NonStop into the Cloud (?)

Peter Hadler

NonStop Business Manager Germany
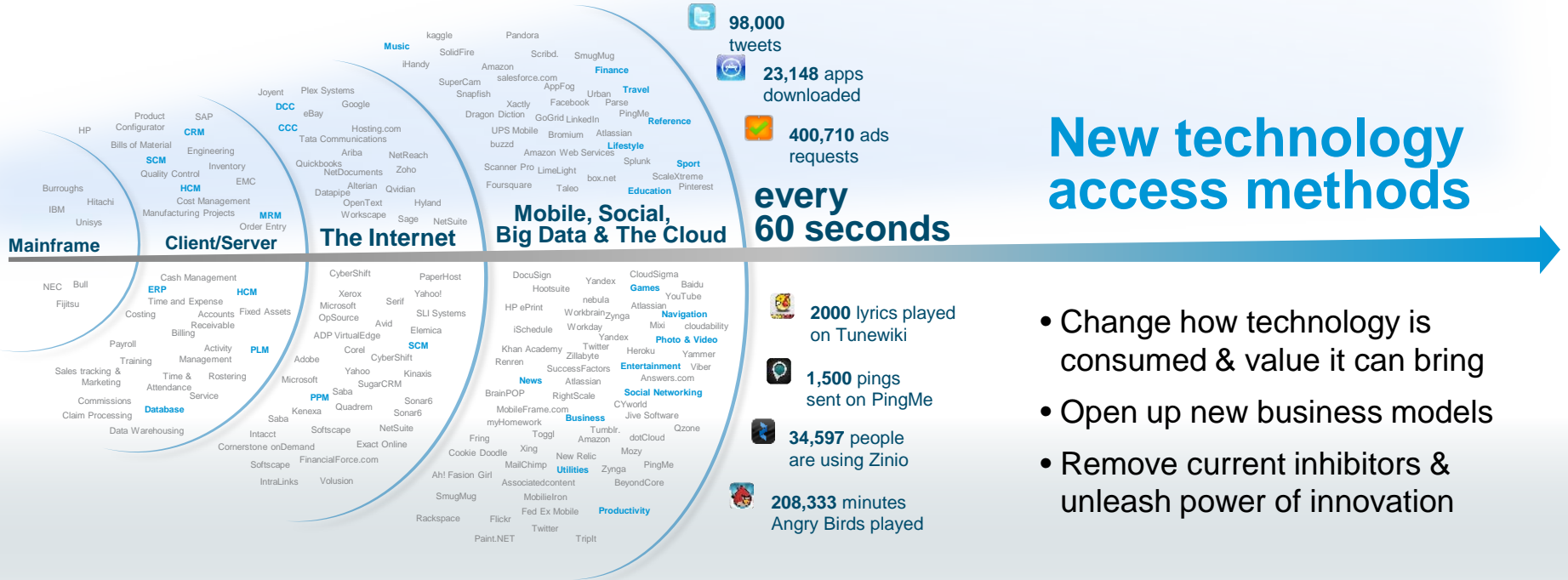
Connect Germany

G T U G

GO INTERNATIONAL

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Accelerating innovation & change

Mainframe
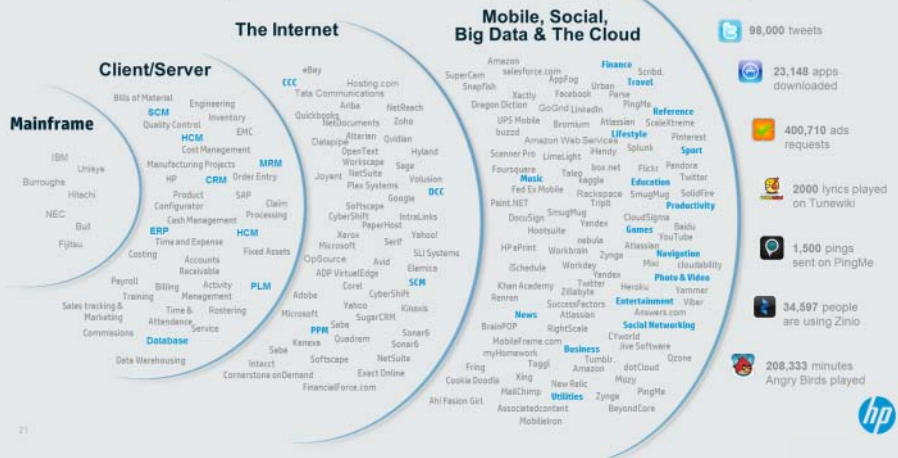
HP
Burroughs
Hitachi
IBM
Unisys

NEC   Bull
Fijitsu

Sales tracking & Marketing
Commissions
Claim Processing
Data Warehousing
Payroll
Training

Client/Server

Product Configurator
Bills of Material
SAP
CRM
SCM
Quality Control
Cost Management
Manufacturing Projects
HCM
Engineering
Inventory
EMC
MRM
Order Entry

Cash Management
ERP   **HCM**
Time and Expense
Costing   Accounts Receivable   Fixed Assets
Billing
Activity Management   **PLM**
Time & Attendance
Rostering
Service
Database

Joyent   Plex Systems
DCC   eBay
CCC   Google
Hosting.com
Tata Communications
Ariba   NetReach
Quickbooks   Zoho
NetDocuments
Datapipe   Alterian   Qvidian
OpenText   Hyland
Workspace   Sage   NetSuite

The Internet

CyberShift   PaperHost
Xerox   Yahoo!
Microsoft   Serif
OpSource   SLI Systems
ADP VirtualEdge   Avid   Elemica
Corel   CyberShift
Adobe   **SCM**
Microsoft   Yahoo   Kinaxis
Saba   SugarCRM
Kenexa   Sonar6
Quadrem   Sonar6
Intacct   NetSuite
Cornerstone onDemand   Exact Online
Softscape   FinancialForce.com
IntraLinks   Volusion
PPM

kaggle   Pandora
Music   SolidFire
iHandy   SmugMug
SuperCam   **Finance**
Snapfish   Amazon
Xactly   salesforce.com
Dragon Diction   AppFog
GoGrid   LinkedIn   Urban   **Travel**
UPS Mobile   Facebook   Parse
buzzd   Bromium   PingMe
Amazon Web Services   Atlassian   **Reference**
Scanner Pro   Splunk   **Lifestyle**
Foursquare   LimeLight   ScaleXtreme
Taleo   Pinterest   **Sport**
box.net   **Education**

