



NonStop Enterprise Division CTUG Update

Dick Bird
Business Manager

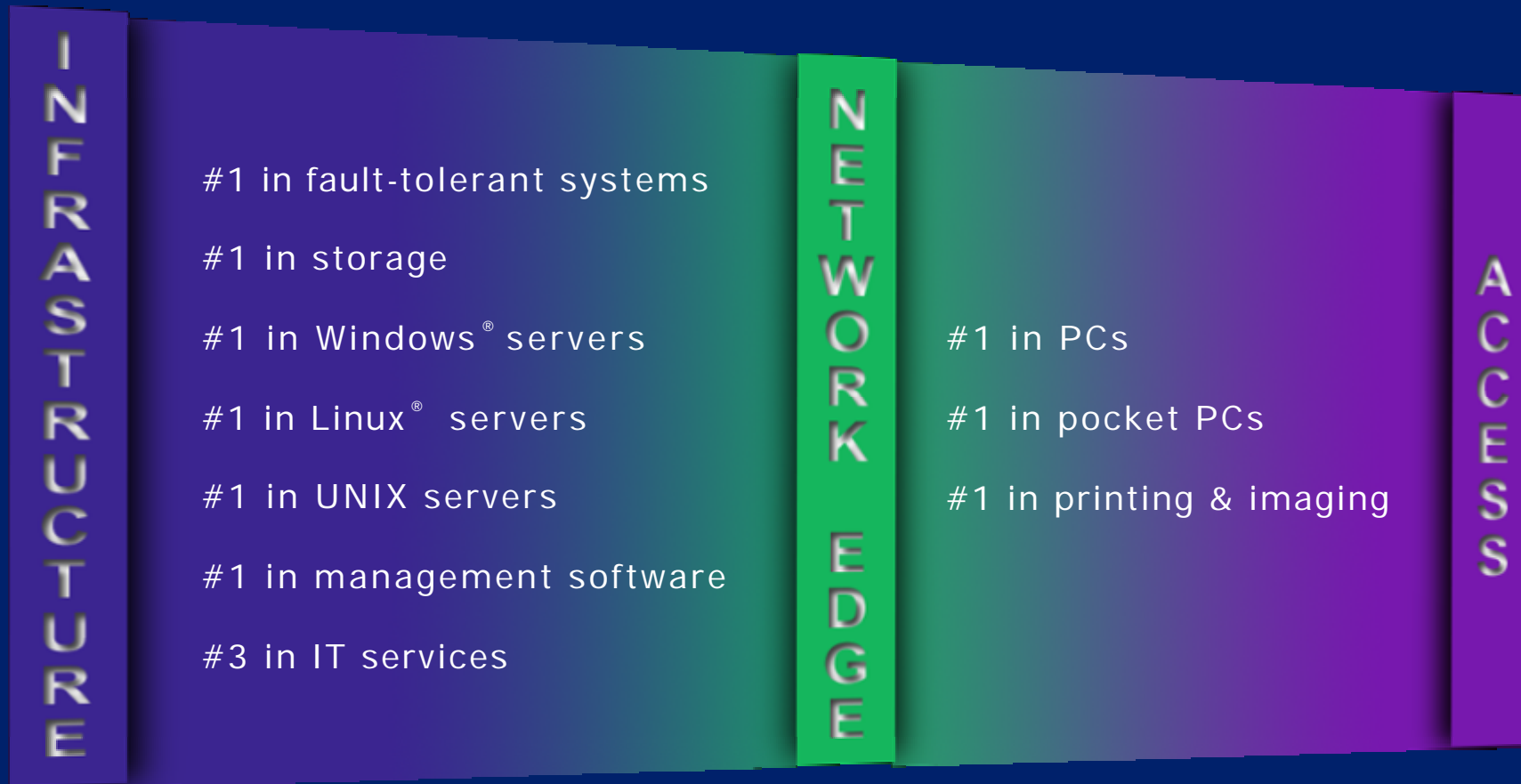
NED Canada

June 12, 2002



The new hp

market leadership today



actual company and product names mentioned herein are the trademarks of their respective owners.

customer value proposition

continuous
invention



- useful invention that solves real customer problems
- understanding and anticipating customers' needs and delivering inventive solutions
- quality and engineering

lower total
cost of
ownership



- reduced complexity, better use of existing assets
- standard building blocks
- improved manageability and interoperability
- managed services

choice &
flexibility



- blended channel model
- open architecture approach across multiple operating systems
- point products, integrated solutions and services

stability &
security



- business continuity infrastructure and solutions
- clear accountability for your success
- global reach, leading global brand
- best-in-class customer support

who we are

personal systems group (PSG)

- handhelds
- desktops
- workstations
- notebooks
- emerging technologies

imaging & printing group (IPG)

- consumer/business printing
- digital imaging
- digital publishing

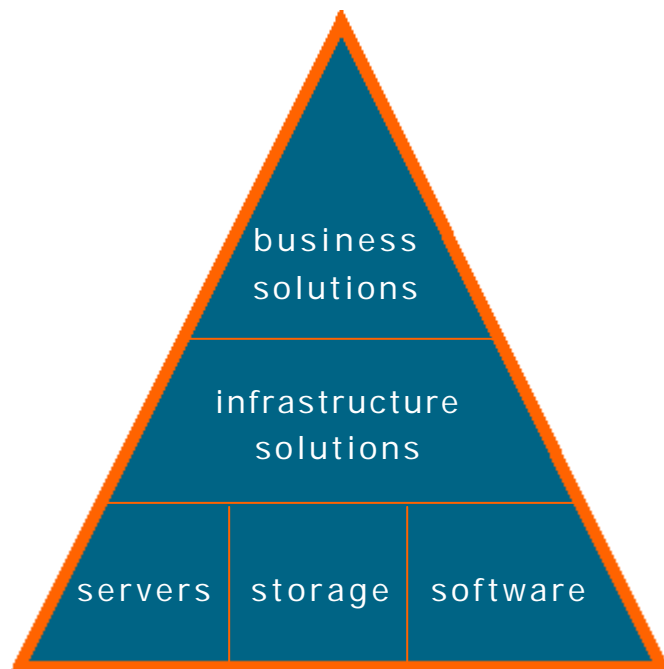
enterprise systems group (ESG)

- servers
- storage
- software
- solutions

hp services (HPS)

- customer support
- managed services
- consulting and integration
- domain expertise

enterprise systems



ESG helps you meet your
business goals

- delivering business and infrastructure solutions for specific industry and business needs
- collaborating with you and your partners for tailored solutions
- all built on best-in-class products

