HP Integrity NonStop Servers – Software Evolution

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Product Manager, HP
Topics

• H-series
• Software packaging
• What’s not planned for Integrity NonStop servers
Introducing H-series!

- New release series as defined by TRM2000
- H-series supports new HP Integrity NonStop servers
- First generally available RVU will be H06.03
- H06 release version used to indicate compatibility with G06.nn
## Field Product & Solution Roadmap

**Integrity NonStop Server Platform, OS, Software & Security**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>Feb</td>
<td>Mar</td>
<td>Apr</td>
<td>May</td>
<td>Jun</td>
</tr>
<tr>
<td>Servers / Peripherals</td>
<td>Integrity NonStop Server EAP 2 Simplex</td>
<td>Integrity NonStop Server EAP 3DMR/TMR</td>
<td>Integrity NonStop Server DMR/TMR</td>
<td>IOAME</td>
<td>Tape Storage</td>
</tr>
<tr>
<td>OS</td>
<td>H06.02</td>
<td>H06.03</td>
<td>H06.04</td>
<td>H06.05</td>
<td>H06.06</td>
</tr>
<tr>
<td>Software Additions</td>
<td>Comprehensive lists of products that will and will not be available on Itanium can be found at: <a href="http://nedmigration.cac.cpqcorp.net/domains/software%20products.htm">http://nedmigration.cac.cpqcorp.net/domains/software%20products.htm</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>NS Java 4.2 (JVM Only)</td>
<td>NS Java 4.2</td>
<td>WLS8.1 sp3</td>
<td>Atalla ATPC R2 KSA</td>
<td>Atalla SCA 2.5 RMA</td>
</tr>
<tr>
<td>Legend</td>
<td>General availability</td>
<td>Controlled availability</td>
<td>EAP</td>
<td>SQL/MX 2.2.0 with MP tables</td>
<td>SQL/MX 2.2.0 with MX tables</td>
</tr>
</tbody>
</table>

Disclaimer: Future product plans, dates, and functionality are subject to change without notice.
NonStop operating system environment

<table>
<thead>
<tr>
<th>G-series OS</th>
<th>H-series OS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G06.25</strong></td>
<td><strong>H06.02</strong></td>
</tr>
<tr>
<td><strong>G06.26</strong></td>
<td><strong>H06.03</strong></td>
</tr>
<tr>
<td><strong>G06.27</strong></td>
<td><strong>H06.03</strong></td>
</tr>
<tr>
<td><strong>G06.28</strong></td>
<td><strong>H06.04</strong></td>
</tr>
</tbody>
</table>

Check the following url for RVU and product announcements:

http://h20223.www2.hp.com/NonStopComputing/cache/76715-0-0-0-121.html

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Legend
- General availability
- Early Adopter Program (EAP)
H-series RVU Feature Summary

**H06.02 2/15/05 (EAP2)**
- Integrity NonStop server (EAP2)
- Based on G06.24*
- IOAME
- FCSA
- FCDM
- FC-attached tape drive
- M8800 G4SA
- SQL/MX 2.0 w/MP tables
- Defect repair

**H06.03 ~7/05 (GA)**

**H06.03 ~5/05 (EAP3)**
- Integrity NonStop server (GA)
- Based on G06.25*
- S-series I/O Enclosure Support
- Various tape offerings (Gen3 LTO, 9840, DAT72 – not all configurations)
- SQL/MX 2.0 w/MX tables & SQLJ, SPJ
- Defect repair

**NO:**
- S-series I/O Enclosure Support
- SCSI attached tape drives

* Planning goal is no more than 6 month feature difference between G06-series and H06-series software content.

