Instant-On Enterprise

Winning with NonStop SQL
LIBERATE

Your infrastructure with

HP NonStop Database Solution for OLTP and Data Warehouse database applications
Today’s agenda

NonStop SQL

• Value proposition
• Proof points
• Did you know?
• Looking ahead
• Call to action
Value proposition
Overview

Databases are critical to your business

Enterprise database hosts business critical information

Databases support critical business functions

Databases control all touch points of an enterprise

DBAs are responsible for the wellness of business
## The Database decision

Customers are looking for a database that

<table>
<thead>
<tr>
<th>Grows with your business without sacrificing performance</th>
<th>Meets global business needs 24x7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides information at the right time</td>
<td>Avoids complexity of too many moving parts</td>
</tr>
</tbody>
</table>

Does not cripple IT budgets
The HP NonStop database solution
All modern, All standard, All nonstop

All modern
Integrated hardware and software
Out-of-the-box cluster aware
Virtualized data
Parallel query execution

All NonStop
24/7 application availability
Linear scalability
Mixed workload handling
Online manageability

All standard
ANSI 2003
JDBC 3.0
ODBC 3.5

Trusted HP expertise with comprehensive mission-critical services and world-class partnering
Why migrate to NonStop SQL?
Common customer pain points emerging

• Scale
  – Reached maximum throughput on a single node
  – Adding clustered nodes does not provide proportional throughput gains
  – Adding clustered nodes increases user response time

• Availability
  – For some applications, the business cost of downtime, even a few minutes, is huge
  – Clustered database recovery following failures is complex, error-prone and time-consuming
  – Complexity of configurations and database layout makes online operations difficult

• Cost
  – Clustered database licensing and support fees are high
  – Configuration complexity of clustered databases translates into significant operational costs
Proof Points
Customer realizes TCO and performance benefits of NonStop SQL

- A major Financial Solutions provider in Americas evaluates NonStop SQL
- Dissatisfied with pricing and TCO of Oracle database solutions
- Evaluated NonStop SQL for equivalent functionality and extreme performance
- Application migration automated using SQLWays tool, low cost of migration, accelerated migration timeline
- Sustained peak performance achieved is 11.4 Million business transactions/hour
- Customer impressed with performance, all-inclusive NonStop SQL pricing and TCO
NonStop SQL handles critical business needs

Customers realize availability benefits of NonStop SQL

- A securities company moves to NonStop SQL for its superior availability and TCO
- Any database induced downtime directly impacts the ability of traders to analyze stocks
- Performing at 2000 tps, driving 20,000 sql statements from 10,000 concurrent users over 2000 JDBC connections
NonStop SQL handles critical business needs
Customers realize scalability and availability benefits of NonStop SQL

• An internet service provider uses NonStop SQL to manage Petabytes of database
• Drives 100,000+ tps
• No outage since going live in 1995
• Managed with 2 DBAs
NonStop SQL handles critical business needs

Customers realize mixed workload benefits of NonStop SQL

• Customer deploys NonStop SQL to manage 150++TB of database

• Driving mixed-workload consisting of 39,000 ingests per second concurrently with >5000 ad-hoc and OLAP queries

• Executing concurrent database maintenance activities

• Very delighted with NonStop SQL availability
NonStop SQL handles critical business needs

Customers realize benefits of modern NonStop SQL

• New ISV Solution maintaining single source code for both NonStop and Oracle/Unix platforms developed using NS SQL

• New customer solution completes a six week planned database migration activity in one week using NS SQL
NonStop SQL handles critical business needs

Customers realize scalability benefits of NonStop SQL …

• A major retailer evaluates NonStop SQL to handle growth in business
• Needs capability to add twice as many stores
• Twice as much assortment
• Double the forecast period
• And be always available
Did you know?
NonStop customers enjoy lower operational costs
NonStop SQL is out-of-the-box cluster aware

- It takes 5 DBAs to manage few Gigabytes of an Oracle RAC database at a Spanish Healthcare Center
  - It takes 2 DBAs to manage several Petabytes of NonStop SQL database at an Internet Service Provider

- It takes 208 steps to install an Oracle RAC database instance
  - It takes 19 steps to install a NonStop SQL/MX instance and perform database upgrade
NonStop customers enjoy lower operational costs
NonStop SQL takes away the complexity of clustered databases

• Adding a node in an Oracle RAC cluster requires:
  
  • You need to provision the new node, install CRS, install RAC software, add a LISTENER to the new node, add the Oracle 11g software, add an ASM instance, add a database test instance…

  • Next you would look at your database application and make it cluster-aware in order for it to leverage performance benefits of a RAC cluster

• Adding a node to an existing NonStop cluster can be done online
NonStop customers can start small and scale
NonStop SQL enables flexible configuration options

- Smallest Oracle Exadata X2 offering is 6TB making it too large and expensive for some use cases
  - You can start small with a NonStop database – 146 GB user data
  - And grow to several Petabytes
NonStop customers enjoy flexible configurations
NonStop SQL comes with flexible scaling options

• Oracle is prescriptive about scaling out your Exadata X2 configurations
  • Customers can only order a quarter rack, half rack, or multiples of full racks
  • Adding processing hardware requires additional storage servers
  • Increased license fees to run the Exadata software, which comes at $10,000 per disk (and there are 12 disks per server)
    • Plus 22% maintenance

• NonStop offers flexible scale-out options
  • Add nodes and/or add storage capacity as you need it
  • With no prescriptive constraints
# NonStop SQL vs. Oracle Pricing

