



**The SAS[®] Enterprise Intelligence Platform:
SAS[®] Business Intelligence**

*Enabling BI consolidation and standardization
without compromise*

SAS[®]9

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Executive summary

In the past, it was enough for IT to deliver reports to a small number of executives. But management structures have become less hierarchical and more decentralized. There is a need to deliver information to a far greater percentage of the organization. In light of these shifts, the information-delivery mission has changed. IT managers have told us about key challenges they face while trying to deliver true business intelligence within time and budget constraints:

“My team cannot continue to support the large numbers of disconnected BI technologies or the ever-growing number of users.”

“We are spending an increasing amount of time trying to keep a growing portfolio of business rules synchronized between BI technologies.”

“My team is hard-pressed to deliver BI capabilities that can support the spiraling demand from business users. Because of the increasingly short lead times, business users are growing frustrated at relying on IT for seemingly simple tasks.”

“We would love to consolidate our BI vendors, but we have too many different kinds of users in our organization. No single vendor can meet all our needs.”

“We’re spending a great deal of time extracting and replicating data to feed a variety of tool sets, and we’re not entirely confident that all the data has been derived and presented consistently.”

SAS Business Intelligence empowers users by giving them access to information in the format they need, when they need it. SAS provides tailored interfaces targeted at specific audiences, skills and needs. Users can get their own answers while IT retains control over the consistency and reliability of the data they are using — no matter how large or varied the organization. SAS Business Intelligence delivers intelligence to all types of users throughout the organization. It integrates a wide variety of BI capabilities, including:

- Portals and dashboards.
- Report viewing and building.
- Advanced data exploration.
- Microsoft Office integration.
- Guided analysis.
- Metadata management.
- Guided SAS OLAP cube creation.

Empower knowledge workers to be more self-sufficient with interfaces and functionalities that correspond to their varying needs.

At the same time, retain IT control over the consistency and reliability of the source data — no matter how large or varied the organization.

All SAS Business Intelligence capabilities are founded on a common metadata infrastructure. The SAS Business Intelligence environment integrates with SAS analytics to facilitate unmatched insights and new levels of collaborative decision making.

SAS Business Intelligence is an element of the SAS Enterprise Intelligence Platform, an integrated platform that delivers enterprise intelligence while extending the value of existing hardware and software infrastructures.

Read on learn to learn how SAS Business Intelligence and the SAS Enterprise Intelligence Platform can help you provide consistent, up-to-the-minute business intelligence for your entire organization.

Key challenges to delivering true business intelligence

Two decades ago, when the mainframe monarchy dissolved into a desktop democracy, IT organizations evolved also. Processing power, storage capacity, decision-making information and specialized tools were distributed to users who sought autonomy in decision making. Ten years later, the pendulum began to swing back, as intranets and the Internet reconnected PC users into a networked community that prized information sharing.

IT organizations now must evolve again. Today they are pressured to provide the centralized data repository and control that characterized the mainframe era — plus the self-directed analysis and rapid decision making that flourished in the PC era. These requirements call for a new model of IT architecture that:

- Melds specialized IT projects and tools into a cohesive enterprise foundation.
- Transforms disparate data into a single source of information.
- Empowers business users to create their own actionable intelligence.
- Exploits information from across functional areas to create an enterprise view that everyone can rely on to promote the organization's success.

Let's take a look at some key issues that are driving the need for this new model.

“Ask and receive” becomes, “Let me see for myself.”

Not only is there less time available to investigate business questions, there are more penalties for answers based on stale or limited information. Decision makers need self-service intelligence creation and delivery, so they can base their conclusions on facts and insights that are delivered fast enough to take advantage of narrow windows of opportunity. In addition, as management structures have become less hierarchical and more decentralized, the audience of decision makers is larger, its needs are more diverse and the expectation for turnaround time has changed from overnight query-and-reporting to right-now point-and-click.

Information should be used for more than simply running the business. It must be used to run the business better.

With many windows come many views.