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Middleware Software Evolution

- All major middleware product offerings on S-series servers will be available on Integrity NonStop servers
  - TP Monitors: Pathway and NonStop Tuxedo
  - Component TP Monitors: NonStop CORBA
  - Web technology products

- Working with ISV partners to ensure that the latest and greatest version of their products are available on Integrity NonStop servers
  - Enterprise Java Application Server
  - Messaging products
  - EAI products
### Database, Java, Web Services Roadmap

<table>
<thead>
<tr>
<th>Year</th>
<th>DB</th>
<th>J2EE</th>
<th>J2SE</th>
<th>Web Svcs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>SQL/MX R2.0</td>
<td>NS JMS 3.0</td>
<td>NSJ 4.2 (JDK 1.4.2)</td>
<td>iTP WebServer 6.0</td>
</tr>
<tr>
<td></td>
<td>JDBC T2 V31</td>
<td>NSJSP 3.0</td>
<td>JToolkit V2</td>
<td>Fast XML Parser</td>
</tr>
<tr>
<td></td>
<td>JDBC T4 V1.0</td>
<td>NSJSP 3.2</td>
<td>BEA WLS &amp; WLI 8.1 SP2</td>
<td>iTP WebServer 6.0</td>
</tr>
<tr>
<td></td>
<td>SequeLink V1.2</td>
<td>Carbon V1</td>
<td>JDBC T2 V32</td>
<td>iTP WebServer 6.0</td>
</tr>
<tr>
<td>2005</td>
<td>SQL/MX R2.1</td>
<td>NS JMS 4.0…4.0</td>
<td>NSJ 5</td>
<td>Fast XML Parser</td>
</tr>
<tr>
<td></td>
<td>JDBC T2 V32.1…V32.1</td>
<td>NSJSP 3.2</td>
<td>JToolkit V2</td>
<td>XML follow-on</td>
</tr>
<tr>
<td></td>
<td>JDBC T4 V1.1…V1.1</td>
<td>RTID 1.0</td>
<td>JToolkit V2</td>
<td>iTP WebServer 7.0…7.0</td>
</tr>
<tr>
<td></td>
<td>JDBC T4 V1.2</td>
<td>RTID 1.0</td>
<td>JToolkit V3</td>
<td>iTP WebServer 7.0…7.0</td>
</tr>
<tr>
<td>2006</td>
<td>SQL/MX R2.2…R2.2</td>
<td>NS JMS 5.0…5.0</td>
<td>iTP WebServer 7.0…7.0</td>
<td>iTP WebServer 7.0…7.0</td>
</tr>
<tr>
<td></td>
<td>JDBC T2 V33</td>
<td>NSJSP 5.0</td>
<td>NSJSP 5.0</td>
<td>iTP WebServer 7.0…7.0</td>
</tr>
<tr>
<td></td>
<td>JDBC T4 V1.3</td>
<td>RTID 1.1</td>
<td>RTID 1.1</td>
<td>iTP WebServer 7.0…7.0</td>
</tr>
<tr>
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<td>iTP WebServer 7.0…7.0</td>
</tr>
</tbody>
</table>

- **Black text = S-series software**
- **Colored text = Integrity NonStop software**

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Software packaging
Software Packaging Goals

• Simplify ordering
• Reduce number of separate zero charge products
• Reduce number of independent product CDs
• Match competitive UNIX operating environments better
• Encourage new application development
• Generate additional product penetration and revenue
• Make it easy for the field to implement
Marketing IDs

- Most product IDs same as “G” series, but with “H” prefix added for simplicity (i.e. SR90 for S-series becomes HSR90 for Itanium-based)

- Key to forthcoming slides:
Operating System

- Value-add features: Safeguard, TCP/IP Lan Print Spooler, and free web services
- Future: Add Java products to OS package on SUT

- Safeguard (9750)
- TCP/IP LAN Print Spooler (SD70)
- NonStop OS, MCE (HSN01)
- WebServices
  - NonStop XML Parser (SX20V4)
  - NonStop Fast XML Parser (SX25V1)
  - NonStop XSLT Translator (SX22V1)
New OS Name

