

# USING BI TO LEVERAGE ERP DATA

A COGNOS WHITE PAPER



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THE NEXT LEVEL OF PERFORMANCE™

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## ABSTRACT

According to Mark Smith, CEO and SVP Research of Ventana Research, today's organizations are a patchwork quilt of various relational, operational systems and legacy information systems. Organizations should look to leverage existing investments to their full potential, not replace them.<sup>1</sup> Cognos provides a solution that helps global organizations leverage ERP system investments through a robust business intelligence (BI) and Performance Management solution offering.

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<sup>1</sup> Mark Smith, Ventana Research, July 2003.



## INTRODUCTION

The widespread use of enterprise resource planning (ERP) solutions opened up new worlds of promise and possibility for organizations. With the rise of ERPs, organizations moved beyond the disconnected departmental systems that housed silos of data. By adopting ERP systems, organizations eliminated the inconsistencies and inefficiencies that stemmed from working with standalone departmental systems. By centralizing data, ERPs also eliminated inaccuracies and duplication of information, and time lost due to manual data entry.

Organizations now must deal with what is effectively a tidal wave of data collected from every transaction and business process. They are amassing clickstream data, legacy data, ERP data, data housed in relational databases from call centers, manufacturing sites, financial departments, and many other sources and devices in a non-stop fashion. This data often sits idle, with business users unable to access it.

New demands on the business — increased competition, shrinking profit margins — and new reporting requirements such as Sarbanes-Oxley are placing new demands on a company's data. They need to increase access to it, analyze and combine it in new ways, even combine it with external data sources or legacy data that is still important but is outside the scope of the ERP system. In addition, data is always in flux: companies are always losing or gaining customers, modifying their internal employee data, or moving data from one location to another. Companies need to ensure that all of these events are managed in a way that preserves data accuracy and integrity.

For example: to find new sources of revenue, marketing departments often need to blend existing sales and customer data with external market data to match their sales model with new opportunities. Manufacturers looking to improve quality may want to measure their output against industry benchmarks. To identify their most valuable customers, sales may need to combine its data with that of purchasing, marketing, service, and finance. To increase its agility, a company needs to identify trends and opportunities more quickly (and in more detail) than the rate at which its ERP system provides its reports.

In light of these demands, organizations around the world and in every industry have been looking for a means to unlock ERP data and put information in the hands of users to better manage and improve business performance.

Many organizations are looking to business intelligence (BI) software as the solution. In their 2003 study, "Operational Performance Management," Ventana Research found that deploying BI over ERP and Application Servers for measuring and monitoring business activities and processes was rated at 93 per cent importance. The research found significant commonalities across organizations of all sizes and vertical industries that are looking to better leverage their transactional ERP system investments.<sup>2</sup>

<sup>2</sup> Mark Smith, *Operational Performance Management*, Ventana Research, July 2003.

A broad cross-section of large global enterprises is using business intelligence (BI) software from Cognos to break down silos of information within their diverse information infrastructure. This allows them to:

- Integrate data from multiple sources, including operational systems, legacy systems, ERP, e-business applications, and third-party sources.
- Structure the data so that it makes business sense, using dimensions that have a common meaning throughout the organization.
- Perform ad hoc queries against the data without impacting the performance of the core application.
- Scale the solution from a single department to the entire enterprise quickly and easily, without compromising data integrity and consistency.
- Deploy the solution to thousands of users, in the way that best suits each user's needs (client/server, Web-based, remote dial-up, etc.).

An effective BI infrastructure is becoming an imperative for organizations that have invested in ERP solutions. BI software provides the responsiveness, flexibility, interactivity, and range of capabilities that companies now need. BI allows organizations to take a holistic view of the data. BI software supports graphics; shows trends over time, and provides the ability to perform online analytical processing (OLAP) and business activity monitoring (BAM). Further, solutions like those from Cognos do not “play favorites” with data and are not limited to a specific department or function in terms of data access.

BI frees up IT staff by ensuring they not be responsible for extracting the data from their ERP system. BI ensures that an end-user need not be a highly skilled power user with specialized knowledge of an ERP vendor's proprietary code to build reports.

Because of the richness of data housed with an ERP solution, many companies rely on ERP data as the backbone for performance management initiatives — whether within a department, business unit, or across the wider organization. The push for greater accountability and visibility into performance is spreading to departments that previously had little use for ERP data or that relied on their own systems of measurement. The most common examples are marketing and HR. More and more, these departments are being called to create business cases to justify and defend their budgets and to demonstrate their impact on overall performance.