**Mobile, Social,
Big Data & The Cloud**

DocuSign   Yandex   CloudSigma
Hootsuite   **Games**   Baidu
nebula   YouTube
HP ePrint   Workbrain   Zynga
iSchedule   Workday   **Navigation**
Khan Academy   Yandex   Mixi   cloudability
Renren   Twitter   Heroku   **Photo & Video**
Zillabyte   Yammer
News   SuccessFactors   **Entertainment**   Viber
BrainPOP   Atlassian   Answers.com
MobileFrame.com   RightScale   **Social Networking**
myHomework   CYworld   Jive Software
Fring   Toggl   **Business**   Qzone
Cookie Doodle   Xing   Tumblr.   dotCloud
MailChimp   Amazon   Mozy
Ah! Fasion Girl   New Relic   **Utilities**   PingMe
Associatedcontent   Zynga   BeyondCore
SmugMug   Mobilielron
Rackspace   Flickr   Fed Ex Mobile   **Productivity**
Paint.NET   Twitter   TripIt

Joyent   Plex Systems   kaggle   Pandora
DCC

Scribd.   SmugMug
SuperCam   Finance

**every
60 seconds**

98,000 tweets

23,148 apps downloaded

400,710 ads requests

2000 lyrics played on Tunewiki

1,500 pings sent on PingMe

34,597 people are using Zinio

208,333 minutes Angry Birds played

New technology access methods

- Change how technology is consumed & value it can bring
- Open up new business models
- Remove current inhibitors & unleash power of innovation

BYOD era meets Enterprise IT

- Bite-sized applications & interactions

- Cloud is the back-end with interoperability everywhere

- Analytics + big data

- Seamless orchestration across hybrid delivery model

Shifts enabling unconstrained IT access

Infrastructure
ANYWHERE

Applications
ANYWHERE

Information
ANYWHERE

=

Services
ANYWHERE

IT Incidents & their impact

Why HP NonStop makes sense
(now more than ever …)

IT Incidents do occur …

03/08/12 **RBS sets aside £125m to cover IT meltdown costs**
The Royal Bank of Scotland has set aside £125 million to cover costs resulting from the technology failure that hit RBS, NatWest and Ulster Bank customers in June.

05/09/12 **NAB suffers five-hour outage**
Glitch-prone National Australia Bank and its UBank subsidiary suffered a five-hour outage Wednesday after a network failure at the bank's ageing East Melbourne data centre

24/08/12 **Japanese watchdog slams TSE over trading outage**
The Tokyo Stock Exchange has been ordered to overhaul its systems and processes following a computer glitch that halted trading earlier this month

ᴴᵖ

IT Incidents do occur …

02/08/12 **Knight Capital blames tech glitch for stock market chaos; faces $440m pre-tax loss**
News Knight Capital says that a "technology issue" at its market making unit was behind the volatile price movements in 140 shares yesterday that forced Nyse Euronext to cancel trades.

21/05/12 **HSBC IT failure hits ATMs and card payments**
Some UK HSBC customers were left unable to make card payments or withdraw cash from ATMs yesterday thanks to an IT hardware failure

25/01/12 **IBM server crash hits Canadian bank services**
News An outage at IBM's server farm in Montreal has knocked out online services and ATMs at two Canadian banks, according to a local press report.

IT Incidents do occur …

11/06/12 **Nasdaq faces legal action over $350m Facebook IPO disaster**
Swiss bank UBS is weighing legal action against Nasdaq OMX after losing up to $350 million during the botched Facebook IPO. which saw trading delayed and failed order cancellations

29/08/12 **FNB suffers month-end crash**
First National Bank (FNB) has apologized for an interruption of its electronic services which left customers high and dry during peak evening shopping hours yesterday.

22/08/12 **Square payments hit by outage**
Transactions went unprocessed yesterday thanks to technical problems that also saw the mobile payments firm's Web site go down

hp

IT Incidents do occur …

14/10/11 **Blackberry Outage for three days caused by faulty router**
Insiders blame RIM's system, its poorly handled expansion and the demands of video content for failure that hit 70 million users. It is estimated that the explicit costs due to the outage will be limited to **$350 million**

22/04/11 **Chaos as Amazon cloud failure crashes major websites**
Sites across the U.S. went offline for up to 12 hours yesterday as Amazon's northern Virginia data centre was hit by a series of outages.

29/08/12 **United Airlines system failure**
United Airlines says a computer outage that caused the cancellation of nine flights and delayed 580 others was the result of an equipment failure.

IT Incidents do occur …

29/07/11 **RSA SecurID hack costs EMC $66m**
The security breach at RSA earlier this year that compromised its SecurID two-factor authentication system has so far cost parent company EMC $66 million, according to the Washington Post.

29/03/07 **TJX hack is biggest ever with 45.7 million card numbers stolen**
Fraudsters who hacked the computer systems at US retailer TJX managed to steal more than 45.7 million credit and debit card numbers over a period of more than 18 months, making it the biggest breach of personal data

14/05/12 **Bitcoin exchange loses $90,000 in virtual currency hack**
Bitcoin exchange Bitcoinica has shut down its operations after an online hacker breached its defences and stole $90,000 worth of the virtual currency.

File   Edit   View   Favorites   Tools   Help

http://www.nytimes.com/2011/06/18/us/18united.html?_r=0

Google

Favorites   United Airlines Flights Delayed by Computer Fail...

Log In   Register Now   Help

The New York Times

U.S.

