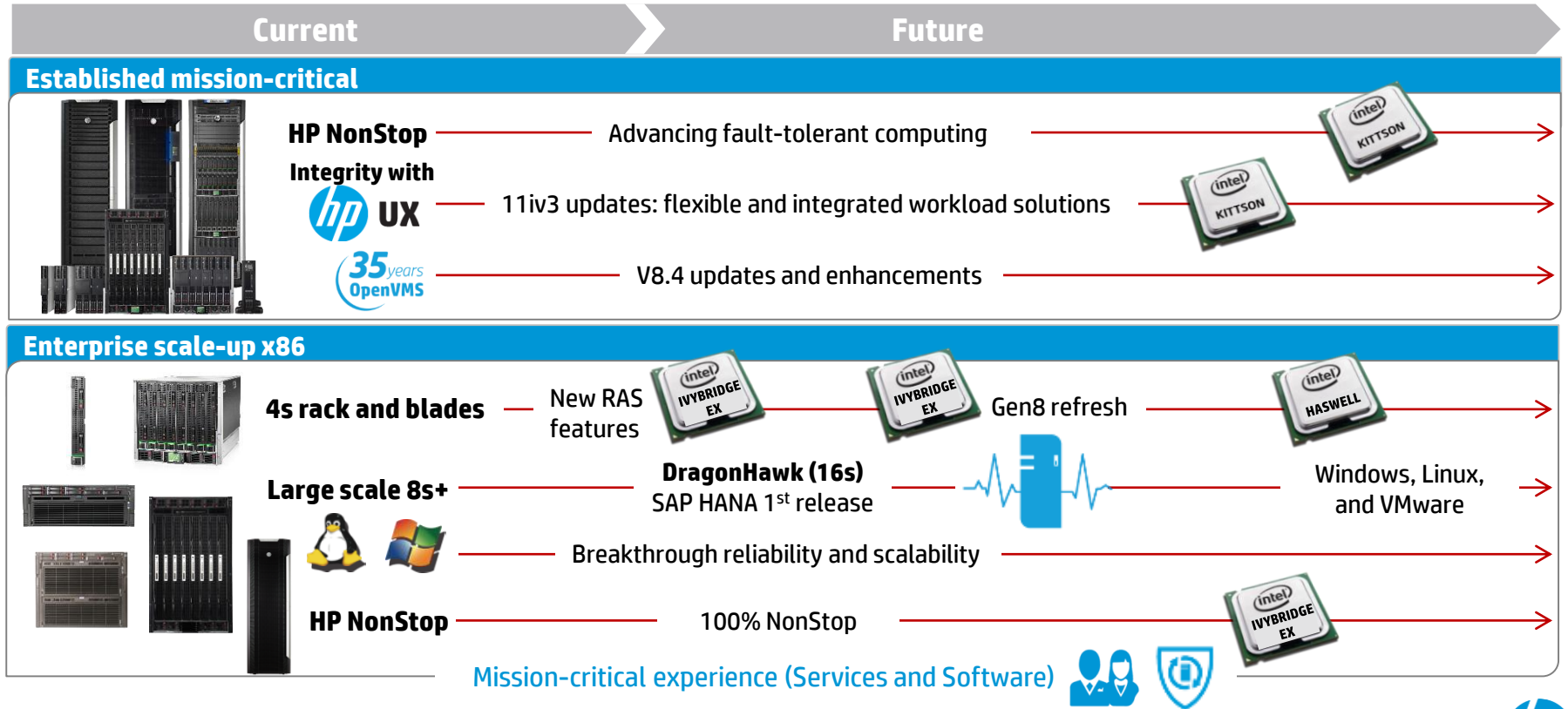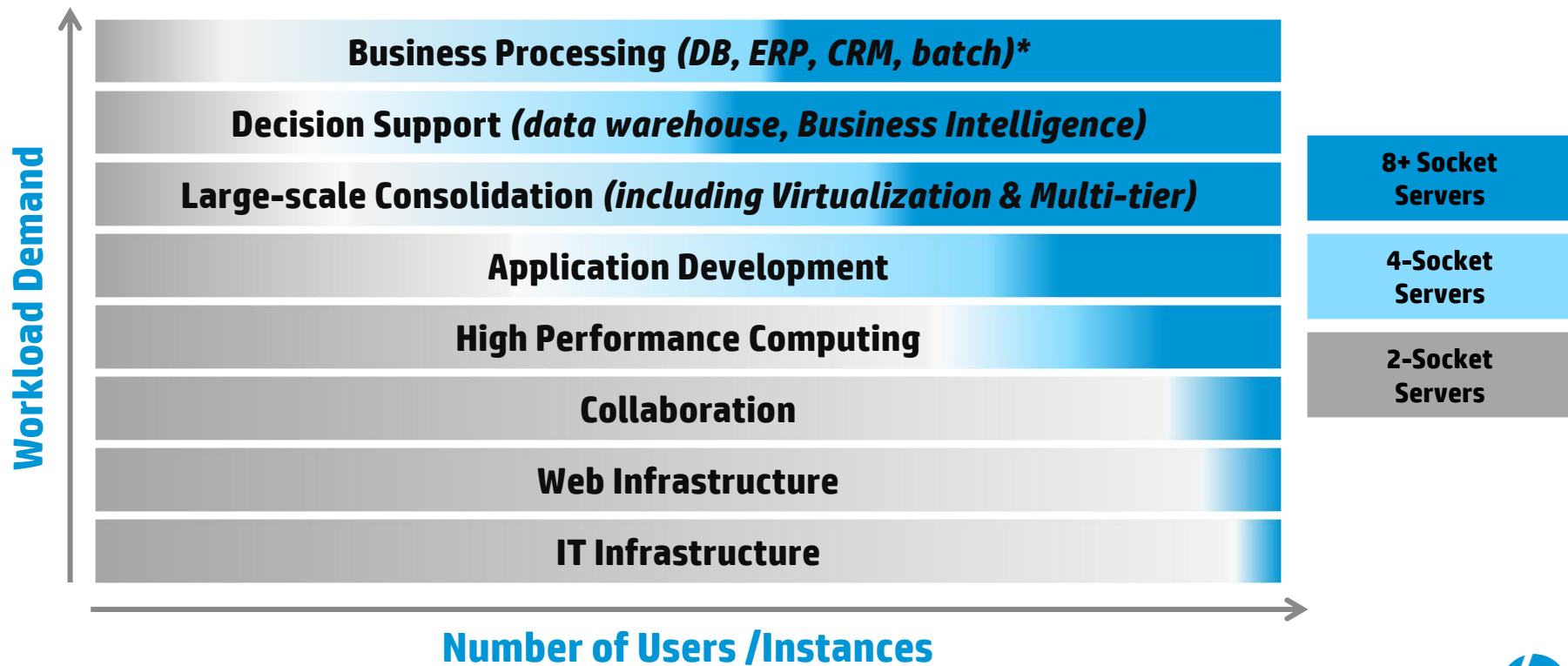

Continued innovations

Transformational advancements

HP Integrity

NonStop   **OpenVMS**   HP UX

x86 architecture

NonStop   NEW

Mission-Critical Support

Investing in mission-critical leadership

Current → **Future**

Established mission-critical

HP NonStop — Advancing fault-tolerant computing — [intel KITTSON]

Integrity with [hp UX] — 11iv3 updates: flexible and integrated workload solutions — [intel KITTSON]

[35 years OpenVMS] — V8.4 updates and enhancements —

Enterprise scale-up x86

4s rack and blades — New RAS features — [intel IVYBRIDGE EX] [intel IVYBRIDGE EX] Gen8 refresh [intel HASWELL]

Large scale 8s+ — **DragonHawk (16s)** SAP HANA 1st release — Windows, Linux, and VMware

[Linux] [Windows] — Breakthrough reliability and scalability —

HP NonStop — 100% NonStop — [intel IVYBRIDGE EX]

Mission-critical experience (Services and Software)

     All plans are subject to change.

Mission-critical needs increasingly being addressed by x86 servers

Workload Demand →

Business Processing *(DB, ERP, CRM, batch)**

Decision Support *(data warehouse, Business Intelligence)*

Large-scale Consolidation *(including Virtualization & Multi-tier)*

