Executives, managers, and staff all demand fast and intuitive access to information through a wide variety of business intelligence (BI) applications. These applications range in style from scorecards and dashboards, to enterprise reporting, advanced analysis, data mining, and proactive delivery and alerting. Some are large-scale, enterprise-wide applications that support thousands of users, while others are smaller, departmental BI systems designed by and for specific business groups. In all cases, IT departments must ensure access to relevant, accurate, and timely information for all employees and business partners.

Unfortunately, most companies are faced with disparate islands of BI throughout their enterprise, each relying on a wide range of tools. Users are left with multiple systems and multiple versions of the truth, undermining the core value of BI.

Moreover, ensuring scalability, security, and reliability across disparate technologies becomes increasingly difficult as applications grow in number and size. The costs for training staff, and developing, maintaining, and operating BI applications using multiple tools is far higher than the cost of maintaining a single, cohesive architecture.

Architected from the ground up to solve precisely these real world problems, MicroStrategy Intelligence Server avoids the historical shortcomings of other BI technologies. MicroStrategy Intelligence Server is the core analytical processing and management tier of the MicroStrategy Business Intelligence Platform™.

MicroStrategy Intelligence Server helps companies standardize on a single open platform for all business intelligence needs, lowering the total cost of maintaining and operating their BI applications.

The industry’s most advanced, scalable, secure, and robust business intelligence server, MicroStrategy Intelligence Server is the first and only BI server to support the full range of BI applications – from workgroup and departmental, to enterprise-wide BI – through a unified metadata and a single integrated server running on Windows, UNIX, or Linux.

Deliver the Full Range of Business Intelligence Capabilities With a Single Server at the Lowest Total Cost of Ownership

MicroStrategy Intelligence Server delivers world-class monitoring, reporting, and analysis on a single integrated platform, offering next-generation BI capabilities for the full range of BI applications.

Thousands of leading organizations worldwide rely on MicroStrategy Intelligence Server to deliver the most demanding and reliable BI applications with the lowest total cost of ownership (TCO) in the BI industry.
Standardize on a Single Integrated Platform...

Integrated BI Applications Support All User Requirements

Business intelligence software has traditionally specialized in one type of application, such as ad hoc analysis, reporting, or cube analysis. Therefore, many organizations need to maintain multiple BI products to support all the styles of BI that their users require. Unfortunately, this fragmented model results in increased hardware, development, and support costs. Integration between disparate applications is equally difficult and expensive, since each application typically has its own metadata or business definitions. Consequently, users must deal with multiple interfaces that are unable to link information from one to the other.

MicroStrategy Intelligence Server is the industry’s first and only BI server that allows organizations to build, deploy, and seamlessly transition between any BI style on one integrated platform using one unified metadata. With MicroStrategy Intelligence Server, organizations can standardize on a single BI technology for all reporting and analysis needs, enabling users to access all BI applications and navigate easily between different application areas. For example, users can view a scorecard formatted for viewing and printing, drill from the scorecard to obtain more information from a detailed report, perform advanced statistical analyses, and collaborate with other users. All of these steps are achieved through a single, consistent interface, allowing users to maintain context and share data between applications.

As the foundation of the MicroStrategy platform, MicroStrategy Intelligence Server provides seamless access to every style of BI, through a unified architecture and user interface.
The Best Choice for Enterprise BI

MicroStrategy Intelligence Server incorporates many years of experience supporting the largest and most sophisticated enterprise BI applications. Thanks to its unique ROLAP (Relational Online Analytical Processing) architecture, MicroStrategy Intelligence Server provides superior levels of user interactivity, analytical depth, performance, and scalability required by enterprise-wide BI applications.

A truly enterprise BI architecture delivers:

- A single relational model of the business, comprising all corporate data
- Highest user and data scalability
- Maximum performance at scale
- Pervasive analytics
- Superior self-service
- Lowest cost to operate and maintain

Enterprise BI Technology Within Easy Reach of Individual Departments

The biggest difference between a departmental BI system and an enterprise BI system is the lack of IT resources. Departments generally do not have the IT personnel or the IT infrastructure to implement a fully architected BI system. MicroStrategy Intelligence Server brings the benefits of enterprise BI to departmental users, allowing them to access all of their data sources and start their BI system running quickly without significant technical expertise or infrastructure. As these applications grow and mature, MicroStrategy scales seamlessly to support more users, more data, more analyses, and more BI functionality.