The typical IT architecture of incompatible components and discrete data sources generates suspect information because disparate systems usually operate with their own standards, controls, data elements and data management methodologies. It's difficult or impossible to ensure complete consistency across incompatible, incommunicative systems. Organizations are now realizing that for individual business units to be effective, they need access to cleansed, relevant data from throughout the organization — regardless of their location and the business intelligence tool they are using.

“One size fits all” generally means, “One size fits none.”

IT management's initial reaction to the issues above often has been to standardize on a single business intelligence tool. However, self-service tools that attempt to provide a full range of business intelligence capabilities (managed reporting, ad hoc query and OLAP) are generally too complex for most users but not robust enough for power users who need advanced functions such as forecasting and modeling. Consequently, the IT group spends a great amount of time training users and replicating data to provide information access in a variety of tool sets.

A kennel full of “best of breeds” requires a lot of care and feeding.

Another widely used strategy has been to create multiple independent information chains, with each chain consisting of a variety of so-called "best-of-breed" components. But this strategy comes at a high cost. Because applications often cannot be moved across platforms, these components typically require dedicated hardware resources, forcing IT to overspend on hardware. An assortment of “best-of-breed” components also requires an assortment of user training and IT support skills. What's more, it undermines users' confidence in the integrity of information delivered by IT because there is no common model of corporate data and no corporate standard for surfacing information to business users.

Multiple point solutions can create confusing and unreliable results because intelligence is not based on a common model of corporate data or corporatewide standards for surfacing information to business users.

Redefining the way business intelligence is created and delivered

The ideal solution would provide corporate standards for surfacing data through a custom business intelligence development environment, which uses common metadata and single-point administration.

Faced with these issues, IT managers are struggling to devise and implement a coherent, strategic business intelligence architecture that can replace the current variety of tactical tools.

The ideal solution would provide a centralized, integrated business intelligence platform for all enterprise users. It would include a wide range of capabilities for a number of different audiences within an organization. Such a solution should be capable of being deployed to large numbers of people in the organization while being easy for IT to manage from a central location. It would also provide corporate standards for surfacing data through a custom business intelligence development environment, which uses common metadata and single-point administration.

Because organizations, customers and suppliers can be located anywhere, this solution should also provide easy, secure access via the corporate intranet or extranet.

Optimize your existing infrastructure with the integrated SAS Enterprise Intelligence Platform

SAS has developed an integrated platform for delivering enterprise intelligence. This platform, which we call the SAS Enterprise Intelligence Platform, optimally integrates individual technology components within your existing infrastructure into a single, unified system. The result is an information flow that transcends organizational silos, diverse computing platforms and niche tools — and delivers access to the insights that drive value for your organization.

The SAS Enterprise Intelligence Platform extends the value of your existing systems while setting the stage for new levels of enterprisewide intelligence not previously possible. In the process, you'll jump-start the evolution of the IT organization from cost center to strategic partner.

Components of the SAS Enterprise Intelligence Platform

The SAS Enterprise Intelligence Platform allows you to optimally configure the technology components within your architecture to deliver intelligence throughout the organization at the lowest total cost of ownership and with the fastest time to intelligence.

- **SAS Data Integration** provides prebuilt, high-performance capabilities for data connectivity, data quality, ETL (extract, transform and load), data migration, data synchronization and data federation.
- **SAS Scalable Intelligence Server** is a dedicated solution that efficiently stores and disseminates information for business intelligence and analytic requirements, offering relational and OLAP storage options from the same foundational inputs.
- **SAS Analytic Intelligence** is an integrated environment for predictive and descriptive modeling, forecasting, optimization, simulation, experimental design and more. SAS Analytic Intelligence leverages existing data and infrastructure to support effective decision making and integration into business intelligence environments.
- **SAS Business Intelligence** delivers a set of BI capabilities that enable different types of users to surface meaningful intelligence from consistent, companywide data.