Without a BI layer, IT departments have found these demands can be a dramatically increased workload. ERP data is not formatted to support ad hoc or multi-dimensional analysis. Modifying pre-packaged reports or creating new ones is typically a time-consuming process because many data tables may need to be joined. This creates a reporting backlog that saps IT resources and hurts business performance because decision-makers must wait in line for their reports before being able to make decisions or taking action.

Those IT departments that try to meet the increased demand using pre-built ERP reports will find themselves drowning in a backlog of reporting requests; managers and other business users will wait for what will eventually be outdated, and therefore, irrelevant information.

For CIOs, the addition of a business intelligence layer atop their ERP infrastructure can mean a huge win. A strategically important investment — ERPs are simply part of the patchwork of other data stores. Therefore, CIOs are turning to BI as a means to merge this system with other critical data. With today's budget pressure, CIOs are now able to better leverage their existing investments and data more quickly.

CIOs are now able to deliver “more”: more reports, to more people, more quickly, creating more value.

## BUILDING A DATA FOUNDATION

### *Data warehousing*

Many forward-thinking companies are recognizing the value of their data inventories and establishing data warehouses to store corporate data from numerous data sources across the enterprise. Many ERP systems include a data warehousing component (for example, SAP® BW).

Successful data warehouse implementations use a dimensional model to deliver both ease-of-use and query performance. When summarized and transformed into strategic information, this data can yield tremendous insight into the factors that ultimately drive a company's income statement and balance sheet. That insight, in turn, can greatly improve decision making and business performance.

### *Data marts/ETL*

Many organizations turn to the data mart approach because it delivers better performance and reduces the impact on live systems. A data mart is a subset of data that contains complete information about a particular subject (customer, business area, line of business, product, etc.) drawn from a data warehouse but that is optimized to enable faster reporting and more detailed analysis. To create a BI platform, companies can create a series of linked, or coordinated data marts. This creates an enterprise-wide view of performance, eliminates information stovepipes, and reduces the impact on the overall network.

Data marts of conformed and consolidated data help organizations extend the value of their ERP investments by providing ready information sources for reporting and analysis. Coordinated data marts also offer the ability to expand the solution over time until BI capabilities become available to the entire organization. The coordinated data mart solution has been endorsed by such industry experts as Ralph Kimball, principal of Ralph Kimball Associates, North America's leading provider of dimensional data warehouse design consulting. Most coordinated data marts are built using a dimensional framework.<sup>3</sup>

ETL software also creates the metadata necessary to ensure a "single version of the truth." With a proper metadata system in place, companies know that their definitions of key terms such as "customer" are consistent across divisions and departments.

### *Pulling data directly from the source*

Organizations can use Cognos BI to gain direct access to their ERP data. This is sometimes necessary to reproduce customer receipts and invoices, or to check stock and inventory levels in ERP systems that do not feature basic reporting capabilities. When transaction-level detail is required, Cognos BI can perform tightly focused queries on live systems.

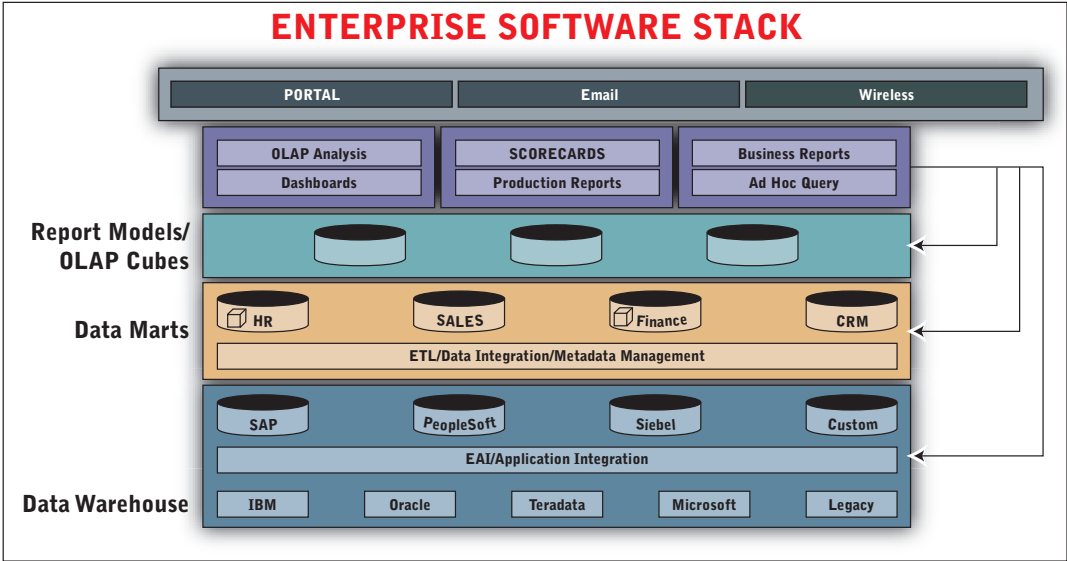
BI is the most common solution for companies looking to leverage their ERP/DW data. It is a low-risk investment that has delivered proven, significant return to companies across all industries, in public sector organizations, and educational institutions.