Shared Common Services for Minimal Administrative Overhead

MicroStrategy Intelligence Server allows organizations to build and deploy any BI application using a core set of functional and backplane services. End users can immediately receive exactly the right mix of features and capabilities they need.

Backplane services provide a common metadata layer, along with administrative, data, management, and application services. Therefore, administrators can easily develop, deploy, and maintain an increasing number of BI applications in one place, with minimum IT overhead.

MicroStrategy Intelligence Server provides easy data access and high scalability across the enterprise, at the lowest cost.

MicroStrategy facilitates direct access to all data sources and provides all the necessary tools to build, deploy, and maintain departmental BI applications with minimum IT effort.

...for All Your Business Intelligence Needs
**Highest Performance at Scale**

Successful BI applications accelerate user adoption and enhance productivity. As BI applications flourish, they demand support for more users, data, and reports. Therefore, a BI platform should provide the ability to quickly adapt to constant changes and evolve along with business requirements. Unfortunately, many BI tools become exponentially more expensive as they try to scale to enterprise BI applications. The hardware resource expense and IT administrative effort grows much faster the more users the application supports. MicroStrategy Intelligence Server has been proven in real-world scenarios to deliver the highest performance at scale with the fewest servers and minimum IT overhead.

**Automatic Self-Tuning**

MicroStrategy Intelligence Server Resource Manager constantly monitors all of its internal services to understand system usage. Based on this information, database connections, engine resources, and memory allocation can be automatically adjusted and prioritized to best match user or query load.

For example, if database throughput becomes a bottleneck, Intelligence Server can automatically add database connections to handle current load conditions.

**5-Level Intelligent Caching**

MicroStrategy Intelligence Server delivers the most sophisticated shared caching capabilities in the industry. The Cache Manager in the Intelligence Server dynamically creates multiple levels of caches based on each user’s activities. Actions by one user results in cached information and components that make the next user’s performance even better. The more users on the system, the more information is cached for all users. MicroStrategy caches information at the database connection, element, object, report, and document levels for optimum scalability.

**Fully Compiled 64-Bit Architecture Delivers Maximum Scalability with the Fewest Servers**

MicroStrategy is compiled to the full breadth of modern 64-bit operating systems. While most other BI vendors can technically run on 64-bit machines, they are still constrained to the 2-4 GB memory limits of 32-bit applications. Only MicroStrategy can take advantage of the virtually unlimited addressable memory available on 64-bit servers, allowing companies to standardize on any of the major operating systems and hardware platforms.

**64-Bit BI Delivers:**

1. More Users
2. More Reports
3. More Applications
4. Faster Performance
5. More Savings

A dynamic multi-level caching architecture ensures maximum performance at scale.
Perform Transaction-Level Analysis Against Terabytes of Data

The last decade has seen an explosion in data volumes, and with it the need to perform transaction-level analysis against those large data volumes. MicroStrategy Intelligence Server’s Relational OLAP (ROLAP) architecture accesses terabytes of information by fully harnessing the processing power of the database. Combining transaction-level data access with advanced, built-in analytic services, MicroStrategy Intelligence Server delivers the richest BI applications in the industry.

Maximize Returns on RDBMS Investment

Relational Database Management Systems (RDBMS) constitute one of the largest investments for any IT department. MicroStrategy fully leverages an organization’s RDBMS investment using a unique ROLAP architecture to solve the most complex queries. Other BI technologies require intermediate data structures to resolve a query, creating unnecessary overhead and data replication. Instead, MicroStrategy Intelligence Server generates highly-optimized, database-specific SQL, pushing complex calculations and analytical functions down to the database. This distinctive approach leverages existing RDBMS infrastructure to deliver maximum efficiency and data scalability. MicroStrategy’s unique ROLAP architecture provides:

Automatic Aggregate Awareness

Using a proprietary optimization algorithm, MicroStrategy Intelligence Server automatically chooses the tables from a database that will provide the fastest query response time. All database optimizations such as aggregates, indexes, and partitions, are fully and automatically utilized by the MicroStrategy Intelligence Server SQL Engine.

