Harnessing The Power Of Data For Competitive Advantage

MicroStrategy Enterprise Analytics
Most Solutions Aren’t Up To The Task

Glorified spreadsheets that make pretty pictures
- Can’t scale
- Lack security
- Aren’t real-time
- Can’t provide single version of truth

Costly complicated platforms
- Tied to legacy business models
- Inflexible
- Outdated

They aren’t enterprise ready…
MicroStrategy offers an analytics platform that combines a delightful, easy, empowering user experience together with enterprise-grade performance, management, and security capabilities.
MicroStrategy Analytics is Enterprise Ready

- Answers in an instant
- Secures information
- Scales and distributes to thousands
- Monitors in real-time
- Single version of the truth
- Integrates views across data sources
- Personalizes experiences
- Runs business with insight and action
Tight Integration of Self-Service Analytics and Production BI

MicroStrategy supports decentralized departmental needs by combining business agility and IT governance in one platform.

Move Seamlessly between Styles

Ease of Use
Visual Data Discovery

Enterprise Dashboards
& BI

In-Memory
High Performance

Big Data
Scalability

Administrations & Security

Only MicroStrategy Delivers to both Business and IT Users

Only MicroStrategy Supports True Bimodal BI

Caters to decentralized business teams with MicroStrategy Desktop that provides flexibility to quickly work with new data.

Caters to IT teams by offering Data Governance and administration capability with connectivity to Server.
We Protect Your Most Sensitive Information

Enterprise-grade security built in at every level.

- **Authentication**: Multi-factor authentication via Touch ID, Passcode, and Certificate
- **Device Security**: Native hardware security including passcode, auto-lock, failed attempt limits
- **Data Protection**: AES encryption for data at rest and TLS encryption for data in transit
- **Authorization**: Access managed dynamically based on profile and privileges
- **Platform Security**: Multi-tier architecture to ensure integrity of mobile computing / BI data

- **Privileges and Permission**: Object-level permissions and privileges to specify amount of control users have
- **Data View Restrictions**: Security filters to control what users see
- **Database Security**: Seamless integration with native database security features
- **Authentication**: Multi-level authentication for Web applications

MicroStrategy mobile and web server

MicroStrategy Intelligence Server

Database

Firewall
**Amazing User Experience**

Comprehensive, information-based applications with revamped user experience

- **Brand New HTML5 Interface**
- **100% Customized Look and Feel**
- **Comprehensive Data**
- **Easy to Use**
- **Consistent User Experience**
- **Online or via Email**
- **Multimedia**
- **Transaction-enabled**
Self Service Analytics

Fast, easy yet powerful data discovery for business users

- Included ODBC Drivers to connect to data
- Connects to Every Data Source
- Data Blending
- Data Preparation & Enrichment
- Governed Data Discovery
- Powerful Advanced Analytics & R
- Downloads and Installs in Minutes
Continuous Visibility

Your business at a glance…

Old Departmental Approaches
Running business in the dark

- Manual intensive; high latency
  - Dead reckoning

MicroStrategy
Instant vital stats on your business

- Automated, real-time reporting
  - Manage proactively using accurate data
Personalized for every employee

MicroStrategy keeps every employee aligned with customized, role-based reporting.

Old Departmental Approaches

Bulk of the enterprise is running in the dark with fragmented information

MicroStrategy

Everyone in the enterprise is aligned with consistent information

“By ‘democratizing’ the accounting data, the finance and insurance team now has access throughout the month to accounting adjustments that previously may have only been seen after the month closed, or by request to the accounting team.”

– Richard Hanks
Director of Business Intelligence and Analytics, Sonic Automotive
One toolset. One version of the truth

Avoid the inefficiency and inconsistency of fragmented departmental approaches.

