MicroStrategy offers a well-integrated business intelligence platform. Without having to face the demands of growth through acquisition, and with the recent launch of MicroStrategy 9, which filled many product gaps, the company has a window of opportunity to forge ahead with new innovations.

ANALYSIS
Introduction
MicroStrategy is one of the leading business intelligence (BI) platform vendors. This document offers a strength, weakness, opportunity and threat (SWOT) framework for assessing the MicroStrategy 9 BI Platform and related offerings.

Early in 2008, “megavendors” took ownership of a majority share of the BI platform market via acquisitions. MicroStrategy is one of the few remaining independent BI platform leaders. Gartner’s 2008 BI platform market numbers show that the megavendors (i.e., IBM, Microsoft, Oracle and SAP) dominate the current market and are poised to take most of the growth by cross-selling BI with their broader software stack and application offerings. While customer inquiries suggest a megavendor bias in the IT department of most large organizations, some indicators, including Gartner’s most recent BI summit user wants and needs survey, show there remains a demand for independent BI platform vendors in some organizations. MicroStrategy’s future success depends on this customer segment and its demand for best-of-breed software.

SWOT Analysis
Figures 1 and 2 outline our SWOT analysis for MicroStrategy in the BI platform space.

Strengths
Quality of Client References
MicroStrategy effectively showcases well-known customer references with big, often enterprise-wide, BI deployments. The quality of MicroStrategy references is significant as it struggles to compete with the megavendors, which are responsible for most growth in the BI platform space. MicroStrategy’s strong customer references add to the vendor’s credibility and viability. The company specializes in BI deployments running on top of large enterprise data warehouses – its customers reported the highest mean data volume of any vendor in the survey. MicroStrategy was second only to SAS in customers running the latest major version of a vendor’s software, which indicates there is not a large legacy installed base ripe for competitive take-aways. Moreover, 75% of MicroStrategy customers surveyed consider MicroStrategy to be their BI standard. The company was tied for fifth place out of 15 BI platform vendors for this question.
Launch of MicroStrategy 9

MicroStrategy offers a well-integrated BI platform with a common metadata layer and infrastructure, as well as a unified user experience. Because it does not have to face the demands of growth through acquisition, MicroStrategy is not bogged down by the same integration challenges, overhead and complex operating environments of the megavendors. Consequently, MicroStrategy has a window of opportunity to forge ahead with innovation. A major positive development has been the launch of MicroStrategy 9, which is a major release since MicroStrategy 8 in February 2005 (although there have been a number of releases during this period, including new administrative tools, a mobile offering and support for leading third-party products, such as portals). Crucial enhancements include new end-user functionality, such as report design and report interactivity features (such as “smart placement assistants” and multiselect drilling.

Figure 1. Graphical Representation of SWOT: MicroStrategy, BI Platforms, Worldwide

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tr>
<td>• Quality of client references</td>
<td>• Challenges associated with organic growth in a consolidating market</td>
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<td>• Launch of MicroStrategy 9</td>
<td>• Dependence on big deals to grow</td>
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<td>• Innovation in Mobile BI</td>
<td>• Low market share in emerging markets</td>
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<td>• Lower administration cost paradigm</td>
<td>• High learning curve for end users and developers</td>
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<tr>
<td>• Strong customer support</td>
<td>• Lack of performance management capabilities of its own</td>
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<td>• Product strengths</td>
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Opportunities

• “Outintegrate” the stack vendors
• Add functionality from ancillary markets
• Attacking the midmarket
• Improve go-to-market opportunities with more OEM deals

Threats

• History of complex and strict licensing
• Improving data performance undermines differentiation
• The rise of data discovery tools
• Reliance on professional services
• Economic downturn

Source: Gartner (August 2009)
and filtering on any report object), the multisource option in which report developers have access to multiple data sources in a project, improved visualization and in-memory analytic capabilities, support for federated querying to support operational reporting, and the availability of the full-function free reporting suite. A combination of product-level enhancements and MicroStrategy’s messaging around heterogeneity and independence should help its licensing business, which has been declining in the last two years. Initial discussions with MicroStrategy show there has been uptake on the platform in some accounts, along with some planned migrations as version 9.01 becomes generally available. As of August 2009, more than two-thirds of all MicroStrategy customers had requested and received a license key for MicroStrategy 9.0.

Innovation in Mobile BI

The next wave of platform consolidation around BI will probably be led by BI platform extensions for mobile devices. Mobile BI is just emerging as a market segment, but the ubiquity of handheld devices lays a strong foundation for disseminating information from BI systems to mobile clients. Consistent with its product strategy of doing everything organically, MicroStrategy has built its own middleware layer that allows clients to optimize low device memory resources, as well as rendering reports on BlackBerry mobile devices based on the device model, screen resolution and browser interface. The mobile product is full-function, allowing clients to do report manipulation, such as page by, sort, pivot or hide columns. Additionally it allows for remote administration and installation of the client through the BlackBerry Enterprise Server, ensuring security and control in a corporate IT environment.