Dynamic Multi-Pass SQL Engine

MicroStrategy Dynamic Multi-pass SQL Engine resolves a complex analytical question into a set of simpler components that query only the precise amount of data from the data warehouse. Then, it reassembles those pieces back together to provide the answer. With less data accessed per SQL pass, MicroStrategy can resolve the toughest business questions with unparalleled performance, against the largest databases.

Intelligent Workload Distribution

As the volume of data in an enterprise data warehouse increases, partitioning the data provides significant improvements in query performance by distributing the workload between multiple resources in parallel. In these cases, MicroStrategy Intelligence Server will intelligently obtain the data from a set of partitioned tables and combine them into a single report.

Very Large Database Drivers (VLDB) Optimized for Every Leading Database Vendor

Each specific database in the market today has its own unique way of handling large data volumes. Unlike other BI vendors, MicroStrategy Intelligence Server generates highly optimized SQL tailored to take advantage of the strengths of each database. MicroStrategy VLDB drivers are continually tested against the latest database software versions from each vendor to ensure functionality is always up to date. MicroStrategy Intelligence Server provides database-specific optimizations for all major database platforms, including:

- IBM DB2
- SQL Server
- MySQL
- Teradata
- HP Neoview
- PostgreSQL
- Oracle
- Netezza
- Sybase
MicroStrategy Intelligence Server makes it easy to standardize on a single, open platform for all business intelligence needs through a number of access channels: Web browsers, Microsoft Office, Desktop clients, mobile devices, e-mail, and even custom applications.
Achieve Extremely High System Availability Out-of-the-Box

Business intelligence applications are a vital component of the business process infrastructure. Executives, managers, and analysts rely on these applications to make the right decisions on a daily basis; any failure or lack of availability of these applications can result in millions of dollars in lost productivity. MicroStrategy Intelligence Server has been architected from the ground up to allow organizations to deliver non-stop business intelligence to their users. With built-in features such as clustering, hot failover, and automatic self tuning, MicroStrategy customers can achieve over 99.99% uptime out-of-the-box with little administrative overhead.

Resource Manager can dynamically increase and prioritize system resources with increased report requests.

Proprietary Clustering Algorithms

Using advanced, proprietary algorithms, multiple MicroStrategy Intelligence Servers can be clustered together in a network without the need for any third-party software or extra hardware. Clustered MicroStrategy Intelligence Servers share and synchronize report caches. Therefore, regardless of which server receives an incoming report request, all can respond equally. This share-all clustering architecture ensures extremely high system availability and lightning-fast performance.

Load Balancing and Hot Failover

MicroStrategy’s clustering capabilities automatically balance the load across each MicroStrategy Intelligence Server in the cluster. In addition to optimizing report performance for users, MicroStrategy’s clustering technology allows the system to recover from full server failures. If any one server in a cluster fails, queries are automatically routed to available nodes to continue processing. In this hot failover mode, no reports are lost, even the ones already submitted.

Advanced Scheduling and Archiving

End users and administrators can schedule reports to execute at off-peak hours, which ensures cached results are readily available for all users, while at the same time optimizing hardware resources. In addition, Intelligence Server’s History List allows users and administrators to store copies of reports on relational databases, enabling users to look at report results from a previous point in time.
Easy-to-Manage BI Application Data, Functionality, and Access
Corporations are increasingly leveraging business intelligence as a competitive differentiator. Therefore, information has become one of the most valuable assets of any organization. Unfortunately, many BI platforms cannot meet the security requirements necessary for enterprise deployments. With antiquated, non-integrated, or unproven BI software, the effort to secure BI applications can be so complex that applications simply cannot be deployed beyond a very narrow scope. Exceeding the strictest security requirements, MicroStrategy Intelligence Server protects data to the cell-level, controls individual user functionality, and safeguards BI application access, thereby minimizing deployment and administrative expenses.

Cell-Level Data Security
MicroStrategy Intelligence Server allows administrators to protect data, by restricting user access to a specific range of information using Security Filters. Security Filters limit data retrieval by automatically applying the desired security to each user query. Moreover, Security Filters allow users to publish new report designs to their workgroups and beyond, while automatically preserving corporate security.

