

A Cost-Effective Open Source BI Solution with Enterprise Class Functionality

The Power of Business Intelligence

Enterprises of all sizes need to make countless key decisions every day. Decisions based on questions such as:

- How many customers are using last season's model versus this season and why?
- Should we allow credit to this new customer?
- What factors contributed to the latest campaign being less successful than anticipated?

Employees constantly need answers to questions like these in order to improve business performance, capture new opportunities, or achieve a competitive edge. To meet this crucial need for information, companies are increasingly using the power of Business Intelligence (BI), fueling their growth and expanding the value of their existing IT infrastructure.

BI enables companies to track, understand, and manage their business in order to maximize their performance. With BI, organizations can improve operational efficiency, build profitable customer relationships, and develop differentiated product offerings.

With this potential for competitive advantage, it is no surprise that recent surveys by leading analysts cite BI as the top priority for many CIOs, making it a prime target for investment.

But building an effective BI system is labor intensive and requires highly specialized knowledge. A daunting array of software components must be integrated, configured and tuned. Furthermore, traditional BI systems are designed with large corporations and budgets in mind. This results in expensive and complex solutions that are difficult to manage, which places them beyond the reach of many companies.

A Complete Business Intelligence Solution

The Ingres Icebreaker BI Appliance is a powerful, comprehensive and cost effective BI system that meets the needs of customers seeking an alternative, more accessible solution.

The Ingres solution enables customers to gain the full value of BI at a fraction of the cost, without compromising on functionality or reliability. Also, since it is a pre-built appliance, it requires considerably less effort to implement, manage, and maintain.

Benefits

The Ingres Icebreaker BI Appliance delivers the following benefits:

- Comprehensive, flexible and scalable BI functionality based on industry-leading database and BI technology
- Industrial strength robustness, security and high performance
- Low price - no software license fees and greatly reduced deployment and management costs dramatically reduces the total cost of ownership
- Fast installation facilitated by a pre-built software stack with a single install mechanism
- Highly flexible deployment enabled by the appliance approach - e.g. remotely hosted or within a virtual machine container
- Greatly reduced management and maintenance overhead as a result of using pre-configured components and consolidated change management
- Reduced risk by the use of tried and tested components, integrated and tuned by experts
- High quality, 24/7/365 global support for the entire BI solution from a single source.

A partnership of experts

Ingres and JasperSoft understand the challenges of BI and have collaborated to redefine the way BI solutions are delivered and supported. Ingres' advanced database software provides the power and robustness essential for the demands of BI. With over 30 years managing customer data for mission critical applications, Ingres is an acknowledged leader in the field, making it the ideal partner for BI experts, JasperSoft.

Ingres has created a highly optimized integration of the rPath Linux operating system and the proven, enterprise strength Ingres 2006 database called Icebreaker. Icebreaker is designed to be a self-contained software stack, which reduces complexity and makes the most efficient use of system resources.

The high performance Icebreaker software platform has been combined with JasperSoft's advanced Business Intelligence Suite to create a solution that addresses the full spectrum of a company's business intelligence needs, from data integration to analysis and reporting.

A flexible, cost effective solution

As much as 80% of the cost of a BI venture is spent on developing and implementing the infrastructure. The Ingres Icebreaker BI Appliance dramatically cuts this cost by providing a comprehensive pre-built, pre-configured BI solution that encapsulates the knowledge and experience of the experts at Ingres and JasperSoft.

The low cost of deployment together with the absence of license charges greatly reduces the barriers to adoption for customers who are contemplating BI. These attributes, together with the ease of management inherent in the appliance approach, are of great benefit to any organization looking to implement a BI solution.

Companies can take an incremental approach to BI, growing into more advanced features as they progress, from basic

reporting to OLAP analysis and ad hoc queries. Alternatively, organizations more experienced in BI can utilize all the powerful features of this sophisticated BI solution from the start.

A further benefit resulting from the low price and flexibility of an appliance package is that it becomes practical to deploy BI in new areas of the business not served by traditional BI systems for reasons of high cost and complexity.

The low price does not, however, mean compromising on product specification. The Ingres Icebreaker BI Appliance is built on foundations of proven, industrial strength technology, and delivers all the functionality, robustness and scalability expected of a state-of-the-art BI solution.

Why Ingres for Business Intelligence?

