MicroStrategy
Best In Business Intelligence™

BI MARKET CONSOLIDATION: RE-IGNITING THE DEBATE OF OPEN SYSTEMS VS. CLOSED SYSTEMS

AN EPIC BATTLE IN THE MAKING

Over $15 billion in business intelligence (BI) mergers and acquisitions were announced in 2007. These acquisitions are re-igniting the debate on the most fundamental issue in enterprise software today – whether it is better for companies to have their software supplied by a few conglomerate vendors or by a range of independent vendors.

During the past 15 years, the BI platform market has been well-served by many vendors offering open systems solutions, designed to interoperate with a variety of databases, operating systems, Web servers, application servers, and portal technologies. More than 50 different BI platform vendors have been part of this market at one time or another, each delivering innovative ideas and solutions to meet the rapidly evolving business requirements for BI.

With the completion of the announced acquisitions, only seven significant BI vendors will remain: MicroStrategy, IBI, IBM, Microsoft, Oracle, SAP, and SAS. Only three of these vendors (MicroStrategy, SAS, and IBI) will continue to be independent, wholly focused on BI, and optimized for open systems solutions. The remaining BI providers, as part of conglomerate software companies, will operate in the more protected, closed environments of their parent companies.

The contrasting dynamics of open systems vs. closed systems BI solutions will create a new set of issues for customers to consider as they evaluate their BI options. Their purchasing decisions will be based on the issues of best-of-breed vs. single source, vendor leverage vs. vendor lock-in, and innovation vs. integration. There is plenty of room for both open and proprietary BI solutions to flourish in the new BI landscape. Ultimately, the business and technical requirements of individual companies will dictate whether they choose an open systems or proprietary BI approach.

CONSOLIDATION WILL CHANGE THE LANDSCAPE OF THE BI MARKET

During 2007, Hyperion was acquired by Oracle; Business Objects agreed to be acquired by SAP; and Cognos agreed to be acquired by IBM. The acquisitions of these formerly-independent BI vendors by conglomerate software companies will have the effect of creating more "closed systems" of proprietary software.

There is a Market for "Closed Systems" BI Solutions

Some companies and CIOs genuinely prefer to purchase all of their software from single source "conglomerate" vendors. There are companies who see themselves as "true blue" IBM shops, Oracle shops, Microsoft shops, or SAP shops. These companies prefer the default decision-making inherent in buying into a closed system solution. On the vendor side, Business Objects, Cognos, and Hyperion will enjoy a new and easy lock-in with these types of customers that they never enjoyed before as independent vendors.

There is Also a Vibrant Market for "Open Systems" BI Solutions

By the same token, there will continue to be a market for open system BI solutions, where companies mix and match best-of-breed technologies best suited for their organization. In fact, open system solutions dominated BI purchasing in the past. In the 1990s, many companies purchased Oracle databases because they could run on so many different computing platforms, unlike those from IBM, HP, DEC, Unisys, and Tandem. Many companies purchased ETL tools from open system vendors like Informatica and Ab Initio, despite the fact that the conglomerate vendors consolidated the ETL market when Business Objects purchased Acta, Oracle purchased Sunopsis, and IBM purchased Ascential. And, many companies are now considering database appliances from Teradata, Netezza, and HP instead of database products from Oracle and IBM.

Business Objects, Cognos, and Hyperion will Ultimately Exit the Open Systems BI Market

Over time, Business Objects, Cognos, and Hyperion will gradually exit the open systems BI market as their corporate cultures and technologies are absorbed into the proprietary orbits of their new parents. To be credible in the open systems market, a vendor must be committed to optimizing its technology to work with many other vendors' technologies, and must have ready access to technologies from other vendors to create those optimizations.

While most conglomerate vendors will likely declare that they will remain open and optimized for each others' technologies, it is unrealistic to expect continued openness and optimization between conglomerate software vendors. It is unrealistic to expect Oracle's BI tool to be optimized for the IBM DB2 database; or for Oracle's tech support personnel to have extensive training to troubleshoot intricate performance problems between Oracle OBIEE and IBM DB2. The same is true of IBM's BI tool and Microsoft SQL Server, or SAP's BI tool and Oracle's DBMS. These pairings are simply not natural. There will be hundreds of small and large impediments that prevent these conglomerate competitors from working well with each other.