Search All NYTimes.com   Go

Computer Failure Delays United Flights Nationwide

By ANAHAD O'CONNOR
Published: June 17, 2011

Passengers were stranded at airports across the country Friday night after a failure in United Airlines' computer system, the airline said.

The disruption set off widespread delays at airports in San Francisco, Chicago and Washington, with many passengers left sitting in terminals or stuck on planes that were grounded.

United said in a statement that the problems began at 8:15 p.m. New York time, when the computer failure knocked out its flight departures, airport processing and reservations systems. The statement did not address the nationwide delays, and a spokesman did not return a phone call seeking comment.

DE   16:52   22.09.2012

Business failure brings a high cost.

Critical server outage cost per hour (US$)

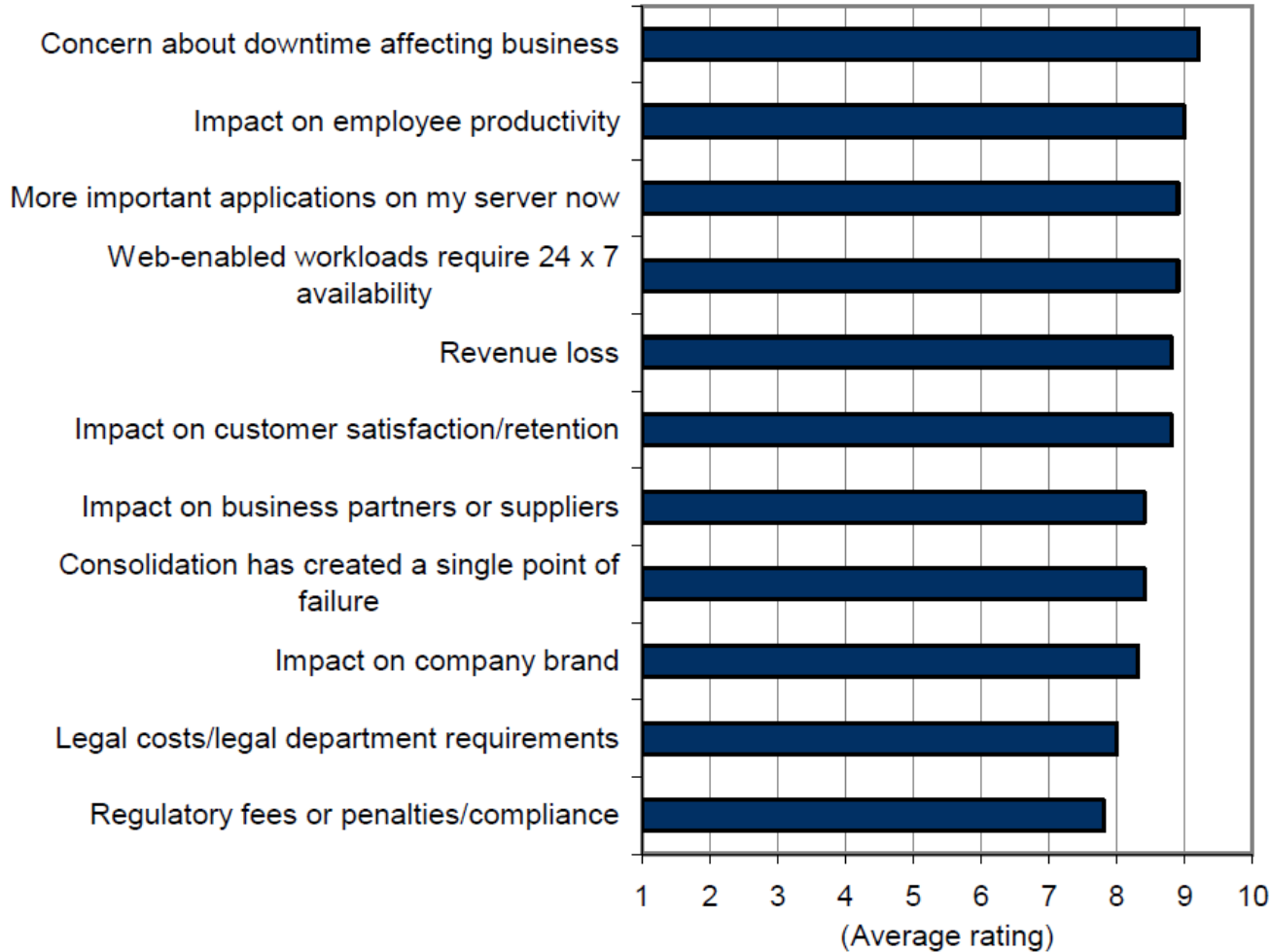|	
US	$243,421
DE	$371,612
FR	$452,245
UK	$274,138
Average	$368,692

Source: Virtualization Data Protection
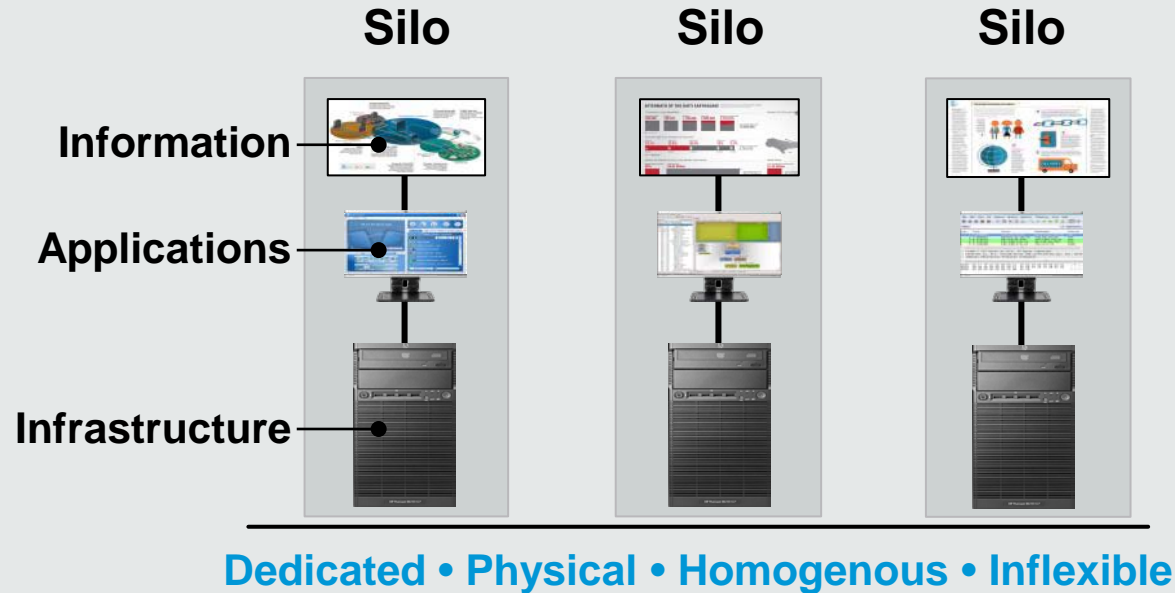2011 ANNUAL REPORT Survey of 500 Enterprises

