

# COGNOS POWERPLAY® REVIEW — A SUMMARY

THE WORLD'S  
BEST-SELLING  
OLAP SOFTWARE



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## TABLE OF CONTENTS

Table of Contents .....	1
<b>IT Management Benefits</b> .....	<b>2</b>
Better Positioned for Standardization .....	2
Role-based Pricing .....	3
Larger User Community at Lower Costs .....	3
<b>Technical Advantages</b> .....	<b>4</b>
Increased Scalability .....	4
A More Secure Solution .....	4
Cubes .....	4
User class security .....	4
Bundling of Client Tools .....	5
Increased Database Capacity .....	5
Data Access Functionality .....	5
<b>User Concerns</b> .....	<b>6</b>
Increased Usability .....	6
Increased Reporting Functionality .....	6
Better Web Access .....	7
<b>Conclusion</b> .....	<b>8</b>
<b>About The OLAP Report</b> .....	<b>8</b>
<b>About The OLAP Survey</b> .....	<b>9</b>

## REVIEWING THE WORLD'S BEST-SELLING OLAP SOFTWARE

Cognos PowerPlay® is the world's largest-selling and most widely deployed software for online analytical processing (OLAP). Also called multidimensional analysis, OLAP is a strategic complement to managed reporting, ad hoc query, and other business intelligence (BI) capabilities. Using OLAP software, like the industry-leading PowerPlay, people can see their business from a variety of perspectives, and examine trends or data they discover in greater detail.

*The OLAP Survey 3* is one of the most comprehensive reviews of this software technology—looking at customer perceptions and intentions, customer issues, and how vendors rate with the products they offer. It is completed with strict vendor neutrality. Cognos has a summary of this latest survey—*Using OLAP to Improve Your Performance* available. In *The OLAP Report*, the survey's author, Nigel Pendse, reviews many OLAP products, including those featured in *The OLAP Survey 3*.

OLAP is an approximately \$3.5 billion market. As *The OLAP Survey 3* showed, Cognos has the most OLAP users, with over 18 percent share of the sample.<sup>1</sup> More organizations deploy Cognos PowerPlay for OLAP than any other vendor's product.

In Mr. Pendse's review of Cognos PowerPlay in *The OLAP Report*, he considered many factors. This summary presents information from this review in three topic areas:

- **IT Management:** The concerns of senior leaders in IT when it comes to selecting OLAP technology to serve the organization.
- **Technical:** Concerns within the IT department on how to implement, deploy, and maximize the value of the OLAP technology.
- **User:** Concerns from users on how to make the best use of OLAP in their day-to-day work.

<sup>1</sup> Pendse, Nigel. *The OLAP Survey 3*, 2004, p. 31.

## IT MANAGEMENT BENEFITS

### *Better Positioned for Standardization*

Recent reports show that companies can save from between 28-41% of costs by standardizing on a business intelligence platform. Choosing the right platform, however, has been the challenge.

Pendse noted the advantage Cognos holds in this arena in his product review.

“Indeed, Cognos’s greatest strength is not so much its individual products but the range that it offers. This wider product range means that Cognos is better placed than the other BI vendors to take advantage of BI standardization initiatives, and it is making concerted efforts to do so.”<sup>2</sup>

Cognos PowerPlay is a key part of the Cognos Enterprise Business Intelligence Series. This series includes the new industry standard in reporting, Cognos ReportNet™; award-winning data visualization software, Cognos Visualizer; ETL software to make data report-ready, Cognos DecisionStream™; and business activity monitoring (BAM) technology, Cognos NoticeCast™, to bring critical information to you when events occur.

Complementing the advantage in BI technology range that Pendse identified, the Cognos vision for performance management is a key competitive differentiator in standardization. While customers may be looking at reporting and analysis standardization today, standardizing on the other technologies for performance management will be required tomorrow. With its additional strengths in scorecarding, planning, and consolidation, Cognos has built and continues to develop its product offering with this vision in mind.

It is for these reasons that customers such as BMW, Telus Mobility, American Eagle Outfitters, the New York Department of Family Assistance, Werner, and more have chosen to standardize on Cognos.

