We Live in An Analytics World

• More data, and it comes in continuously
• No more overnight batch loading
• Mixed workloads and user variety accessing
• Must retain long history of data for compliance and analysis
• Need to customise and analyze diverse data/relations

Existing Data Warehousing Solutions were designed for a different world
The Vertica **Real-Time Analytic Database Platform**

*An integrated solution designed from the ground up for the analytic challenges of today and tomorrow*

- Real Time Analytics
- Infinite Scale
- Extreme Performance
- Optimised High Availability
- Simple to Use
- Energy Efficient
- Fastest Time to Value
What is Vertica good at?

1. Real Time Query and Data Loading
2. Large Volumes of data – TB’s Upwards
3. Multi-Concurrency Real time Queries – 10s, 100s
4. Linear, Commodity MPP Linux Platforms
Imagine a world where you can have a conversation with your data!

Vertica makes this a reality with real time analytics !!!!
Proven by 2500+ Customers Worldwide

- Promotional Testing
- Claims Analyses
- Patient Records Analyses
- Clinical data Analyses
- Fraud Monitoring
- Financial tracking
- Tick data back-testing
- Behaviour Analytics
- Click Stream Analyses
- Network Analyses
- Customer Analytics
- Compliance Testing
- Loyalty Analysis
- Campaign Management
HP Vertica MPP-Columnar DBMS
With A Unique Combination Of Innovations

- Standard SQL Interface
- High Availability
- Column Orientation
- Auto Database Design
- MPP Massively Parallel Processing
- Advanced Encoding

- Leverages existing BI, ETL, Hadoop / MapReduce and OLTP investments
- No disk I/O bottleneck; simultaneously load & query
- Built-in redundancy that also speeds up queries
- Automatic setup, optimization, and DB management

- Native DB-aware clustering on low-cost x86 Linux nodes
- Minimize IO using 14+ algorithms
Massively Parallel Processing (MPP)

Shared-nothing, grid-based database architecture provides high scalability using industry standard hardware:

- Designed to Scale outwards
- Automatic replication, failover and recovery
- Add nodes ONLINE to optimise capacity and performance

Client Network

Private Data Network

Node 1
- 2 6-8 Core
- 96+GB RAM

Node 2
- 2 6-8 Core
- 96+GB RAM

Node 3
- 2 6-8 Core
- 96+GB RAM

All Nodes are Peers
- No specialized nodes
- All nodes are peers
- Query/Load to any node
- Continuous/real-time load and query
Native High Availability

RAID like function within database

✓ Projections are distributed amongst nodes for redundancy
✓ No need for manual log-based recovery
✓ Vertica continues to load and query when node down
✓ Missing data is recovered from other nodes within the cluster
Vertica has a Rich Analytics Platform

**SQL**
- Window functions
- Graph
- Monte Carlo
- Statistical
- Geospatial

**Extended SQL**
- Sessionization
- Time series
- Pattern matching
- Event series joins

**SDKs**
- C++
- R
- Java

Vertica Analytics Platform SDK

A framework for User-defined Extensions

Languages: C/C++, Java, R

Simple: concise APIs and examples accelerate deployment

Flexible: operate on Structured and Unstructured data sets, fenced Option for Security

Efficient: In-process, fully parallel

User Community: Github.com

Check out: https://github.com/vertica/Vertica-Extension-Packages
Ability to dynamically access a variety of data sources

User-defined Loads & External Tables

UDL is an extensible adapter API to load data from any source, in any format. External Tables provides ability to make loads “dynamic” i.e. at query time. Connectors available to data sources such as HDFS, Other Databases, etc.
What is HP Vertica Pulse?

Vertica extension that tells you what your community is talking about and the sentiment on those topics.

Features
• Scalable, in-database entity extraction and sentiment analysis in SQL. English support
• Supports tweets on products and services
• Combine with business data already in Vertica
• Quick deployment
• Customizable per domain
• Aggregate and drill-down views
What is HP Vertica Pulse’s Architecture?

HP Big Data Guide—Social Media Customer Sentiment

1. **Tweet:** Share your thoughts on HP products!

2. **Retweet:** Join the conversation and spread your message.

3. **Vertica:** Analyze the sentiment of your tweets using a powerful database engine.

4. **In-Database Natural Language Processing:** Process the sentiment data directly in the database.

5. **Visualization:** Present the findings in an easy-to-understand format.

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What Does HP Vertica Pulse Do?

*Scalable, In-Database Entity Extraction and Sentiment Analysis*

**Input:** The *run-down hotel* is in a *convenient location*.
**Outputs:** hotel(negative) location(positive)

**Input:** Tablets are better than *televisions*.
**Outputs:** tablets televisions

**Input:** This *phone* is never reliable.
**Outputs:** phone

**Input:** I purchased a *Honda* yesterday.
**Outputs:** Honda (hmmm...)
Benefits

Stay Abreast of the Pulse of Your Community

Automated Entity Extraction and Sentiment Analysis
## Benefits

### Compare to the Competition

*Automated Entity Extraction and Sentiment Analysis*

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<thead>
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<th>Airline</th>
<th>baggage</th>
<th>check-in</th>
<th>customer service</th>
<th>drinks</th>
<th>experience</th>
<th>food</th>
<th>price</th>
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</tr>
</tbody>
</table>
Benefits

Drill-down on the Most Compelling Results

*Aggregate and Comment-Level Views*
Benefits

Find Advocates and Detractors
Want a conversation with your data? **Evaluate Vertica!**

- **Enterprise Edition**
  - Free 30 day evaluation

- **Community Edition**
  - Free Download 1TB, 3 nodes

- **Check Out Vertica Extensions on Github!**
  - [https://github.com/vertica/Vertica-Extension-Packages](https://github.com/vertica/Vertica-Extension-Packages)

– And especially for Baseball fans!