- **NonStop Operating System, Mission Critical Environment**
- Short forms are **NonStop OS, MCE and NonStop OS**
- Rationale was to follow HP-UX and OVMS structure based on capabilities
  - Foundation Environment is designed for content servers, Web servers, and front-end servers
  - Enterprise Environment is designed for database application servers and logic servers
  - Mission Critical Environment is designed for large business-critical corporate servers
- One version only; OCBU telco version being planned
Partner Bundles

- SUT-based products
  - Order DSPP901
  - If needed, order OSS NFS separately
- RSC bundle – HSM39AV1

- Gxx Value Add Bundle (CSA996)
- RSC/MP bundle (SM39AV1)

- OSS NFS (HSN02)
- Hxx Software Bundle (DSPP901)
- RSC/MP Bundle (HSM39AV1)
S-series Enclosure Extension Pkg (1)

• Feature: Enables connection of peripheral devices in S-series enclosures to HP Integrity NonStop servers

• Customer value proposition
  − Connecting “loaded” S-enclosures saves customer migration time, labor, and reduces risk
  − Large percentage of initial market will include fully depreciated S-series configurations – Ideal fit for this customer value proposition
  − New customers and new applications do not need the bundle
S-series Enclosure Extension Pkg (2)

- Rationale
  - HP focusing optimal Integrity NonStop server OS package for future customer needs
  - Customers who benefit from bringing S-series technology forward have the option to do so
  - Customers have the option to attach more S-series hardware to Itanium than in prior K-to-S or pre-K-to-K
  - New Integrity NonStop server OS packages should not burden new applications and new customers with support for old technology they will never have – large ongoing cost to maintain configurations in labs, test each RVU, etc.
S-series Enclosure Extension Package (3) (HSN03 option)

Hardware support provided:

- T0054 6761 DISK DOWNLOAD CODE
- T0055 6761 TAPE DOWNLOAD CODE
- T0084 HYA-S TOKEN RING SW
- T0232 TRSA FIRMWARE UPDATE
- T0301 FAST ENET ADPTR CODE (FESA)
- T0305 6762 S-PIC DOWNLOAD CODE
- T0326 ETH/TR SA
- T0440 SLSA ATM3SA ADAPTER CODE
- T0480 ISP1040 DOWNLOAD CODE
- T0499 SP CLIENT HEADER FILES
- T0506 SONORA BOOTCODE
- T0507 GIGABIT ETHERNET DOWNLOAD CODE (GESA)
- T1067 ISP1000 CODE
- T1089 S-SERIES SERVICE PROCESSOR FIRMWARE
- T7824 E4SA FIRMWARE UPDATE
- T7838 ATM ADAPTER CODE
- T7839 ATM SUBSYS MANAGER
- T7840 ATM MONITOR PROCESS

Hardware support provided:

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SQL

- Eliminate Run-time License Option
  - Does not exist in other DBMS competitors (i.e. Oracle, DB2)
  - Parallel Query Option (PQO) unnecessary as it already exists in full license engines

NonStop SQL/MP RunTime (SR95/SR94)
NonStop SQL (MP tables) (SR90/SR91)
NonStop SQL (MX tables) (SR92/SR93)
Add-on to SR90 for MX tables (SR90-MXT)

NonStop SQL/MP RunTime Parallel Query (SR98/SR99)
NonStop SQL (MP tables) (HSR90)
NonStop SQL (MX tables) (HSR92)
Add-on to HSR90 for MX tables (HSR90-MXT)
Pathway

- New name: Pathway w/TS/MP
- Product only available on SUT

Pathway/TS with TS/MP (SR53/SR54)

Pathway/iTS (SR76V1/SR77V1)

Pathway Application Server (HSR76)
RDF

• Eliminated RDF/IMP product
  – Main difference is support for multiple audit trails and network TMF support
  – Effective per CPU price essentially the same based on installed base