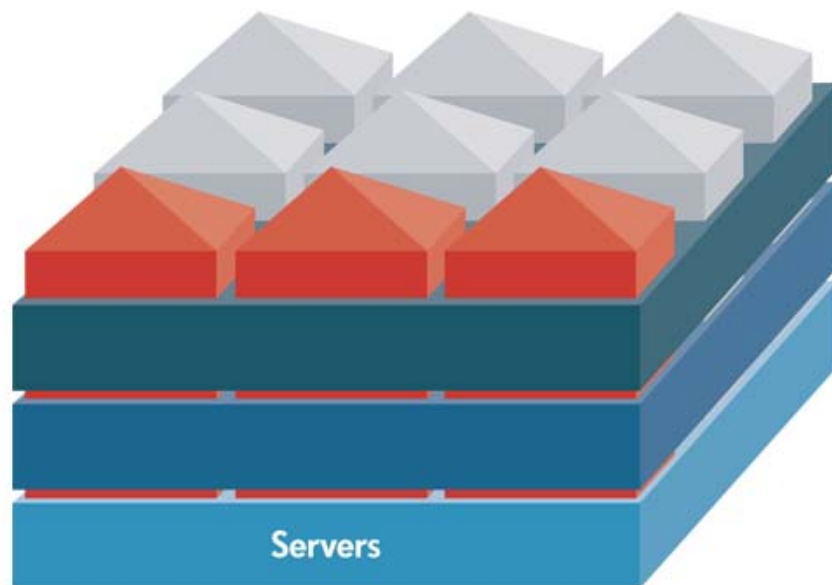
our solutions enable you to
exploit IT for sustainable
competitive advantage through:

- a virtualized IT infrastructure that serves as an extensible foundation, and is delivered as a utility
- industry-leading management solutions

HP Servers

Industry
standard
servers

Business
critical
systems



Most comprehensive server offering

Long-term commitment to innovation in and delivery of industry standards

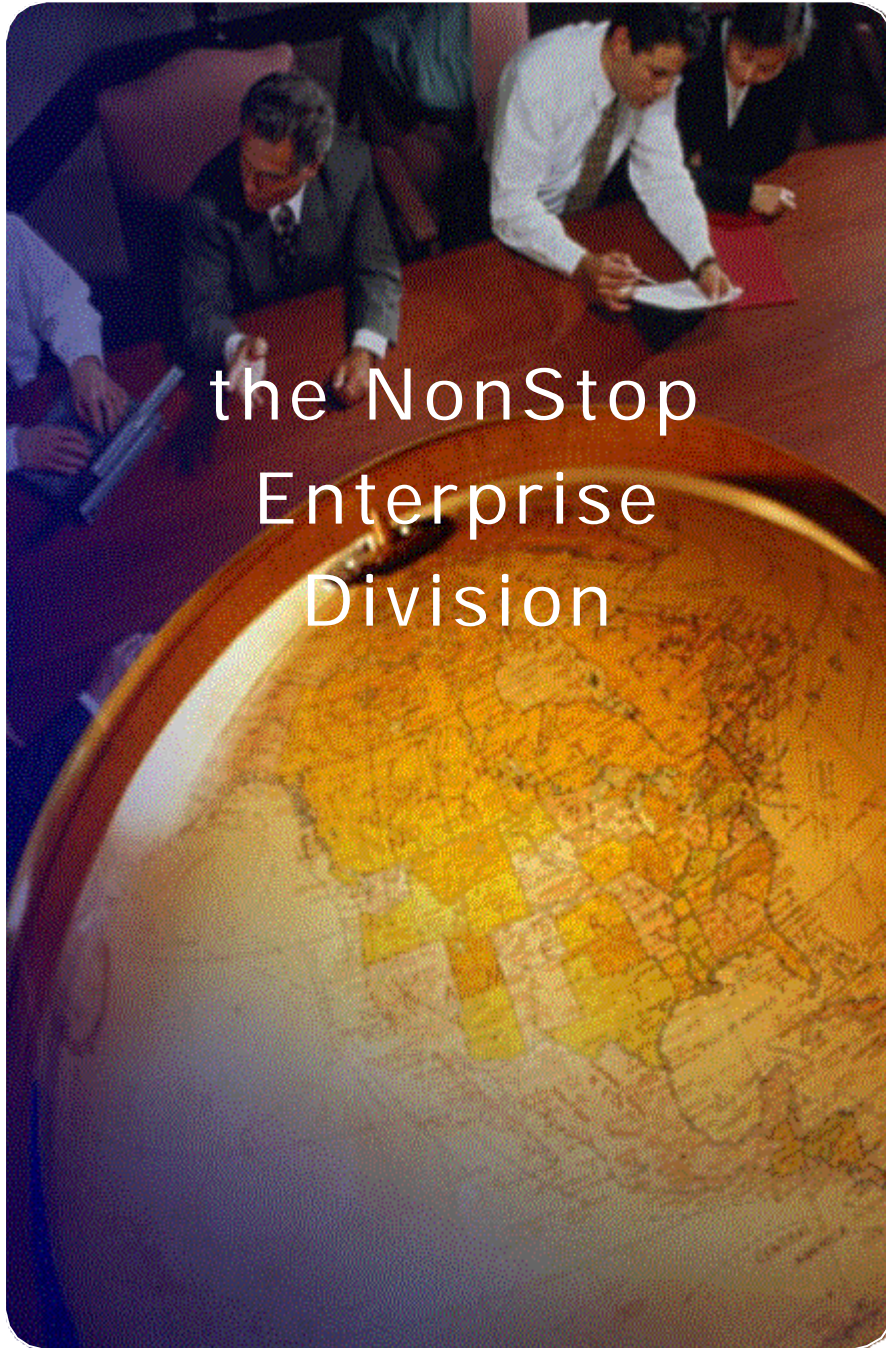
Multi-OS strategy to support today's diverse environments

Operating system building blocks to create resource virtualization

Business model leadership to achieve superior cost structures

Time-to-market advantage in emerging blades market

Market-leading high-performance technical server portfolio



the NonStop
Enterprise
Division

powering the
real-time enterprise
*providing business-
critical value to the
enterprise through
innovative products and
solutions that deliver the
highest levels of
availability, performance,
scalability, and
manageability*

NonStop Business Review

NonStop is attracting new customers

- New business > 20% of revenue for last 4 quarters
- Q42001: New business was 24% of NSD revenue