Access Control Lists for All Application Objects
Administrators can also restrict access to BI application objects such as reports, key performance indicators (KPIs), and business attributes. Using Access Control Lists or ACLs, administrators can grant or deny access to these BI application objects for each user or group of users. By combining the use of Security Filters and ACLs, administrators can deploy far fewer reports that will be automatically personalized to each user’s security profile.

Safeguarded BI Application Access

Detailed Functional Control
Functional control allows an administrator to establish a customized feature set for each user. The features include all actions that a user can take within the BI application. MicroStrategy Intelligence Server provides over 100 distinct feature privileges that grant users varying degrees of functionality. Therefore, administrators can fine tune functional capabilities to each user’s skill and characteristics.

Interfaces can be personalized by user role with granular functionality control.
Facilitate Administration and IT Compliance

Flexible Administration Models Promote Distributed Administration and Task Delegation

MicroStrategy provides more granular control over administrative and management responsibilities than any other BI vendor. With MicroStrategy, organizations can choose to distribute administration and operational tasks to business users within individual departments. Distributed administration empowers individual departments and effectively frees up the organization’s limited IT resources. From centralized to distributed administration models, MicroStrategy Intelligence Server facilitates all BI application management and maintenance tasks.

Change Auditing and Monitoring Capabilities Facilitate Compliance and IT Governance

Stringent regulations require companies to carefully manage their information to maintain compliance. MicroStrategy Intelligence Server provides comprehensive tools and controls to facilitate compliance as well as monitor, store, and secure valuable information. These capabilities include:

- Comprehensive change auditing and monitoring
- Report storage through database-based history lists
- AES encryption for network traffic, cache files, and passwords
- Single sign-on and LDAP integration
Leverage All Corporate Data Assets...

Seamlessly Access and Combine All Enterprise Data
Many organizations have built an enterprise data warehouse as a centralized information hub to access and analyze all corporate information coming from various sources across the enterprise. In most organizations, however, BI applications need to access data coming from multiple sources. These include the data warehouse; data marts; operational ERP systems; multi-dimensional databases such as SAP BW, Microsoft Analysis Services, and Hyperion Essbase; and flat files. MicroStrategy Intelligence Server can seamlessly access all these systems from within a single BI application and, by joining data across these various systems, it provides the end user with a single unified view of the business.

Optimized Multi-Pass SQL Engine
This engine is ideally suited for dynamic access to structured relational data sources such as data warehouses and data marts, which store terabytes of data. The dynamic SQL engine allows seamless OLAP analysis and drilling for end users across the entire breadth and depth of data. Users interact within a familiar business model, and do not have to write code or understand the underlying data structures.

Dynamic MDX Engine
This data access engine is used to access multi-dimensional data sources. The engine automatically generates MDX (Multi-dimensional Expressions) when running reports to access data stored in cubes such as SAP BW, Microsoft Analysis Services, and Hyperion Essbase. Users can seamlessly interact with MDX reports and even drill to more details or generate and run new reports.

Freeform Operational SQL Engine
This engine facilitates access to data stored in operational systems, Excel, and flat files. This data is usually not modeled explicitly for BI and needs specific SQL. Developers can quickly create reports against these sources by creating freeform SQL statements or using a graphical query builder. Then, end users can access the reports and perform OLAP-type analysis.

Combine Data from Multiple Sources Through a Unified Metadata
MicroStrategy MultiSource Option™ allows the MicroStrategy metadata to span many databases to present a single, unified view of the business. This multi-source capability is completely transparent to both end users and report designers. In seconds, any user can create and analyze reports and dashboards that contain data from any and all sources in the enterprise. The MicroStrategy multi-source engine examines every data request and determines the optimum database from which to retrieve the data for every pass of SQL.
MicroStrategy offers a complete range of reusable building blocks (metadata objects), allowing organizations to minimize the total costs of owning and maintaining BI applications. Thanks to MicroStrategy’s unique metadata model companies can:

- Provide a single version of the truth across all BI applications
- Accelerate development of new reports by building upon previously developed objects
- Leverage reusable components for optimum design efficiency and consistency
- Minimize report maintenance overhead while maintaining only a common base model. In this model, changes to one object are automatically propagated to all reports. Therefore, the number of reports to maintain is drastically reduced.
- Embed objects within other objects to add analytical richness and create sophisticated workflows
- Deploy faster with fewer reports. Using an advanced Prompt Engine, thousands of users can specify the layout and contents of a report at runtime through a highly visual interface from a single report definition.

