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BIG DATA = DATA LITERACY:
HP VERTICA AND IIS

Enterprises should never lose sight of the end game of Big Data: improving business decisions based on actionable, data-driven intelligence. Today's analytics platforms, low-cost storage and powerful in-memory computing solutions now place a powerful set of tools at the disposal of hands-on IT professionals.

To answer the challenge of managing large, ever-expanding structured and unstructured data sets over the next few years, IT professionals should continue to carefully vet analytics strategies in order to add real value to Big Data implementations. In particular, the HP Vertica Analytics Platform continues to gain acceptance in the Big Data space as software that can deliver fast, real-time business intelligence and lower costs.

Data warehouses are approaching critical mass as massive data sets such as clickstream data become more complex. As another example, the data collected by businesses to continually monitor their network traffic for anomalies is another challenge to overcome. The continued expansion of the Internet of Things (i.e., data collected via Web-enabled remote sensors and many different generations of smart devices) complicates the issue even further.

In the near future, legacy databases will no longer be able to analyze this data tsunami using traditional tools. For many enterprises, the challenge of handling Big Data has already arrived, so businesses that have not made the right preparations are at risk of falling behind.

GARNTER EXPECTS AS MUCH AS **75% OF TODAYS DATA WAREHOUSES** WILL NOT BE ABLE TO SCALE WELL ENOUGHT TO KEEP PACE WITH **DATA VELOCITY & ITS COMPLEXITY** BY 2016.

Information published by Gartner in 2012 also highlights this issue. Shedding light on the reality of the scope of Big Data over the near term, Gartner expects that as much as 75% of today's data warehouses will not be able to scale well enough to keep pace with data velocity and its complexity by 2016. As such, enterprises of all sizes may fall behind competitors that are able to implement fast, real-time Big Data analytics to deliver data-driven insights.

In the past, analyzing terabyte-sized data sets took as long as several days. Now, with tools such as the HP Vertica Analytics Platform, hands-on IT professionals can load and query large data sets within minutes -- creating what industry experts have called a "conversation with data".

As an example, HP's HAVEn platform provides a comprehensive suite of tools to manage and analyze 100% of an enterprise's data — structured, unstructured and semi-structured alike. One example of a use case for HAVEn is in targeted advertising. By taking a holistic view of Big Data, enterprises can actually deliver myriad versions of the same ad campaign targeted more precisely to consumer segments. Similarly, enterprises can use the capabilities of the HAVEn suite to align the near-ending flow of social media content with Customer Resource Management data to glean sharper, more accurate insights into consumer sentiment. Approaching Big Data from the perspective of a metadata management framework is gaining prominence. However, the most urgent Big Data-related problem lies in the fact that there is a shortage of individuals who possess the skill set to compile, cleanse and analyze Big Data in a meaningful way.

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THE CHALLENGE OF MANAGING BIG DATA AND ANALYTICS

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HP VERTICA ANLAYTICS PLATFORM IN FOCUS

The Big Data space is very competitive as software developers jockey for position in an increasingly crowded market. Separating the facts from the hype surrounding these solutions helps hands-on IT professionals decide which software is best for their organizations to glean the most value from Big Data over the foreseeable future. As part of the company's complete software portfolio, the HP Vertica Analytics Platform has several key features worth a close look.

In short, the HP Vertica Analytics Platform is a massively parallel database that includes the ability to perform analytics many times faster than legacy platforms. With this platform, hands-on IT professionals can load and query large data sets as many as 50 to 1000 times faster, which in return may help lower total cost of ownership over the long term.

The benefits of the HP Vertica Analytics Platform include:

- Columnar storage of data
- Automatic design/administration of databases
- Advanced compression
- High availability
- Concurrent loading and querying of data
- Standard SQL interface
- Massively parallel processing

Taken as a whole, these features can allow enterprises to scale from terabyte-sized data to petabyte-sized data without the need for additional hardware and administrative overhead. The HP Vertica Analytics Platform can also integrate with currently deployed business intelligence and ETL tools. These features can help enterprises reduce the time-consuming tasks of fault tolerance, indexing and physical database design, which can lower total cost of ownership.

Some organizations have managed to decrease costs by as much as 30% while vastly improving the ability to glean real-time, right-time business intelligence. Along those lines, with the HP Vertica Analytics Platform's compression capabilities enterprises can reduce storage requirements by as much as 90%, and deploy a solution that can deliver real-time performance on less hardware without adding off-the-shelf analytics appliances to an enterprise's infrastructure.

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Big Data initiatives demand that enterprises chose a knowledgeable consultancy to implement an analytics platform on time and at an acceptable cost. For some organizations, Big Data implementations can take as long as 18 months, and optimization efforts could add even more time to this figure. Tailoring the solution to the specific use cases is key to revealing data-driven business intelligence quickly.

For instance, HP recently turned to its own software portfolio to answer the mounting challenge of network security. Specifically, HP needed to monitor a network that includes tens of thousands of switches and routers to tag potentially anomalous activity. The company also had to deploy a better system to filter ordinary traffic from malevolent intrusions or misuse of internal resources by personnel across hundreds of sites around the world.

By choosing its own software, HP is avoiding the need to add specialized, expensive hardware to its infrastructure to monitor its network. The HP Vertica Analytics Platform -- when integrated with HP's Lancope StealthWatch -- is able to analyze massive flows of information for attempted network intrusions and even distributed denial-of-service attacks.

HP'S WEBSITE CREATES MANY AS 12 BILLION CLICKS PER MONTH IN A DYNAMIC ENVIRONMENT ACCORDING TO STATEMENTS BY COMPANY OFFICIALS.

In another instance, HP used its own platform to make better use of the company's clickstream data. HP's website creates as many as 12 billion clicks per month in a dynamic environment, according to statements by company officials. As the Web continues to proliferate at an astonishing pace, this number of clicks will only rise over the foreseeable.

In these cases, the need for faster, real-time analytics was clear, and HP was able to display the power of its HP Vertica Analytics Platform. The company reduced days-long queries to hours-long queries. The company was also able to perform more iterative queries on its clickstream database to correlate data in new ways. These capabilities would be impossible (too time-consuming and expensive) using legacy tools to analyze large data sets.

The HP Vertica Analytics Platform presents new opportunities to a hands-on IT professional. The challenge of Big Data has arrived, and choosing the right consultancy to implement a solution the right way is key to Big Data success.

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USE CASES

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