

Pivotal

Top Challenges

- **Analytic complexity** is growing exponentially due to increases in data volume, variety and velocity, which slows data movement and analytical computations.
- **Disjointed analytic and IT infrastructures** hamper analytics-supported decision making.
- **The need to improve agility and speed** in analytical development and deployment processes.

Big Data Analytics Faster on Flexible, Scalable Analytics Platform

Analytics is one of the most compelling competitive differentiators today. As data volumes grow in size, variety and speed, deriving insights from data becomes complex. To address this complexity, you must ensure that your technology infrastructure can keep pace with the need for business insights and ensure flexibility and scalability as data grows.

Organizations must step out of data and analytics environments that were designed long before the era of big data, to a more scalable, flexible environment where data from different silos can be brought together as needed to make the best use of new architectures for data storage and management to analyze virtually unlimited amounts of data.

SAS and Pivotal help organizations modernize their analytics environment by using a technology platform that is both flexible and scalable. SAS and Pivotal solutions take advantage of new architectures such as Apache Hadoop and inexpensive hardware options to lower the total cost of ownership.

The SAS and Pivotal Partnership

SAS and Pivotal are strategically partnered so you can build deep insights rapidly, create competitive advantage and become truly data-driven. Our partnership combines engineering know-how to offer flexible architectures that meet growing data demands with a combination of SAS[®] Analytics, a Pivotal massively parallel database and a variety of hardware options.

The solution uses HAWQ – a powerful query engine with the parallel database technology of Pivotal Analytic Database – to analyze massive amounts of data in Hadoop with standard SQL for leading-edge scalability and performance.

SAS and Pivotal offer several paths to analytic modernization depending on the organization's needs and analytic maturity.

SAS/ACCESS[®] Interface to Pivotal is a solution that provides direct connectivity between SAS and Pivotal Analytic Database, going beyond ODBC's standard interfacing capabilities. Pivotal Data Computing Appliance manages, stores and facilitates the analysis of petabytes of data. Users can take advantage of Pivotal's "shared-nothing" massively parallel processing architecture, high-performance parallel data-flow engine, and advanced gNet interconnect technology.



Benefits

- Integrate data stored in Pivotal with data from other sources.
- Access data directly, easily and securely with native interfaces.
- Gain faster performance and reduce network traffic.
- Minimize data movement.
- Support both technical and business users.

SAS® Scoring Accelerator for Pivotal combines the statistical transformation and modeling methods available in SAS® Enterprise Miner™ with the scalability and in-database processing speed of the Pivotal Analytic Database to dramatically accelerate the model-deployment process.

Benefits

- Achieve higher model-scoring performance and faster time to results.
- Enhance the productivity of your data mining and IT groups.
- Reduce data movement and latency, and streamline analytic deployment.
- Better manage, provision and govern data.
- Make better use of IT resources and reduce costs.

All the Data, All the Time

Good business decisions demand deep analyses of all available data. Your transactional systems capture interactions with customers, generating rich data sets that are stored in the warehouse as large database tables. Burgeoning external sources – websites, industry information services, social media, etc. – provide additional valuable sources of information about customer behavior, public sentiment and market behaviors.

Instead of using only a subset of the data in traditional architectures – obscuring critical insights – the integrated solutions from SAS and Pivotal provide the data scale and compute capacity needed to analyze the largest possible data sets and identify the relevant and related variables in all of your data. This approach – analyzing all the data all the time – enables you to discover unexpected and valuable patterns hidden deeply in complex, multisource data.

Delivering consistent analytics to the organization demands increased availability of analytics systems.

Integrating SAS and Pivotal software and appliance products brings enterprise-level redundancy and reliability. Protecting the analytics infrastructure through redundancy and disaster-recovery technologies from Pivotal helps ensure that the flow of analytics to the business continues around the clock.

SAS® High-Performance Analytics on Pivotal

While data continues to grow, decision makers need answers faster than ever. SAS High-Performance Analytics on Pivotal is an in-memory solution that allows you to develop analytical models using complete data, not just a subset or aggregate. You can develop models that use thousands of variables and millions of documents to produce more accurate and timely insights.

With models that can run in minutes or seconds, you can perform more frequent modeling iterations and use sophisticated analytics to get answers to questions you never thought of or had time to ask.

Benefits

- Quickly and confidently seize new opportunities, detect unknown risks and make the right choices.
- Use all data (including unstructured) with advanced modeling techniques and perform more model iterations to get answers to your difficult questions.
- Derive insights at breakthrough speeds for high-value and time-sensitive decision making.
- Take advantage of Pivotal's highly scalable and reliable analytics infrastructure to test more ideas and multiple scenarios with all your data.

SAS® Visual Analytics on Pivotal

SAS Visual Analytics on Pivotal helps you explore all relevant data quickly and easily no matter the size of the organization – or the data. Now you can look at more options, uncover hidden opportunities, identify key relationships and make more precise decisions to drive success faster than ever. Self-service, ad hoc visual data discovery and exploration put lightning-fast insights within everyone's reach.

Benefits

- Explore all relevant data quickly and easily and share meaningful insights using the Pivotal Data Computing Appliance or Pivotal Analytic Database.
- Whether you're a business user with limited technical skills, a statistician or a data scientist, powerful analytics are at your fingertips.

SAS® on Pivotal Hadoop

SAS on Pivotal HD addresses the complexity and implementation costs of Hadoop by enhancing it with the expressive power of SQL. The combination accelerates deployment, data exploration, model development and application development, while increasing overall information availability.

Benefits

- Reduce cost with a price per terabyte that is 20 times less when compared to an enterprise data warehousing solution.
- Performs better in situations where databases have a limit on the number of variables.
- Takes advantage of the tremendous open-source innovation of Hadoop.

About Pivotal

Pivotal is building a new platform for a new era, setting the standard for enterprise platform-as-a-service (PaaS). The company's mission is to enable customers to build a new class of applications, leveraging big and fast data, doing all of this with the power of cloud independence.

Uniting selected technology, people and programs from EMC and VMware, the following products and services are now part of Pivotal: Greenplum®, Cloud Foundry, Spring, Cetas, Pivotal Labs®, GemFire® and other products from the VMware vFabric™ Suite.

For more information, visit www.gopivotal.com

Key Customer Benefits

Business users:

- Find answers quickly to take advantage of fleeting opportunities.
- Remove latencies and inefficiencies to accelerate the analytic process.
- Focus on exploring and solving the business issues – not connectivity and data consistency issues.
- Analyze more data and build more detailed models to raise insights and increase predictive accuracy.
- Leverage vast compute performance to permit detailed data exploration and faster model execution.
- Increase analytics' contribution to the business while consolidating the analytical infrastructure.
- Experiment with multiple models to find the best fit.

IT users:

- Reduce data movement and analytical computation latency for improved performance.
- Decrease IT project backlog by simplifying systems administration and systems provisioning.
- Reduce system bottlenecks to free IT from constant performance tuning and resulting tradeoffs.
- Decrease labor costs by avoiding manual scoring; reduce the revalidation of code for scoring purposes.
- Improve scalability and performance to respond to questions or issues in a timely manner.
- Take advantage of new architectures like Hadoop and use commodity hardware to lower total cost of ownership.
- Protect the shared computing infrastructure with industry-leading redundancy and disaster preparedness.

About SAS

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions, SAS helps customers at more than 60,000 sites improve performance and deliver value by making better decisions faster. Since 1976 SAS has been giving customers around the world THE POWER TO KNOW®.



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