High-Availability Solutions Drivers: All Servers, All Applications

Source: IDC
1= not at all important;
10= most important

Traditional IT limitations

Silo   Silo   Silo

Information

Applications

Infrastructure

Dedicated • Physical • Homogenous • Inflexible

Information, applications and Infrastructure are hardwired

Built in silos to deliver performance and security

Not built for agility, speed and flexibility
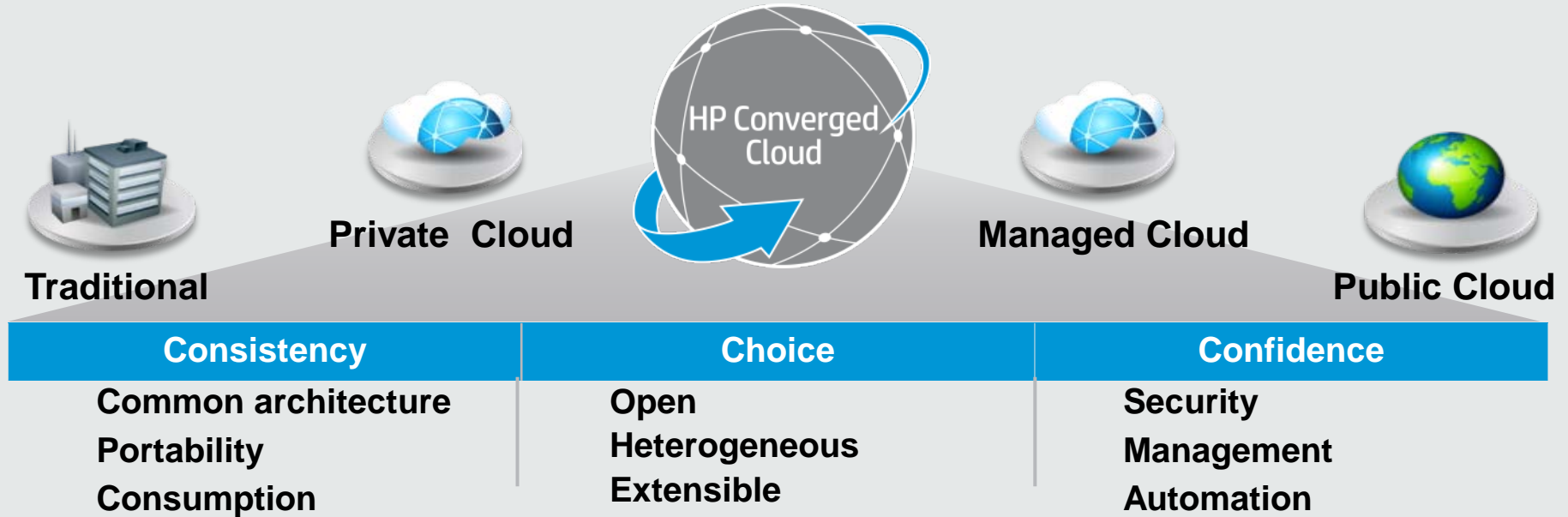
Today's approach to hybrid delivery drives more complexity

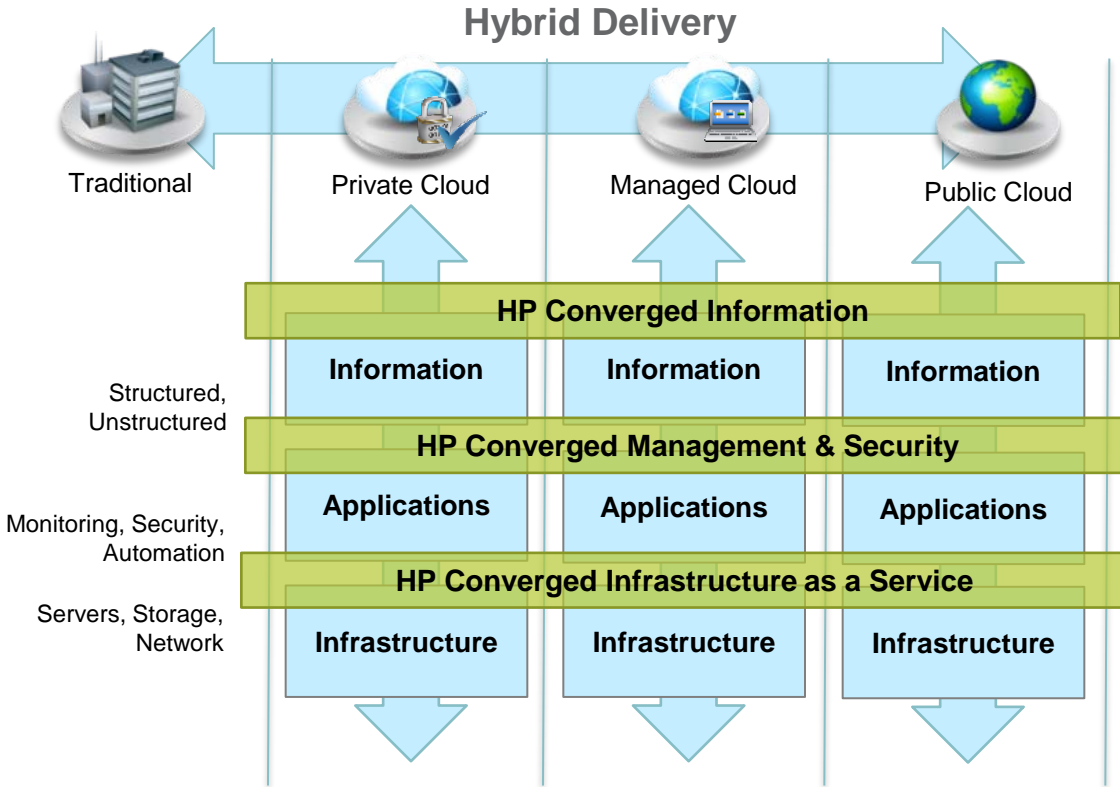**Service models continue to be unique and siloed for each deployment model**

