HP NonStop

Throughout EMEA

Neil Pringle, Director, NonStop Enterprise Division
27th September 2012
Agenda

1. NonStop relevance in EMEA
2. Investment and Partners
3. NonStop is in the Cloud
4. New Business in EMEA
5. Summary
NonStop relevance in EMEA
In today’s need-it-now world…

When is it okay for your business to be unavailable to your customers?

Never.
Your mission-critical experience matters
When application availability is vital

<table>
<thead>
<tr>
<th>ZERO</th>
<th>NEVER</th>
<th>MINIMAL</th>
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</thead>
<tbody>
<tr>
<td>Unplanned downtime</td>
<td>Data integrity</td>
<td>Software updates</td>
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<td></td>
<td>NEVER</td>
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<td>Recovery specified in</td>
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Banking never stops. We understand.

Which of these issues can NonStop help you address?

**Fraud and risk management for retail banking**
- Real-time payment fraud prevention
- Risk profiling
- Compliance Information Lifecycle Management

**Transactions processing**
- Payments, multi-channel retail, ATM

**Service and loan production (sales)**
- Single customer view

**Mobile payments**
- Integration of new mobile channels into core payments infrastructure
Communications never stop. We know.

Which of these issues can NonStop help you address?

**Customer satisfaction and retention**
- Continuous availability of services and information
- Real-time marketing opportunities

**Integration of operations and business**
- Single view of subscribers and usage patterns
- Integration of separate 2G, 3G, and 4G networks and subscriber data
- Incompatible network equipment and interfaces

**Explosion of transaction rates**
- High load rates from new intelligent devices

**4G LTE mobile services**
- HLR, LBS, MMS, UMS
Manufacturing never stops. We get it.

Which of these issues can NonStop help you address?

Follow-the-sun access to information
• 24x7x365 application and data availability
• Continuous production control processes
• Manufacturing execution systems

Supply chain operations
• Wholesale and retail transactions
• Secured data availability – IPs and product/part variants
• Multi-channel distribution and eCommerce

IT infrastructure and operational costs
• Standards-based systems and smaller footprints
• Production loss and cost
The need for business continuity is on the rise

Customer demand for instant access continues to grow

- Increasing connectivity is changing expectations and needs
- End users want information and to conduct transactions whenever and wherever they want

More organizations need continuous availability to remain competitive

- SMBs in the financial services, manufacturing, telecommunication and healthcare industries need to support high transaction volume workloads
- Organizations in emerging markets seeking parity with global counterparts want to achieve fault tolerance
- Increasing need among larger organizations to run smaller, specific workloads and processes in continuously available environments
The cost is more than money.

“If our systems are not available, then no one can do their shopping, and no one can pay. *If the payment terminals are not working, then people leave their carts behind and just walk out of the shop. So you can understand why we chose HP Integrity NonStop technology for this mission-critical computing.*”

Toon van der Pas
Senior Systems Engineer
Equens
Business demands change, but the value of NonStop is timeless.

**Financial Services**
Processing 68 million credit card accounts and over 10 billion transactions annually

*Source: Infonetics Service Providers Report, 2011 and TRAI Report, 2012*

**Manufacturing and Distribution**
Powering mission-critical applications at 100% of the top 10 global manufacturers

*HP 2012 internal sales data, cross-referenced with Nielsen and D&B data*

**Communications, Media, and Entertainment**
Supporting over 375M subscribers in advanced Telco network applications

*HP 2012 internal sales data, cross-referenced with Nielsen and D&B data*

**Public Sector and Healthcare**
Supporting several of the world’s leading medical institutions

*HP 2012 internal sales data, cross-referenced with Nielsen and D&B data*
Industry-leading array of client benefits

HP mission-critical converged infrastructure enables simplicity and agility

Continuous availability

- Protection from multiple points of failure or single, massive outages
- Fully virtualized, pooling and optimizing all resources at the application level

Lowest TCO

- Lowest TCO* in its class for complex, mission-critical environments
- No traditional cluster costs (i.e. additional licensing, complex configurations & application partitioning)

Data integrity

- NonStop Multi-core Architecture (NSMA) for mission-critical transaction workloads around the clock

Massive scalability

- Scales up to 16,320 logical processors without additional wiring or configuration in a single system image

Standard and modern

- Standard, modular building blocks from blades to enclosures, networking, disks and management

End-to-end security

- On-platform system security
- Integrated volume level encryption

*Source: Richard Buckle, Pyalla Technologies, Research Note, NonStop offers the lowest TCO in its class for complex mission-critical applications, 2012
Execution of NonStop strategy

- Standard hardware
- Modern software
  - Windows
  - Linux
  - NonStop
  - HP-UX
- Simplified integration into the data center
  - Easier to develop & deploy your apps
  - Integrate your apps with other apps in the enterprise
  - Lower cost of ownership
  - Ease of use
  - Part of HP’s Mission-Critical Converged Infrastructure
  - Positioned for converged cloud