Customers standardizing on Cognos see many benefits:

*“Standardizing on Cognos as a common BI solution will help Esselte to lower the overall cost of ownership by reducing the number of BI solutions we need to manage and maintain.”*

Mark Katz, Vice President,  
Worldwide Information Technology, Esselte

*“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.”*

Robert Rosati, Executive Vice President and CIO,  
Werner

*“Cognos offers us a solution that will create a true self-serve Web-based reporting environment for our business decision-makers as well as an easy-to-administer scorecarding solution. Time to decision is a key issue in our business where speed counts.”*

Walter Mapham, Director of Strategic Services,  
UTi

<sup>2</sup> Pendse, Nigel. *The OLAP Report*, 2004, P. 38.

### *Role-based Pricing*

CFOs and CIOs must track total cost of ownership as never before, especially prior to any IT implementation. Cognos revised its pricing and is now based on roles in the organization:

- Developer/IT
- Power users
- Professional specialists
- Casual users

This logical pricing approach lets CIOs and CFOs calculate current license requirements and anticipate future costs more easily.

“Cognos never approached the astonishing multidimensional complexity of MicroStrategy’s pricing. But Cognos, like other large BI vendors, previously had an increasingly complex price list that accumulated new product options and variants every year,” Pendse said. “Cognos therefore took the opportunity with the introduction of ReportNet to switch to a more understandable role-based pricing.”<sup>3</sup>

### *Larger User Community at Lower Costs*

“This version of PowerPlay allows larger user populations to be supported at lower cost,” Pendse said. “Because the processing happens on the server, it also allows larger cubes.”<sup>4</sup>

PowerPlay Enterprise Server lowers costs by being tightly integrated to work with existing servers such as Windows NT/2000/XP Pro, HP-UX, Sun Solaris, IBM AX, Microsoft IIS, Apache, Netscape Enterprise Server, and more.

This ability to mix and match servers is essential for companies hoping to capitalize on lower costs through grid computing, and better fault tolerance and increased user workload through parallel processing.

Highly indexed OLAP data allows business questions to be answered using fewer system resources. This means you can have more users with the same hardware, resulting in lower costs.

<sup>3</sup> *The OLAP Report*, p. 7.

<sup>4</sup> *The OLAP Report*, p. 12.

## TECHNICAL ADVANTAGES

### *Increased Scalability*

Nigel Pendse pointed favorably to the increased scalability that Cognos solutions provide. “The most recent versions of PowerPlay delivered architectural enhancements that greatly improved its scalability,”<sup>5</sup> he said.

“Increased scalability is provided by allowing the server dispatcher to share the processing load between multiple Windows or Unix servers running the PowerPlay engine. It attempts to balance the load between them, so large numbers of concurrent users can be supported, and so that service can continue if any one of the server boxes fails,”<sup>6</sup> Pendse said.

### *A More Secure Solution*

Cognos solutions leverage common security infrastructures such as LDAP, NTLM, Active Directory, Netegrity, and SAP. Without this capability, IT must create new security protocols or substantially increase the amount of coding needed to cover gaps in security. Cognos saves IT time and money by providing a common framework that lets IT build and deploy manageable BI applications with common security, shared metadata, central administration, XML-based Web services, and a customizable Web portal.

“It is now easier to implement the LDAP standard across the enterprise,” Pendse said. “By installing an LDAP-compliant directory server, such as the included Netscape Directory Server 4.1, sites can optimize the system for enterprise-wide deployment. Existing authentication files (.aut) can be converted into namespaces to take advantage of recent advances in access security.”

Pendse details security mechanisms and administrative control for Cubes, User Classes, and Dimensions.

### **Cubes**

A number of security mechanisms have been enabled to allow administrative control over cube deployments, including:

- Cube password.
- Target cube groups, where the builder can define the lowest level of detail and the desired level of summarization for a particular dimension.
- Measure inclusion/exclusion from a cube.
- Dimension inclusion/omission/custom View (see User-class security below)
- ‘Dagger’—block totals for ‘parents’ with excluded ‘children’. *For example, if a model has a geographical dimension with two children (USA and Canada), a user that had access to USA and ‘Total’ data could easily deduce the values for Canada. This security mechanism removes this concern.*

### **User-class security**

Security based on users and their associated user classes, or based on dimensions irrespective of user classes, is available at build time for Cognos PowerCube® data sets. These functions can be applied:

- **Exclude**—excludes the member and its values from the cube.
- **Cloak**—hides the member from view but maintains its values within the cube.
- **Summarize**—hides the ‘children’ of the selected member and summarizes their values.
- **Apex**—shows only the selected category and its ‘children’ in that dimension.