RDF/IMP (SA43V1)  RDF/IMPX (SA44V1)  RDF/ZLT (SA88V1)

  RDF/IMPX (HSA44V1)  RDF/ZLT (HSA88V1)
SNAX (1)

- New name: SNAX Access Method
- New feature: All IOPs in one package

SNAX/APN (SD42)  SNAX/APN End Node (SD37)  SNAX/XF (9064)

SNAX Access Method (H9064)
SNAX (2)

- Eliminated SNAX/APC bundles with SNAX/APN and SNAX/XF
- SNAX/HLS and SNAX/APC unchanged

![Diagram of SNAX bundles and access methods](image-url)
NonStop DCE

- Simplified packaging
TNS/E Native Languages

- Combine TNS/E native Guardian and OSS versions and C and C++ compilers into one product
- Tables maps TNS/R Native MIPS languages to TNS/E Native EPIC languages

<table>
<thead>
<tr>
<th>Language</th>
<th>NonStop S-series server</th>
<th>HP Integrity NonStop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native C compiler</td>
<td>SB73/SB76 SB51x/SB59x</td>
<td>HSB03</td>
</tr>
<tr>
<td>Native C++ compiler</td>
<td>SB74/SB75 SB54x/SB55x/SB58x</td>
<td>HSB03</td>
</tr>
<tr>
<td>Native COBOL compiler + RTL</td>
<td>SB70/SB16x</td>
<td>HSB01</td>
</tr>
<tr>
<td>Native COBOL RTL</td>
<td>SB71/SB18x</td>
<td>HSB02</td>
</tr>
<tr>
<td>“Native TAL” (pTAL on S-series, epTAL on Integrity NonStop servers)</td>
<td>In OS</td>
<td>HSB04</td>
</tr>
</tbody>
</table>
OSS Development Bundle

- OSS Development Bundle (SA02)
  - Included OSS C compiler, Safeguard licensed for OSS only, and OSS NFS server
  - No bundle for Itanium-based NonStop servers
    - Safeguard in OS
    - C compiler separate (HSB03)
    - OSS NFS server is stand-alone product

- New product: OSS NFS Server (HSN02)
Other Changes

- OSI FTAM Package (SD50)
  - Package included products all available separately
  - No equivalent package offered on Integrity NonStop servers
  - License individual products instead
    - OSI FTAM (HSD51)
    - OSI/AS (H9570)
    - OSI/TS (H9083)
    - X.25 AM (H9060)
What’s not planned for HP Integrity NonStop servers
The following represents the current plan. Future business conditions may impact decisions regarding the migration of an individual product to the Integrity NonStop platform.
SUT-based Products Not Migrating

• Products having successor products
  – Dataloader/MP (SE40) – replaced by IP SE41V1
  – ENFORM – replaced by ENFORM PLUS
  – TCP/IP Parallel Library – replaced by TCP/IPv6
  – TN3270 Server (SD08) – IP SD07V1 only on H-series
  – TSM – replaced by OSM
  – Gxx Partner Bundle (CSA996) – replaced by DSPP901
    (note OSS NFS must be ordered separately – HSN20)
  – TIM Kit for PC and compatible (SH80) – replaced by NTL
SUT-based Products Not Migrating (no successors) – 1 of 5

- Some 6100 products (9078, 9503, 9504, 9501)
- AM6520 Access Method (9063)
- Basic Operations Management Bundle (SA01)
- C++ Run Time Library V1
- C OSS
- COBOL OSS Driver
- CPREP OSS
- CSSASYNC/READ Continuous (9074)
- Distributed Name Service (DNS) (9635)
- DSM/SNAView (9644)
SUT-based Products Not Migrating (no successors) – 2 of 5

- ES Connect (SD44)
- FINDER
- FOX Gateway
- Inventory Collector
- MIGSCF
- Multilan Access Method & File Server
- NonStop IPX/SPX (SD90)
- Novell LAN Print Spooler (SD91)
- NSDS Products (SD75, SD76, SD77)
SUT-based Products Not Migrating (no successors) – 3 of 5

