Extending BI with dashboards

Introducing IBM Cognos 8 Go! Dashboard

Cognos.
software

Abstract

IBM Cognos 8 Go! Dashboard software

Organizations and the people inside them define dashboards differently:

- Gauges and charts that can be personalized to your responsibility.

- The key metrics of your strategy all in one place.

- Visual reports someone on the shop floor can print to see performance against target.

- Great graphics that can punch up a presentation and communicate the need to act now.

- Time-saving at-a-glance status.

- The daily business portal that shows you how you're doing and lets you drill through to discover what's behind the performance.

These, and more uses, are testament to the powerful flexibility of dashboards as a business concept. It also underlines the requirement for flexibility in delivering dashboard capabilities. This flexibility is best enabled when dashboards are part of a comprehensive business intelligence and performance management approach.

Overview

IBM Cognos solutions offer the full range of dashboards – operational, tactical, and strategic – to help you monitor, measure and manage corporate performance. As part of the newest version of its performance management platform, a new dashboard application – IBM® Cognos® 8 Go! Dashboard – has been added to the IBM Cognos 8 Go! family of business intelligence (BI) extensions.

This dashboard facility joins IBM Cognos 8 Go! capabilities that already extend BI's reach to the business user through search, mobile and Microsoft® Office®. As part of IBM Cognos dashboard capabilities, IBM Cognos 8 Go! Dashboard helps you communicate complex information quickly. In complementing existing IBM Cognos dashboard software, this new application features richer graphics capabilities, more dashboard elements to build with, and even greater ease of use for the casual, business, and executive user.

At the same time, it draws on the strength of a single business intelligence platform, and seamless integration with existing performance management capabilities. It is part of the author once, consume in many ways value of IBM Cognos business intelligence. IT knows that business users authoring any type of dashboard or report will always get the same answer to a question because of the single version of the truth – it may just be presented in different ways to enhance understanding. In a similar way, business users can trust that their reports are based on IT-sanctioned information.
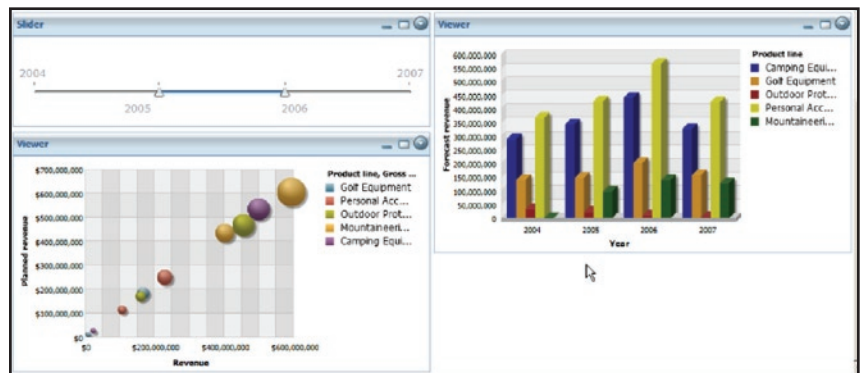
Adobe Flash graphics deliver visually appealing graphics and the ability to filter your data using sliders.

Business Problems

Dashboards: The Tipping Point

Business intelligence-fueled organizations are better aligned, make better decisions and perform better than the competition. Data that becomes information in context is a powerful force to align people in terms of what you want to achieve, how you're doing and how you can course-correct as conditions change.

Why doesn't every organization embrace business intelligence technologies and approach? There are many reasons, according to a recent TDWI study that surveyed 700 BI professionals and went in-depth with 20 of them. Even if you have BI software in-house, poor data quality, hard to use software, lack of executive buy-in all contribute to a failure to thrive for BI.

How do you fix this problem? There are four main ways according to the TDWI Study authored by Wayne Eckerson[1]:

- Integrate BI with Microsoft Office

- Embed BI into a business process

- Deliver highly interactive and self-service BI, and

- Implement dashboards.

These four ways to address better BI adoption align with the BI extensions offered by the IBM Cognos 8 Go! family of applications:

- IBM® Cognos® 8 Go! Office: View, interact with, and refresh BI content within Microsoft Office applications such as Microsoft® Excel®, Microsoft® PowerPoint®, and Microsoft® Word.

- IBM® Cognos® 8 Go! Mobile: Receive and interact with reports and analysis through BlackBerry and other handheld devices.

- IBM® Cognos® 8 Go! Search: Find existing reports in IBM® Cognos® 8 BI more quickly with easy-to-use search.

- IBM Cognos 8 Go! Dashboard: Build sophisticated, interactive dashboards using IBM Cognos content, as well as external data sources.

In this paper, we discuss the capabilities of IBM Cognos 8 Go! Dashboard, and how it helps you extend your capacity for control and persuasion, as well as extend the reach of BI's value.

Options to Deliver Dashboards

Business dashboards offer better business control, stronger persuasion and alignment, and the ability to help bring BI to more people. What are the options for implementing them? Based on experience with tens of thousands of companies and public sector agencies around the world, IBM Cognos has seen these approaches:

- Business presentation systems (slideshows)

- Graphs built with spreadsheet systems

- Graphics that come with reporting packages embedded in data warehouses

- Third-party add-ons for business intelligence

- Dashboards built as components of BI software.