Traditional   Private   Managed   Public
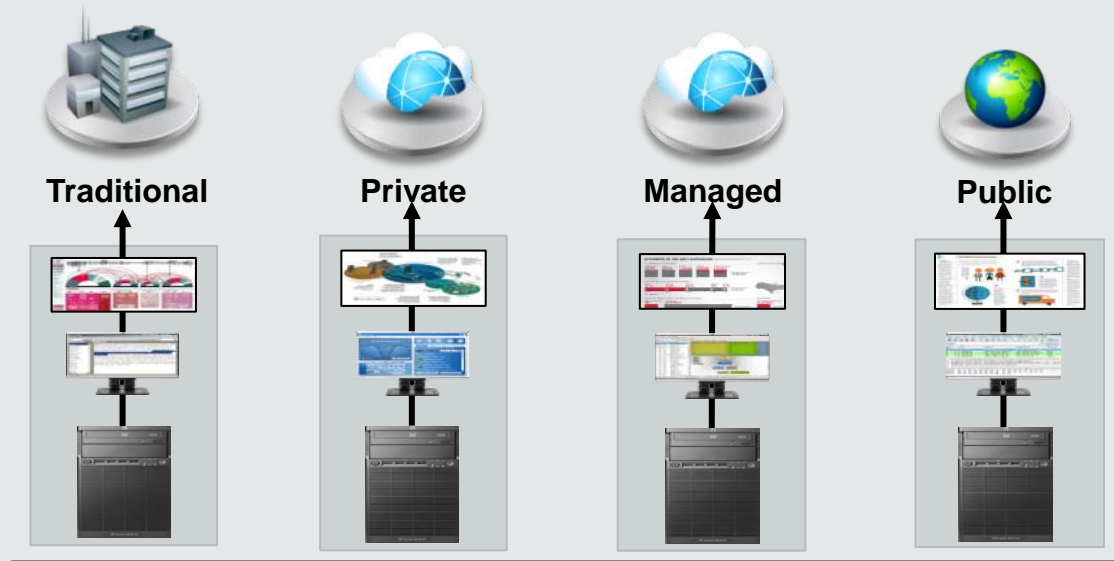
**Disparate Architectures, Different Management & Security
Inconsistent Development Environments**

HP Converged Cloud

Integrated by design

HP Converged Cloud

Private Cloud

Managed Cloud

Traditional

Public Cloud

Consistency	Choice	Confidence
Common architecture	**Open**	**Security**
Portability	**Heterogeneous**	**Management**
Consumption	**Extensible**	**Automation**

HP's approach…HP Converged Cloud

Hybrid Delivery

Traditional

Private Cloud

Managed Cloud

Public Cloud

HP Converged Information

| Information | Information | Information |

Structured, Unstructured

HP Converged Management & Security

| Applications | Applications | Applications |

Monitoring, Security, Automation

HP Converged Infrastructure as a Service

| Infrastructure | Infrastructure | Infrastructure |

Servers, Storage, Network

Choice
- **Open** (standards-based across all delivery models)
- **Heterogeneous** (hypervisors, development and deployment environments)
- **Extensible** (partner ecosystem)

Confidence
- **Security** (across information, applications and infrastructure, and delivery models)
- **Management** (across information, applications and infrastructure, and delivery models)
- **Automation** (for new cloud based architectures and processes)

Consistency
- **Common architecture** (across all delivery models)
- **Portability** (for flexibility and optimization)
- **Consumption experience** (one simple model across all delivery models)

EMPOWER. INSPIRE. IGNITE.