Business Intelligence requires the management of data, typically stored in a relational database management system (RDBMS), and Ingres makes an ideal choice for this purpose. Ingres has been in the database business since 1980 and has successfully served thousands of customers, most of whom are running mission critical applications.

Whether Ingres technology is supporting an airline ticketing system, a 24/7 manufacturing application, or helping customers make better decisions, the importance of first class management and support of critical information systems is well understood by Ingres. This is reflected in the excellent customer support services for which Ingres is well known.

When customers consider an enterprise-capable database for their BI application they should consider features that can support their requirements for performance, availability, and supportability. As Ingres is used in mission critical applications worldwide, BI customers can rely on its predictable high performance, availability and security. These features are architected into the product - they are not plug-ins or add-ons.

Open Source Leadership

Open Source software has created a tremendous opportunity for developers and customers to utilize robust and high functionality software at reduced cost. Ingres and JasperSoft are both leaders in the open source community who understand the value of this innovative approach to software development.

Both companies are also dedicated to meeting the requirements of enterprise customers through the development and support of high performance products. They understand the mission critical needs of their installed base - 24/7 support, robust and secure product functionality and a predictable, dependable upgrade path.

Ingres and JasperSoft are committed to changing the value equation of software for customers. With an open source license model, a mature, easy to deploy and use product, advanced functionality, and a strategy of continuous improvement, customers can invest in the Ingres Icebreaker BI Appliance with confidence.

Below are some of the reasons why Ingres is the ideal choice for BI solutions:

Performance

It is common for BI customers to store and query large sets of data in data marts. Fast and efficient access to this data is a critical requirement of BI users. For this reason, database performance plays a crucial role in the availability of information. Below are several features that Ingres provides that are commonly used for BI applications.

- **Query Optimizer:** Having an intelligent cost-based query optimizer is key to a successful BI solution. Ingres uses an industry leading optimizer to accomplish this goal in even the most complex environments.
- **Partition Support:** Partition support provides faster responses to BI queries and Ingres takes advantage of a multitude of partition capabilities such as range, hash, composite and list, all of which are supported natively. Additionally, it provides support for extremely large tables and databases. This is essential in a large data mart environment.
- **Threading Support:** Ingres utilizes a multi-threaded model for processing queries. Multi-threaded processing

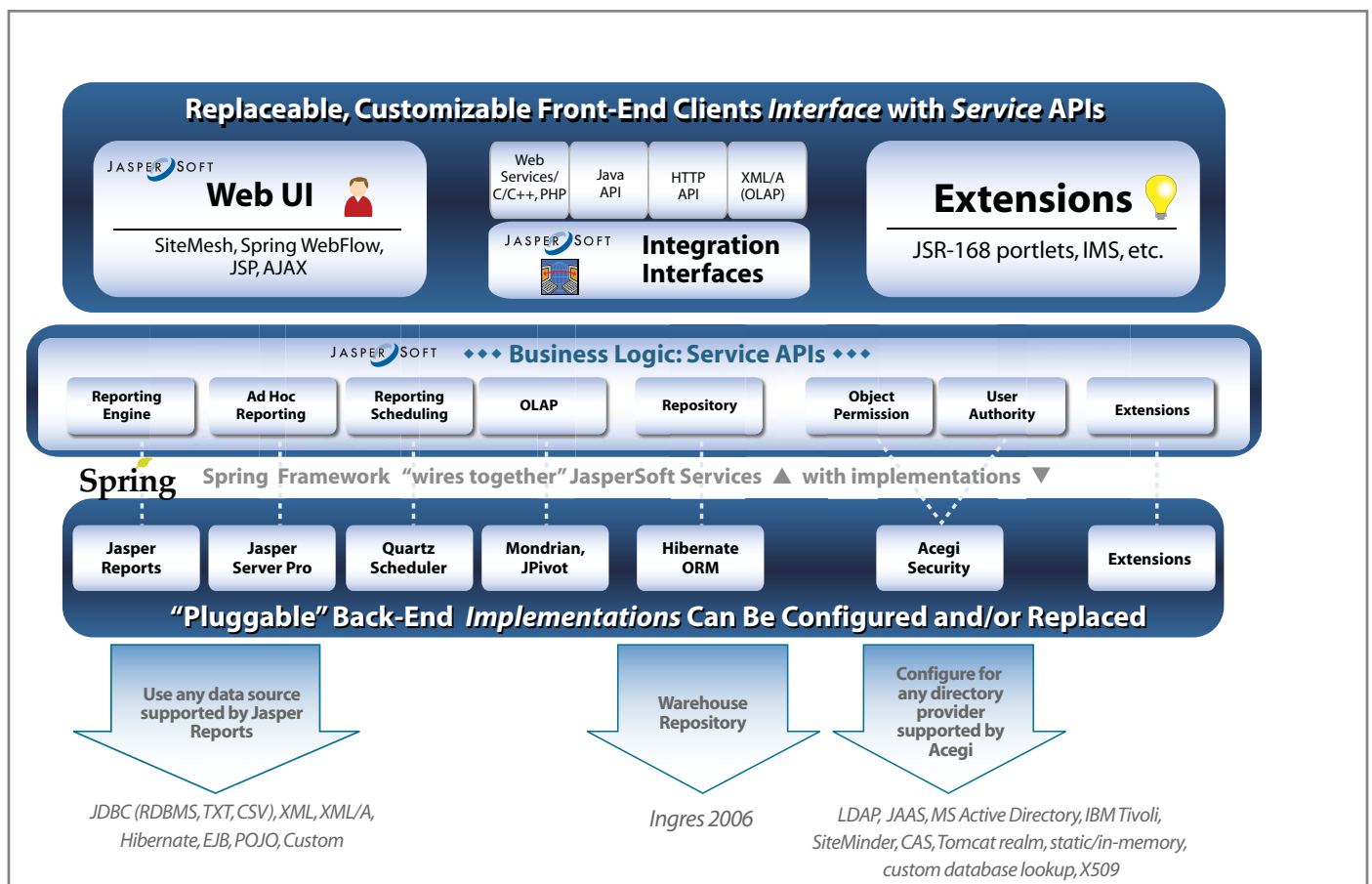
enables parallel queries to improve performance during high multi-user scenarios. This architecture can be significantly enhanced when paired with multi-core CPUs and a well designed partitioned database model.