Application Development

High Performance Computing

Collaboration

Web Infrastructure

IT Infrastructure

Number of Users /Instances

8+ Socket Servers

4-Socket Servers

2-Socket Servers

Turbo-charge your critical data-intensive workloads

Future, next-gen HP ProLiant DL580 Gen8 Server

Outstanding x86 4S scalability

Greater capacity and enhanced infrastructure for blazing fast results on your most demanding workloads

Class-leading resiliency and robustness

Peace of mind with increased system availability and improved reliability

Compelling Total Cost of Ownership

Save money with the efficiencies of scale-up consolidation and HP ProActive Insight Architecture

Transforming scale-up x86 with DragonHawk

Deploy your mission-critical workloads on future industry standard platforms

Scalability

3x greater scalability at **55% less** solution cost
48 DIMMs, 12TB➔24TB

Reliability

20x more reliable than soft partitions alone

Availability
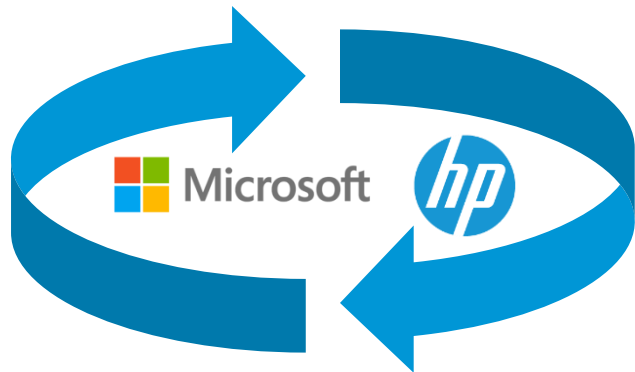
60% reduction in downtime

Serviceability

Failover recovery in as little as 4 seconds

Driving top Windows performance and resiliency with over a decade of joint engineering with Microsoft