Another innovation MicroStrategy recently launched was around the availability of its reports and dashboards through e-mail or Universal Serial Bus on the Amazon Kindle DX, which is an e-book reader with a larger screen helpful for viewing reports and documents, with some additional capabilities. Amazon provides a service whereby documents can be delivered wirelessly to the device via its Whispernet service. Whispernet is a data service provided by Sprint via a cellular wireless connection. Currently, this service is available only in the U.S.

Lower Administration Cost Paradigm

MicroStrategy has one of the lowest requirements for IT support staff, as evidenced by responses Gartner received as part of its BI Magic Quadrant Customer Reference Survey. There are two reasons for this.

The first is due to MicroStrategy’s typical report paradigm of delivering highly parameterized reports using report builders. In this way, IT can build one report that a report consumer can “customize” into numerous different reports, versus having to create them via a static report model.

The second reason is that MicroStrategy’s integrated code base tends to be more stable than that of its megavendor competitors. This makes migrations and upgrades more seamless. In fact, MicroStrategy customers indicated they had the best migration experience across all BI vendors in the survey, with 95% of MicroStrategy customers saying that their migration to the latest version was “straightforward and of little cost”. Moreover, MicroStrategy was designed for centralized management in which a small number of administrators can support big BI projects with many users, complex reporting and analysis requirements, and a large amount of data. Recent enhancements also improve support and administration costs. For example, Integrity Manager helps with migration and change management scenarios to ensure that objects are all functioning correctly after a major development effort in the MicroStrategy environment. This complements MicroStrategy’s already-strong reputation for delivering reliable code.

The survey results shown in Figures 3 and 4 are based on the 480 responses Gartner received as part of its BI Magic Quadrant Customer Reference Survey. Notice how, in Figure 4, MicroStrategy’s bubble is much smaller, indicating fewer required administrators, even though it is positioned far to the right on data volume and relatively high for the mean number of users.

Strong Customer Support

MicroStrategy customers rated the company’s support as one of the highest in vendor support. MicroStrategy had the second-highest rating after Spotfire out of 15 vendors surveyed.

A big reason MicroStrategy offers strong customer support is the fact that its technical support engineers need to support only a single platform with a single underlying code base regardless of BI style or interoperability requirements, such as operating system or database management system. Additionally a majority of MicroStrategy customers (86% of MicroStrategy customers surveyed) run the latest MicroStrategy software, further reducing the number of product versions that technical support engineers need to support.

The survey results indicate that smaller BI platform vendors deliver better technical support than larger ones in general and megavendors in particular.

Product Strengths

MicroStrategy offers a well-integrated BI platform with a common metadata layer and infrastructure and a unified user experience in an attempt to uniquely ensure that the full range of product functionality is available across the entire product set via a consistent look and feel. MicroStrategy 9 is a major development release since MicroStrategy 8, and it has filled product gaps. New features include the ability to query multiple data sources and to more fully leverage its 64-bit architecture by taking advantage of the larger addressable memory space to deliver a flexible in-memory cache.

From a product perspective, MicroStrategy 9 delivers “above average” functionality, across all BI platform components, in nine of 12 BI platform capabilities (all except for workflow and collaboration capability, in which it was lower, and office integration and data mining, in which it did not garner a sufficient number of customer responses from the customers initially surveyed), with strong capabilities in metadata management, dashboards, BI infrastructure, development environment, online analytical processing (OLAP), advanced visualization and scorecarding. This indicates the company’s completeness of vision and ability to meet customer requirements.
Figure 3. Migration Experience

N = 295
Notes: Chart represents survey results and not Gartner’s opinion. Includes only those vendors with 10 or more responses.
Source: Gartner (August 2009)

Figure 4. Users, Data and Administrators

Notes: Bubble size represents mean number of administrator staff, ranging from 2.6 (Tibco Spotfire) to 11.9 (Microsoft). Includes only vendors with 10 or more responses.
Source: Gartner (August 2009)
While MicroStrategy offers best-of-breed functionality and an integrated end-user experience across most BI platform functional areas, interactive reporting is the MicroStrategy “sweet spot.” MicroStrategy’s reporting capability scored at the top of all vendors included in the survey for five of the 10 critical reporting capabilities. Key strengths of its product strategy are shown in Table 1.