<sup>3</sup> Ralph Kimball, *The Data Warehouse Toolkit: The Complete Guide to Dimensional Modeling*, John Wiley & Sons, 2002.

BI is a term commonly used to describe software capabilities that include:

- **Reporting:** examples include sales reports, financial statements, ad hoc queries, and high-volume production reports.
- **Analysis:** OLAP software can be used to identify trends and patterns over time, compare performance across different factors such as city or product, or display data from different perspectives.
- **Scorecarding:** symbols and trend arrows that let people monitor their performance against measurable objectives.

- **Data visualization:** interactive dashboards or multi-metric displays that present performance of several key measures simultaneously.
- **Event detection/Business activity monitoring:** automatic notification of key business events or opportunities.
- **Analytic applications:** pre-built reports and metrics that provide results quickly.



## USING BUSINESS INTELLIGENCE TO LEVERAGE ERP/DW DATA

According to Forrester Research, pent-up demand for data warehousing functionality and features is reaching a boiling point and driving double-digit spending. In a separate survey, Forrester found that 40 percent of data warehousing respondents who report a spending increase cite increased end user requirements as the catalyst.<sup>4</sup> Clearly, pent-up end-user demand is pushing its way to the surface. For example, enterprises that are using data warehouses to reduce costs through inventory reduction are building customer data warehouses to promote customer cross-selling and upselling, and vice versa.

It is important to look for a fully integrated solution. Effective solutions should be able to address the broad range of user requirements including flexible scorecards, reporting, dashboards, OLAP analysis, event detection and alerting, and data integration. As well, solutions should be able to offer scalability to 10s of 1000s of users.

Cognos helps global organizations leverage the full value of their investments in ERP. The Cognos® Enterprise Business Intelligence (EBI) Series delivers the industry's broadest and deepest suite that serves the needs of everyone in a typical organization — from knowledge workers and casual business users to sophisticated report authors, business analysts, and executives. All Cognos BI is delivered through a zero-footprint, browser-based interface.

Companies use BI to gain several business benefits:

- **Greater profitability** – using reports and analysis to identify where actual and potential money “leaks” from the organization, in the form of rising DSOs, missed supplier discounts, under-producing product lines, or untapped markets.
- **Increased efficiency** – making data consistent enterprise-wide to ensure everyone can make better decisions from a single version of the truth.
- **Better leverage of existing resources** – companies can unlock the potential of their ERP and corporate data sources with timely, easy-to-use reports and analysis.
- **Greater effectiveness** – people can focus on priorities by aligning day-to-day operations with the overall corporate strategy.
- **Competitive advantage** – companies can identify and understand the factors that drive results. They can identify and leverage competitive differentiators and focus on key business drivers.

<sup>4</sup> *Data Warehousing Spending Expectations Strong*, Forrester Research, L. Agosta, July 12, 2004.

## COGNOS AND THE LEADING DATA WAREHOUSES

Industry experts recognize Cognos leadership business intelligence and corporate performance management software. This recognition includes:

- Cognos being ranked the most influential company for 2004 in *Intelligent Enterprise* magazine.
- Cognos being named among the leaders in business performance management by META Group (Business Performance Management METAspectrum)
- Cognos being named among the leaders in business intelligence by META Group (BI Tools and Platforms METAspectrum)
- Cognos being ranked to “Outperform” in corporate performance management by the Butler Group.
- Cognos leading its competitors in the number of million dollar deals, the leading indicator for performance management standardization.
- Cognos in leader quadrant position in business intelligence in the Gartner Magic Quadrants for Business Intelligence, 2004.
- Cognos being the only vendor in its industry included in the Dow Jones Sustainability World Indexes. The indexes recognize companies for their strategy, financial results, customer relationships, product innovation, and governance.

With this market reputation and well over 30 years in business, Cognos leads other vendors in forming long-standing, close relationships with industry leaders in data warehousing. Cognos spends considerable time and money ensuring that customers of Oracle, PeopleSoft, IBM, SAP, Teradata, Microsoft, Sybase, and others find new ways to leverage their data.

This commitment is evidence in our position in the market. In the recently released OLAP 3 survey by analyst Nigel Pendse (<http://www.survey.com/olap>), Cognos was cited as the only OLAP vendor to be in the top two in all of Oracle, IBM, Microsoft, and Teradata database environments. The survey also indicated that Cognos PowerPlay® users had some of the highest future buying intentions, and that Cognos PowerPlay ranked substantially higher than its competitors in overall user loyalty.