As part of an integrated platform, all components and services are managed from a single point, reducing the administrative effort for maintenance of applications, users and security. Data consistency is assured because metadata is stored in a single metadata repository and is shared across all SAS technologies and solutions. Supporting a wide range of open standards, the SAS Enterprise Intelligence Platform has been designed to facilitate integration with existing IT infrastructures.

When integrated into a single, cohesive technology platform, these components help you optimize your current intelligence environment and better align IT with the strategic objectives of the organization.

SAS Business Intelligence:

The business intelligence creation and distribution component of the SAS Enterprise Intelligence Platform



SAS Business Intelligence empowers diverse audiences by giving them access to information in the format they need, when they need it, where they need it. SAS also provides appropriate interfaces for various skill levels, enabling users to generate their own answers while IT retains control over the quality and consistency of the data.

Fully integrated with SAS Data Integration and SAS Scalable Intelligence Server's storage capabilities, SAS Business Intelligence can incorporate all data required for analysis, regardless of data source or format. This integration also ensures that data used in analysis is complete, sequenced and properly cleansed — without the proliferation of metadata, which is a common problem in business intelligence architectures.

SAS Business Intelligence creates a collaborative domain that links previously isolated specialists in statistics, finance, marketing and logistics. The whole user community has access to company-standard analytic routines and reporting templates. This not only produces consistent, trustworthy results, it fosters greater cooperation and partnership among disparate teams.

Components of SAS Business Intelligence

SAS Enterprise BI Server, SAS' flagship business intelligence solution, enables IT to deliver extensive BI capabilities (that can handle OLAP cubes as well as relational data). This solution is built on top of an open and integrated BI infrastructure that is easy for IT to integrate into existing environments, deploy and maintain. As a result, users at all levels are able to obtain information quickly and easily to make decisions at the lowest overall cost to the organization.

In addition, SAS Enterprise BI Server provides a comprehensive set of capabilities that defines the standard needed to successfully meet the needs of all users in an organization. These capabilities include:

- Web-based report viewing for relational databases and OLAP cubes. These reports can be viewed through the same client.
- Web-based report building and editing through a zero-client interface.
- Advanced data exploration (OLAP exploitation) and the ability to push results back to report building and viewing environments.
- Integration with Microsoft Office.
- Portal and dashboard capabilities.
- Guided analysis and access to analytics capabilities.
- Query and analysis as a pervasive part of all interfaces.
- Advanced visualization.
- An application development environment.
- Advanced metadata management, including shared, business metadata and a single metadata management interface for the whole solution.

Whether a business requires electronic distribution of reports in a variety of formats (HTML, PDF or RTF, for example), ad hoc or interactive query environments, delivery of content via a Web-based portal, wireless devices, or combinations of the above, SAS Business Intelligence delivers all formats from the same consistent, single-source information.

SAS Business Intelligence provides the scalability to support multi-user demands for timely access to key information. And with a standardized environment for all business intelligence activities, service levels can be consistently maintained, leaving more IT resources to focus on other strategic initiatives.

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Key benefits of SAS Business Intelligence

Faster, better decisions aligning IT and business

IT managers deploying SAS Enterprise BI Server can leverage previous investments, integrate BI quickly into their existing environment and provide the information needed to drive the business forward as quickly as possible. With the added benefit of freeing resources from tedious tasks to focus on projects considered strategic to the business, SAS Business Intelligence ensures that IT is a driving force behind their organization's success.

Data consistency and control

Through centrally managed metadata, data and security, SAS Enterprise BI Server delivers consistent representation and control of information by providing reliable results that can be easily traced back to the source. This capability alleviates the repetitive task, prevalent in most BI solutions, of validating which reports or results are correct. In addition, integration with Microsoft Office allows IT to retake control of ad hoc Excel use without impeding users' desires for this familiar environment.

Vendor consolidation and standardization on a comprehensive BI solution

SAS Enterprise BI Server ensures that IT has the breadth of BI capabilities to meet the needs of every type of user:

- Managers looking for dashboards.
- Groups who want to view or build reports on the Web.
- Analysts or power users who need advanced data exploration.
- IT staff who need to deploy, manage, control and maintain the BI infrastructure of an organization.