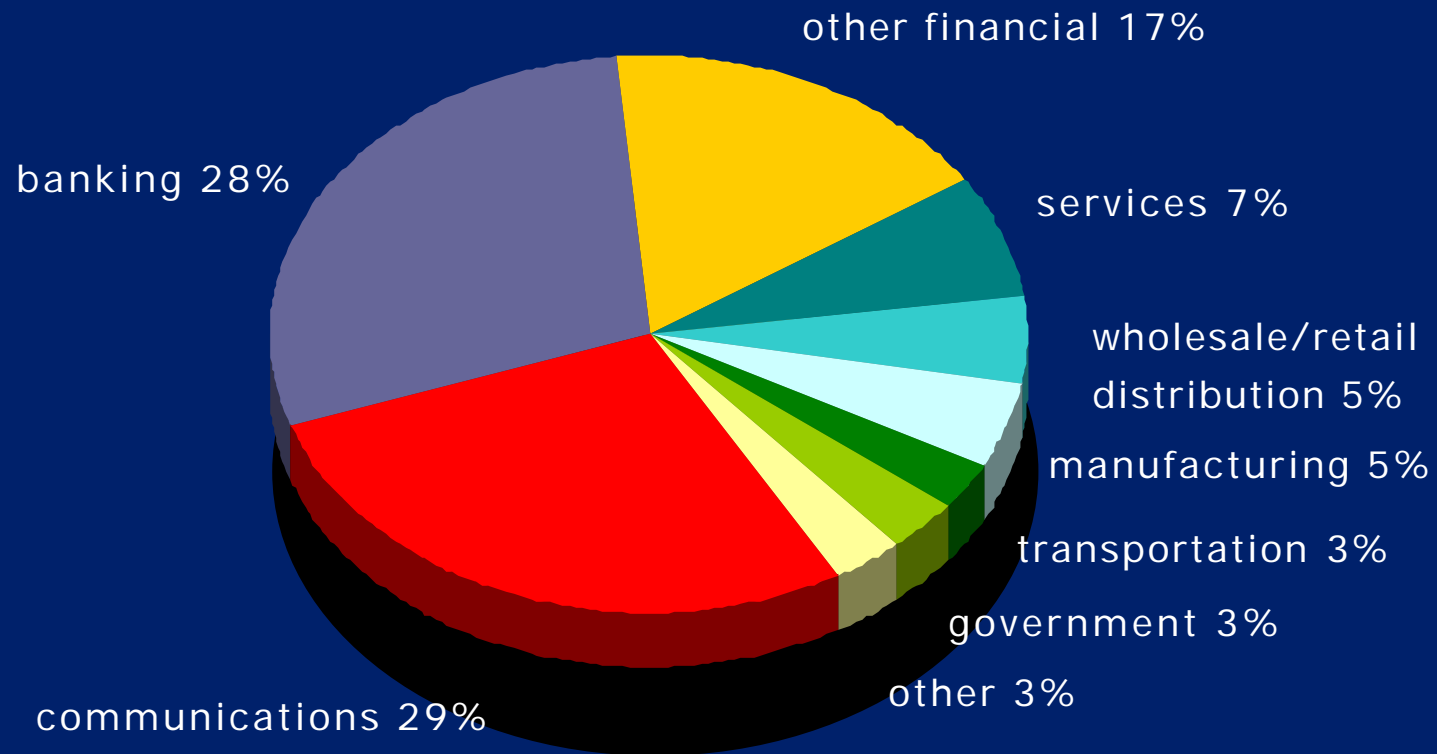
NonStop has a secure customer base

- NonStop servers accounted for approximately 26% of AL3/4 market in 2001

Revenue growth in a tough market

- NonStop revenue grew 4% in 2001
- Q4 2001 revenue growth 19% QoQ – 28% if large Telcos (Motorola, Ericsson) excluded
- SUN HW revenue down 24% Q1 2002 vs. Q1 2001
- IBM revenue dropped over 20% in same period

NonStop Enterprise Division worldwide revenue



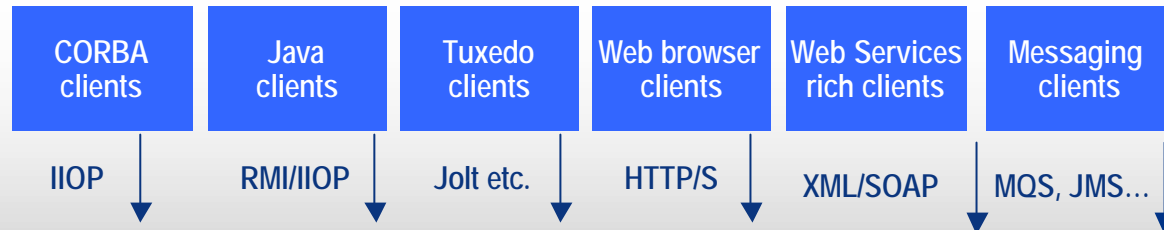


NonStop Server Fueling Growth in the Real-Time Enterprise

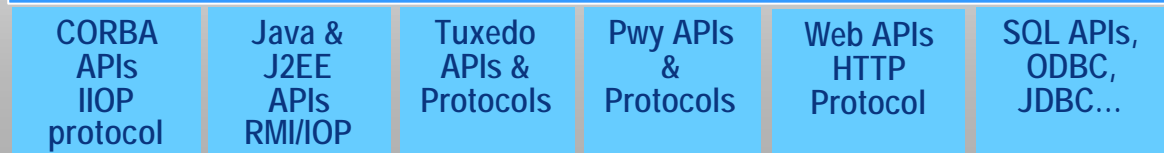
*Industry leading scalability
and availability now possible
for Web Services and
business critical Java
applications*

NonStop Server Strategy Review

COMMON STANDARDS



Portable applications using standard APIs and protocols



UNCOMMON ADVANTAGES



NonStop™ TS/IMP, NonStop™ TMF – system-wide process and transaction mgmt

NonStop™ Kernel – OS and cluster-wide message system

NonStop Growth Engine Announcement Overview

COMMON STANDARDS

- New industry leading ZLE partners
- New Java services
- New industry leading available and scalable Web Services
- Ultra-reliable Java messaging (JMS) that leverages NonStop SQL pub/sub