Integrate and Deploy Services and Tools
- MySQL
- JBoss
- SOA
- WSO2
- Java
- Eclipse
- Spring
- Hibernate

Architect with Open Applications
New products

Hardware
HP Integrity NonStop BladeSystem NB54000c
HP Integrity NonStop BladeSystem NB54000c-cg
HP Integrity NonStop NS2200
HP Integrity NonStop NS2100

100% NonStop – accommodate client workloads at a lower price point

Software
Core licensing
NonStop SQL/MX 3.0 & 3.1
64-bit OSS C and C++
NSJSP App Server 7.0
### Recent wins by our partners

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>ACI</strong></td>
<td>Leading South African Bank offering personal, commercial &amp; corporate banking services and a leading Pan-European full-service card &amp; payment processor choose ACI for their payment systems</td>
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<tr>
<td><strong>CAIL</strong></td>
<td>A leading bank in the US chooses Reflections as their enterprise client solution in continuing the journey towards <em>standardization and modernization</em> of their operating environment</td>
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<tr>
<td><strong>comforte</strong></td>
<td>Healthcare provider in Scandinavia chooses SecurData/Audit for intelligent and transparent logging of all read and update access to sensitive patient data</td>
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<tr>
<td><strong>ETI-NET</strong></td>
<td>One of the top 3 US banks with 14 NonStop systems spread over 3 data centers replaces their physical tape back-up with ETI-NET’s BackBox virtual tape controllers</td>
</tr>
<tr>
<td><strong>GRAVIC Shadowbase</strong></td>
<td>A large retailer chooses Shadowbase to bi-directionally integrate a NonStop BASE24 POS application with a Linux/Oracle application for returns/exchanges</td>
</tr>
<tr>
<td><strong>OmniPayments</strong></td>
<td>One of the leading retailers chooses OmniPayments for its point-of-sale application</td>
</tr>
<tr>
<td><strong>XYPRO</strong></td>
<td>One of the fastest growing debit card networks in the US deploys fraud detection application on NonStop and secures that environment with the XYGATE security solution</td>
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Solution update

New solutions

- ReD PRISM – FSI
- Visual Rules Suite – Cross Industry
- CA Gen – Cross Industry

New solution Momentum

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<tr>
<td>• Third party payment processor in Africa</td>
</tr>
<tr>
<td>• National Switch and ATM network operator in South East Asia</td>
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<table>
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<tr>
<td>• Africa’s leading automated payment clearing house</td>
</tr>
<tr>
<td>• Payment services provider in Northern Europe</td>
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<table>
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<tr>
<th>Wins:</th>
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<tbody>
<tr>
<td>• Largest bank in India</td>
</tr>
<tr>
<td>• New Age private sector bank in India</td>
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NonStop Cloud
HP Converged Cloud

Hybrid delivery based on common architecture across traditional & all cloud models

**Choice**
- **Open**... standards-based across all delivery models
- **Heterogeneous**... hypervisors, development, infrastructure
- **Extensible**... partner ecosystem

**Confidence**
- **Security**... across info, apps, infrastructure, delivery models
- **Management**... end to end
- **Automation**... for cloud based architectures & processes

**Consistency**
- **Common architecture**... across all delivery models
- **Portability**... for flexibility & optimization
- **Consumption experience**... one simple model
NonStop’s expanding role in cloud computing

NonStop Today

Hosts traditional IT

Integrates with hybrid and private clouds through service portability and management/service interoperability

NonStop in the Future

Directly deployed in HP delivered, hybrid and private clouds

This is a rolling (up to three year) Statement of Direction and is subject to change without notice.
NonStop integrates with hybrid/private clouds today

NonStop services hosted in traditional IT

Customer’s hybrid or private cloud

SaaS Apps

NonStop OS
Transaction Manager
App Services Manager

NonStop SQL as a Service
Open Middleware

Virtualized Infrastructure

Standard-based Hardware
Resource pool

Secure bridge

VM
App
Java
VM
App
php
VM
App
Rails
Future NonStop deployment in hybrid/private clouds

SaaS Apps
- Open Middleware
- Virtualized Infrastructure
- Standard-based Hardware Resource pool

NonStop services hosted in traditional IT

NonStop in hybrid and private clouds

Customer's public cloud

This is a rolling (up to three year) Statement of Direction and is subject to change without notice.
New Business in EMEA
A New Global Payment Brand Emerges

Bank sell off creates new opportunity

- Multiple U.S. venture capitalists acquire part of existing bank
  - Mandated sell off by European Union
- Create a brand new payment brand – focused on card and electronic commerce
- Full market assessment of direct delivery systems and their platforms
- Initial preference for IBM – particularly mainframe
- After full investigation, customer decides on HP NonStop as the hosting platform
Joint Venture of German Payment Processors