The Remaining Independent BI Vendors will Enjoy a New Prominent Role in Most BI Competitions

A new BI selection process will emerge. Companies with substantial investments in IBM, Oracle, SAP, or Microsoft will do one of two things: 1) They will purchase all of their software from their preferred conglomerate without any comparative analysis, or 2) they will compare their conglomerate's BI offering with that of the leading independent vendor. This will essentially exclude the formerly-independent BI vendors from competing in accounts of the other conglomerate vendors. Thus, it is likely that:

- IBM shops will not invite Business Objects, Oracle, or Microsoft to compete.
  But they will compare Cognos with MicroStrategy or another independent vendor.
- Oracle shops will not invite Cognos, Business Objects, or Microsoft to compete.
  But they will compare OBIEE with MicroStrategy or another independent vendor.
- Microsoft SQL Server shops will not invite Cognos, Business Objects, or Oracle to compete.
  But they will compare Performance Point BI with MicroStrategy or another independent vendor.
- SAP shops will not invite Oracle, Microsoft, and IBM to compete.
  But they will compare Business Objects with MicroStrategy or another independent vendor.

The net effect of the BI consolidations will be to exclude Business Objects, Cognos, and Hyperion from many sales cycles where they were once considered.

THE BATTLE LINES ARE DRAWN:
OPEN SYSTEMS STRATEGIES VS. CLOSED SYSTEMS STRATEGIES

In the BI software market, the battle lines are now clearly drawn. The battle is not MicroStrategy vs. IBM/Cognos or MicroStrategy vs. SAP/Business Objects. The battle is between open systems innovation and choice vs. single source convenience. MicroStrategy and other independent vendors of BI technology, ETL technology, and DBMS technology believe that many CIOs will choose open systems for the same reasons that they have in the past:

Open System	vs.	**Closed System**
Best-of-breed		Single Source
Freedom of Choice		Preselected
Vendor Leverage		Vendor Lock-in
Innovation		Integration

THE BI MARKET CONTINUES TO NEED INDEPENDENT, OPEN SYSTEMS PROVIDERS

There is High Value in the Freedom of Choice Offered by Open Systems

CIOs have long enjoyed and exploited their ability to freely assemble open systems BI solutions that do not lock them into a single vendor. Freedom of choice gives CIOs indisputable benefits, such as the leverage to get the best prices from their vendors, and the flexibility to change software components as their needs change. Freedom of choice also forces vendors to be highly responsive to customer needs because any vendor can be replaced by another in the open system.

Open Systems Markets Drive Faster Sustained Innovation

BI is far from being a commodity as some industry watchers have claimed. BI still requires unfettered, rapid, and nimble innovation to achieve its potential. Independent, open systems vendors have everything to gain by driving the innovation agenda. Since open systems vendors are not part of a conglomerate safety net, they have everything to lose if they are left behind in the innovation race.

Conglomerates Have the Luxury and Necessity of Moving More Slowly and Deliberately

While conglomerates might want to move quickly, there is an inherent organizational inertia that prevents rapid movement. In large organizations, many diverse organizational parts and technology components need to move forward in a coordinated manner in areas such as technology releases, sales training, marketing programs, and partnerships. Established political power centers, entrenched technical biases, incumbent personnel, previous investments, and the installed customer base must all be considered as part of the conglomerate decision-making process. There is a long list of companies that exhibited significant innovation and market presence prior to being purchased by a conglomerate, and which are now rarely heard in the market. Examples include: Informix which was subsumed by IBM; ACTA acquired by Business Objects; Brio acquired by Hyperion; Ascential acquired by IBM; and Peoplesoft/JDE/Retek acquired by Oracle.