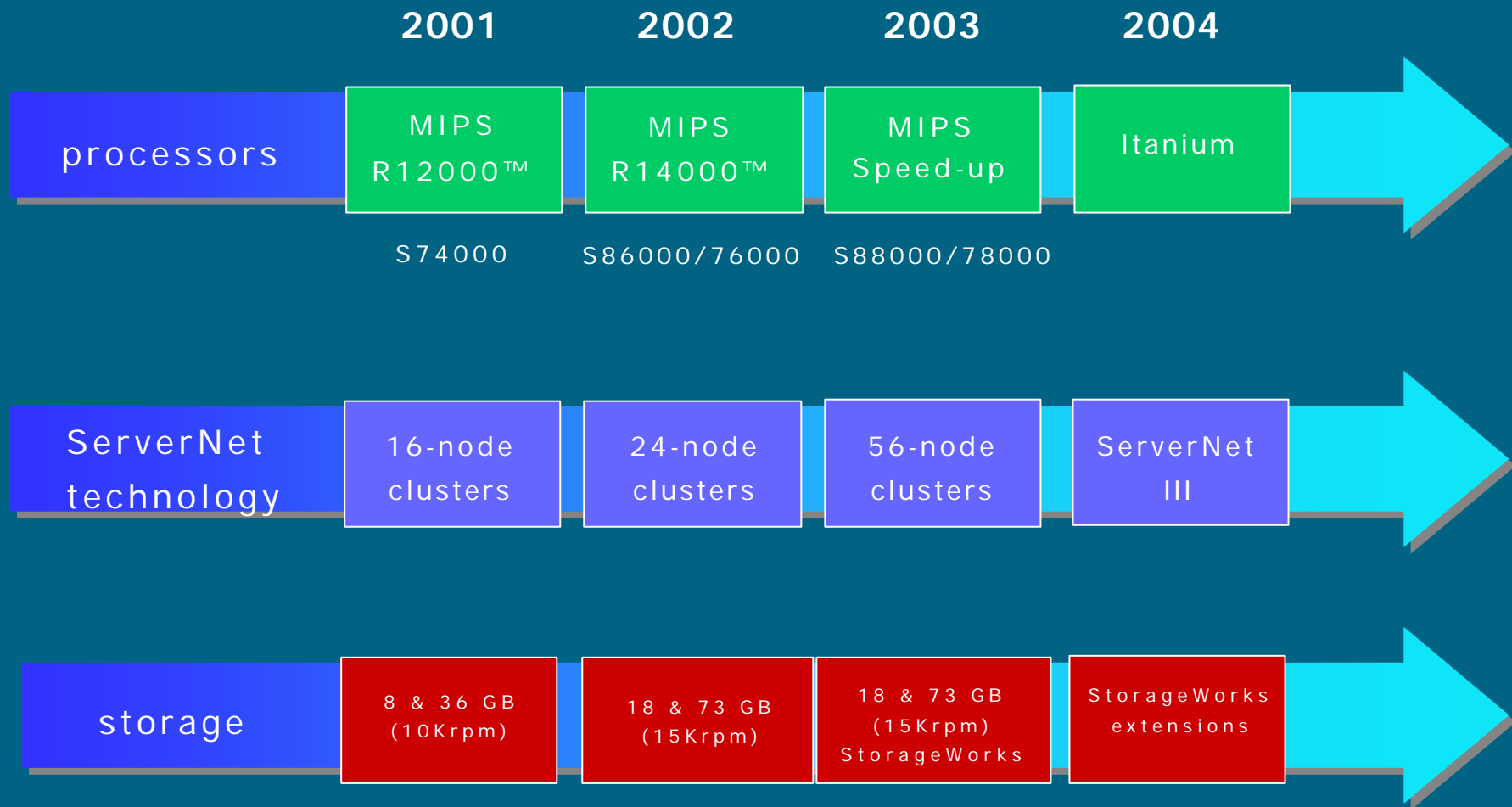
UNCOMMON ADVANTAGES

- Next-generation ZLE applications never before thought possible !
- Reliable & persistent Java and J2EE applications 2.5 x faster and more scalable
- Can reliably handle unlimited number of concurrent web messages
- Integrated hardware, OS and middleware, delivering highest levels of availability & scale at best TCO

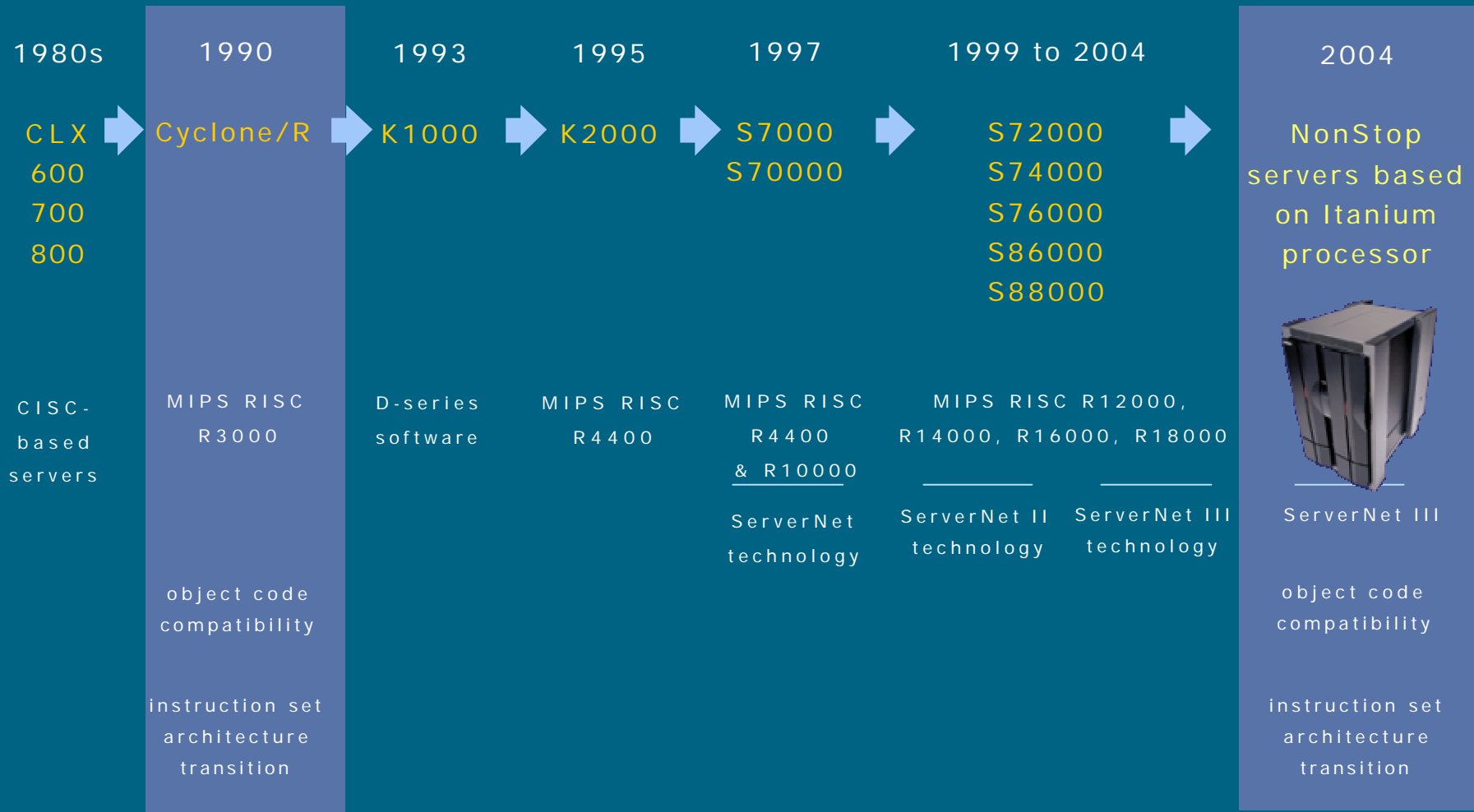
hp NonStop
S86000 servers
and S76 family of
servers