### Table 1. MicroStrategy’s Product Strategies

<table>
<thead>
<tr>
<th>Section</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Reporting</td>
<td>MicroStrategy offers a robust and flexible object-oriented report development environment for creating reports, with high degrees of formatting and analytic complexity. Business users from the Web can create reports via a guided workflow or by dragging and dropping business metadata (i.e., attributes and metrics) onto a formatted or free-form template for WYSIWYG layout. Users can apply further “pixel level” formatting via Office-like controls.</td>
</tr>
<tr>
<td>Ad Hoc Reporting and Analysis</td>
<td>In particular, MicroStrategy’s use of multipass SQL enables users to dynamically create complex ad hoc reports. In addition, MicroStrategy’s ROLAP architecture enables a wide array of analytical capabilities, such as cross-tabs, page by, multikey sort, drilling, ranking, and sorting across relational and OLAP data sources. MicroStrategy also delivers ad hoc interactivity to end users through one of the more extensive set prompting and filtering options of any reporting tool, save Information Builders, including Object (what metric), Attribute (what attribute), Value (“what if”), Hierarchical (filter based on hierarchies), Cascading, Column (what appears on the report) and Metric Qualification (filter based on rank), as well as dynamic dates and prompts (for example, rolling date filters). Of the vendors we looked at, only MicroStrategy and Information Builders enabled the user to switch the dimension or measure at runtime via prompts. The other vendors offered prompted reporting, but only to drill within a particular dimension. This extensive prompting or parameterization support improves report creation and modification for casual users.</td>
</tr>
<tr>
<td>Office Integration</td>
<td>MicroStrategy Office is an additional add-on product that enables Microsoft Office to become a full MicroStrategy client. Reports can be created, opened, modified and refreshed in Excel. MicroStrategy can save formatting and other aspects of the underlying report back to the MicroStrategy metadata repository and provides support for document formats, formulas, data “refresh” and pivot tables. Additionally, MicroStrategy provides interactive offline functionality, custom visualization via Flash rendering and a variety of display options – grid, graph, pivot table, pivot chart, Flash, list, images, documents, PDF, comma-separated values, etc. Write-back is possible but requires an SDK customization.</td>
</tr>
<tr>
<td>OLAP</td>
<td>MicroStrategy is well-known for its ROLAP architecture, but it does have an OLAP offering for more-predictable query performance against well-known queries. While it fixed the issue of write-back in MicroStrategy 9, it still lacks the “what if” scenario modeling capabilities of more-traditional OLAP products. MicroStrategy 9’s in-memory ROLAP is an architectural extension of version 8’s ROLAP, in which physical ROLAP cubes now reside in-memory within the global virtual cube. The ROLAP cubes contain selected components of potentially large amounts of data and fit into the global virtual cube, ensuring all 64-bit-based OLAP operations and analysis perform significantly faster than in version 8.</td>
</tr>
<tr>
<td>Dashboards</td>
<td>MicroStrategy dashboards stand out among traditional BI platform vendors since they embrace both Ajax and Flash clients to provide a choice of rich interactive visualization experiences. As of MicroStrategy 9, the Ajax dashboards are fully drillable within or across any dimension as desired. There were also compression enhancements to the Flash-based databases in MicroStrategy 9 to allow for analysis of larger datasets with good performance.</td>
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(continued on page 6)
Weaknesses

Challenges Associated With Organic Growth in a Consolidating Market

Major consolidation occurred within the BI industry in 2007. SAP acquired Business Objects, IBM acquired Cognos, and Oracle bought Hyperion. Megavendors discovered a nice revenue stream by having large BI offerings in their portfolios. These vendors expect to grow product license revenue with their marketing and sales muscle. Additionally, these vendors are looking to benefit from the maintenance fees these large acquisitions bring with their installed bases. As a result, the market is now dominated by megavendors; in 2008, they accounted for 63% of the market, with MicroStrategy’s share remaining constant at 5% (see Figure 5).

MicroStrategy’s growth will be hampered by three trends:

- Megavendors (such as SAP, Oracle and Microsoft) are embedding analytics directly into workflows and processes, from both an application and middleware perspective.

- MicroStrategy will continually struggle to show tangible differentiation of its best-of-breed products as the megavendors (and other competitors) slowly improve their product offerings.

- In some cases, MicroStrategy will be competing against a megavendor, particularly Microsoft, where the customer has already purchased an enterprise license agreement and therefore has product use rights on the BI capabilities.
MicroStrategy is trying to manage these challenges with version 9 in which migration from small departmental (new customer) deployments is made easier to capture new customers. However, it remains to be seen how efficient this will be.

Dependence on Big Deals to Grow

MicroStrategy’s sweet spot has been at the high end for complex analytical reporting and other technical requirements, as well as in clients that require large data scalability and have a higher number of business users accessing data. However, MicroStrategy has already penetrated many of these big deals. Consider the following:

- MicroStrategy has been showing license declines since 2007, which is when the consolidation of BI vendors occurred in the industry.

- As per the company’s Securities and Exchange Commission (SEC) filings in 2008, MicroStrategy had only one large deal of more than $4 million in license revenue.

- There’s a year-over-year decline in license revenue in both U.S. domestic and international markets (see Figure 6).

Software support service and update revenue is what’s driving growth (see Figure 7). However, a year-over-year decline in licensing revenue will hamper this growth at some point.

Low Market Share in Emerging Markets

Many emerging markets still do not have large amounts of digital data to justify investments in a BI platform that is optimized to work against large datasets. As a result, MicroStrategy’s ability to penetrate these markets will clearly depend on the success of its full-function free reporting suite that the company launched earlier this year. So far, interest in MicroStrategy’s free offerings has been modest. According to the company, MicroStrategy Reporting Suite has had more than 1,000 activations in the six-month period April through September 2009, with significant activity in Asia/Pacific.

