

SETTING THE STANDARD

**COGNOS REPORTNET™:
THE NEXT GENERATION
OF ENTERPRISE QUERY
AND REPORTING**

A COGNOS WHITE PAPER



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Cognos Enterprise Business Intelligence for e-Business
This edition published August 2003
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WHY REPORTING?

Reporting helps businesspeople understand their company performance. It lets them take immediate action on the most recent information. It creates a common context for decision-making across every department and at every level and ensures that any organization works from a single version of the truth. And it is a critical component of corporate performance management (CPM).

Reporting is the largest and fastest-growing component of the business intelligence (BI) market, with a compound annual growth rate of 21 per cent. The key business

values of reporting play directly with three of the top five spending priorities identified in CIO.com's annual survey of technology leaders: lowering costs; strategic planning and aligning business and IT goals; and optimizing supply chains.¹ With this explosive growth in reporting comes the requirement for bringing disparate reporting processes (multiple departments with multiple report types and report users) together. Managing this reporting growth and eventual "convergence" lets IT departments address the number one priority identified in the CIO.com survey: integrating systems and processes.

¹ Lorraine Cosgrove Ware, *The State of the CIO: What You Have to Say*. CIO.com, April 1, 2003.

WHAT REPORTING LOOKS LIKE NOW

Analyst firm Gartner divides the reporting landscape into two technologically distinct categories: enterprise business intelligence suites (EBIS) and robust (production) reporting. In his research, distinguished analyst Howard Dresner describes the two categories in this way:

Robust or production reporting technologies... provide high-performance engines to merge predefined report templates with large volumes of data to produce, publish and distribute reports to a wide audience of information consumers. Key reporting features for robust reporting include advanced formatting, multi-pass calculations, bursting, table of contents navigation, on-demand paging, report element security and output to multiple formats (for example, PDF, HTML and Excel). Although production-reporting engines typically do their work in batch on a schedule, many also have online personalities for on-demand reporting. Often, the robust reporting features are also required for on-demand reporting.

In contrast, there is EBIS database query. Often employing a semantic layer, these tools insulate users from the physical structure of the data to simplify query construction. Multidimensional—online analytical processing

(OLAP)—viewing is another important interactive style supported by EBIS products that can take two-dimensional row sets from the query module and remap into n-dimensions for user exploration. Finally, EBIS products include basic user-driven report formatting for row sets derived from the query module.²

Until now, no vendor has been able to provide a reporting solution that delivers full capabilities in both categories. Some EBIS vendors have not supported “enterprise” reporting, which is characterized by high-volume output of standard reports distributed to a large number of users throughout an enterprise. Vendors of enterprise reporting have not provided such tools within an EBIS product. Enterprise reporting vendors have lacked some BI capabilities, such as OLAP analysis and ad hoc query.³

This has put BI customers—particularly those in the Global 3500—in a difficult position. Most use separate tools for each feature set, which creates a host of problems. Maintaining multiple reporting applications means a higher total cost of ownership (TCO). Vendor-specific security models put limits on scalability and network performance. Each reporting application has its own performance limits, which forces networks to work at the lowest common denominator. This means

² Howard Dresner, *Enterprise BI Suites and Reporting: Convergence at Last*. Gartner Research Note, Sept. 10, 2002.

³ Alan H. Tiedrich, *Business Intelligence Tools: Perspective*. Gartner, June 19, 2003.

other network components such as ERP systems, databases, or application servers aren't being optimized or leveraged for their full value. Different metadata structures and data architectures make it hard for IT to establish data truth. End-users may need to switch back and forth among applications to answer a single question. IT struggles with a constant backlog of requests for new and modified reports because most reporting solutions have an "all or nothing" approach to functionality or because they don't allow end-users to create or modify reports themselves.

Most companies also have a wide spectrum of user classes and needs. The majority of end-users are simply report consumers who need basic reports delivered on a regular basis. A smaller audience needs reports that deliver more interactivity and customization. The smallest group of end-users—often referred to as power users—need full interactivity, the ability to create custom or ad hoc reports and queries, and drill-through navigation.



WHERE REPORTING IS HEADED

The days of fragmentation and multiple vendors are over. Gartner believes that customer demand will force the two domains—production reporting and EBISs—to converge into a “next generation” EBIS market. META Group predicts that a few large vendors will provide full BI suites capable of meeting 95 per cent of a large organization’s needs.⁴

Companies will be looking to standardize on one vendor, with specific goals in mind:

- a reduction in the complexity of systems;
- improved ease of use and integration for these overlapping technologies;
- decreased costs of support, license fees, maintenance and training⁵; and
- leveraging IT investments for return on assets.