NonStop™ servers product roadmap



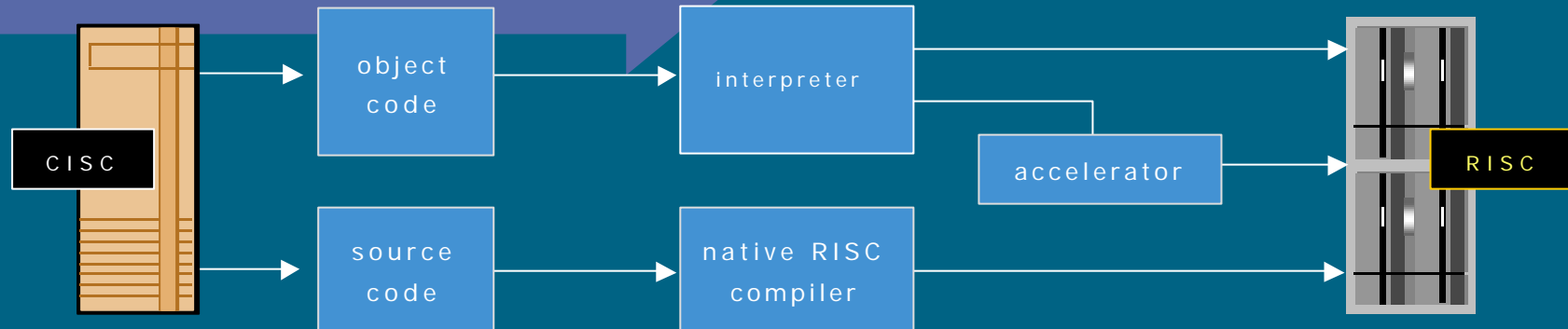
NonStop™ server investment protection



NonStop™ servers (RISC to EPIC) protection of investment in software

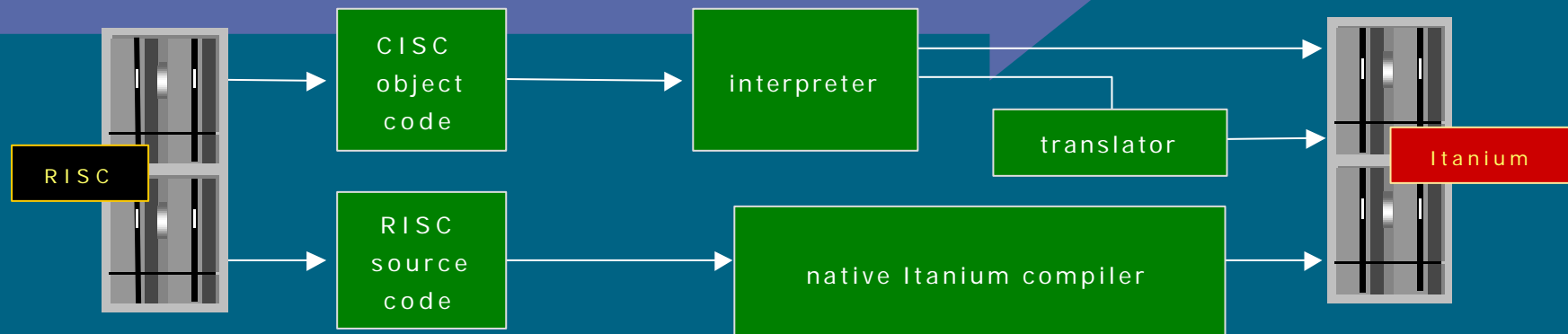
1990

CISC to RISC upgrade



2004

RISC to Itanium upgrade



key elements for new high-end servers

A premium high-end HP NonStop™ S86000 system has a configuration of up to 16 processors and 44 cabinets.

- MIPS R14000 processor
- 1, 2, 4, and 16 GB of main memory
- 8 MB secondary cache
- high-performance memory interface
- 90% CPU performance increase over NonStop S74000 servers

A high-end NonStop S76000 system has a configuration of up to 16 processors and 44 cabinets.