MicroStrategy Intelligence Server was designed using industry standards that integrate seamlessly with existing IT infrastructures.

- Support for all Major Operating Systems – MicroStrategy Intelligence Server provides support for all major operating systems, including Windows, Linux, and UNIX operating systems.
- Open API for Easier Integration – Customers can easily integrate MicroStrategy Intelligence Server with EAI tools, ETL, system management software, CRM applications, ERP, OLTP applications, and Portals.

MicroStrategy Intelligence Server allows every report and dashboard to be rendered in each user’s local language based on their preference.

Deliver BI Applications with the Lowest Total Cost of Ownership

Businesses are demanding more out of the same IT budgets. Therefore, it is critical that the BI application scales, not only technologically, but also cost-effectively, to provide business intelligence to all users in the organization, at the minimum ongoing costs.

BI APPLICATION OBJECTS

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<thead>
<tr>
<th>Report Objects</th>
<th>Scorecards</th>
<th>Cross-tabs</th>
<th>Graphs</th>
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<td>Hierarchies</td>
<td>Facts</td>
<td>Attributes</td>
<td>Transformations</td>
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MicroStrategy’s single, unified metadata enables rapid deployment of enterprise BI applications.

Open Architecture Seamlessly Integrates into Existing IT Frameworks

MicroStrategy Intelligence Server fully integrates with standards such as Web Services, .NET, and J2EE.

Develop Once, Deploy Immediately in Any Language

MicroStrategy Intelligence Server provides full support and flexibility for international BI deployments. Leveraging a centralized BI metadata, organizations can take a single application and deploy it in many languages. Employees and customers all over the world can always access essential business information in their own language. Business users can view MicroStrategy interfaces, as well as their own reports, metrics, attributes, and data in their local language, enabling more convenient and collaborative analysis across the enterprise. This seamless support for global operations also helps IT departments realize considerable savings in development and maintenance costs.
MicroStrategy 9 is breakthrough technology that supports the full range of business intelligence applications from a single, integrated platform. MicroStrategy 9 extends the performance, scalability, and efficiency of enterprise BI; enables the rapid deployment of departmental BI applications; and provides a seamless consolidation path from departmental BI to enterprise BI.

**TRY MICROSTRATEGY INTELLIGENCE SERVER**

Try the best business intelligence software for yourself. Call 1.888.537.8135 or visit us at www.microstrategy.com.

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**Customer Successes with MicroStrategy Intelligence Server**

MicroStrategy Intelligence Server is the core processing and management tier for the MicroStrategy Business Intelligence Platform. Containing a group of well-defined, modular, and reusable components coordinated by a centralized management engine, MicroStrategy Intelligence Server provides maximum scalability, performance, and analytical power.

As the foundation of the MicroStrategy platform, MicroStrategy Intelligence Server has allowed thousands of organizations across every industry to realize the full potential of their business. The following are only a few of the many success stories of MicroStrategy customers making better business decisions every day.

- **METRO AG**
  - Over 10,000 users across METRO Group perform reporting and analysis against a 160 TB data warehouse. METRO Group leverages MicroStrategy within an extranet to perform in-depth sales, product, operations, and supply chain analyses.

- **Ryder**
  - Less than 30 full-time professionals and contractors are dedicated to building and maintaining Ryder's Business Intelligence environment, which supports 10,000 users. More than 40,000 reports are run each week. Ryder employees from multiple business areas, including finance, human resources, maintenance, vendor management, and supply chain, use the data on a daily basis to monitor fleet management and transportation service information.

- **UNITED STATES POSTAL SERVICE**
  - The Postal Service has a 120 TB Teradata data warehouse, one of the largest data warehouses in the world. Over 45,000 US Postal employees access 38 MicroStrategy applications and run 40,000 reports daily to monitor and analyze financial indicators, on-time delivery performance, network efficiency, in-plant operations, and retail outlet performance.

- **The First American Corporation**
  - MicroStrategy was adopted by First American's Enterprise Technology Group for applications involving real estate and lender products and services, including an extranet for more than 30,000 escrow officers, real estate agents, mortgage brokers, and bank managers. The extranet provides reports for customers to assist them in cross-selling products, and providing marketplace analysis and customer marketing assessments.