- Both partners consolidate software development and technical operations
  - Debit Switch for two Banking Sectors
  - Gateways to European card processors and international payment schemes
    - Approx. 1.2 billion Transactions/Year
    - Some 50 million debit cards,
- Improve Time-to-Market for innovative future offerings
  - Authorization of Credit Card transactions
  - Contactless and mobile payments
  - Internet payment processes for debit cards
- Four independent access points based on new HP NonStop Blades Systems to ensure highest level of security, availability and performance
New ticketing application for seat reservation

- Add new services to booking service over multiple channels
- Improve revenue from seat reservations – 5€/reservation
- Improve customer service
- Protect the investment in the NonStop application
- Improved usability of NonStop for customer developers

- Defend the customer against the Oracle breakthrough and an ultimate loss
- Re-established trust in the future of NonStop
- Revise the decision to stop SW development on NonStop
- Sale of additional CPU-Power for the new project “combined booking”
Mobile Virtual Network Operator Case Study

HP HLR For MVNO Market

CSP started as fixed provider of internet services
Moved into Quad play (TV, Internet, Phone, Mobile)
Hence MVNO for Mobile
Built their own Billing and HLR core infrastructure
CSP selected HP HLR for core network
Open HLR platform with proven interworking
Future-proof to meet next generation 4G needs
Turn-key solution
Universal Data Repository (UDR) Case Study

HP Subscriber Data Management

International Wholesale and Retail provider
Tier 1 operator
Information stored is not just subscriber profile data but also network data
The user is steered based on the profile to the most optimum route.
Mobile Number Portability Application & Call Routing
Delivers optimisation and value add functionality through consolidated subscriber database
Machine to Machine Case Study

HP HLR Supporting SIMs in Automobiles

- Commercial operator
- M2M solution targeted at the motor vehicle industry
- Funded by the government
- Driven by the E-CALL Directive
- SIM installed in all new cars through a separate device from 2013
- SIM used to notify emergency services if there is an accident:
  - Automatically call out the ambulance
  - Can automatically identify their location
- Service goes live in 2013
- Uses HP GSM HLR for management of SIMs
Key takeaways

**NonStop relevance**
Business never stops
NonStop relevant for more businesses
Commodity investments
Business in EMEA grown YoY

**NonStop is positioned for a bright future**
New ISVs
New Applications
Investing for the future
Positioned for converged cloud
Thank you
Time to modernize the mainframe?

The timeless value of HP NonStop

- Application assessment workshop
  - HP-led session to determine which applications to move first
- TCO analysis
  - Cost of downtime
  - Common modular building blocks
  - Modern open software development
  - Common management software
  - Staffing and skills requirements

Source: Independent research study of 500 CIOs conducted by Vanson Bourne, 2011
Commissioned by Compuware
Oracle. Time for something else?

Introducing HP NonStop SQL

Discovery workshop
• HP-led session to discover where NonStop SQL can relieve the pain

Assessment tool
• Identify which Oracle instances are the best fit for NonStop SQL

*Source: Richard Buckle, Pyalla Technologies, Research Note, May 2012
NonStop offers the lowest TCO in its class for complex mission-critical applications

5-Year Cost of Ownership Comparison (US $ List Price)
Equivalent Exadata X2 2 Quarter Rack and NB54000c Configuration

<table>
<thead>
<tr>
<th>H/W</th>
<th>S/W (TLC5)</th>
<th>5-Year Support</th>
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<tbody>
<tr>
<td>NB54000c 6p, 24c, 192GB Memory, 11TB User Data</td>
<td>1.5x</td>
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<tr>
<td>Exadata X2-2 Qtr Rack, 24c, 192GB Memory, 9.25TB User Data</td>
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5-Year Cost of Ownership Comparison (US $ List Price)
Equivalent Exadata X2 2 Half Rack and NB54000c Configuration

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<tr>
<td>NB54000c 12p, 48c, 384GB Memory, 22TB User Data</td>
<td>1.63x</td>
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</tr>
<tr>
<td>Exadata X2-2 Half Rack, 48c, 384GB Memory, 22TB User Data</td>
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5-Year Cost of Ownership Comparison (US $ List Price)
Equivalent Exadata X2 2 Full Rack and NB54000c Configuration

<table>
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<th>H/W</th>
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<tbody>
<tr>
<td>NB54000c 24p, 96c, 768GB Memory, 45TB User Data</td>
<td>1.60x</td>
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<tr>
<td>Exadata X2-2 Full Rack, 96c, 768GB Memory, 45TB User Data</td>
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5-Year Cost of Ownership Comparison (US $ List Price)
Equivalent Exadata X2-8 Full Rack and NB54000c Configuration

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<tr>
<th>H/W</th>
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<tr>
<td>NB54000c 32p, 128c, 1.56TB Memory, 90TB User Data</td>
<td>2.64x</td>
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<tr>
<td>X2-8 Full Rack, 128c, 2TB Memory, 90TB User Data</td>
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