Convergence will mean that companies will be looking for a single vendor solution that can produce any kind of report and accommodate every kind of user type and need. Convergence will increase IT efficiency by reducing the backlog of report requests and lowering the total cost of ownership for their reporting solution. It will leverage the value of a company’s existing infrastructure and increase employee self-sufficiency by providing report consumers with the capability to author and modify their own reports.

⁴ David Folger, *Suite Dreams for Business Intelligence Tool Vendors*, Enterprise Analytics Strategies, Web & Collaboration Strategies, July 1, 2003.

⁵ Howard Dresner, *Enterprise BI Suites and Reporting: Convergence at Last*. Gartner Research Note, Sept. 10, 2002.

COGNOS REPORTNET – THE NEXT GENERATION ENTERPRISE QUERY AND REPORTING ENVIRONMENT

“Cognos ReportNet is a major breakthrough for BI and reporting convergence... It brings a completely new level of simplicity in the design and use of reporting and analysis for large sets of users with varying needs. Cognos ReportNet integrates the complete web based interface for design, consumption and analysis of reports into one product.”⁶

~ Mark Smith, Ventana Research

Cognos ReportNet embodies more than 30 years of experience working with the largest companies in the world. It is the first completely Web-based enterprise reporting solution to address all of your organization’s reporting requirements. It supports reporting convergence in three areas that are key to lowering total cost of ownership, increasing employee self-sufficiency, and reducing the burden on IT.

Cognos ReportNet elevates Cognos’ Enterprise Business Intelligence solution to the next level with breakthrough query and reporting. It is fully integrated with Cognos’ scorecarding, dashboarding, analysis, event management, and ETL capabilities. The result is the broadest and deepest BI solution from a single vendor.

Cognos ReportNet can develop any and all types of reports—from simple inventory lists to high-volume billings and more. It meets the needs of every kind of user—from simple report consumers to professional authors and developers. And it smoothly integrates into your existing IT infrastructure to leverage its value, without creating the need for additional security, data storage, or redundant environments.

With Cognos ReportNet, one reporting system can produce production reports such as invoices, statements, and statutory reports as well as the broad range of business reports that help everyone in your organization understand their operations better, and make effective business decisions. Its production reporting delivers pixel-perfect, high-quality reports to massive numbers of users. Its BI reporting provides unprecedented flexibility and self-service to interact with complex reports with drag-and-drop simplicity.

Bringing all reporting requirements together under one solution is a breakthrough in reporting software. Never before has reporting been this complete. Cognos ReportNet takes this advantage even further. The software comes, out-of-the-box, with capabilities that make simple departmental reporting easy and complex global reporting simpler. Global enterprises can bring divisions, departments, and country organizations together so they are all working from the same information.

Complementing these revolutionary capabilities, Cognos ReportNet was built to be easy-to-use for everyone—from the first-time user to the advanced report author. With this new software, you can broadly extend the power to create, distribute, and modify reports to everyone across your organization.

Cognos ReportNet delivers these key values:

- Unrivalled enterprise reporting coverage
- Streamlined creation, deployment, and modification of reports
- Unparalleled openness, flexibility, and scalability.

⁶ Mark Smith, *Cognos Ups BI Market Ante*, Ventana Research, June 27, 2003.

ENTERPRISE REPORTING COVERAGE

Satisfying the demands of reporting convergence means delivering complete, enterprise reporting coverage. To do so means comprehensively addressing the needs of these two areas:

- All users
- All report types.

All Users

Putting users in precise buckets is difficult; they are not so much in categories as along a continuum from the most advanced requirements to the most basic. Complete enterprise reporting coverage means that one reporting system has the power and sophistication to let people work with information the way that they want to. Others will take these reports and personalize them, Still others will view static reports that can be deployed to thousands and thousands of people. For true enterprise coverage, the reporting system must adapt to the specific user's needs, rather than promising it and delivering instead a "one-size-fits-all" solution.

All reports

Reporting convergence requires one solution to cover all reporting requirements: from ad hoc queries, managed reports, and business reports, to invoice, statements, and bills. The former report types require high usability, interactivity, and are user-centric. The latter require sophisticated formatting, high scalability, and are batch-oriented.

Cognos ReportNet addresses these requirements with a zero footprint browser-based interface for all report types. This eliminates the need for IT to install and manage client desktop software. The easy-to-use interface ensures users can access and work with the reports they require to be effective in their job.

REVOLUTIONARY REPORTS

Cognos ReportNet gives users the ability to create reports containing any number of report objects—charts, cross tabs, and lists, as well as non-BI components such as images, logos, and live embedded applications that can be linked to the information. This helps users build custom views of their performance. Queries can draw data from any database or a combination of databases and be linked together in context or left as independent. Users can arrange the report objects on the page simply by dragging and dropping them into the report authoring window. The conditional report layout environment automatically arranges report objects in the window each time one is added or removed. Casual or novice users have the ability to author and modify their own reports with minimal training or IT involvement. The flexibility of the interface dramatically reduces the time required to author and modify a report.