CONGLOMERATE VENDORS CANNOT SERVE THE MARKET FOR OPEN SYSTEMS BI

The goal of conglomerate vendors is to maintain tight control of their accounts and to sell their customers "everything on the truck." These vendors have no interest in providing an even playing field with other conglomerates and other open systems providers. While closed systems conglomerates will vigorously promote their suitability for use in open solutions, their technology components will eventually work best only when they are used with other complementary technologies from their parent companies.

Closed Systems BI Technology will be Optimized for Use with Other Technologies within the Closed System Stack

Despite marketing claims to the contrary, it is inevitable that the development priorities for closed systems components will be most heavily influenced by the interoperability requirements of the other software within the closed system. It is inevitable that:

- Business Objects' technology will work better with SAP applications than with Oracle applications
- Cognos' technology will work better with IBM DB2 than with Oracle
- Oracle BI will work better with the Oracle DBMS than with Microsoft SQL Server
- Microsoft BI will work better with SQL Server than with IBM DB2

Conglomerates need to create optimizations within their closed systems, or they will have no value proposition to offer customers for their technology other than purchase convenience. In fact, the proof that conglomerates are optimizing within their closed systems will be evident in how quickly they publish "technology roadmaps" following their acquisitions. These roadmaps are all about integration within the system, not innovation, and folding the newly acquired technologies into the pace and pattern of the conglomerate's overarching technology agenda.

Integration Between Technologies from Different Conglomerates will Become Less and Less Functional

There is a natural barrier that exists between conglomerate software companies because they compete with each other in their core market spaces: DBMSs, applications, and middleware. This barrier impedes the conglomerates' ability to integrate their technologies with each other. For example, it is unlikely that Oracle and IBM will share their DBMS development plans with each other simply to help their respective BI products integrate well. Similarly, Oracle and SAP are unlikely to share application plans, just as Microsoft and IBM are unlikely to share DBMS and portal plans with each other.

On the other hand, the independent vendors are welcomed by the conglomerates and open system vendors alike, because the more independent vendors that support the core assets of the conglomerates (DBMS, middleware, applications), the better the conglomerates can compete against each other. This formula has been in place at Microsoft, Oracle, IBM, HP, and SAP for a long time and these recent BI acquisitions are not going to change it.

MICROSTRATEGY SETS THE STANDARD IN BI FOR SUPPORTING OPEN SYSTEM SOLUTIONS

With the completion of the announced acquisitions, MicroStrategy will become the leading independent BI vendor. With this leadership position comes a responsibility to establish and maintain the highest standards for interoperation and open system flexibility. There are three levels of open system support and MicroStrategy technology exemplifies all three.

1. MicroStrategy is Certified to Work with a Wide Range of Open Systems Components

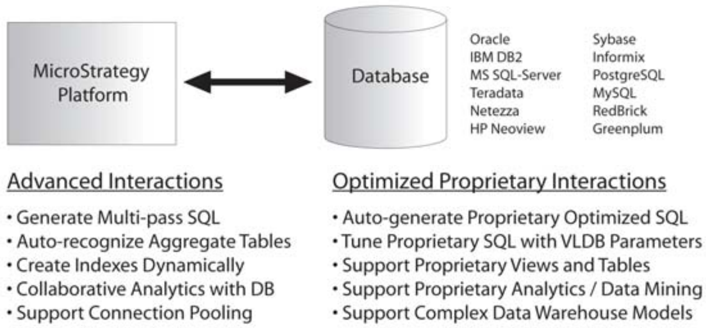
The minimum level of support expected from open system providers is technical compatibility with the widest range of complementary software partners. MicroStrategy maintains tight working relationships with a broad range of complementary software vendors. Our goal is to give our customers the maximum freedom in creating their BI system while ensuring high performance and stable operations. MicroStrategy Labs conducts a rigorous testing regimen to certify each of the following technologies with every major release of the MicroStrategy BI platform. Similarly, MicroStrategy Technical Support is fully trained to troubleshoot each one.