- NSX
- OMF
- Optical Storage Software (SF03, SF01 & 9123)
- Many OSI/MHS products (SD45, SD46, SD47, SD49, SD82, SD83, SD84)
- POET (SJ32, SJ33)
- Programmatic Network Admin (PNA) (SE01)
- PS MAIL products (9130,9132)
- SMB Fileserver (MLSRV) (SD93)
- SMB LAN Print Spooler (SD35)
- SNAX6600 (9068)
SUT-based Products Not Migrating (no successors) – 4 of 5

- SNTP – Transfer Gateway
- SWARC
- Tandem Databuild (SE06)
- Tandem DDE Gateway (SJ06)
- Tandem NBT Netbios for TCP (SD21)
- Tandem NBX Netbios for IPX (SD92)
- Tdm ActionView.400 Products (SD43, SD52, SD53, SD54)
- TLAM ZL2S Format Libraries
- TN6530S System License (Sun/3) (SD28)
- UNIX DWF (SB60A-D)
SUT-based Products Not Migrating (no successors) – 5 of 5

- TRANSFER (9160, SA60) – Transfer queue manager will be available on H-series
- TRANSFER 6530 PSMAIL (9131)
- TRANSFER/PS Mail
  - Danish Support (L111)
  - Dutch Support (L104)
  - Finnish Support (L110)
  - French Support (L105)
  - German Support (L103)
  - Hebrew Support (L115)
  - Norwegian Support (L112)
  - Spanish Support (L108)
  - Swedish Support (L109)

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Independent Products (IP)

- Many IPs have a successor
- Only the most current version of an IP is being migrated to Integrity NonStop servers
Independent Products (IP) Not Migrating – 1 of 3

- COBOL add-on for TDS (SB45Vn)
- DAL Data Access Lang Srvr. (SJ02Vn)*
- Internet shopping software (SJ97Vn)*
- iTP Secure WebServer (Domestic, 48-bit encryption)
- JOLT for NonStop TUXEDO 6.5 (SR64Vn)*
- NonStop CORBA 2.3 & 2.6 (SE65V1&2/SE66V1&2)
- NonStop DOM 2.0 Runtime & SDK (SE61Vn, SE60vn)
- NonStop DTE* (plans uncertain at this time)
- NonStop Enterprise Application Server (SE70Vn, SE71Vn, SE72Vn, SE73Vn, SE74Vn, SE75Vn)
- NonStop JORB 2.0 Runtime & SDK (SE64Vn, SE62Vn)

*No successor product
Independent Products (IP) Not Migrating – 2 of 3

- NonStop JTS/OTS (SE63V1)*
- NonStop RDF/MP
- NonStop Server for Java 4 (SE96V4)
- NonStop Server Toolkit for WLS 7.0 SP1 & 8.1 SP2 (SE12Vn)
- NonStop SOAP for Java (SE23V1)
- NonStop TUXEDO 6.5 products
- Open Enterprise Management Gateway (OEM)*
- pTAL Compiler for TDS V2 (SB44Vn)

*No successor product
Independent Products (IP) Not Migrating – 3 of 3

- RSC/MP 16-bit Windows Client (SM68Vn)*
- RSC/MP Integrity Unix (S4000) Client (SM60Vn)*
- RSC/MP Lite (SM59Vn)*
- RSC/MP NCR Client (SM61Vn)*
- RSC/MP OS/2 32-bit Client (SM66Vn)*
- RSC/MP TRU64 Client (SM56Vn)*
- SequeLink for NonStop SQL/MX (SR80V1)
- ServerNet Nomadic Disk Manager (SD01V1)*
- SNAX/CPI-C (SD39V1)*
- Tandem Development Suite (SB43Vn)

*No successor product