- MIPS R14000 processor
- 1, 2, 4, and 16 GB of main memory
- 4 MB secondary cache
- 50% CPU performance increase over NonStop S74000 servers

key elements of other new servers

midrange server

- NonStop™ S7600 system; configuration of up to 16 processors and 24 cabinets
 - MIPS R12000 processor
 - 1 GB of main memory

entry-level servers

- NonStop S760 system (same as S76000; configuration limited to 2 processors and 3 cabinets)
- NonStop S76 system (same as S7600; configuration limited to 2 processors and 3 cabinets)

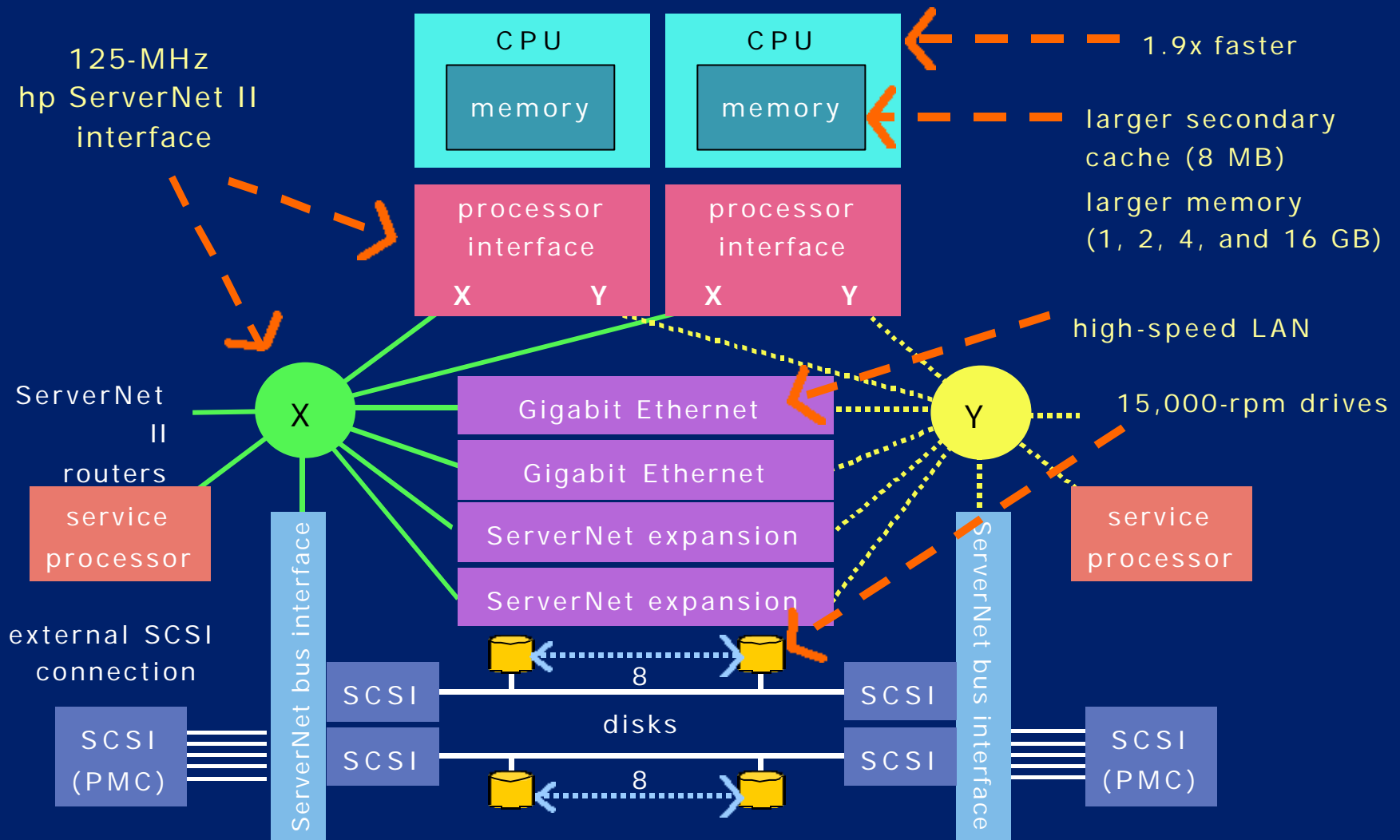
S86000 system and software

P
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M
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C
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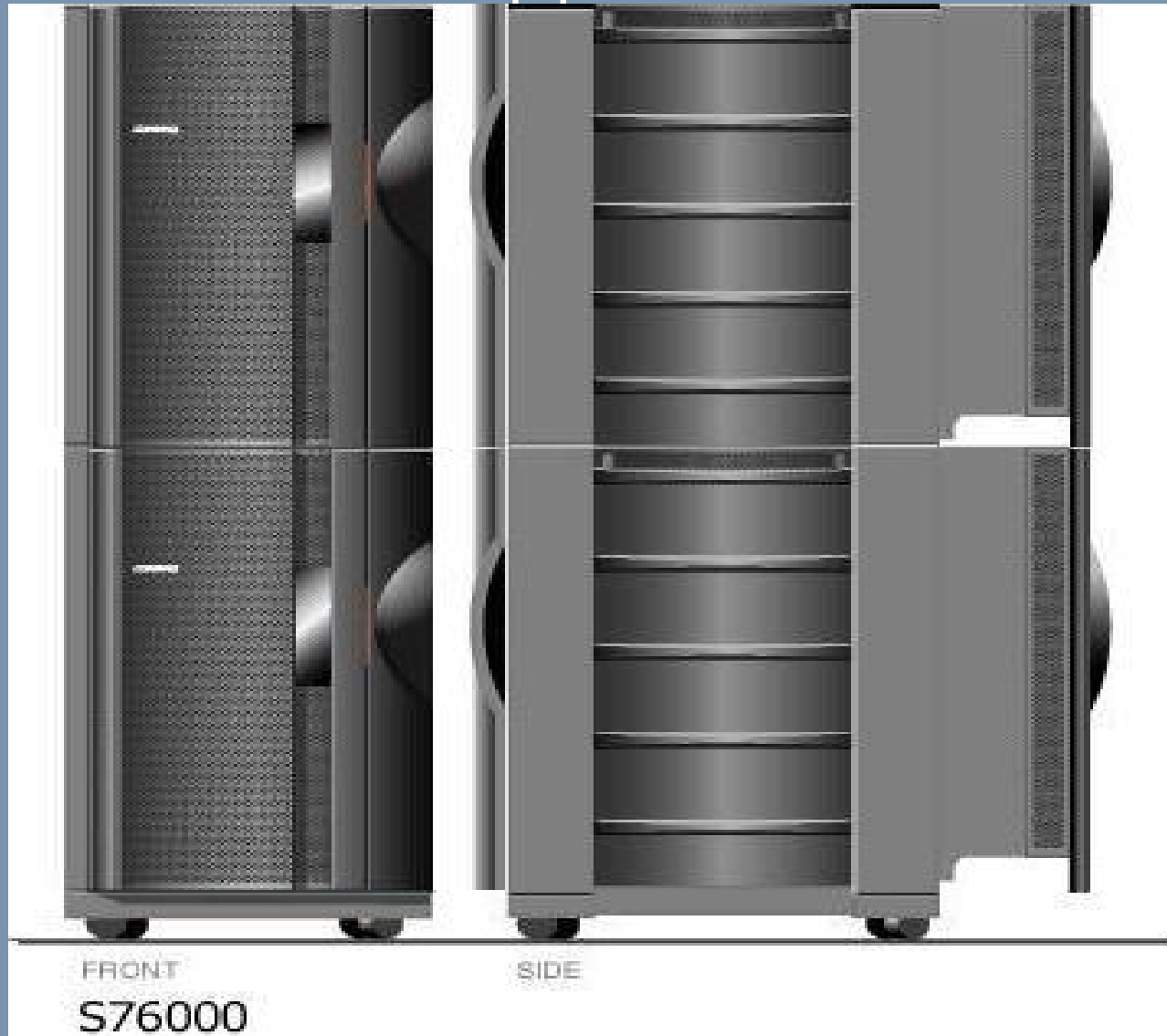
Web Services NonStop EAS 1.1
Java 1.3 VM, JMS
NonStop SQL 1.5 GA
Gigabit Ethernet
OSS - Easier to Install
S86000 90% Greater Performance 15K RPM Disk Drives