While it continues to show reasonable growth in important emerging regions (see Table 2), MicroStrategy’s share of the overall BI platform market in these regions remains small. Additionally, its appeal is particularly relevant to sophisticated “power users” in industries such as retail, financial services, and telecommunications. MicroStrategy has recently had great penetration into the Internet search and commerce space, given the sector’s enterprise-class BI requirements, such as very large data volumes, high concurrent user counts, very fast performance at scale and support for extranet deployments.

Table 2. MicroStrategy BI Platform Market Share by Emerging Region, 2006-2008 (Percent)

<table>
<thead>
<tr>
<th>Region</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Europe</td>
<td>0.6</td>
<td>0.6</td>
<td>1.2</td>
<td>110.5</td>
</tr>
<tr>
<td>Latin America</td>
<td>2.0</td>
<td>2.3</td>
<td>2.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>4.0</td>
<td>4.0</td>
<td>5.2</td>
<td>36.8</td>
</tr>
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</table>

Source: Gartner (August 2009)
Figure 6. MicroStrategy Revenue Growth, 2005-2008

Source: Gartner (August 2009)

Figure 7. MicroStrategy New License and Software Support Service and Update Revenue, 2005-2008

Source: Company SEC filings and Gartner estimates (August 2009)
High Learning Curve for End Users and Developers

MicroStrategy has had a reputation for being a complex BI platform with a high learning curve for developers and power users. Part of the reason for the steep learning curve is that MicroStrategy is a sophisticated tool designed to handle the most-challenging BI reporting and analysis requirements at scale. It is a very robust, object-oriented platform with extensive SDKs that may be used by developers to support any level of BI application complexity. The developer environment offers a number of productivity-enhancing features and out-of-the-box objects, but it is indeed a developer tool beyond the capabilities of the average casual user. MicroStrategy 9 has improved usability, particularly in its Web interface. For example, end users can now create and fully format a far greater number of graph types from the Web. However, MicroStrategy 9 still follows the development paradigm of creating individual report objects, such as tables and charts on either the Web or desktop and then combines these objects into documents and dashboards using another tool, Report Services. Users often complain that this multitool development paradigm is a cumbersome workflow. MicroStrategy recommends customers deploy MicroStrategy dashboards and MicroStrategy Web with parameterized prompts for casual users.

In addition, its robust architecture requires sophisticated development, particularly in the complexity of the metadata models required for MicroStrategy projects; although the average MicroStrategy application metadata may take longer to build initially, there are significant savings over the life of the application, given the significant reuse opportunity, which makes subsequent end-user report creation far easier. MicroStrategy is making efforts to show a quicker time to value. Training sessions are focused on how quickly a project can be created. This works for simple requirements, but more-complex reporting requires a complex yet flexible (and functionally complete) metadata model that takes time to create and depends on having the underlying data warehouse modeled with the right data.

Lack of Performance Management Capabilities of Its Own

MicroStrategy competes in a market in which megavendors offer end-to-end BI, corporate performance management (CPM), packaged analytic applications, and integration middleware optimized for their specific enterprise applications and technology stacks. Discussions with Gartner clients regarding BI have revealed an increased focus on performance management. This increased focus has been driven by the need for BI initiatives that enable organizations to measure, manage and optimize performance to achieve efficiency and financial benefit, rather than simply analyzing past performance using traditional OLAP-style tools. Increasingly, CPM applications can be used to identify the drivers of profitability to help organizations pursue profitable revenue growth.

In the past, MicroStrategy has partnered with Longview’s CPM Suite with limited success and now has a technology partnership with Carpio. Carpio’s GesFin CPM Suite for MicroStrategy is a fully integrated CPM application, making it a seamless plug-in to MicroStrategy that can be added as another project available in the MicroStrategy user portal. GesFin uses single sign-on from MicroStrategy with a unified look and feel so the user never has to leave the MicroStrategy environment to perform CPM or any related reporting functions. From users’ perspective, they never leave MicroStrategy or know they are using a third-party CPM application. Gartner believes that selling the CPM applications of a third-party vendor will put additional strain on MicroStrategy’s sales force since CPM solutions are usually sold to the office of the CFO and not the CIO.

Gartner believes MicroStrategy should not try to compete in the CPM suite market, particularly after Microsoft so abruptly left the market after a two-year effort. MicroStrategy should instead focus on delivering a best-of-breed BI platform for reporting and analysis that integrates well with all CPM suites. However, the company’s lack of CPM capabilities of its own is a weakness. MicroStrategy’s focus on BI platforms may increasingly exclude it from consideration, particularly in enterprise BI standardization projects that are closely tied to CPM requirements.

Opportunities

“Outintegrate” the Stack Vendors

Too many organizations confuse single-vendor sourcing with integration. Subscribers to this “stack centric” approach believe that, if a single vendor sources the majority of their software architecture stack, then the burden of integrating that stack will be largely placed on the vendor instead of their internal IT organization. This theory suffers from two serious flaws.

First, with few exceptions, SAP, Oracle and IBM have acquired multiple third-party vendors for extraction, transformation and loading (ETL), data quality, reporting, analysis, planning, and budgeting. Integrating these disparate code bases together, along with their broader software stack (e.g., application server, portal and database), is a monumental task that will take three to five years and may never be truly accomplished. Bundling together packaged but loosely integrated solutions is a more likely outcome.