**Departmental Approaches**

- Manual intensive
- Repeated delay
- Inconsistent data

**MicroStrategy**

- Fully automated process
- Available immediately
- Consistent / governed data
Only MicroStrategy Desktop Supports Data Discovery at Scale

Start with Departmental teams and grow exponentially to publish to 1000s of users without fear

**Proven Scalability**
- Built-in clustering, failover, and comprehensive administrative tools for performance optimization

**Content Personalization**
- Users only see relevant data, and only access functionality they are authorized to use

**In-Memory Performance**
- Tested sub-second response times on web and mobile, even at highest user volume

**Advanced Monitoring**
- Admin tools to automate, report and alert on system utilization
Data Discovery that is Easy to Use and Stunning to View

Self-service analytics for effortless visual data discovery and data exploration

- Stunning Visualizations
- Advanced Formatting & Customization
- Governed Data Discovery
- Convert to Production Dashboards
- Improved Filter Selectors
- Trend, Forecasting & Reference Lines
- Enhanced ESRI Maps & Geo-coding
- Extended D3 Visualization
- Access to Modeled Data
No Data Left Behind with More Data Sources

Easy access to your entire big data ecosystem as it were a single database

- Brand New Data Sources
- More Native Connectors
- Connect Live or In-memory
- Import Data from OLAP Sources
- Connect to Other BI Applications
- Custom Databases
- Clipboard & webpage scraping
- Inbuilt public datasets
- Incremental refresh
- No coding or scripting
Rapidly analyze big data sources up to 50x faster than via ODBC

Native HDFS queries directly against Hadoop

Other analytics solutions…

- Hive
  (Cloudera, Horton Works, MapR)

- Fast parallel data load
- Faster responses

MicroStrategy®
Powerful Data Preparation for More Accurate Analysis

Empowering data analysts to deliver deeper insights with intuitive and integrated data wrangling capabilities

- **Streamlined Workflows**
  to parse and prepare data

- **Hundreds of Inbuilt Functions**
  to profile and clean data

- **Multi-Table In-Memory Support**
  from different sources

- **Automatically parse and prepare**
  data with every refresh

- **Create Custom Groups**
  On the fly and without coding

New Integrated Data Preparation Capability

Data Preparation

- Local / URL Files
- Hadoop
- Salesforce
- Twitter/Facebook
Data Integration in the Hands of Every User

Access and combine data from multiple sources “on-the-fly” to drive more productivity.

Data Access

- Source 1: Native HDFS
- Source 2: SaaS Data
- Source 3: Other BI Tools
- Source 4: Public Data

Data Blending
Advanced Analytics that is Powerful and Easy to Use

Flexible & Agile to produce predictive analytics to outperform competitors

- Predictions: What can be forecasted?
- Optimization: What do we want to happen?
- Projections: What is likely to happen based on past history?
- Relationship Analysis: What factors influence activity or behavior?
- Benchmarking: How are we doing versus comparables?
- Trend Analysis: What direction are we headed in?
- Data Summarization: What is happening in the aggregate?

More Powerful Derived Attributes & Metrics
Business User-friendly Metric Access
One-click Trend and Reference Lines
Extended Library of Advanced Functions
Easy Shortcut Metrics
Custom Groups on the fly
Updated R Integration Pack
New Calculations & Metrics
Dynamic Dimensionality & Calculations

Analytical Maturity Model

- What is likely to happen based on past history?
- What factors influence activity or behavior?
- How are we doing versus comparables?
- What direction are we headed in?
- What is happening in the aggregate?
- What do we want to happen?
**Deliver Faster than Any Other Analytics Solution**

New and integrated scalable and high performing in-memory engines achieve sub-second response times.

Amazing performance results already seen in real world Beta testing.

<table>
<thead>
<tr>
<th></th>
<th>Cube Loading</th>
<th>Execution/Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retailer</td>
<td>500 million row cube</td>
<td>4X Faster</td>
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<tr>
<td>Grocer</td>
<td>1.5 billion row cube</td>
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<tr>
<td>Technology</td>
<td>2.1 billion row cube</td>
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</tbody>
</table>
MicroStrategy 10 Delivers New Benchmarks in Performance

New Power Ratings and additional capacity from performance improvements in In-Memory Analytics

In Memory Analytics which involves typical reports. Designed specifically to replicate the cube query characteristics typical among MicroStrategy's enterprise BI customers based on customer feedback through tech support. The Kilocycles represent the query load (1 Kilocycle = 1000 user executions per hour)
In-Memory Analytics Allows Companies Rapidly Build, Deploy & Deliver Analytics

Tightly integrated in-memory engine offers parallel processing to deliver analytics to thousands in a fraction of the time & cost

Traditional Analytical Tools

Visualization

Data

Loosely coupled architecture

Shared Memory

Bottle Necks lowers performance

Visualization

Data

Tightly integrated layers enables optimization

Parallel Execution Enables Faster Response Times

8x Scalability Improvements since 9.4.1
Our Solution Securely Extends To Any Device

Our #1 rated mobile platform puts analytics in the palm of every employee's hand

Native apps for Android & iOS

New Smart Client for Transactions

Enhanced Touch ID Integration

Improved Good Dynamic Workflows

Apps for: Sales | Field service | Operations | Management | Data collection | Logistics | Customer facing | ...and limitless other business processes.
MicroStrategy Operations Manager, new in 10, delivers Faster and Easier Administration

MicroStrategy provides administrators with powerful development tools to monitor, automate, and control your system.

