



## FEATURES AND BENEFITS

### KEY FEATURES

- Terascale data warehouse appliance (DBMS software, system hardware, high-speed storage)
- Asymmetric Massively Parallel Processing™ (AMPP™) architecture - Best combination of SMP and MPP for terascale, complex query processing
- Intelligent Query Streaming™ design - Query functions and management implemented in silicon, data streaming at the disk level
- Integrated (appliance) package
- Industry-standard interfaces (SQL, ODBC, JDBC)
- Full compatibility with market-leading BI tools, applications and infrastructure

### KEY BENEFITS

- **PERFORMANCE**  
10-100x the performance of existing data warehouse solutions
- **ITERATIVE, REAL-TIME ANALYTICS**  
Enabling ad hoc queries and complex analytics with terabytes of data
- **AFFORDABILITY**  
Low acquisition and ongoing administration and maintenance costs, including expensive DBA time
- **MANAGEABILITY / EASE-OF-USE**  
Appliance packaging and pre-tuning limit systems and database administration needs (less than one DBA for ongoing administration)
- **LINEAR SCALABILITY**  
Up through 100 TB of user data
- **FLEXIBILITY / AGILITY**  
Easy addition of modular processing units for scalability and reconfiguration
- **STRUCTURAL RELIABILITY**  
Advanced mirroring techniques ensure reliability (Atomic/Consistent/Isolated/Durable transaction management with RAID and hardware mirroring)

## The Netezza Performance Server® 10000 Series

### *The power to process 50 to 100 terabytes of detailed information at the speed of thought*

The Netezza Performance Server® system is an enterprise-class data warehouse appliance that architecturally integrates database, server and storage in one easy-to-use system. Using Intelligent Query Streaming design, Netezza has placed processing power at the disk level, so analysis occurs at the source at streaming speeds — analyses that took hours now take just seconds. The NPS system combines commodity hardware components with Linux and a high-performance database, resulting in dramatically lower total cost of ownership.

### *The power to simplify your data center*

The standards-based NPS® system offers simplicity and elegance: the entire system comes in a self-contained, single-vendor rack that integrates easily into existing BI environments; its “load and go” implementation process takes hours, not weeks; and there's no need for intensive database administration and system management.

### **Software functionality**

**High-Performance SQL Engine** — Optimizes SQL on the NPS system's massively parallel streaming architecture

**Database Operating System** — Executes highly efficient SQL through intelligent distribution across host and storage-side processing

**Fast Loading/Unloading** — Allows new data to be added rapidly (up to 500 GB/hour) so that ongoing processing can work with real-time data. Integrates externally with leading ETL and EAI tools. Supports “trickle feed” real-time data loading concurrent with query processing.

**Administration Tools** — Includes DBA and Systems Management tools that provide easy-to-use GUIs & CLIs for permissions, monitoring, diagnostics, trouble-shooting and other administrative functions

### **Industry compatibility**

- Supports full ANSI transactions
- ANSI SQL-92 compatibility and SQL-99 analytics extensions
- ODBC and JDBC Type 4 API compliant
- AIX, HP-UX, Linux, Solaris and Windows operating systems
- Integrates with leading BI and ETL platforms

## Hardware components

**Host** —The host is a high-performance Linux SMP server that maintains database catalogs, generates optimized query plans, coordinates execution on the SPUs and aggregates the query results generated by the SPUs. Applications and end users access the data stored on SPU disks indirectly, by communicating with the NPS host. A second host is available for fully redundant, dual-host configurations.

**Snippet Processing Unit (SPU)** —The SPU is a query processing node that consists of a disk drive and a special-purpose computer for accelerating record management and analysis. Information stored in an NPS system is distributed across many SPUs, so that queries can be processed faster in an MPP environment. The SPU is the smallest replaceable unit of storage and computation.

**Communication Network** — Host-to-SPU and SPU-to-SPU communication is provided by an internal high-bandwidth network of industry-standard gigabit Ethernet switches.



Hardware	10400	10800
<b>Racks</b> (Standard 19")	4	8
<b>Total SPUs</b> (Query Processing Nodes)	448	896
<b>User Data</b> (max.)	50 TB	100 TB
<b>Physical Cabinet Specifications (per rack)</b>		
<b>Height</b>	80.5" / 2050 mm	
<b>Width</b>	24" / 610 mm	
<b>Depth</b>	38" / 970 mm	
<b>Weight</b>	1,100 lbs / 520 kg (max.)	
<b>Operating Temperature</b>	50F to 95F / 10C to 35C	
<b>Cooling Requirements</b>	12,000 BTU/hour	
<b>Power Requirements</b>	Survivable A/B dual power feed, 30A fusing	
<b>Safety &amp; Emissions</b>	CE, UL/CSA/EN60950, FCC Part 15, ICES-003/EN55022 Class A, EN55024	

## Services

- Site preparation guidelines
- System installation
- 7x24 web-based services  
(Knowledge base, FAQ, call logging)
- Major software feature upgrades
- Software patches and maintenance releases
- Global Netezza/HP support  
(Available 7x24 4hr response)
- On-site critical spares
- Service Level Agreement Options  
(Standard, Business Critical and Partner Support)

## Software

<b>Operating System</b>	Red Hat Linux Advanced Server 4.0
<b>Supported APIs</b>	SQL, ODBC 2.5/3.0/3.5, Type 4 JDBC V 2.0/3.0
<b>SQL Standards</b>	SQL-92 compliant, with SQL-99 extensions
<b>High-Speed Load/Unload</b>	High-speed interoperability with ETL and EAI tools at rates as high as 500 GB/hour
<b>Backup &amp; Recovery</b>	Interoperable with Legato (EMC <sup>®</sup> ), Tivoli (IBM) and Veritas
<b>Database Portability</b>	Portability from IBM DB2, Informix, Microsoft SQL Server, MySQL, Oracle, Red Brick, Sybase IQ, Teradata
<b>Additional Tools</b>	Windows and web-based DBAdmin GUI; CLI and high-speed loading/unloading for AIX, HP-UX, Linux, Solaris and Windows

## Third-Party Applications

**Data Integration Platforms** —  
Ab Initio, Ascential, Business Objects, Informatica, Sunopsis

**Business Intelligence Platforms** —  
Actuate, Business Objects, Cognos, Hyperion, IBI, MicroStrategy, SAS, SPSS

**Packaged Solutions** —  
Aprimo, Unica, Affinium, Vibrant HyperAnalytics

## Host-Based Hardware

Supports Ethernet and SAN connectivity

## About Netezza

Netezza, the global data warehouse appliance market leader, enables enterprises to make all of their data actionable - quickly, simply and affordably. The Netezza Performance Server family of products delivers breakthrough performance, unmatched ease of deployment and operation, and innovative flexibility and scalability at a fraction of the cost of traditional data warehouse solutions. By architecturally integrating database, server and storage within a single appliance, the NPS system delivers 10 to 100 times the performance at half the cost of existing systems. Based in Framingham, Mass., Netezza has offices in Washington, DC, the United Kingdom and Asia Pacific. The Company is backed by leading venture capital firms, including Matrix Partners, Charles River Ventures, Battery Ventures, Orange, Sequoia Capital and Meritech Capital Partners. **For more information about Netezza, please visit [www.netezza.com](http://www.netezza.com).**