Q
U
A
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Y

hp NonStop™ S86000 server architecture



new appearance



availability of the
new hp NonStop™
servers

S86000 June 2002

S86000SE calendar Q4
2002

S76000 June 2002

S7600 calendar Q3
2002

S760 June 2002

S76 calendar Q3
2002

server compatibility

hp NonStop™ S86000 and S76000 server compatibility

- infrastructure, power, cabinets, and so on, unchanged
- mix and match the NonStop S86000 and S76000 servers with NonStop S74000 and S72000 servers in same system
- cannot mix NonStop S86000 or S76000 servers in the same system with S70000 servers
- cannot mix processors within the same cabinet
 - cannot mix NonStop S86000 and S76000 processors in the same cabinet with S72000 or S70000 processors



java products
for hp NonStop™
servers

currently
shipping

- nsj2, nsj2.1 – j2se sdk 1.2
- Jdbc type 2 & type 3 for sql/mp & sql/mx
- jtoolkit – jpathsend, jenscribe, jpathway, sip
- nscorba 2.3 - jorb
- nsjsp - jsp 1.1, servlets 2.2
- nseas 1.1 - critical mass of j2ee 1.2 apis

- nsj3 - j2se 1.3.1
- soap 1.1
- xml 1.0
- jms 1.0
- sqlj
- nssql/mx 1.8

expected to ship
later in 2002

most j2ee apps
should see at least
200% better
performance
compared to
previous generation

- NSEAS 1.1 ~23% faster than NSEAS 1.0
- NSJ3 ~15% faster than NSJ2.1
- with ~86% HW improvements, this is well over 200%
- not all Java apps will experience this improvement
- most processor-intensive EJBs should get close

breakthrough in
scalable
persistent
messaging

- NonStop™ JMS provides rock-solid persistent messaging with virtually unlimited scalability
- enables the development of a new generation of asynchronous applications, with enterprise-level scalability and reliability

APIs required for J2EE 1.2 compliance

NSJ

J2SE 1.2 (includes JIDL)

JDBC 2.0

JNDI 1.2

JTA 1.0

J2EE Containers

- EJB 1.1
- Servlets 2.0
- Servlets 2.2
- JSP 1.1
- **application client**

CORBA/EJB

- RMI/IIOP 1.0
- IIOP 1.0
- JTS 1.0

platform

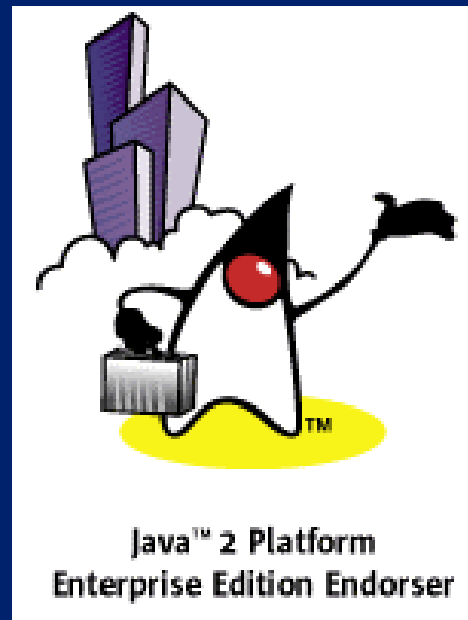
- TCP/IP

iTP WebServer

- HTTP 1.0
- HTML 3.2
- SSL 3.0

other

- XML
- JavaMail 1.1
- JAF 1.0
- **JMS 1.0.2 (June)**



NS-EAS r1.1 (now shipping)
future

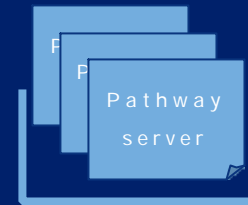
summary of what's
new in java
standards-based
portability &
interoperability

- new NSJ3 JVM, based on SDK 1.3.1
- NSJSP 'Tomcat' web container
- NSEAS 1.1 update, with Servlets 2.2 and JSP 1.1
- NSJ and NSEAS performance improvements
- NSJMS – reliable, scalable persistent Java messaging
- SOAP can invoke any Java app
- XML schemas –unicode, and higher performance

NonStop™ system containers

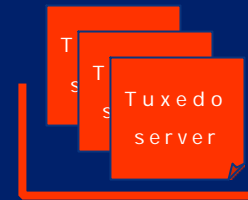
they are standards based, provide different programming models and protocols, and can provide different services

