Key consideration for Business Intelligence (BI) Total Cost of Ownership (TCO)

Key capabilities that impact the Total Cost of Ownership of a Business Intelligence Platform.
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Key consideration for Business Intelligence (BI) Total Cost of Ownership (TCO)

Key capabilities that impact the Total Cost of Ownership of a Business Intelligence Platform.

**Introduction**

**Three Year Total Cost of Ownership Distribution**

![Cost Distribution Graphs](image)

MicroStrategy’s single object-oriented metadata enhances object reusability to minimize development effort. This along with MicroStrategy’s highly automated administration, self-service functionality and robust personalization engine greatly reduce IT personnel costs and deliver the industry’s lowest TCO. The following table summarizes the key cost reducing capabilities of a BI platform. See Table 1

“We evaluated several leading BI products and, using a total cost of ownership model, determined that MicroStrategy had the best combination of ease-of-use, time-to-market, successful retail implementations, and robust analytical capabilities.” – IT Senior Coordinator of Purchasing, Private Label and Reporting, Whole Foods Market

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Table 1: Key cost reducing capabilities of a BI platform

With IT budgets under increasing scrutiny and business requirements becoming more complex, organizations need to critically examine BI costs. The total cost of BI extends beyond the initial software license costs; as a result, in order to properly measure BI costs decision makers must examine BI costs by evaluating TCO. Leading industry analyst studies conclude that IT personnel cost is the single largest factor affecting BI TCO and accounts for over 75% of the total cost of ownership. As such, a BI platform that can significantly reduce IT workload can provide a greater TCO advantage in the long run.

“MicroStrategy received the highest marks in all phases of our competitive business intelligence evaluation process and had the most compelling total cost of ownership.” VP Information Technology, RE/MAX, LLC
The following sections of this whitepaper will provide more information on each one of these key cost reducing capability:

I. Superior architecture delivers greater efficiency

Unlike most other competing vendors, MicroStrategy has grown organically without any acquisitions ever. As a result, MicroStrategy BI platform offers a unified architecture with seamless integration of all BI capabilities. MicroStrategy’s unified architecture corresponds to single metadata, single code base, single server, and single point of administration resulting in lesser moving parts, tighter product integration, and a more efficient overall BI system.

The efficiency and longevity of a BI system is also dependent on robustness of the underlying metadata model. Most competing BI tools focus on developing individual reports as quickly as possible, neglecting the reusability of the report components, and sacrificing the ability to create and maintain a BI deployment efficiently. MicroStrategy, on the other hand, designed and built its unparalleled metadata architecture based upon the following goal:

- Provide a single, centralized, and shared metadata for all reporting, analysis, and monitoring needs
- Provide the highest degree of metadata object reusability and fully object-oriented development

MicroStrategy’s object-oriented metadata acts as a central repository that stores reusable object definitions including but not limited to attributes, metrics, filters, prompts, consolidations, custom groups, reports, and templates. These objects can be nested as building blocks to create more complex objects; for example, a filter can be reused within a metric to create a conditional metric, the conditional metric can be used inside a prompt, and the prompt can be used in 100s of reports. If an underlying object changes, every other object dependent on it automatically changes. This ensures consistency across business definitions and reduces manual and redundant maintenance by promoting automatic change management. Other BI technologies rely far less on reuse, and far more on each developer’s ability to create the same components over and over again for use in each individual report.

II. More answers with less reports using powerful personalization and automatic drill-anywhere

An efficient BI system should provide answers to a large number of business questions with the least number of reports or dashboards possible. Lesser number of reports significantly reduces the development time and efforts required to build and maintain a BI system. Flexible reports enable business users to get answers to a large number of business questions from a single report or dashboard.

MicroStrategy provides powerful personalization engine that can provide many different variations of a single report or dashboard based on user selections at run-time. In addition, automatic drill-anywhere allows business users to seamlessly navigate and explore many different report views without creating new reports or pre-defining drill paths. As a result, a single parameterized report can easily suffice the needs of hundreds of business users and significantly reduce the number of reports to be explicitly defined and maintained. See Figure 3 on page 6

“With the help of MicroStrategy, we were able to replace 1,200 static reports in our previous solution with 50 reporting templates that are personalized for the end user through parameterizations.” - Manager MIS, Thomas Cook AG
MicroStrategy users can drill anywhere in the entire data warehouse or across multiple data sources for boundary-free investigative analysis. Users can automatically drill within or across hierarchies without pre-defining drill paths. As a result, end users have more flexibility to explore data and create different views from a single report.