Cognos BI lets companies put an end to incremental fixes and specialized coding of their ERP system and delivers a range of business benefits:

**Increased use of ERP data to solve immediate pains:** Users receive mission-critical information at precisely the right time, in a format that suits their needs and working styles. For example: sales reps can receive email alerts of customer purchases on their PDAs; marketing managers can receive campaign reports in PDF; and executives can monitor key metrics through live interactive dashboards.

**Increased collaboration and efficiency:** Cognos BI creates a “single version of the truth” from ERP data, so decision-makers from different departments spend less time debating the accuracy of each other’s numbers and more time solving performance issues. A BI portal makes it easy for people to share reports and information.

**Self-service reporting:** Cognos BI software presents the user with an intuitive browser-based interface that lets them create ad hoc reports on their own using familiar actions and commands such as drag-and-drop and cut and paste. Users can access valuable ERP data directly without needing to know proprietary code.

**Powerful report authoring:** Cognos BI software also meets the needs of the advanced, or “power” user. With Cognos power users can create complex, multi-page, multi-lingual reports that draw on a variety of data sources, live applications, unstructured data, and images. Power users can add, remove, or rearrange report objects on the screen as often as required in a dynamic environment that automatically adjusts the report layout with each modification. Power users have complete control over report properties such as language, fonts, colors, pages, dates, and more.

**Data agnostic:** Cognos is unique among BI vendors in that it allows companies to access any kind of data, regardless of location or format. This includes ERP data as well as relational data, legacy data, spreadsheets, and other operational systems. Combined with the full suite of BI capabilities, this enables companies to standardize their BI platform on Cognos for lower ownership costs, simplified training and maintenance, and economies of scale.

In the following section we provide details on our relationship with major vendors such as these, the technical integration between their databases and our BI software, and some insight from customers and vendors on the value of these joint solutions.

## COGNOS AND IBM

*“Our joint solutions offer global organizations the kind of performance, scalability and business user-oriented enterprise reporting required in today’s global marketplace,” The power of the IBM middleware and server platforms in conjunction with the mission-critical, user-friendly performance of Cognos ReportNet, delivers key competitive advantage and time to value to our customers.”*

Janet Perna, General Manager,  
DB2 Information Management Solutions, IBM

### **The Relationship:**

Cognos is an advanced member of IBM’s PartnerWorld for Developers. The depth of the Cognos-IBM relationship means that Cognos products — along with their IBM technologies — are validated to run smoothly, quickly, and reliably.

As part of our newly signed, multi-year, global agreement, IBM and Cognos will jointly market and sell the integrated solution to numerous verticals and lines of business such as sales, marketing, and HR. The IBM and Cognos offering makes use of IBM DB2 Universal Database, DB2 Warehouse Manager, DB2 OLAP Server, IBM WebSphere Internet infrastructure software and IBM WebSphere Portal software, and is available on IBM eServer pSeries and xSeries systems.

### **Data Warehousing Integration Points:**

Cognos ReportNet™ can use DB2 as both a data source (for query purposes) as well as for content storage (storing Cognos ReportNet metadata) on any IBM hardware (xSeries, pSeries, iSeries and zSeries). This allows existing and new DB2 customers to use their investment in DB2 to provide both the query and operational support of their reporting environment. Existing backup/recovery processes will ensure that their reporting solution is always available. No new skill is required.

DB2 Cube Views adds dimensional awareness to DB2. Cube Views offers a new metadata capability and a “bridge” that lets Cognos ReportNet use and share the metadata to create Materialized Query tables (MQTs). IBM DB2 Information Integrator gives companies integrated, real time access to business information that is not housed in DB2 and where they do not wish to extract, transform, load the data into DB2. Such information may reside in disparate source systems such as Oracle databases, Microsoft spreadsheets, and XML files and be distributed across a variety of operating systems.

To Cognos ReportNet, accessing this data requires only an SQL statement and II handles the access and data delivery. In addition, through the combined use of DB2 cube Views DB2 Information Integrator, Cognos ReportNet users have the fastest access to information throughout the whole organization.

*“Cognos is allowing us to better drive our corporate performance because we now have a single version of the truth on our sales and manufacturing operations. With Cognos ReportNet and PowerPlay, we have a true self-service reporting and analysis environment that will allow us to leverage the rich information housed in IBM and PeopleSoft solutions.”*

Robert Rosati, CIO, Werner

Data mining technologies have advanced to the point where the layperson can use the algorithms and create meaningful, very sophisticated output. Intelligent Miner can, for example, produce a complex analysis and store the output in DB2 tables. Cognos ReportNet treats this instance as just another DB2 source. Additional analysis and meaningful output can be created and delivered from the mining runs and add significant value by the delivery of the results.