Lower total cost of ownership

After years of applying tactical solutions for various departments and functions, the typical IT infrastructure is now a maze of complex interfaces and distributed silos of information. The more complex and siloed the infrastructure, and the longer it takes to integrate new solutions or upgrade existing ones, the greater the likelihood of redundant resources and the higher the overall operational cost.

SAS Business Intelligence lowers total cost of ownership because clients — the interfaces that deliver intelligence to diverse audiences — are built on a common foundation, share common metadata definitions and meet the full needs of all types of users in the organization. Compared to typical approaches that require multiple tools to satisfy multiple audiences, a unified platform translates into lower costs for administration, management and deployment.

With SAS Business Intelligence, IT organizations also avoid the need for costly integration of custom-built systems. Integration is built in from the beginning. There's no need to train and cross-train support staff and users on multiple, dissimilar tools.

Finally, SAS Business Intelligence extends the value of existing infrastructures by supporting key industry standards that enable easy integration. This openness reduces the time to deliver business applications and extends the long-term viability of legacy hardware and software investments.

Summary

Business intelligence architectures in today's typical organization are not optimized for deployment and utilization throughout the whole enterprise, yet a holistic view is exactly what corporate management now deems critical to success. IT groups must deliver information corporatwide without driving up operational costs, especially as the organization evolves through mergers, acquisitions and reorganizations.

Faced with these urgent issues, IT managers are struggling to devise and implement a coherent, strategic business intelligence architecture that can replace the current variety of tactical tools.

A few vendors have introduced solutions that resolve some of the challenges — but they leave holes. For example, most cannot actually deliver the full range of capabilities required to meet the needs of all types of users in the organization — thus shortchanging the organization of all the efficiencies of integration.

SAS Business Intelligence brings the whole picture together. One unified solution delivers the full set of BI capabilities required by your organization's diverse users. And SAS Business Intelligence provides full access to advanced analytics that let you take a look into the future and make strategic decisions more reliably.

SAS integrates business intelligence with all the other components of a complete Enterprise Intelligence Platform, creating a single, cohesive technology platform that blends data integration, storage of that data, and analytic and business intelligence.

SAS extends that value further by integrating business intelligence with all the other components of a complete Enterprise Intelligence Platform, creating a single, cohesive technology platform that blends data integration, storage of that data, and analytic and business intelligence. The Business Intelligence component of the SAS Enterprise Intelligence Platform enables you to:

- Make faster, better decisions aligning IT and business.
- Deliver data consistency.
- Support a strategy for vendor consolidation and BI standardization.
- Deliver the lowest total cost of ownership.

From SAS, the first name in enterprise intelligence solutions

For nearly three decades, SAS has been helping customers realize the full potential of enterprisewide intelligence. Through listening to our 40,000 customers across every industry — including 96 of the top 100 companies on the FORTUNE Global 500® — SAS has developed an integrated platform for delivering high-value enterprise intelligence.

This platform, which we call the SAS Enterprise Intelligence Platform, optimally integrates individual technology components within your existing infrastructure. SAS is the only vendor that completely integrates leading data integration, storage, analytics and traditional business intelligence applications to create intelligence from massive amounts of data.

SAS Business Intelligence represents the intelligence creation and delivery component of the SAS Enterprise Intelligence Platform. SAS Business Intelligence enables coherent, consistent analysis of enterprise data, no matter how disparate, and disseminates that information to users in the format appropriate for their roles and skills.

Let us show you how the SAS Enterprise Intelligence Platform can deliver immediate and sustainable rewards for your organization. Whatever your existing business intelligence infrastructure, SAS can transform it into a foundation for enterprisewide intelligence and sustainable profitability in an increasingly uncertain world.

For more information about the SAS Enterprise Intelligence Platform and the specific SAS technologies that support it, visit us at www.sas.com.



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