- **Data Loading:** Ingres understands the importance of getting information in and out of the application quickly and reliably. Ingres has a very mature bulk load utility that is configurable by the end user and supports a multitude of load types.

Availability

Customers need high availability of their data and can use a variety of features within the database to support this requirement such as:

- **Resilience:** Ingres has a robust way of recovering data. Ingres supports logs and journal recovery models as well as granular recovery by table to improve performance of large table space recoveries.
- **Online Backups:** Ingres natively supports the ability to backup the database while online, without the requirement for 3rd party tools, reducing the time that the database is unavailable.



- **Dual Log Support:** In case of an outage or failure that requires a refresh of the database from a log file, Ingres has redundant log files to improve the recovery.

Security

Enterprise customers require their data to be secure. Customers want peace of mind when trusting their business data to a database platform. Some key security features include:

- **Role Based Access:** Ingres supports user, group, and role based access. This flexible model gives the end user a choice based on their requirements.
- **Authentication:** Ingres supports IP address authentication, password SSL, and Kerberos authentication.
- **Auditing:** Ingres supports table and activity based auditing natively, which means the customer does not have to purchase a 3rd party solution to fulfill this function.

Why JasperSoft for Business Intelligence?

JasperSoft is the market leader in open source business intelligence. With more than two million downloads worldwide and more than 6,000 commercial customers in 81 countries, JasperSoft provides the most widely used open source business intelligence software in the world.

The JasperSoft Business Intelligence Suite is comprised of an interactive reporting server for intuitive ad hoc reporting, an OLAP server for analysis, and a data integration tool for combining data from a variety of systems.

Reporting with JasperServer and JasperStudio

Business users simply want to access their data, and visualize it in an intuitive and easy-to-read format. Often users want those reports to be printed in production-ready layout, rather than a 'hit or miss' web printout, which may or may not fit into the paper's margins.

JasperSoft provides a complete reporting capability that does not rely on expensive third party products, making enterprise-wide access to valuable business information readily achievable.

JasperServer provides an intuitive interface and secure repository built on Ingres, easily accessible via a web browser. Business users with the right security privileges can also create ad hoc tabular and cross-tab reports for easy, on-the-fly, self-service, production quality reporting.

JasperSoft's JasperStudio, powered by iReport, is a graphical report designer geared towards the advanced BI professionals who require complex and advanced reporting. Any report designed in JasperStudio can be easily deployed to the JasperServer repository for easy access over the web.