32-bit Operating Systems	Windows 2000, Windows 2003
64-bit Operating Systems	IBM AIX, HP HP-UX, SuSE Linux, Redhat Linux, Oracle Linux, Sun Solaris
32-bit Processors	Intel/AMD x86 compatible
64-bit Processors	IBM Power, Intel Itanium, Sun Sparc, Intel/AMD x86-64
Security	Microsoft Active Directory, Novell NDS eDirectory, Sun One Directory Server, OpenLDAP Server
Web App Servers	Microsoft IIS, IBM WebSphere, Sun Java System, Open Source Apache/Tomcat, Oracle Application Server, BEA WebLogic
Web Browsers	Microsoft IE, Open Source Firefox, Open Source Mozilla, Apple Safari, Netscape
Enterprise Portals	Microsoft SharePoint, IBM WebSphere, SAP NetWeaver, BEA WebLogic
SQL Databases	Microsoft SQL Server, IBM DB2, Oracle, Teradata, Sybase, Informix, Netezza, HP Neoview, PostgreSQL, MySQL, Red Brick, Greenplum, ANSI-92 databases
MDX Cube Databases	Microsoft Analysis Services, Oracle Hyperion Essbase, SAP NetWeaver BI
EII Technology	IBM Information Integrator, Oracle Transparent Gateway
Data Mining Exchange	SAS, SPSS, KXEN, Angoss
Microsoft Office	Excel, Word, PowerPoint, Outlook

2. MicroStrategy Includes Extensive Custom Optimizations for Open System Components

The second level of support that distinguishes the quality of an open systems provider is the degree to which its technology contains custom optimizations for the other complementary open systems products. These optimizations take advantage of the unique features of the complementary open systems components and automatically compensate for their strengths and weaknesses.

Nowhere in BI are custom optimizations more important than between the BI platform and the database system. Tightly integrated custom optimizations between the BI technology and DBMS technology can make the difference between a 20-second query time and a 0.5-second query time. MicroStrategy contains many such optimizations for the major DBMSs.



Maintaining this large number of advanced interactions and optimizations demonstrates MicroStrategy's commitment to open systems excellence. Delivering open system optimizations demands superior architecture and engineering, and requires constant focus and attention on partner developments. MicroStrategy participates in the beta programs of its many partners to ensure that MicroStrategy technology takes advantage of the latest developments. MicroStrategy's CTO participates in joint technology planning sessions with our partner CTOs to ensure that long range capabilities are synchronized with other vendors in the BI ecosystem.

3. MicroStrategy is Designed Specifically to Allow Easy Exchange of Open System Components

The final level of open systems excellence involves allowing customers to seamlessly exchange one component of the technology stack with another. Without explicit attention to this capability, companies can become just as "locked-in" to their open system selections as they would with a proprietary closed system conglomerate. MicroStrategy has addressed this problem by adding layers of abstraction in its architecture that allow easy exchange of components.

Changing the Database Technology: Companies periodically examine alternative DBMS technologies for their data warehouses. In particular, the recent advances in database appliances from Teradata, Netezza, HP, and Sybase offer interesting new performance envelopes compared to the more traditional RDBMSs from Oracle, IBM, and Microsoft. When the database is changed in a MicroStrategy system, MicroStrategy automatically adapts to the new DBMS so that there are:

- No changes to reports – users see and run all the reports they previously did
- No changes to metadata – developers do not need to change any metadata
- No changes to the user interface – users and developers do not perceive any difference
- No changes to system administration – administrators do not perceive any difference
- No changes to command scripts – all automated command scripts work the same way
- No changes to performance logging and analysis
- No changes to governing settings
- Analytics automatically begin using the native features of the new DBMS
- SQL generation automatically changes to become optimized for the new DBMS
- DB security is automatically adopted for the new DBMS

Changing to 64-bit BI: One of the new frontiers of business intelligence is the 64-bit frontier offered by 64-bit operating systems (UNIX, Linux, and even Windows64). Because MicroStrategy is written as a single code base and conditionally compiled to its various target operating systems, changing from 32-bit Windows to any of the MicroStrategy certified 64-bit operating systems is a seamless exercise. There are no changes to reports, metadata, analytics, user interface, administration, command scripts, operation, SQL generation, or security. With MicroStrategy, the change can be done overnight, and in the morning the only thing that users will notice is faster response.