The extent of the IBM-Cognos relationship doesn't end there. In conjunction with IBM's Linux on POWER initiative, Cognos offers Cognos ReportNet™ on the Linux platform. Cognos is equally committed to IBM employed grid technology to boost the processing power of Cognos ReportNet. Through initiatives such as these Cognos is ensuring that our software delivers unprecedented performance in an IBM environment.



## COGNOS AND PEOPLESOFT

### *The Relationship:*

Cognos, the world's BI and CPM leader, and ERP leader PeopleSoft, have combined forces to create an end-to-end data warehouse solution. Cognos has been a PeopleSoft partner since 1996 and is also a PeopleSoft Certified Software Partner. Cognos embraces PeopleSoft Enterprise, EnterpriseOne, PeopleSoft World and Enterprise Performance Management (EPM) applications and extends them with the industry leading business intelligence solution.

### *Data Warehousing Integration Points:*

As a PeopleSoft EPM customer Cognos enables you to deploy an end-to-end BI solution that extends the value of your EPM investment. Cognos BI enables the timely reporting, analysis, scorecarding, and delivery of information through a centralized metadata model. Combined Cognos and PeopleSoft EPM 8.8 unite data from multiple sources and provide enhanced reporting, analysis and scorecarding capabilities to all users.

The Cognos solution integrates at two critical areas the JumpStart service offering for operational reporting and the Data Marts for Enterprise Analytics. JumpStart is a new rapid incremental approach to implementing EPM with a unique extension of EPM's Operational Data Store (ODS) to support operational reporting. While the data marts provide an excellent source for summarized data reporting and analysis.

An integration utility, StrategyPlus 4.0 for Cognos, enables the seamless operation of Cognos Business Intelligence software with PeopleSoft EPM data marts. StrategyPlus 4.0 for Cognos allows companies to:

- Seamlessly integrate Cognos and PeopleSoft EPM metadata.
- Automatically leverage PeopleSoft EPM security across all Cognos BI components.
- Leverage and extend your investment in PeopleSoft EPM.
- Automate the building of your reporting environment.

To accelerate time to results, Cognos is offering an out-of-the-box reporting package on top of the JumpStart EPM table structure for the HRMS Warehouse. The Cognos JumpStart service delivers a default metadata model of your PeopleSoft data grouped by business subject area and leverages JumpStart's value-based security for reporting and analysis.

The single metadata model that spans the JumpStart ODS through to the data marts, business users can report across the whole PeopleSoft EPM solution. In addition, other external data sources, not just PeopleSoft can be included in the metadata layer in order to deliver further extend your reporting solution. Cognos embraces and extends your PeopleSoft EPM solution.

*“Vail Resorts has used Cognos and PeopleSoft to create a sophisticated labor utilization model that allows us to maximize workforce productivity and manage costs more efficiently. As a result, Vail Resorts was able to reduce medical costs 10 percent year over year. This is highly unusual in today's health insurance market and the savings are largely due to the labor utilization model. We could not have managed this effectively without the use of an analytic tool like Cognos.”*

Pat Donovan, Director,  
Corporate Human Resources, Vail Resorts.

**PeopleSoft.**  
Partner Connection  
Certified Software Partner



## COGNOS AND TERADATA

*“Working together, Cognos and Teradata offer an industry-leading business intelligence and data warehousing solution for global enterprises. Together, we deliver a potent combination of high-performance parallel database technology with the unprecedented ability to drive the broadest range of integrated BI functionality to the broadest community of users. Cognos continues to be differentiated in the business intelligence market by combining advanced Teradata features with their own award winning BI software. Cognos ReportNet on Teradata extends the value of business Intelligence by allowing true enterprise level analytics driven by detailed data.”*

Scott Gnau, Vice President,  
Product Strategy & Portfolio Management

### ***The Relationship:***

Cognos BI helps companies realize greater value from their Teradata warehouse by making information easier to access for reporting and analysis. Cognos is a Teradata Data Warehousing Alliance Partner and a participant in the Teradata Partners Center of Expertise. As a member of Teradata’s Data Warehousing Alliance Partner Program, Cognos and Teradata offer best-of-breed solutions and experience enabling customers to make faster, better business decisions.

### ***Data Warehousing Integration Points:***

Cognos Business Intelligence solutions leverage Teradata’s data warehouse technology across clients, servers, and the Web on any platform (Windows or UNIX). Seamless integration and unmatched ease-of-use bring users maximum value from their Teradata Warehouse.