## All inclusive vs. add-ons

<table>
<thead>
<tr>
<th>Feature/Function</th>
<th>NonStop SQL</th>
<th>Oracle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Data Guard</td>
<td><a href="#">✓</a></td>
<td>Add-on</td>
</tr>
<tr>
<td>Real Application Testing</td>
<td><a href="#">✓</a></td>
<td>Add-on</td>
</tr>
<tr>
<td>Advanced Compression</td>
<td>Not required with its optimized index management</td>
<td>Add-on</td>
</tr>
<tr>
<td>Advanced Security</td>
<td><a href="#">✓</a></td>
<td>Add-on</td>
</tr>
<tr>
<td>In-memory database cache</td>
<td><a href="#">✓</a></td>
<td>Add-on</td>
</tr>
<tr>
<td>Diagnostic Pack</td>
<td><a href="#">✓</a></td>
<td>Add-on</td>
</tr>
<tr>
<td>Tuning Pack</td>
<td><a href="#">✓</a></td>
<td>Add-on</td>
</tr>
<tr>
<td>Change Management Pack</td>
<td><a href="#">✓</a></td>
<td>Add-on</td>
</tr>
<tr>
<td>Configuration Management Pack</td>
<td><a href="#">✓</a></td>
<td>Add-on</td>
</tr>
</tbody>
</table>
HP NonStop vs. Oracle Exadata X2 Pricing

• Cost comparisons are based on similar HW configurations (# of cores, memory & user data storage)

• Software stack includes OS and SW for clustered database engine, no middleware included

• Cost to own include:
  • Hardware US list prices for a given configuration
  • Support costs of hardware
  • 5 year software licensing list price
  • Support costs of software
HP NonStop vs. Oracle Exadata X2 2 Quarter Rack

NonStop beats Oracle by a factor of >1.5x in Cost to Own

5-Year Cost of Ownership Comparison (US $ List Price)
Equivalent Exadata X2 2 Quarter Rack and NB54000c Configuration
HP NonStop vs. Oracle Exadata X2 2 Half Rack

NonStop beats Oracle by a factor of >1.63x in Cost to Own

5-Year Cost of Ownership Comparison (US $ List Price)
Equivalent Exadata X2 2 Half Rack and NB54000c Configuration
HP NonStop vs. Oracle Exadata X2 2 Full Rack

NonStop beats Oracle by a factor of >1.60x in Cost to Own

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

- $0
- $2,000,000
- $4,000,000
- $6,000,000
- $8,000,000
- $10,000,000
- $12,000,000
- $14,000,000
- $16,000,000

H/W  S/W (TLC5)  5-Year Support

NB54000c 24p, 96c, 768GB Memory, 45TB User Data
Exadata X2-2 Full Rack, 96c, 768 GB Memory, 45 TB User Data
HP NonStop vs. Oracle Exadata X2 8 Full Rack

NonStop beats Oracle by a factor of >2.64x in Cost to Own

5-Year Cost of Ownership Comparison (US $ List Price)
Equivalent Exadata X2 8 Full Rack and NB54000c Configuration
Looking ahead
Optimize your database environment
With HP NonStop SQL scalability

NonStop SQL throughput scales linearly

- As more processing capacity (nodes) is added to a cluster (X-axis)
- As #concurrent sessions are increased (Z-axis)
- No performance penalty for clustered database apps
Optimize your database environment

With out-of-the-box clustered HP NonStop SQL

• No complex cluster configurations required to create a clustered database
  
  – NonStop SQL is delivered as an “out-of-the-box” clustered database
  
  – NonStop SQL deploys as a single clustered database image spread across the entire cluster, keeping operational costs low
Optimize your database environment

Provide information in real-time

• NonStop SQL has industry’s most elegant mixed workload handling

• NonStop SQL engine executes concurrent database updates, queries and batch operations

• No add-on licensing or configuration

• No need for application partitioning

• No need to replicate data to Reporting servers

• NonStop customers always have current view of the state of the enterprise
Optimize your database environment

Low TCO means more for saving money with NonStop SQL

• All DBA productivity tools are included with the base SQL license with no additional costs
• No additional Partitioning Software licenses required
• Diagnostic, Tuning, Management packs are all included in the base license
• NonStop SQL deploys and is managed as a single clustered database image
• NonStop has fewer moving parts and less complexity, leading to lower operational costs
Independent Oracle users group (IOUG) survey on high availability trends

NonStop customers experience superior availability

- 90% surveyed customers report significant Oracle database induced unplanned outages in a year
- 25% Oracle outages lasted longer than 10 hours, some lasted more than 24 hours
- What are your experiences with Oracle database availability?
Call to action
Take the next step with HP

Perform a health check of your system

Let us show you how HP NonStop SQL can:

• Scale your application
• Maximize availability
• Optimize TCO

Let us help migrate and open-up your database applications
To help you migrate and open up your application

- HP has partnered with Ispirer Systems, leader in database and application migrations since 1999
- SQL*Ways from Ispirer automates database migration from Oracle to NonStop SQL
- Ispirer SQL*Ways converts DDL, DML, Scripts, and application business logic
- More than 400 customers worldwide
Ispirer SQLWays

- Ispirer SQLWays automates database migration to NonStop SQL
- SQLWays converts DDL, DML, Scripts, and application business logic
- SQLWays connects to an Oracle database and imports data and uploads it to a NonStop SQL database
- Recent customer POCs achieved 100% automated conversion from Oracle PL/SQL to NonStop SQL
- Converted code is readable and maintainable
- No extraneous library or middleware required at run-time
All modern, All standard, All NonStop

All modern
Integrated hardware and software
Out-of-the-box cluster aware
Virtualized data
Parallel query execution

All NonStop
24/7 application availability
Linear scalability
Mixed workload handling
Online manageability

All standard
ANSI 2003
JDBC 3.0
ODBC 3.5
Thank You.