Second, as hard as it may try, it is virtually impossible for a large organization to standardize on a single vendor’s complete stack. There will always be divisions still running nonstandard components. Even if a company is mostly integrated with software from a single vendor, it may merge or acquire another company running nonstandard software. Moreover, interoperability with nonstandard software run by customers and partners will be increasingly required.

These two flaws present an opportunity for MicroStrategy to provide the best overall BI platform integration across all four megavendors’ software stacks. MicroStrategy faces the same challenge mentioned in the first flaw, but it has a significant head start. For years, the company has positioned itself as an independent that relies on, integrates with and optimizes other vendors’ enterprise portals, databases and application servers. As for the second flaw, MicroStrategy is one of the few vendors trying to make its reporting and analysis software equally support all the leading data integration and CPM suites on the market.

The major caveat to this market opportunity is that the majority of large organizations subscribe to the single-vendor-supplier strategy. So this is only an opportunity for MicroStrategy in terms of the
minority of companies that realize the flaws of the stack-centric approach.

Add Functionality From Ancillary Markets

MicroStrategy should not enter the ancillary markets of data integration and CPM suites. Entering them would eliminate the stack integration opportunity. Also, consider how Microsoft dabbled in but eventually exited the CPM suite market. Even Microsoft didn’t believe, with all its marketing muscle, that it could make enough money in the market fast enough to justify losing focus on its “cash cows,” such as SQL Server and SharePoint. MicroStrategy’s thresholds for growth may be smaller than Microsoft’s, but entering ancillary markets would have been even more problematic for MicroStrategy – a company that prides itself on providing best-of-breed, quality software.

However, adding certain capabilities from these ancillary markets would expand the applicability of the MicroStrategy BI platform. In particular, MicroStrategy should bolster its data federation capabilities from the data integration market and some lightweight planning capabilities from the CPM suite market.

The latest release does significantly improve MicroStrategy’s data federation capabilities. MicroStrategy projects can now model and access multiple data sources via a unique process MicroStrategy calls “push-down joining,” in which the bulk of the heavy data processing is done on the optimal database server via the use of highly optimized SQL, thus minimizing network traffic. In addition, the expanded in-memory capabilities of MicroStrategy 9 cache data from multiple sources. These are big functionality improvements. MicroStrategy could bolster them by offering true data federation capabilities, similar to Composite’s, so its reports could be less dependent on the data warehouse. Similarly, MicroStrategy should consider adding a data-movement-like capability, similar to QlikView’s or Cognos’ TM1 Turbo Integrator. This isn’t a full-fledged ETL load capability; it is a lightweight data movement tool that leverages a wizard to move data from various sources into a proprietary store for analysis. Adding this functionality would better enable MicroStrategy to be positioned in use cases previously reserved for data discovery tools.

Similarly, adding a scenario modeling capability, found within a CPM suite’s planning tool, would expand MicroStrategy’s opportunities. This capability would not have the business rules and logic required in a full-fledged planning and budgeting tool, but it would have the autonomous control that enables end users to make calculations across alternative hierarchies. Financial analysts will most likely use their organization’s standard planning tool to perform this type of “what if” scenario modeling, but outside of financial budgeting, this is a wide-open market opportunity. MicroStrategy would need to bolster its write-back capability to its new in-memory story. This ability to create and model different scenarios (e.g., “Let’s change average unit price 5% and see what it does to our profitability forecast”) is basic functionality in an OLAP cube, such as SQL Server Analysis Services or Essbase, but it is not common in read-only ROLAP solutions.

Attacking the Midmarket

MicroStrategy recently announced an ambitious strategy to grow the midmarket by offering the full-function MicroStrategy Reporting Suite free up to 100 users. The best part of this strategy, from MicroStrategy’s perspective, is that its direct competitors can’t afford to match it. Notwithstanding some traction from its former JD Edwards partnership and other OEM partnerships, the midmarket has never been MicroStrategy’s sweet spot, and it is not frequently deployed departmentally. This lack of awareness by midmarkets and departments has given MicroStrategy a nothing-to-lose situation. Its direct competitors, such as SAP BusinessObjects, Cognos, QlikView, Oracle and QlikView, don’t have the same luxury. They are already competing for that business against Microsoft and the open-source vendors. Giving away free software just isn’t an option because they would be giving away too much revenue opportunity. But MicroStrategy was never counting on this departmental or midmarket revenue. Any upsells of Reporting Suite to include other functionality or expansion of the number of users beyond 100 is “found money” for MicroStrategy.

Improve Go-to-Market Opportunities With More OEM Deals

While signing more OEM deals is an opportunity for all BI platform vendors, MicroStrategy is positioned particularly well in two areas: data warehouse appliances and industry analytic services.