Changing Web Technology: Web Servers, Application Servers, JDKs, and Web Browsers are undergoing constant change from each of the major vendors. Because MicroStrategy's Web interface is written in both J2EE and .NET, it is entirely portable across Web server technologies. And, because MicroStrategy's Web User Interface uses Web 2.0 AJAX, it works the same across the various popular Web Browsers.

Adding Enterprise Portals: Enterprise portals from IBM, Microsoft, SAP, and BEA are becoming ever more prominent. Companies want to express all of their Web-based applications through their enterprise portals, including their Web-based BI applications. MicroStrategy provides native integration with the major Web portal products so all of the same reports and dashboards can be expressed through enterprise portals without change, and all of the report interactivity available in the native MicroStrategy interface can be immediately expressed through native portlets.

Adding MDX Cube Databases: Many companies want to use standard MDX cube databases available in Microsoft Analysis Services, Hyperion Essbase, and SAP NetWeaver BI. The MicroStrategy platform abstracts MDX cube databases in the form of metadata exactly as it does traditional relational databases. Reports are designed the same way, users run reports the same way, and users interact with them the same way.

Changing Output Rendering: MicroStrategy has abstracted its rendering engine to provide virtually unlimited rendering flexibility to users and developers. Natively, MicroStrategy can allow users to select any rendering output they want, including HTML, Flash, PDF, Excel, PowerPoint, Word, and Outlook, each time they run any of their reports.

MicroStrategy is Ideally Positioned to Provide Open BI Solutions to the Largest Global Enterprises

MicroStrategy is well positioned to fulfill its role as the largest supplier serving the open system BI market. MicroStrategy can support the BI needs of both the smallest and largest enterprises through its:

Financial Strength: MicroStrategy has a strong financial foundation. With thousands of the largest companies in the world as customers, a greater than $1B market capitalization, revenues of over $300 million, and perhaps the highest profit margin in the industry, MicroStrategy has the financial stability to remain independent.

Resources and Reach: MicroStrategy has the scale and scope of resources needed to support the largest enterprise BI deployments. MicroStrategy has direct presence in over 40 cities in 23 countries across North and South America, Europe, Africa, Asia, and Australia.

Singular BI Focus: MicroStrategy's only business is business intelligence. All the way from the CEO to the junior product managers, we work on business intelligence every day. Our CEO, COO, CTO, and VP of Sales started their careers as BI practitioners. They know and understand the value of every feature in our software. They understand our customers and the challenges they face in their BI initiatives. You will not see that kind of executive ownership and knowledge in a conglomerate software company.

Organic / Scalable Architecture: Our uniquely organic and scalable technology architecture makes MicroStrategy suitable for the smallest and largest BI deployments. The organic nature of our architecture has allowed us to keep the software streamlined and thus able to deliver the highest levels of scalable performance, with the least amount of IT resources (hardware and humans).

Technical Support Excellence: MicroStrategy consistently receives the highest marks in the BI industry for its technical support. We deliver technical support on a 24 x 7 basis in nine different languages from eight technical support centers located in seven different time zones around the world.

Focus on R&D: Over 20% of our headcount is dedicated to R&D. The vast majority of our R&D is conducted from a single, highly integrated team located at our headquarters in McLean, Virginia. Our lead engineers and architects are some of the most respected in their field and have an average tenure at MicroStrategy of 12 years. We are committed to innovation and meeting the requirements of our customers' sophisticated BI applications.

COMMITMENT TO OUR CUSTOMERS

MicroStrategy is committed to delivering the world's best BI architecture, products, and customer service. MicroStrategy's inspired architecture provides our customers the benefit of delivering BI applications with the least effort, and our full-featured products ensure end users and IT administrators have great data exploration experiences every day. We have specialized in "industrial-strength" BI, uniquely well-suited for organizations with vast amounts of data, large user populations, and sophisticated analytic requirements. MicroStrategy has maintained a consistent focus on this market, garnering thousands of leading companies as customers. We continue to relentlessly enhance our technology to provide a premium customer experience, and we complement this technology with a full range of education and consulting services to ensure our customers get the greatest value from their business intelligence investments.