HP Converged Cloud in action

Hybrid Delivery

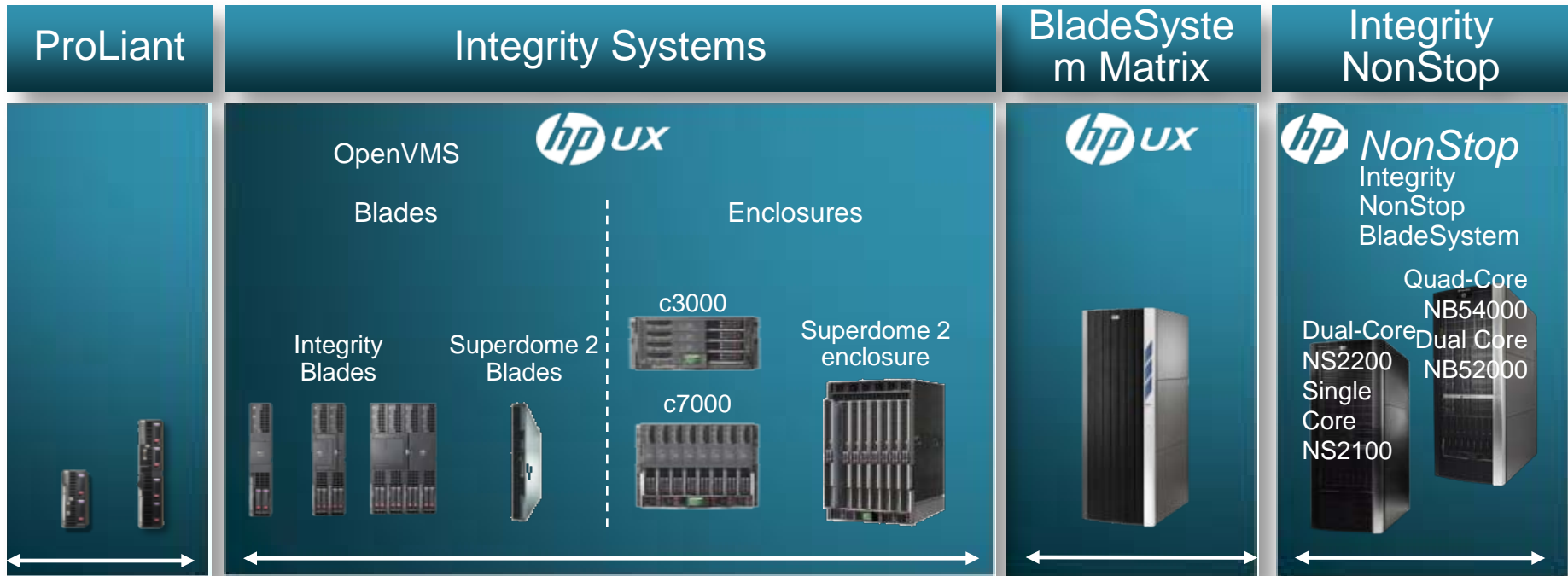Traditional   Private Cloud   Managed Cloud   Public Cloud
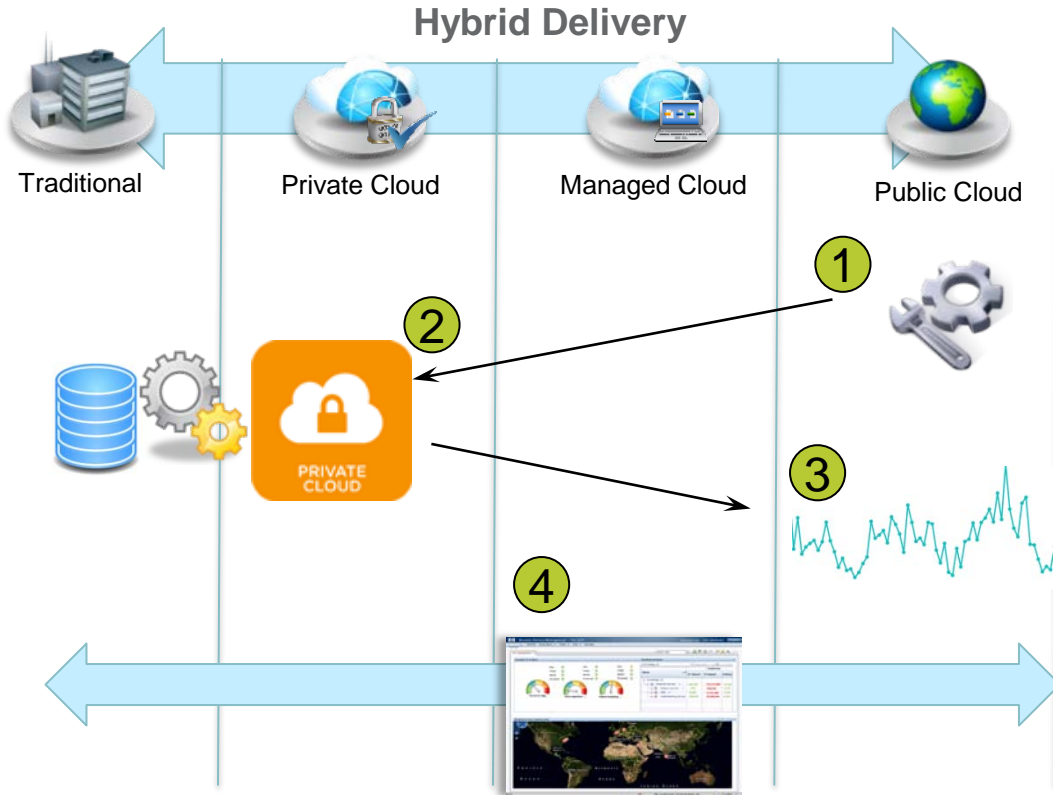
1 Develop and test new application in public cloud with policy-based, model driven approach

2 Deploy and run application in private cloud production environment, integrating with existing company databases

3 Burst workload to public or managed cloud when additional on-demand capacity is needed

4 Manage and secure composite applications and services across hybrid environment

EMPOWER. INSPIRE. IGNITE.

SALES UNIVERSITY

NonStop is a strategic part of HP's Converged Infrastructure

ProLiant	Integrity Systems	BladeSystem Matrix	Integrity NonStop

ProLiant

Intel and AMD x86

Integrity Systems

OpenVMS

hp UX

Blades

Enclosures

Integrity Blades

Superdome 2 Blades

c3000

Superdome 2 enclosure

c7000

MOST EXTENSIVE I/O BANDWIDTH

MOST EXTENSIVE MEMORY CAPACITY[1]

BladeSystem Matrix

hp UX

MOST EXTENSIVE SCALABLE COMPUTING

Integrity NonStop

hp NonStop
Integrity NonStop BladeSystem

Quad-Core NB54000

Dual-Core NS2200 Single Core NS2100

Dual Core NB52000

Up to 4,080 nodes

Gartner Magic Quadrant

- For Blade Servers

Figure 1. Magic Quadrant for Blade Servers

challengers | leaders

HP
IBM
Dell • Cisco
Fujitsu
Huawei
Oracle
Hitachi
NEC • Bull • SGI

ability to execute

niche players | visionaries

completeness of vision

As of March 2012

Source: Gartner (March 2012)