In the last few years, the market has seen an explosion of data warehouse appliances (such as Netezza) and specialty databases for data warehousing (such as Sybase IQ). The appeal of these solutions (using hardware instead of labor to resolve problems associated with big datasets) is very compelling. Known for its scalable ROLAP architecture, MicroStrategy is well-suited, in terms of reporting and analysis, to compete against these solutions. Moreover, many of these data warehouse appliance and specialty database vendors are also competing directly against the megavendors and therefore would prefer to OEM a nonmegavendor for reporting and analysis.

The second OEM opportunity is through information aggregators, such as Nielsen, IRI and Thomson Reuters, which will increasingly deliver packaged industry analytic applications built with enterprise BI and data warehouse best practices and software (see “Industry Analytic Services”). MicroStrategy has already won a significant number of these deals. The opportunity will expand as information aggregators increasingly embrace BI and data warehouse best practices.

Threats

History of Complex and Strict Licensing

MicroStrategy recognizes that, in the past, its strict licensing, contracting and rated CPU pricing practices have caused customer dissatisfaction and earned it a reputation as being expensive and difficult to negotiate with. It is now offering unrated CPU pricing as a primary pricing option. In the past, while unrated CPU pricing was available, it was rarely offered since customers could get deep
Improving Data Performance Undermines Differentiation

MicroStrategy is often used for some of the most-sophisticated reporting requirements that require complex calculations against large data sources. Its reputation for data scalability and complex reporting comes from engineering features such as multipass SQL, comprehensive caching, aggregate awareness, and database-specific SQL. With ROLAP, MicroStrategy dynamically generates multipass SQL or highly optimized SQL for a specific relational database management system (RDBMS) version (or Multidimensional Expressions, in the case of multidimensional data sources) to ensure the RDBMS does the “heavy lifting,” minimizing network traffic and ensuring good performance.

These features have always provided MicroStrategy clear differentiation against most competitors, particularly for large datasets. However, the increasing use of data warehouse appliances (such as Netezza) and specialty database vendors (such as Sybase IQ and Vertica) will serve as a “rising tide that lifts all boats” – meaning the performance of all BI platforms will be improved significantly, which could diminish MicroStrategy’s differentiation. So, for example, a company that is mostly standardized on another BI platform might use MicroStrategy for certain reporting requirements. Moving the data to a data warehouse appliance or specialty database could improve the performance of the other less-sophisticated but more widely deployed BI platform enough to remove the need to use MicroStrategy. Note that this is a potential threat. Gartner has not seen MicroStrategy replaced in this manner, but we have seen Cognos and BusinessObjects deployments that significantly improved their performance by swapping out the data warehouse back end.

The Rise of Data Discovery Tools

Data discovery tools, such as QlikView and Spotfire, pose a threat to all traditional BI platform vendors, and not just MicroStrategy. Customer feedback on data discovery tools is that these tools are significantly easier to build and deploy than the traditional BI platform architecture, and their use of in-memory analytics provides very fast performance against large datasets. These two attributes pose a particular threat to MicroStrategy, which has a reputation of requiring significant IT resources to create BI applications and is frequently deployed specifically because it can deliver good performance against large datasets. MicroStrategy’s enterprise deployments are not in jeopardy of being replaced by QlikView, but like most traditional BI platforms, its enterprise customers are increasingly using QlikView for some requirements, taking away projects that would have been deployed in MicroStrategy.

Reliance on Professional Services

MicroStrategy relies on its own professional services more than any other BI platform vendor. Twenty percent of MicroStrategy’s revenue comes from professional services (defined as consulting and education services). This reliance is partly due to the complexity of requirements MicroStrategy is often used to meet, but it has also become a business necessity to bolster revenue hurt by weak demand and slow license growth. While MicroStrategy does have some strong partnerships, overall, most channel partners shy away from MicroStrategy to avoid competitive fights over who gets the service revenue. Figure 8 depicts the revenue growth of MicroStrategy’s professional services from 2005 through 2008.

Economic Downturn

While not a universal trend, the economic downturn is causing some organizations to question big multiyear IT projects. Clearly this is a threat to all BI platform vendors, but MicroStrategy is particularly vulnerable since it is usually selected to front end large enterprise data warehouses. Some organizations might avoid building a data warehouse – not to mention an enterprise data warehouse – to deliver on reporting requirements, or they might be inclined to deploy a packaged data warehouse solution with a predefined data model, ETL capabilities and business content, an area in which MicroStrategy is particularly weak.

Implication for MicroStrategy

MicroStrategy:

- Should take every precaution possible not to get lost in marketing itself as a technology vendor with a high-end platform. This will require a major shift in its product marketing, where the focus will have to change from technology-centric messaging to performance indicators and best practices in BI adoption. For example, in-memory ROLAP could have been called in-memory data exploration, and the company could have included the fact that it is based on ROLAP in the description.

- Should continue to focus on promoting its free Reporting Suite. We feel that the suite’s availability will enable MicroStrategy to build a loyal following of developers and increase its visibility with consulting and system integration vendors.

- Enhance its marketing efforts to sign on more OEMs and help achieve market share in emerging markets.

- Continue to make product innovations as demonstrated by enhancements in MicroStrategy 9 and its platform extensions for mobile devices, such as the RIM BlackBerry and Amazon Kindle DX.