<sup>5</sup> *The OLAP Report*, P. 5.

<sup>6</sup> *The OLAP Report*, P. 24.

### *Bundling of Client Tools*

“Unlike other BI vendors with similar products, Cognos bundles its portal with all its client tools at no extra charge,”<sup>7</sup> Pendse said.

This is a total cost of ownership issue for clients. Customers do not have to buy at additional expense the tools necessary for better performance. Cognos increases customer satisfaction by providing the tools that increase the functionality, usability, and value of the solution.

### *Increased Database Capacity*

Over the past ten years, the database capacity of PowerPlay has increased from 10,000 records to over a billion.

“It is not just the amount of data that can be held that has increased,” Pendse said. “The number of ‘categories’ (members of all dimensions combined) is currently increased to two million plus, significantly higher than the previous limits of 500,000 and 1,100,000. Transformer 7.n and 6.n are about ten times faster than the 5.n versions, due to multi-processor support and improved algorithms.

“As a result of these increases, and PowerPlay’s inherently good suppression of database explosion, PowerPlay’s available capacity is now comparable with Essbase’s, and for applications with a large number of dimensions, its practical capacity is likely to be better than Essbase.”<sup>8</sup>

### *Data Access Functionality*

Cognos received Pendse’s highest score possible for data access functionality in the product review. The high score was due to PowerPlay’s ability to let users access all ODBC data sources, other major OLAP servers, and popular PC sources, as well as the level of integrated drill-down to relational data.

Cognos has strategic relationships with the leading datasource vendors, guaranteeing better data access for customers. As shown in *The OLAP Survey 3*, Cognos is ranked first or second among all OLAP solutions for customer choice in accessing and extending the value of Oracle, IBM, Microsoft, and Teradata database environments.

Pendse recognizes the drill-through data access capabilities of Cognos PowerPlay. This capability eliminates undue user requests for data, and the accompanying strain on the system.

“Drill-through capabilities are extended in version 7.3 to include the ability to govern drill-through targets by dimension level,” he said. “Administrators can now establish different reports to be invoked at different levels of a hierarchy, providing more appropriate information as the invoking level becomes more specific.

“Alternatively, this capability can prevent users from drilling through at higher levels in the cube. By restricting drill-through to lower levels, users can be prevented from generating large requests for data. This eliminates large, inappropriate requests to the underlying relational database.”<sup>9</sup>

<sup>7</sup> *The OLAP Report*, p. 5.

<sup>8</sup> *The OLAP Report*, p. 9.

<sup>9</sup> *The OLAP Report*, p. 15.

## USER CONCERNS

### *Increased Usability*

Like any software, the value of business intelligence is only as great as its usability for customers. Each version of PowerPlay has focused on increasing usability. Pendse recognized the advances in usability for the Cognos product.

“Aimed at casual users with minimal OLAP skills, basic (PowerPlay Web) Explorer mode functionality allows for all the most common interactions needed when exploring an OLAP cube. These include drill up/down, slice and dice, change display, and filter. It also includes more advanced options such as calculations, 80/20 suppression, exception highlighting, and agent creation,” he said.

“Version 7.2 improved usability by including a dimension viewer, drag-and-drop, right-click access to commonly used options, improved toolbar, row/column/level selection, and style sheets; split screen (chart and crosstab) as well as row sorting, search, more calculations, improved charting, forecasting and hierarchical measures,”<sup>10</sup> Pendse said.

The release of PowerPlay 7.3 raises the bar for analysis capabilities. Cognos PowerPlay 7.3 delivers new features and functionalities, such as:

- Powerful analysis over the Web: Focus your analysis on a subset of data categories rather than having to view the entire dimension.
- Govern drill-through targets by dimension level: Control drill-through at any level of data to eliminate large, inappropriate requests to a relational database, or to apply a business-relevant context.
- Create scenario dimensions and support for planning: Create various scenarios and calculate several sets of figures when planning and budgeting (e.g. Actual, Plan, Forecast).
- Enhanced Microsoft Office integration: Output Microsoft Excel reports, with fonts and formatting preserved.