All modern, All standard, All NonStop

and integrated into HP Converged Infrastructure

Modern software	NonStop value	Standard hardware
Development environments	24/7 application availability	Common chipsets
Management tools	Massive and linear scale	Blades
Database programming	Fully virtualized	Storage
Web/GUI interfaces		Networking

V i r t u a l i z e d • R e s i l i e n t • O r c h e s t r a t e d • O p t i m i z e d • M o d u l a r

Infrastructure Operating Environment	Virtual Resource Pools	FlexFabric	Data Center Smart Grid

HP Converged Infrastructure

Modern, Open Software

Integrity NonStop plugs into the open application development model TODAY
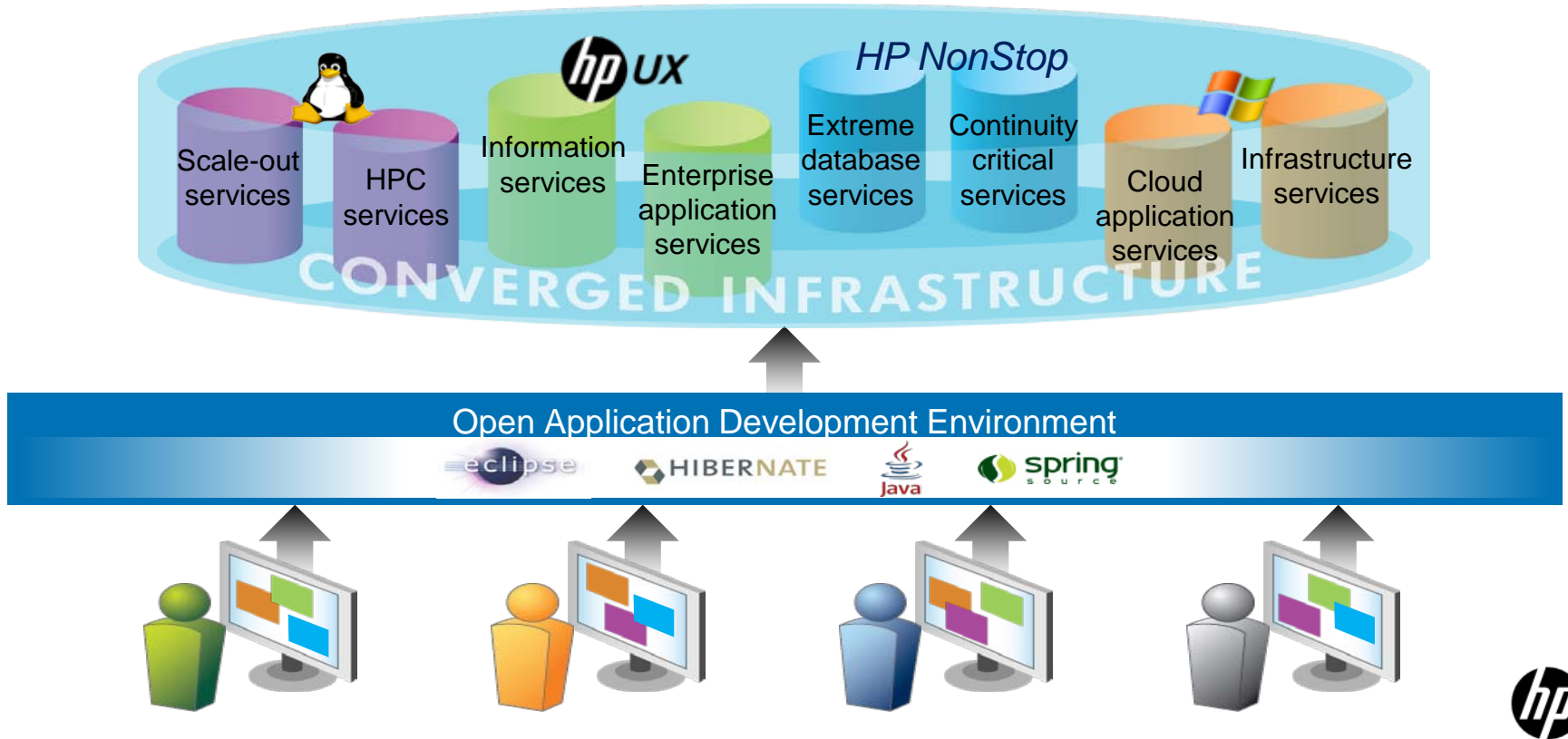
We are living in the Internet age …

	PC *) Technology	HP NonStop
• Systems need to be permanently available and self-healing	**?**	✅
• Data integrity needs to be maintained at all times	**?**	✅
• Systems need to be secure	**?**	✅
• Systems need to scale massively / endlessly	**?**	✅
• Systems need to run unattended / high degree of automation	**?**	✅
• Systems need to be „green" – requiring less energy and cooling	**?**	✅
• Not susceptible to malware floating in the Internet	**?**	✅

*) X86 – based, Windows / Linux OS

HP Integrity NonStop

enabling mission-critical businesses today

Financial Services

– Payment systems: Credit, debit, POS, wholesale

– Exchanges & trading

Communications Media & Entertainment

– HLR, HSS and SDM

– Intelligent Network /3G Services

– Messaging

Manufacturing

– Production Control Systems

– Manufacturing Execution

Healthcare and Public Sector

– Electronic Patient Records

– Defense and Intelligence systems

– 70% of all ATM payments and 66% of all credit card transactions

– World's largest ISP Global Messaging

– 300+ million subscribers "live" in HP HLR solutions

– Premier automotive manufacturers

– Logistic management

– Over 200 hospitals including many of the world's largest teaching hospitals

– National Security

– Transportation

For businesses that run nonstop

HP Integrity NonStop NS2100 Server

Key features of the HP Integrity NonStop NS2100 Server

- Standards-based architecture using the latest Itanium® processor technology—the Intel Itanium Processor 9300 series

- Standards-based, open computing—HP NonStop infrastructure supports all relevant open standards for ease of application development and portability

- A flexible platform for heterogeneous environments with a choice of application architectures and management tools

- Uniquely designed for the absolute highest levels of availability[1] and reliability to enable continuous business

- Delivers the lowest TCO[2] in its class with a fully-integrated stack of hardware, operating system, database, and software

- Complete application compatibility with all other NonStop servers

Core licensing concepts

With J06.13, HP introduces software changes that read a new core license file on the NB54000c BladeSystem.