- Should be careful not to discount the potential of Oracle, Microsoft and in-memory analytic vendors, such as QlikTech and Tibco Spotfire, to erode its installed base and limit new sales opportunities by delivering lower-cost and easy-to-use products.

discounts only by selecting rated CPU pricing. The company’s infamous 2003 initiative to increase maintenance fees in its software licenses earned it a bad reputation, and this will continue to harm MicroStrategy’s interests in acquiring new clients, even though it’s taking steps to change this image. In April 2009, the company introduced new pricing altogether, aimed at allowing organizations to start small and grow with MicroStrategy.
• Address ease of use in its client tools if it has any hope of truly competing against QlikTech in the workgroup BI market. The company has a chance against Microsoft and open-source products, but to beat QlikView, it will need to have user tools that are friendlier.

Company Overview
Founded in 1989, MicroStrategy is the third-largest independent BI platform vendor that provides reporting, analysis and monitoring software. It is headquartered in Virginia in the U.S. and has offices around the world. MicroStrategy is publicly listed on NASDAQ under the stock ticker MSTR.

Today, MicroStrategy has more than 3,000 customers and total software revenue of more than $360 million in 2008. According to “Market Share: Business Intelligence, Analytics and Performance Management Software, Worldwide 2008,” MicroStrategy’s BI software revenue (license plus maintenance) accounted for $280 million in 2008, with geographic distribution and market share as shown in Table 3. Table 4 provides an overview of the MicroStrategy 9 BI platform.

Methodology
MicroStrategy is a leading BI platform vendor with excellent BI platform capabilities and a large percentage of enterprise deployments. MicroStrategy’s prospects are enhanced by the launch of MicroStrategy 9 and the availability of its free Reporting Suite. As such, MicroStrategy warrants a thorough analysis of its capabilities. Gartner has used ongoing research from its BI platform Magic Quadrants, BI platform Market Share and Critical Capabilities documents, as well as Gartner inquiries, to conduct this SWOT analysis.

The Gartner vendor SWOT analysis is designed for the use of vendors as a supplement to their planning processes. Its primary value is as an independent analysis of the vendor’s competitive situation. The SWOT analysis provides a unique independent view of the strengths, weaknesses, opportunities and threats for a specific vendor in a specific market and geographic region. The specific geographic region (for example, globally or regionally) and market and/or submarket is based on Gartner’s market segment definitions or market focuses (for example, small and midsize business). Vendors are selected based on a variety of criteria, such as growth rate, or major changes in positioning and channel strategy – they are not necessarily the companies with the largest market share.

Definition
BI Platform
BI platforms are used to build applications that help organizations learn and understand their business. Gartner defines a BI platform as a software platform that delivers the 12 capabilities listed here. These capabilities are organized into three categories of functionality: integration, information delivery and analysis. Information delivery is the core focus of most BI projects today, but we see an increasing need to focus more on analysis to discover new insights and on integration to implement those insights.
Table 3. MicroStrategy BI Platform Revenue and Market Share, 2006-2008 (Millions of Dollars)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>153.5</td>
<td>169.4</td>
<td>163.5</td>
<td>63.7</td>
<td>63.7</td>
<td>58.4</td>
<td>-3.5</td>
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<tr>
<td>Western Europe</td>
<td>66.8</td>
<td>72.9</td>
<td>86.8</td>
<td>27.7</td>
<td>27.4</td>
<td>31.0</td>
<td>19.1</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>9.7</td>
<td>10.6</td>
<td>14.6</td>
<td>4.0</td>
<td>4.0</td>
<td>5.2</td>
<td>36.8</td>
</tr>
<tr>
<td>Japan</td>
<td>4.9</td>
<td>5.3</td>
<td>5.6</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>1.3</td>
<td>1.6</td>
<td>3.4</td>
<td>0.6</td>
<td>0.6</td>
<td>1.2</td>
<td>110.5</td>
</tr>
<tr>
<td>Latin America</td>
<td>4.8</td>
<td>6.1</td>
<td>6.2</td>
<td>2.0</td>
<td>2.3</td>
<td>2.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Total</td>
<td>241.0</td>
<td>266.0</td>
<td>280.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>5.3</td>
</tr>
</tbody>
</table>

Source: Gartner (August 2009)

Integration
Integration includes:

- BI infrastructure – All tools in the platform should use the same security, metadata, administration, portal integration, object model and query engine, and they should share the same look and feel.

- Metadata management – This is arguably the most important of the 12 capabilities. Not only should all tools leverage the same metadata, but the offering should provide a robust way to search, capture, store, reuse and publish metadata objects such as dimensions, hierarchies, measures, performance metrics and report layout objects.

- Development – The BI platform should provide a set of programmatic development tools – coupled with an SDK for creating BI applications – that can be integrated into a business process and/or embedded in another application. The BI platform should also enable developers to build BI applications without coding by using wizardlike components for a graphical assembly process. The development environment should also support Web services in performing common tasks such as scheduling, delivering, administering and managing.