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Analysis with JasperAnalysis

More advanced users want to analyze their data to find answers to questions such as, how were sales distributed across a certain geography over the last two years? With JasperAnalysis, users can 'slice and dice' data to easily and quickly understand facts across multiple dimensions.

This gives business users the power to quickly and easily identify business trends. Like JasperServer, JasperAnalysis is also accessible via a web browser for easy access, and runs on the same shared JasperServer platform.

Data Integration with JasperETL (Extract-Transform-Load)

With the initial BI implementation, users might simply want to query and analyze data from one particular system. But as understanding of the benefits of BI develops, user requirements quickly grow to include the need for combining data from a variety of sources.

This is where JasperETL proves valuable. It enables integration professionals to quickly and easily populate an operational data store (ODS), data mart, or data warehouse built on Ingres from production data sources.

This gives companies the ability to integrate data from CRM and financial applications into a data warehouse, for a comprehensive view of their enterprise's information. New data sources are easily accommodated, enabling companies to extend BI into new business areas.

JasperETL also allows companies to offload data processing for reporting and analysis away from production applications, minimizing the impact on key business systems.

World-Class Support Services

The reliable operation of its BI systems is crucial for all companies. Management depends on their BI tools to run essential monthly, quarterly, yearly reports for planning or reporting purposes. The need for responsive and competent product support is, therefore, vital, with 24/7 availability and global coverage a necessity for major corporations.

With the Ingres Icebreaker BI Appliance, customers can rely on the proven Ingres support organization for assistance with any aspect of the BI solution, from operating system to reporting tools. They will not have to go to multiple vendors to get support. Ingres will take complete responsibility for issue resolution and manage the end-to-end relationship with the customer. JasperSoft will work closely with Ingres in resolving BI and ETL tool issues.

Ingres' support agents have an average of 10 years experience supporting mission critical applications. Customers can also take advantage of Ingres Service Network, the platform that changes the way software service is delivered. This is a software service product designed to help customers get personalized and proactive service whenever they want, wherever they are.

The ability to provide world-class support is a key reason that Ingres and JasperSoft chose to collaborate. Ingres has the enterprise service and support organization that is required for today's BI solutions, and JasperSoft delivers the core BI expertise.

Summary

BI solutions have invariably been expensive and are technically challenging. They demand specialized skills and can be highly labor intensive. Not only have the overall costs involved been a limiting factor in the adoption of this valuable technology, but the technical complexities can result in the investment in BI failing to meet its objectives.

Ingres and its partner, JasperSoft, have combined their substantial expertise in this area to create an innovative BI solution - The Ingres Icebreaker BI Appliance - that meets the needs of organizations of all sizes for cost effective, comprehensive and high performance BI functionality.

By harnessing the power of proven, industrial strength, open source database and BI technology, the Ingres Icebreaker BI Appliance provides state-of-the-art BI capability with dramatically reduced costs. The appliance approach leverages the extensive skills and knowledge of Ingres and JasperSoft in BI to create a pre-built solution that reduces risk and implementation effort, while ensuring high performance and robustness.

About JasperSoft

JasperSoft is the market leader in open source business intelligence (BI). With more than two million downloads worldwide and more than 6,000 commercial customers in 81 countries. JasperSoft offers the most widely used open source BI software in the world. The JasperSoft Business Intelligence Suite is comprised of an interactive reporting server, graphical and ad hoc report design interfaces, an OLAP analysis server, an ETL data integration engine, and a Java reporting library for scalable small and medium size enterprises, and large enterprise department solutions, for use either stand-alone or embedded into other applications. Learn more at www.jaspersoft.com

About Ingres Corporation

Ingres Corporation is the world's leading provider of business open source services and solutions for companies of all sizes. Ingres' mission is to supply the market with the best services and solutions for information management at a price point that enables customers, both large and small, and partners to reduce their Total Cost of Ownership.

Based in Redwood City, California, Ingres is a young and dynamic company. Ingres was formed as a partnership between Computer Associates and Garnett & Helfrich Capital with a product range that has loyal customer base, many of whom have been using the technology for more than a decade. Ingres is a global company with offices in North America, Europe, and Asia to support its widespread community of users.

*The open source model you want...
the enterprise strength you need*



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