Create complex reports with drag-and-drop simplicity.

STREAMLINED CREATION, DEPLOYMENT, AND MODIFICATION

One reporting solution for the entire enterprise must be usable by the variety of people and be available for thousands to use throughout the organization. IT must be able to extend the reporting capability out to the various users without overwhelming its fixed resources.

Many organizations already have a reporting backlog. With traditional banded report authoring solutions, authors create and deploy the reports, users send them back for changes. Few reporting solutions offer flexible report creation, so making even minor changes means recreating the entire report from scratch. This slows down the report application lifecycle and consumes resources. An enterprise-wide solution must be able to solve this issue, or wide-deployment of reporting will swamp IT.

Web-based report creation and modification for both professional IT and business authors helps extend authoring to a broad audience. Cognos ReportNet moves reporting closer to the needs of everyday users and away from the requirement to understand database logic and computer languages. Reports are easy to create by dragging and dropping report data elements



Invoices and business reports.

ADAPTIVE AUTHORIZING PARADIGM

Most banded report writing applications follow a rigid linear format that forces users to use archaic methods like customer coding and duplication of files (one per language), if-then-else statements to modify the format per language, and over-lay text strings with if-then-else formatting options to hide all but one overlay.

Few solutions can address issues such as prompt controls, formula language syntax, UNICODE, or special word wrapping. Producing reports in different languages often means producing a series of reports or translating them afterwards.

Report writers typically display the individual records of the source data, which may result in hundreds or thousands of records. Presenting this large amount of data is unusable to the end user and expensive on the network bandwidth and overall performance.

Cognos ReportNet solves these problems through an adaptive authoring paradigm. Instead of creating specifically targeted and inflexible reports for small groups of users, report authors can create a report once and then deploy it across the enterprise. Reports are burst so that users see just as much information as is required for their own needs. Users receive just as much functionality as required to modify the report. Prompts can be configured to appear as Wizards to help users through the steps required to modify their reports. Users become more self-sufficient.

and report formatting onto a blank page. The time needed to build and deploy simple or complex reports is dramatically reduced. By streamlining the creation, deployment, and modification of reports, Cognos ReportNet dramatically decreases the demands on IT by alleviating the report creation and modification backlog.

The built-in, out-of-the-box multi-lingual capabilities mean reports can be built once and shared across many languages without the need for additional translation or formatting. Reports automatically open for users in the proper language based on their local settings. And with Cognos ReportNet's robust scheduling and bursting capabilities, the data is read once and then deployed in multiple formats to a massive number of users. Reporting that is this easy to use and administer can truly be extended across the global enterprise.

UNPARALLELED OPENNESS, FLEXIBILITY, AND SCALABILITY

One of the goals of reporting convergence is reducing the total cost of reporting, or cost per report incurred by your organization. While saving money on reporting, IT must ensure that the reporting investment doesn't cost them resources—people, time, or money—in other areas, and makes the most of investments that they have already made. To deploy a single, enterprise-wide reporting solution, you must be able to leverage your existing IT investments and get further return on these investments. This happens in three ways.

First, the reporting solution must be able to draw upon the various corporate data sources your organization has built and makes available. A broader audience will have access to the value of the data assets. Second, the reporting solution must be able to work with your existing applications. Integration with existing applications, or

embedding them in your reports, lets you use your current and new investments to best advantage. Third, the reporting solution must be able to work with your existing infrastructure, such as portals and security. This means no duplication in effort, as well as removing potential barriers to adoption, scalability and performance.

Cognos ReportNet easily integrates into your existing IT environment. It delivers an open, Web standards-based reporting environment that enables organizations to take full advantage of their existing IT infrastructure and skills investments. It helps you generate return from your IT investments by extending their capabilities with total enterprise reporting. It gives your users breakthrough reporting capabilities while reducing and simplifying your IT reporting resource requirements, and lowering your total cost of ownership.

Cognos ReportNet simultaneously supports multiple security authentication providers (such as LDAP, NTLM, Active Directory, Netegrity, SAP) and delivers out-of-the-box encryption capabilities. It comes with an application programming interface to adapt to custom authentication provider models.



Multiple report types.

SCALABLE ARCHITECTURE

Large companies have large, complex, and expensive IT infrastructures that are costly to maintain. More and more data is being collected more quickly from more and more sources. Obsolescence rates are high. Adding new applications or functionalities often means adding another security layer that reduces network performance and scalability even further. Few companies will be eager to expand their reporting to hundreds of thousands of users if it means implementing an ERP-sized application.