The NonStop OS uses this file to determine what core level a customer has purchased for the NB54000c and to enable either 2 or 4 cores to run in all CPUs on the system.
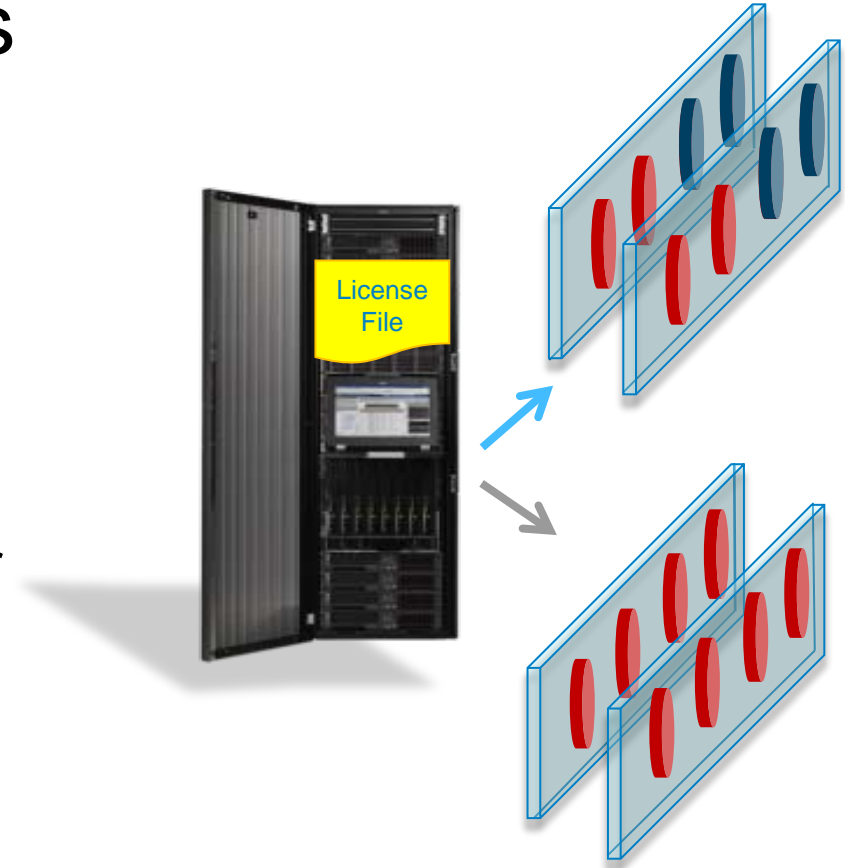
License File

Announcing the Availability of NonStop SQL/MX 3.2

HP is pleased to announce the immediate availability of **NonStop SQL/MX 3.2** on HP Integrity NonStop servers. For customers who need an out-of-the-box clustered enterprise database system, that handles OLTP and Data Warehouse workloads on the same database server, unparalleled linear scalability, and continuous database availability with online manageability of multi-Petabytes database, NonStop SQL/MX 3.2 provides the following key features:
Existing customers can easily upgrade to SQL/MX R3.2 once they have installed H06.25/J06.14 Release Version Update (RVU).
The **SQL/MX Release 3.2** includes key features that enable migration from other databases, help with database manageability, provide secure access to the database, and offers newer ways to access the database.

COMPUTERWORLD

Intel's new Itanium chip, Poulson, to launch later this year

By Agam Shah
September 11, 2012 11:29 PM ET

IDG News Service - Intel on Tuesday said it was on track to launch the next-generation Itanium processor later this year, brushing away any speculation that the processor would reach its end of life in the near future. The next-generation Itanium chip for Unix and Linux servers, code-named Poulson, will succeed the current Itanium chip code-named Tukwila, which was released in 2009 after many delays. The chip is used in fault-tolerant servers that typically run high-end applications.

"We're on track for the launch of Poulson later this year," said Diane Bryant, vice president and general manager of the Datacenter and Connected Systems Group, during an interview at the Intel Developer Forum being held in San Francisco.

ORACLE Support für Itanium Prozessoren

HP Delivers the Full Mission-Critical Experience

NonStop

NonStop

**NB54000
BladeSystem (Quad-Core)**

intel POULSON

intel KITTSON

Integrity

hp UX

- *Extending mission-critical reach*
- *Flexible workload solutions*
- *Mission-critical integration*

32s Superdome 2

intel POULSON

intel KITTSON

OpenVMS

- *v8.4 Update*
- *v8.x*

**Building
Mission-Critical x86**

DL980

Serviceguard
for Linux

**DragonHawk
HydraLynx**

intel inside Xeon

- *SQL Optimizer*
- *Error analysis & recovery, online patching*
- *Dynamic utility computing*

2011   2012   Future

NonStop Business Update

Einladung zum HP Workshop

Innovation in Payments and Fraud Prevention

17. Oktober Frankfurt in der Gerbermühle 9:30h – 14:00h

Payment-Kanäle und Bezahlverfahren vervielfachen sich; Online- und Mobile-Commerce wächst unaufhörlich. Darüber hinaus formieren sich Betrüger zu professionellen Organisationen und setzen fortschrittliche Methoden für ihre Zwecke ein.

Wie sollen sich Finanz- und Payment-Dienstleister in dieser sich dramatisch verändernden Welt positionieren, um wettbewerbsfähig zu bleiben, die neuen Geschäftsmöglichkeiten für sich zu nutzen, Beziehung zu ihren Kunden weiter zu verbessern und ihr Risiko effizient zu managen?

Auch eine standardisierte, flexible und höchst zuverlässige Technologiebasis spielt eine wichtige Rolle für die erfolgreiche Erschließung neuer Geschäftspotenziale.

Vielen Dank!