Collaborating throughout the stack to build scalable, resilient solutions for our customers

2.5x **Improved BI Performance:** HP ProLiant DL980 and MS SQL Server 2014

30x **Improved bwin application performance:** MS SQL Server 2014 In-memory OLTP engine and future HP ProLiant DL580 Gen8

Increased resiliency with SQL Memory Error Recovery: DL980 firmware enablement at **initial OS release**
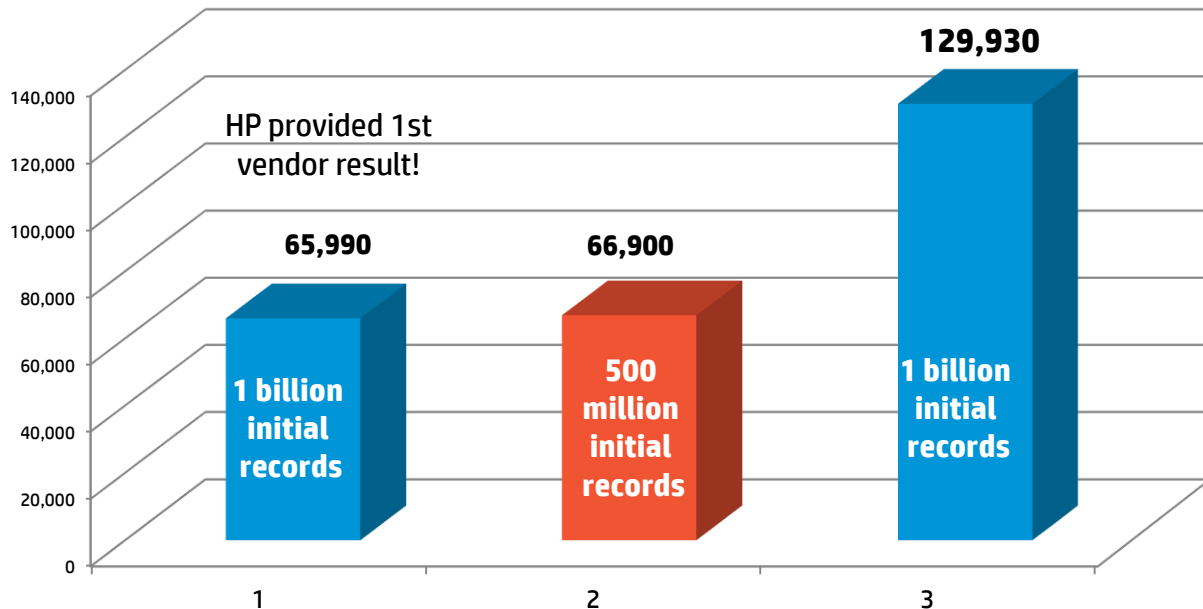
Partnering with SAP and SUSE for leadership performance

Optimized & tuned HP AppSystem for SAP HANA scale-up for analytics workloads

HP delivers overall leadership results on BW-EML standard application benchmark

SUSE® Linux Enterprise

Superior scaling & performance

Optimized and tuned for HP servers, storage and networking

Comprehensive MC support

HP ProLiant DL580 G7

HP provided 1st vendor result!

Query Navigation Steps / Hour

- 140,000
- 120,000
- 100,000
- 80,000
- 60,000
- 40,000
- 20,000
- 0

65,990 — 1 billion initial records (1)

66,900 — 500 million initial records (2)

129,930 — 1 billion initial records (3)

Protecting your mission-critical workloads from downtime - HP Serviceguard Solutions for Linux

Today

- **Fast** failure detection, failover and failback
- Availability and disaster recovery (DR) over **any distance**
- **Out-of-box support** for applications and databases
- **Data integrity** protection

Future

- Private cloud optimized **scalability** and virtualization integration
- **Non-disruptive** DR testing
- Multi-cluster management from a **single window**
- Cluster analytics for performance optimization and **increased uptime**

4 second
Failover recovery

Zero
Planned downtime

93%
Setup time reduction

Conclusions

OpenVMS is stabilised, with long support

Plan now

- Plan now, act later
- Do you need servers from 2015 onwards? Tell me or Chris Van Maaren
- Get help from Ray Turner – transition session at your company

Apologies for absence

dexodus

Thank you