The Cognos BI solution is enabled by an integrated technology platform that prepares transactional data for business intelligence by building a dimensional data model. It organizes data into a consistent structure that makes analysis straightforward. Data, stored in the Teradata Warehouse, is then optimized for retrieval. As a result, more powerful analysis and reporting are possible.

Cognos supports the various standards and protocols of the Teradata platform by producing Teradata optimized (native) queries without additional programming or the need to understand the complexity of SQL.

Not only does Cognos support metadata directly from the Teradata database engine, but also supports Teradata’s Metadata Services (MDS) and other metadata sources (such as ERWIN, and other metadata tools and ETL products). Rich metadata capabilities such as these help ensure consistent access to data and a single version of the truth. Equally important is both scalability and reliability. Cognos BI servers provide multi-tier processing with automatic load balancing and distributed server architecture to ensure that deployment scales to thousands of users.

In addition, the Cognos-Teradata combination offers leading ease of use and security. With Cognos, IT can manage user profiles and classes for BI applications from a single console. This covers both authentication (or logon security) and authorization security. Database and OS security can be used for user authentication as well. Cognos enables any combination of LDAP, OS, or RDBMS security for authentication.

Outside the firewall, the Web-based deployment of Cognos BI is secured through the Secure Sockets Layer (SSL) protocol. SSL encrypts the channel between a company and its employees, partners, suppliers, or customers for the secure delivery of sensitive reports and data.

No matter the size of their database, data marts, or legacy systems, Teradata and Cognos create a single source of data, empower users with instant knowledge, and support their organization's growth and profitability.

*“The scalability and usability of the Cognos solution has enabled Regions to quickly deploy across several business units and to all levels of users, Cognos allows Regions to derive maximum value from our existing Teradata data warehouse investment and to achieve the fastest time to results.”*

Ed Solomon,  
Senior Vice President, Regions Bank

## COGNOS AND SAP® BW

### *The Relationship:*

Cognos has been an SAP Software Partner since 1999, and has achieved the *Powered by SAP NetWeaver™* designation. Since that time, Cognos has built strong relationships with SAP across the organization. This has resulted in the creation of dedicated alliance, research and development, and customer service teams to ensure that any SAP-Cognos implementation runs smoothly and effectively.

### *Data Warehousing Integration Points:*

Cognos is one of only a handful of vendors to earn *Powered by SAP NetWeaver™* certification. This includes integration with three key components of SAP® NetWeaver:

- Pre-packaged iViews for integration with the SAP® Enterprise Portal.
- The Cognos Driver for BAPI® – an OLAP BAPI interface into SAP BW (a core component of SAP® Business Intelligence).
- Certified deployment of Cognos Dispatcher on the SAP® Web Application Server.

Our certifications bring you the following benefits:

### **Leverage all your SAP BW business rules and more:**

Cognos ReportNet, our Web-based reporting application, lets you create reports using:

- All your SAP BW data: Master Data, ODS Data, InfoCubes, MultiProviders, and SAP BW Queries.
- All your SAP business rules: languages, currencies, conversions, hierarchies, aggregations, calculations, and more.
- All your infrastructure: SAP BW query processing power and deployment on the SAP Web Application Server, with no duplication or redundancies.

**SAP Enterprise Portal integration:** Access and interact with reports created with Cognos ReportNet in a familiar SAP Enterprise Portal environment.

**Leverage SAP security:** Single sign-on across SAP BW and SAP Enterprise Portal uses your SAP roles for data access and to drive the user experience in Cognos ReportNet.

**Combine SAP BW and non-SAP BW data:** Combine data from multiple SAP BW sources and instances with non-SAP BW data (for example, relational data warehouses) within a single report.

*“At Mold-Masters, SAP and SAP BW are our key strategic data sources, augmented by other niche corporate systems. With Cognos ReportNet we can access the critical information from the rich data housed in SAP BW as well as our non-SAP systems, providing us with a single view of our business performance.”*

Val Swift, IT Manager,  
Mold-Masters

**Sophisticated Formatting and Multiple Output Formats:** Create multi-object, multi-query, multi-page reports, as well as pixel-perfect production reports, all over the Web. Export to HTML, PDF, Excel or CSV with one touch to the SAP BW server.

*Significant Business Impact*

When you choose Cognos to extend your SAP investment, you'll realize significant benefits to your business:

- Lower ownership costs and higher ROI.
- Wider distribution and increased use of SAP BW data.
- Reduced IT reporting backlog.
- Increased self-sufficiency and productivity for novice and casual users.
- Better decisions and increased agility.