“PowerPlay’s efficient data compression, smart memory caching, and ability to selectively pre-calculate, combine to produce slick performance,” writes Pendse.

### *Increased Reporting Functionality*

Creating a more user-friendly software package also means providing information in the most understandable format.

Specific reporting functionality Pendse highlights include:

- Drill-down on row and column labels (including GIF charts)
- Drill across to ReportNet, Impromptu® Web Reports or Cognos Query
- Rotate dimensions
- Filter from dimension line
- Chart and crosstab views
- Zero suppression
- 80/20 filtering
- Sorting
- Limit number of rows or columns displayed
- Show as values or percentages
- Fit to page
- Automatic and manual exception highlighting
- Bookmarking
- Save to spreadsheet format
- Export as PDF (for printing)
- Connection to Cognos NoticeCast™ for creating email alerts.

<sup>10</sup> *The OLAP Report*, P. 11.

### **Better Web Access**

Cognos has made leading the industry in ease of Web access one of its top priorities. Proven customer deployments in public extranets (accessible from [www.cognos.com](http://www.cognos.com)) demonstrate this success. In *The OLAP Survey 3*, Pendse commented on the prevalence of Cognos in BI extranet usage.

“Business Objects and Cognos often argue over which has the highest Web-deployment,” he said. “According to the results, Cognos is well ahead. In the previous survey, Cognos was also ahead, but it has increased its lead this year.”<sup>11</sup>

One reason for this leadership is the “extranet-ready” nature of Cognos software. A key example is the zero-footprint aspect of our solutions. “Cognos has deliberately avoided the use of Java or ActiveX in order to support easy deployment to a wide range of users and browsers,”<sup>12</sup> Pendse said.

Pendse also gave Cognos the highest score possible for portable machine support. “PowerPlay provides full function, and excellent data compression means that relatively large cubes can fit into limited disk space,”<sup>13</sup> he said. The result—Cognos customers can access the right data and use it effectively on whatever technology best suits their needs and preferences, including PCs, PDAs and handhelds.

## **CONCLUSION**

Customers and industry experts recognize Cognos as the leader in business intelligence and corporate performance management.

“Although Business Objects, post-Crystal, is a larger BI vendor than Cognos, we estimate that it has a much smaller proportion of OLAP revenues, so Cognos remains well ahead of it in terms of OLAP market share,” Pendse said in his review.

The PowerPlay review in *The OLAP Report*, *The OLAP Survey 3*, and reports from Gartner, IDC, and other analysts point out that more organizations deploy Cognos PowerPlay for online analytical processing than any other vendor's product. For more information on Cognos PowerPlay, and the full range of Cognos business intelligence and corporate performance management solutions, please visit our Web site at [www.cognos.com](http://www.cognos.com).

<sup>11</sup> *The OLAP Survey 3*, p. 176.

<sup>12</sup> *The OLAP Report*, p. 20.

<sup>13</sup> *The OLAP Report*, p. 39.



## ABOUT THE OLAP REPORT

*The OLAP Report* is an internationally respected, authoritative source of information on OLAP products, suppliers, and trends as well as practical advice on selecting software and implementing applications. Totally independent of vendor influence, *The OLAP Report* is compiled by an editorial team lead by Nigel Pendse, the leading analyst on the OLAP market. ([www.olapreport.com/](http://www.olapreport.com/)).



## ABOUT THE OLAP SURVEY

The third edition to the most detailed examination of the rapidly growing Online Analytic Processing (OLAP) market, *The OLAP Survey 3* report provides an in-depth analysis of the key products and vendors in the market today. This comprehensive look at the market explores users' experience on multiple levels with both desktop and server products. ([www.survey.com/olap/](http://www.survey.com/olap/)).



## ABOUT COGNOS

Cognos is the world leader in reporting, business intelligence, and enterprise planning software.

Industry analysts and experts recognize Cognos leadership in these fields and in the emerging field of corporate performance management. These analysts and experts point to the breadth and excellence of Cognos performance management software as the source of this leadership.

Cognos backs up this leadership with the highest awards for customer service in the industry. More importantly, the return on investment Cognos delivers to its customers is proven by independent industry watchers and customers across all major verticals, around the world.

Founded in 1969, Cognos today serves more than 23,000 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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