**Administration**
- **Operations Manager**
  - Centralized Management from Web Browser
  - Enterprise Manager Console within Tool
  - Create Triggers and Enable 24/7 Alerting
  - Monitor System Health
  - Manage Servers
  - Administer Multiple Environments

**Migration**
- Object Manager
- Command Manager

**Scripting**
- Create Triggers and Enable 24/7 Alerting

**Testing**
- Integrity Manager

**Automation**
- System Manager

**Monitoring**
- Enterprise Manager
Competitive Differentiators
Competitive Differentiators – Security Architecture

Centralized, robust and easy to manage security infrastructure

Superior Security with:

- Centralized Security Management.
- Reusable and Granular Setting for Platform User Authorization.
- Secure User Authentication
- Object-Level Access Privileges
- Reusable Security Filters
- Integration with Usher
Competitive Differentiators – Metadata and Data Architecture

Metadata Architecture and Data Architecting

Superior Metadata Capabilities with:
- Single Unified Architecture
- Single Version of the Truth
- Highly Object-Oriented Development and Object Reusability

Superior Data Architecting with:
- Enterprise-Wide View of Information with Multi-Sourcing.
- Seamless Navigation of a Single View Spanning Multiple Data Sources
- Graphical Architecting of Complex Modeling Scenarios.
- Self-service Data Blending Capability.

Unified enterprise-wide view of all data assets

On-the-fly data blending
Competitive Differentiators – Managed Self-Service

Built-in capabilities to deploy a governed self-service project that maintains a single version of the truth

MicroStrategy provides tools and best practices for a successful managed data discovery implementation.
Competitive Differentiators – Enterprise Dashboards

Multimedia -Rich Enterprise Dashboards that are pixel perfect

Enterprise Grade Dashboards:

- Integrated Dashboards with Flexible Design
- Multimedia Content
- Guided User Experience
- Write-back Capabilities and Transactions
- Automatic Drill-Anywhere
- Custom Dashboard Output and Distribution
- Actionable Dashboards
- Pixel-Perfect Enterprise Dashboards
- Large library of Visualizations
- Interactive offline Viewing
Competitive Differentiators – Proactive Monitoring and Alerting

MicroStrategy’s proactive monitoring to improves business efficiency

**Actionable Alerts and Monitoring with:**

- Mass Distribution of Personalized Content
- Delivery of all Report Styles from a Unified Platform
- Automated Delivery on Exception Thresholds
- Event-based Content Delivery
- Scheduled Deliveries
- Scale to hundreds of thousands
Competitive Differentiators – Transactions and Write-Back

Build actionable dashboards and mobile apps

Transaction Services is fully integrated into MicroStrategy’s organically grown platform

Actionable Business Intelligence with:

- Data Written Back to the Data Source
- Multiple Formats of Data Input Supported
- Transactional Mobile Intelligence
- Send notifications instantly
Eliminate redundancies with administration and automation tools

**Competitive Differentiators – Administration**

Efficient Administration with:

- Workflow Automation
- Object Management and Migrations
- Automated Integrity Checking
- Automatic Creation of Most Useful Cubes
- Automated Command Line Scripts
- Automatic Change Journaling
- Out-of-the-box Monitoring Across the Platform.
Competitive Differentiators – Scalability

Highly scalable BI platform with superior performance

- **Push-Down Architecture:** MicroStrategy leverages the database to its fullest extent by pushing data joins and analytic calculations to the database whenever possible.

- **Multi-Pass SQL and Parallel SQL Execution:** Multiple passes of SQL can be executed in parallel to improve query performance.

- **Powerful Query Engine:** Powerful analytical objects that require use of temp tables, derived tables, and common table expressions.

- **Dynamic Multi-Level Caching:** MicroStrategy provides automatic caching at multiple levels, including element list, metadata object, report dataset, XML definition, document output, and database connection caching.