Pathway



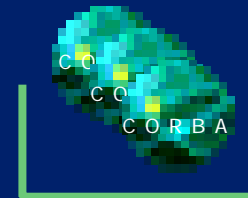
Pathway container and services

/domain
Jolt



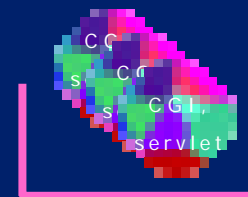
NonStop Tuxedo container and services

IIOP



CORBA container and services

HTTP



iTP WebServer container and services

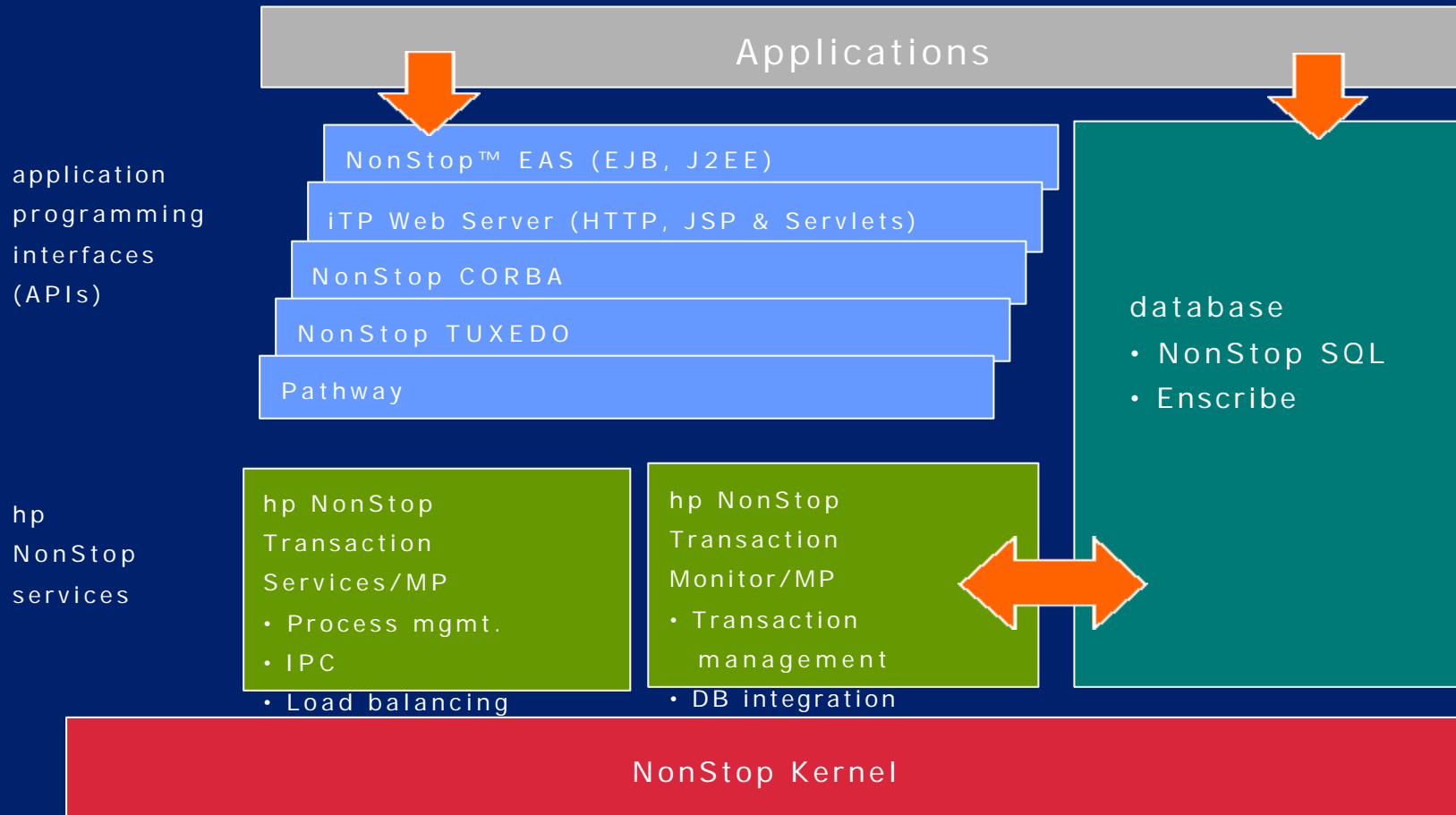
RMI-IIOP



Java (J2EE) container and services

so different yet so similar

common architecture



What's New in NonStop SQL Database

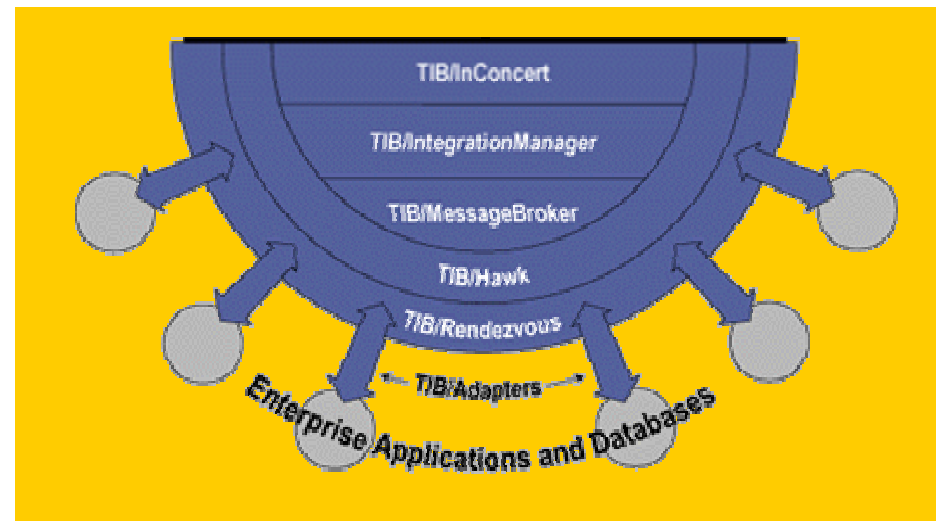
NonStop SQL/MX 1.5 new features

- New, higher performance, extensible compiler, and optimizer
 - *Faster processing with improved price/performance*
- Powerful Publish-Subscribe & Queuing Functions
 - *Enables applications for real-time enterprise*
- New ODBC/MX access to your SQL data
 - *2x to 8x faster (bulk inserts up to 20x faster) than ODBC/MP*
- Larger JOINS, faster complex queries, more memory in new systems
 - *More power to "mine" data for better, faster business intelligence*

Publish/Subscribe

- Powerful capability moved into NS SQL database for automatic scalability and reliability
- Myriad of uses for next-generation apps
 - Internet shopping – publish price changes
 - Internet Buying – subscribe to price changes
 - Telephony – Law enforcement subscription to traced phone numbers
- Database approach leads to improved ROI, lower TCO, better manageability, scalability, reliability, etc.
- Better than non relational queuing, better than triggers





Summary

our commitment to our customers:

aggressively deliver open standards for mission critical applications – common standards with uncommon advantages

continue to:

drive down total cost of ownership improving ROI

recruit, partner and invest in new ISVs

drive up performance, mixed workload capabilities

deliver on committed roadmap with storage, client standards, and Itanium.

deliver investment protection





i n v e n t