## COGNOS AND ORACLE

*“One of the ultimate values of business intelligence is access to the underlying data, and Oracle database customers who use Cognos’ business intelligence solutions can gain more efficient access to data and achieve increased scalability and reliability.”*

Rick Terry, Director of Alliances,  
Oracle Corporation Canada, Inc.

### ***The Relationship:***

For over a decade, Cognos and Oracle have worked closely to help customers maximize their IT investments. Cognos is a Certified Partner in Oracle’s Partner Network (OPN) and a participant in the Oracle Applications Users Group (OAUG), which supports the easy integration of these two powerful solutions. Through various initiatives, Cognos and Oracle continue to leverage Internet technology to extend the enterprise’s reach for gathering and sharing business data and analysis capabilities. This breadth and flexibility makes information easily accessible to people inside the company, as well as to customers and partners across the supply chain.

### ***Data Warehousing Integration Points:***

Cognos products offer rich integration with your Oracle database. Cognos business intelligence front-ends Oracle databases. Cognos business intelligence offers native connectivity (SQLNET) with the Oracle database, and both ODBC and JDBC connectivity as well.

Cognos software leverages the power of Oracle databases better than other BI vendors. Cognos ReportNet offers a true front-end solution — one that takes advantage of the processing power of the Oracle optimizer by letting it conduct the processing work. Doing so minimizes processing at the application tier — minimizing network bandwidth requirements. In addition, Cognos endorses Real Application Clustering, which makes the database more efficient and provides fail-over protection.

Cognos centralized metadata environment can also import Oracle metadata from Oracle Designer. XML data from Oracle can be imported into the Cognos business intelligence metadata modeling environment. Both Cognos and Oracle support the industry-standard SQL99 functions. Report authors can easily leverage Oracle-specific functions and calculations in the authoring environment. Cognos ReportNet uses Oracle OLAP, when exposed as a view, and leverages the dimensionality for ad hoc query report generation.

*“With Cognos, Welch’s will gain increased visibility into all facets of our business through the new Cognos enterprise reporting and analytical software. We’re excited about Cognos products because they are an integral part of our Oracle ERP II initiative which provides a new level of enterprise reporting for Welch’s.”*

Girard Liberty, Vice President and Chief Information Officer, Welch’s

Unlike many solutions, Cognos can leverage the Oracle database as the reporting application repository and data store. This eliminates the introduction of a proprietary application-specific data store into the IT environment. Not only does the BI application benefit from the strength and capability of Oracle, but also minimized IT complexity associated with introducing and managing additional elements.

#### *Integration with your Security*

Cognos software differentiates itself from the competition by leveraging the security already defined with the Oracle database. With other BI vendors IT must recreate and replicate security information. This costs them time and money and opens their system to security gaps.

#### *Integration with your Portal*

Cognos zero-footprint products can be viewed through Oracle portlets. In order to offer deeper integration or custom-built options, Cognos offers a software development kit and an entirely open and fully documented API. This API is exposed as WSDL, allowing Oracle developers to create custom applications using the Oracle J-Developer Suite to expose Cognos functionality.



## COGNOS AND MICROSOFT

### *The Relationship:*

Cognos and Microsoft have established a close, proactive, and strategic partnership. The result is that organizations planning or using a data warehouse on the Microsoft platform can easily implement a Cognos solution that meets their unique needs. By combining technologies from these two market leaders, businesses can deploy business intelligence functionality across the enterprise. Cognos is certified in Query, Reporting, and Analysis Tools category of the Microsoft Data Warehousing Alliance (DWA), and Cognos Series 7 is certified to work with SQL Server 2000.

### *Data Warehousing Integration Points:*

The foundation on which Cognos software operates — the underlying back end of the Cognos-Microsoft solution — is comprised of leading software technologies from Microsoft. These include operating systems such as Windows 2000 and XP, database technology such as SQL Server, Web technologies such as IIS and IE, Microsoft Office desktop software, and SharePoint content management software. Together, they make up Microsoft's BI-enabled enterprise platform.

SQL Server is the enterprise data management platform with low implementation and maintenance costs, coupled with the functionality to allow quick development and deployment of enterprise-class business applications. It integrates heterogeneous IT systems, allows fast application development, supports XML and Internet queries, and maximizes capital and operating budgets. SQL provides BI analysis tools, which provide a foundation for Cognos BI tools. Extensive management and development tools such as self-tuning and wizards simplify administration.

Cognos products deliver rich BI to any user across the organization, using the SQL relational database and Analysis Services as the source for data. Cognos supports advanced functionality in SQL Server and Analysis Services and extends messaging through such features as notifications, dashboards, and scorecards.