Cognos ReportNet was built from the ground up to work with the data volumes of global organizations. It can scale to hundreds of thousands of users without placing undue stresses on your existing IT infrastructure. It works with your existing application and Web servers, portals, browsers, enterprise applications, platforms, and databases. Its fully documented API makes integration with your infrastructure simple. You can customize the reporting interface to suit your organization.

SUMMARY

As they strive to decrease their costs and the complexity of their reporting environment, IT managers have been looking for a single, Web-based reporting solution that can address all of their reporting needs. They require a flexible solution that leverages existing IT infrastructure, is truly scalable, and has the ability to grow. Cognos ReportNet is that solution.

Cognos ReportNet combines enterprise and production reporting to the next level of performance. Cognos now provides a complete stack for organizations to drive, monitor, and understand performance at the strategic, tactical and operational levels. Cognos is systematically improving existing technologies while introducing next generation products that will extend its reach and influence in global organizations.⁷

⁷ Mark Smith, *Cognos Ups BI Market Ante*, Ventana Research, June 27, 2003.



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.

APPENDIX: COGNOS REPORTNET KEY FEATURES AND FUNCTIONALITY

COMPLETE USER COVERAGE

- An intuitive, browser-based user interface enhances user adoption and improves their productivity
- Different interfaces and levels of report interaction are available to address the needs of all users—from novice to advanced
- Prompting and saved views allow personalization and customization of reports to suit individual needs.

COMPREHENSIVE RANGE OF HIGH-VALUE REPORT TYPES

- Comprehensive coverage of all types of reports—ad hoc queries, the authoring and delivery of managed reports to many users, focused business reports and now, batch-type production reporting
- Delivers all report formats: lists, cross tabs, charts, and multi-page statement layout
- Breakthrough multi-query compound reports and the ability to embed dynamic objects
- Conditional report layout adapts dynamically to the data content and end-user requirements
- Reports can draw on your organization's full range of data assets and heterogeneous data sources to deliver one version of the truth.

BREAKTHROUGH WEB-BASED REPORT AUTHORIZING

- Cognos ReportNet's adaptive report authoring environment alleviates the rigid and time-consuming reporting authoring processes found in banded report authoring systems
- Easy and fast report and ad hoc query creation and modification with flexible zone-based layout paradigm
- Advanced report design including:
 - Multiple linked or independent queries per report
 - Separation of presentation and query layers
 - Logical layout page control and conditional formatting

- Sophisticated out-of-the-box prompting reduces the report modification backlog:
 - Enables one report to service the information needs of many
 - Users can control the report content with a range of context sensitive report prompts.

BUILD REPORTS ONCE AND DEPLOY GLOBALLY

- A single authored report can be run in multiple languages, supported from a single metadata model
- Users can control and set their own preferences for the reporting interface, content language, and other geographic sensitivities (time, currency, date formats)
- Timely, personalized reports can be efficiently delivered around the world through report bursting. Bursting performs a single execution of a report, sections the report as required, and distributes the sections to the appropriate recipients based on report contents.
- Scheduled batch reporting jobs can be executed simultaneously or sequentially to multiple output formats and destinations
- Users and IT can schedule reports based on time, calendar, data availability, or other parameters
- Administrators and users can choose multiple delivery options—report consumers can access information as they need, or have reports pushed out to them as scheduled.

EASE-OF-USE IMPROVES USER ADOPTION

- The completely browser based and zero footprint interface is intuitive to use and makes report distribution easy
- Users can create ad hoc reports over the Web with minimal training or IT involvement
- User-defined ad hoc information queries and business authored reports can be promoted to a professional authoring environment for further formatting and distribution
- Users can easily share their reports.

EASE OF INTEGRATION, CUSTOMIZATION, AND AUTOMATION

- Cognos ReportNet works with your existing application servers, portals, browsers, enterprise applications, and data strategies
- Fully documented API for your IT to do customization and integration
- Customize the reporting interface and re-brand to suit your organization.

HIGH-PERFORMANCE, SCALABLE REPORTING

- Scalable to support hundreds of thousands of users
- Standards-based Web architecture delivers enterprise-wide accessibility and 24/7 availability
- Designed for extreme scalability and robustness:
 - N-tiered, multi-server, multi-threaded architecture
 - Full failover recovery and dynamic load balancing
- Built to work with the data volumes of Fortune 1000-size organizations
- Support for Windows and UNIX operating systems , including heterogeneous platform deployments.

ADAPTS TO YOUR SECURITY MODEL

- Cognos ReportNet leverages your existing security infrastructure (such as LDAP, NTLM, Active Directory, Netegrity, SAP)
- It comes with an application protocol interface to adapt to custom authentication provider models
- Cognos ReportNet simultaneously supports multiple security authentication providers
- Out-of-the-box encryption capabilities.

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PRINTED IN CANADA.
(08/03)