Table 4. MicroStrategy 9 BI Platform Overview

<table>
<thead>
<tr>
<th>Capability</th>
<th>MicroStrategy Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration</td>
<td></td>
</tr>
<tr>
<td>BI Infrastructure</td>
<td>MicroStrategy 9 Intelligence Server</td>
</tr>
<tr>
<td>Metadata Management</td>
<td>Metadata Repository</td>
</tr>
<tr>
<td>Development Environment</td>
<td>Architect, SDK</td>
</tr>
<tr>
<td>Workflow and Collaboration</td>
<td>Reporting Services</td>
</tr>
<tr>
<td>Information Delivery</td>
<td></td>
</tr>
<tr>
<td>Reporting</td>
<td>Report Services, Distribution Services</td>
</tr>
<tr>
<td>Dashboards</td>
<td>Report Services</td>
</tr>
<tr>
<td>Ad Hoc Query</td>
<td>MicroStrategy Web, Desktop</td>
</tr>
<tr>
<td>Microsoft Office Integration</td>
<td>MicroStrategy Office</td>
</tr>
<tr>
<td>Mobile Client</td>
<td>MicroStrategy Mobile, Amazon Kindle DX</td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>OLAP</td>
<td>OLAP Services, Intelligence Server</td>
</tr>
<tr>
<td>Scorecarding</td>
<td>Report Services</td>
</tr>
<tr>
<td>Advanced Visualization</td>
<td>Report Services</td>
</tr>
<tr>
<td>Predictive Modeling and Data Mining</td>
<td>MicroStrategy Data Mining Services</td>
</tr>
</tbody>
</table>

Source: Gartner (August 2009)
• Workflow and collaboration – This capability enables BI users to share and discuss information via public folders and discussion threads. In addition, the BI application can assign and track events or tasks allotted to specific users, based on predefined business rules. Often, this capability is delivered by integrating with a separate portal or workflow tool.

Information Delivery
Information delivery includes:

• Reporting – Reporting provides the ability to create formatted and interactive reports with highly scalable distribution and scheduling capabilities. In addition, BI platform vendors should handle a wide array of reporting styles (for example, financial, operational and performance dashboards).

• Dashboards – This subset of reporting includes the ability to publish graphically intuitive displays of information, including dials, gauges and traffic lights. These displays indicate the state of the performance metric, compared with a goal or target value. Increasingly, dashboards are used to disseminate real-time data from operational applications.

• Ad hoc query – This capability, also known as self-service reporting, enables users to ask their own questions of the data, without relying on IT to create a report. In particular, the tools must have a robust semantic layer to allow users to navigate available data sources. In addition, these tools should offer query governance and auditing capabilities to ensure that queries perform well.

• Microsoft Office integration – In some cases, BI platforms are used as a middle tier to manage, secure and execute BI tasks, but Microsoft Office (particularly Excel) acts as the BI client. In these cases, it is vital that the BI vendor provides integration with Microsoft Office, including support for document formats, formulas, data "refresh" and pivot tables. Advanced integration includes cell locking and write-back.

Analysis
Analysis includes:

• OLAP This enables end users to analyze data with extremely fast query and calculation performance, enabling a style of analysis known as "slicing and dicing." This capability could span a variety of storage architectures, such as relational, multidimensional and in-memory.

• Advanced visualization – This provides the ability to display numerous aspects of the data more efficiently by using interactive pictures and charts, instead of rows and columns. Over time, advanced visualization will go beyond just slicing and dicing data to include more process-driven BI projects, allowing all stakeholders to better understand the workflow through a visual representation.

• Predictive modeling and data mining – This capability enables organizations to classify categorical variables and estimate continuous variables using advanced mathematical techniques.

• Scorecards – These take the metrics displayed in a dashboard a step further by applying them to a strategy map that aligns key performance indicators to a strategic objective. Scorecard metrics should be linked to related reports and information in order to do further analysis. A scorecard implies the use of a performance management methodology such as Six Sigma or a balanced scorecard framework.

Additional research contribution and review: Rita Sallam, Dan Sommer, James Richardson

Acronym Key and Glossary Terms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>BI</td>
<td>business intelligence</td>
</tr>
<tr>
<td>CPM</td>
<td>corporate performance management</td>
</tr>
<tr>
<td>ETL</td>
<td>extraction, transformation and loading</td>
</tr>
<tr>
<td>OLAP</td>
<td>online analytical processing</td>
</tr>
<tr>
<td>PMML</td>
<td>Predictive Model Markup Language</td>
</tr>
<tr>
<td>RDBMS</td>
<td>relational database management system</td>
</tr>
<tr>
<td>ROLAP</td>
<td>relational online analytical processing</td>
</tr>
<tr>
<td>SDK</td>
<td>software development kit</td>
</tr>
<tr>
<td>SEC</td>
<td>Securities and Exchange Commission</td>
</tr>
<tr>
<td>SWOT</td>
<td>strength, weakness, opportunity and threat</td>
</tr>
<tr>
<td>WYSIWYG</td>
<td>what you see is what you get</td>
</tr>
</tbody>
</table>