Cognos supports Active Directory for security and can use SQL Server functions such as federated database servers, XML, multiple instances of SQL Server, and failover clustering support. Cognos ReportNet, Enterprise Planning, and Metrics Manager can use SQL Server as a repository. Cognos DecisionStream can build and generate Analysis Services cubes. Cognos products can use a single sign-on for a simpler user experience.

Data Transformation Services (DTS) in SQL Server 2000 provides a set of graphical tools and programmable objects to help administrators and developers solve data movement problems, including the extraction, transformation, and consolidation of data from disparate sources to single or multiple destinations. Sets of tasks, workflow operations, and constraints can be collected as DTS packages that can be scheduled to run periodically or when certain events occur. Cognos leverages the flexibility of Microsoft Data Transformation Services by reading and writing DTS packages as sources and targets.

Cognos understands that Microsoft is a key player in many of our customers' businesses. Therefore, to help our mutual customers become more successful, Cognos strives to both embrace and extend the Microsoft data warehousing platform by working with Microsoft on a variety of initiatives at both the technical and business levels.



*“When our customers require a fully integrated BI solution that enables them to optimize resource use, improve efficiencies, and leverage their Microsoft data we need look no further than Cognos. The combination of Cognos BI tools with Microsoft SQL Server results in an extremely cost-effective, powerful solution that delivers exceptional value to customers.”*

Michael Roberts, Partner and Project Manager,  
Newcomp Solutions

## COGNOS AND SYBASE

*“Sybase and Cognos offer our joint customers an ideal business intelligence framework for driving improved performance across their organizations. Cognos provides superior information delivery, delivering key information in a business context to a broad community of users. Cognos also provides customers the ability to apply their own performance metrics to the data to track their performance against corporate strategy. Sybase provides the critical supporting layer of Information Management, driving broad-based data access, mission-critical scalability, reliability, all at a low total cost of ownership. When the focus is analytics, our Sybase IQ database offers unprecedented speed, storage efficiency and reduced maintenance costs. By combining the complementary strengths of our products, customers will gain a strategic understanding of their corporate performance while rapidly and cost-effectively improving the quality of reporting across the enterprise.”*

Dr. Raj Nathan, Senior Vice President,  
Information Technology Solutions Group, Sybase, Inc.

### ***The Relationship:***

Sybase offers a solid infrastructure for Cognos business intelligence because of its scalability, speed and flexibility. A long-time member of the Sybase Business Solutions Alliance, Cognos continues to integrate with and support the Sybase Data Warehousing platform.

### ***Data Warehousing Integration Points:***

Sybase provides a reliable open-architecture enterprise infrastructure including databases, development tools, integration middleware, enterprise portals, and mobile and wireless servers. Sybase enterprise software solutions bridge all technology platforms.

Cognos integrates with and supports the following Sybase data stores:

**Adaptive Server IQ Multiplex** – is a high-performance relational database designed specifically from the ground up to meet the needs of business intelligence and a new generation of scalability requirements for Web-enabled data warehousing. Cognos

draws information from IQ to develop a rich OLAP environment for analysis and reporting.

**Sybase Adaptive Server Enterprise (ASE)** – is a powerful data management platform designed for transaction-intensive enterprise applications, with advanced capabilities to meet the evolving requirements of e-Business.

**SQL Anywhere Studio** – is a comprehensive package that provides data management and enterprise synchronization to enable the rapid development and deployment of distributed e-Business solutions.

**Industry Warehouse Studio** – is a blueprint data architecture and tools that accelerates the Building of an Enterprise Data Warehouse (EDW). This pre-built analytic infrastructure is packaged to address an organization’s key business intelligence requirements. Cognos leverages this infrastructure to create a powerful business intelligence and reporting solution.

Sybase PowerDesigner – PowerDesigner is a unique set of modeling tools that combines several standard modeling techniques: application modeling through UML, Business Process Modeling techniques and traditional database modeling techniques. Cognos ReportNet leverages and imports the rich metadata already created in these data models.

With some of the largest data warehouses, in production use, running on Sybase IQ, Cognos will continue to work with Sybase to insure that our solutions, services, and software give customers the competitive advantage they need.



*“We run all our queries against the Sybase IQ data with Cognos. It’s fantastic. The performance is stunning.”*

Scott Wyld, IT Project Manager,  
Allianz Australia Insurance Limited



## ABOUT COGNOS

Cognos is the world leader in business intelligence and enterprise planning software. Our solutions for corporate performance management let organizations drive performance with planning and budgeting, monitor it with scorecarding, and understand it with enterprise business intelligence reporting and analysis. Cognos is the only vendor to support all of these key management activities in a complete, integrated solution.

Founded in 1969, Cognos today serves more than 22,000 customers in over 135 countries. Cognos enterprise business intelligence solutions and services are also available from more than 3,000 worldwide partners and resellers.

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