III. Advanced self-service capability to reduce IT workload

Business users often want the agility and flexibility to build their own reports and dashboards without relying on the IT department. However, using standalone data discovery solutions often results in data governance issues and multiple versions of the same information with redundant and often times unsynchronized metric definitions. MicroStrategy Visual Insight – a fully integrated component of the MicroStrategy Platform – enables business users to perform insightful data analysis in a matter of minutes without creating analytical silos and governance issues that plague standalone data discovery solutions. As a result, MicroStrategy provides a scalable self-service model that is critical for successful implementation and adoption of BI applications. See Figure 4

“We were impressed with MicroStrategy’s self-service architecture, ease-of-use, highly visual dashboards, and mobile reporting that allows us to put the analytics and reporting in the hands of the business user. MicroStrategy’s history in the business intelligence sphere also gave us confidence that we had chosen the right technology partner.” – IT Specialist at Silverstar Casinos

MicroStrategy Visual Insight provides business users the option of performing analysis by either using MicroStrategy schema layer (reports or cubes) or by directly importing their personal or corporate data from flat files (excel, csv and txt), Salesforce.com
and relational databases without the need to define a schema layer. As a result, IT has the flexibility to provide managed datasets to business users for consistency and single version of the truth and business users have full flexibility and nimbleness to quickly perform analysis on raw data. The interface for importing data is simple and provides an intuitive graphical query builder for casual business users to easily define data relationship and joins. The imported data is stored into an in-memory cube that can be reused across the entire deployment.

Interface is designed for performing data analysis in a fast and intuitive way by utilizing capabilities like drag-and-drop manipulations, drop zones (size-by and color-by) for multidimensional analysis, highly graphical displays, intuitive filtering controls, and built-in best practices for visual exploration. The built-in best practices include automatic recommendation of the best visualization type based on the data, automatic geocoding for geography attributes, auto detection and creation of time hierarchy, auto detection of metrics and attributes, and one-click derived metrics for fast, on-the-fly calculations.

MicroStrategy Visual Insight is accessed from a zero footprint Web interface. As a result, data discovery is not restricted to a few power users using a desktop thick client and IT do not have the burden of maintaining and upgrading multiple desktop client installations. Since visualizations are created and shared from the Web interface, no publishing process is necessary, and users can easily access updated dashboards whenever they need them. In addition, users can seamlessly deliver Visual Insight dashboards through email, or embed the dashboards into blogs. Visual Insight dashboards and visualizations are also automatically converted for optimized consumption through the native MicroStrategy iPad app.

IV. Unmatched efficiency using administration and automation tools

As the scope of business intelligence systems expands with more data, more users and more applications, administration becomes a key driver in efficient management of the BI system. Administration tools encourage the use of established best practices to promote clean and easy deployment management and maintenance. MicroStrategy provides a set of powerful administration efficiency tools to automate and manage time-consuming IT tasks to reduce IT workload. Competing BI technologies only provide a subset of administration efficiency tools that MicroStrategy provides, and require much more manual effort to manage the BI deployment.

“When the upgrade only took two hours, we asked ourselves: Did we do this right? This was too easy.” – Jatin Shah, AutoTrader.com

MicroStrategy Cube Advisor recommends and automatically creates an optimal set of in-memory cubes based on usage patterns for different users accessing the BI system. This process considerably reduces administration workload and provides an efficient way to quickly improves response times of the most time consuming and frequently accessed reports.

MicroStrategy System Manager merges different administrative tasks, such as creating users, and merging projects into a single automated workflow. Administrators can also combine non-MicroStrategy processes into the workflow. Increased automation reduces overall administrator cost and effort.

MicroStrategy Command Manager reduces repetitive and time consuming administrative tasks through automated command line scripts.

MicroStrategy Integrity Manager automates the report comparison process and verifies the consistency of reports by comparing both the SQL and the pixels of copies of reports and highlights any inconsistencies. This automated process eliminates the need of manual consistency checking, resulting in

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**Figure 5:** Automated centralized administration for efficiency monitoring and configuration of the business intelligence platform.
huge time savings while upgrading to a newer version or during object migrations.

MicroStrategy Enterprise Manager provides out-of-the-box platform monitoring with hundreds of KPIs and corresponding dashboards to perform impact analysis, auditing, and tuning of the BI application. Administrators can also easily monitor mobile app usage to not only learn about user behavior but also enhance the mobile applications accordingly for an optimized user experience.

MicroStrategy enables administrators to customize and save the language settings of the interface, data, and metadata at the user level. Automated tools enable easy internationalization of BI applications.

MicroStrategy Object Manager facilitates metadata life cycle management. In addition, having a highly-object oriented metadata allows greater flexibility for moving not only higher level objects like reports and dashboards but also building blocks like metrics, custom groups, prompts, and many more from development, to test to production. Metadata dependency checking ensures that when an object is moved all other dependent objects are also moved.

**Conclusion**

A technologically superior architecture will meet a broad range of end user needs while minimizing the amount of IT maintenance and administration and therefore reduce the TCO of a BI deployment. MicroStrategy provides a superior architecture and a number of capabilities that significantly reduces the IT workload and therefore provides a highly efficient platform to deliver significant long-term TCO advantage.