Each approach has limitations and benefits.

Presentation systems

Slide shows are a wonderful piece of technology…too often stretched beyond what they do best. As dashboards, they provide the capacity for persuasion, but none of the capabilities for control. They have no easy facility for auto-updates from live data. Slide show dashboards are frozen in time, removing one of the great facilities of dashboards—access to refreshable data. Beneficially, everyone has the software, and everyone knows how to use it. It is a widely accepted and familiar business language.

Graphs and spreadsheets

Spreadsheets, like slide shows, are ubiquitous. Everyone knows how to use them; everyone has them. Graphs based on them are based on actual data, and if you change a data cell, you can update your graph to reflect the change.

The strengths (ubiquity and universal use) are also this approach's greatest weaknesses. Business literature is filled with examples of spreadsheet errors leading to bad decisions and million-dollar problems. Lack of trust in the numbers limits the spread of BI. The fact everyone can input numbers compounds this problem, rather than helping to solve it.

Reporting packages with data warehouse packages

It's hard to debate the attraction of free. Reporting packages that comes with data warehouses are tuned to work with that data source. If your demand on business intelligence is basic reports based on a single data source, this will work for you.

Challenges of this approach include:

- If you have more than one data source, you can't report across them, limiting the utility of your dashboard.

- Your reporting is not purpose-built; it's an add-on feature. Therefore, it will not have the same features and capacity as purpose-built business intelligence. This may not be as significant with reporting, but may be quite significant when looking at dashboards.

- Data warehousing reporting packages are not typically built to be as easy to use for the business person, and tend to be IT-centric for deployment and management. This puts demands on IT, and may frustrate the average business user.

Third-party dashboard add-ons

This approach solves the one-data source issue, as third-party dashboards are built to sit on multiple data sources. They combine data elements and draw on different data, presenting it all in one dashboard screen. They are purpose-built dashboards, so they should be easy to use, and are packed with dashboard features that sizzle and pop. You should have maximum power to control and persuade.

The key limitation of this approach is potential incompatibility with the larger business intelligence and performance management system you may be building, or planning to build. Some IT organizations prefer to build a system with multiple best-of-breed components. The challenge is adjudicating elements such as metadata consistency across applications, and enabling drill-up, down, or through among all constituent elements. A business user may be in a dashboard now, but may then want to see a problem in a report, an OLAP cube view, a scorecard, or move into adjusting his or her budgets and financial plans. If the dashboard is disconnected from the underlying BI components and modeled data, you may produce a dashboard that gives different results than a report, complicating your decision-making.

Integrated performance management dashboards

This approach also solves issues around multiple data source issues, data quality and single version of the truth. The dashboard is typically part of a larger reporting (and scorecarding) approach and is built for the average end user (rather than specialists in IT). This is its key strength. All parts of reporting, business intelligence and even your performance management system should work together seamlessly. You can buy pieces of the system and know they'll work with the next element as you require it.

These dashboards should be rich enough in features to satisfy business requirements. IT should feel confident that the dashboards will be built on trusted report-modeled data.

IBM Cognos 8 Go! Dashboard software is an example of an integrated performance management dashboard.

Characteristics of IBM Cognos 8 Go! Dashboard

IBM Cognos 8 Go! Dashboard is Web-based software that you can use to build sophisticated, interactive dashboards using IBM Cognos content, as well as other, external data sources. It dynamically delivers rich, Adobe® Flash-based graphics for business users and executives to assemble personalized dashboards from trusted, consistent report-ready information. You can extend dashboard functionality by embedding IBM Cognos-built or external elements such as RSS feeds or IBM Cognos 8 Go! Search directly into the dashboard. The result—business users have a single view of the information that matters most to them.

While extending the value of its business intelligence and performance management platform with even better dashboarding, IBM Cognos 8 Go! Dashboard seamlessly integrates with the other elements of the IBM Cognos performance management system. You get an end-to-end, single version of the truth, with common metadata, interface, security, IT management and more. Plus, you can extend the value of business intelligence to more users with easy-to-assemble dashboards.

Business Drivers

IBM Cognos 8 Go! Dashboard software is: dynamic, personalized, trusted and extensible. Each aspect delivers both business and IT benefits to the organization.

Dynamic

People want dashboards that let them dynamically interact with the content—changing views, getting down to details—for better insight. This is a key attribute in helping extend your capacity to gain better control through the dashboard.

For example, business or executive users want dashboards with more interactivity built in. "Sliders" let you change time horizons to get a sense of past trends and predict future ones. "Filters" let you select among the data to show what is of particular interest. "Drill-up" or "Drill- Down", a key distinguishing feature of business intelligence dashboards versus just pictures, let you go from a chart or gauge and see the data that underpins the results. At the same time, rich graphics make those charts and gauges visually appealing to help quality information make the best impression. Business users also want the ability to change these views and update them on the fly.

The Adobe Flash-based nature of IBM Cognos 8 Go! Dashboard enables both interactivity and quick response. Adobe Flash-based graphics deliver a rich, interactive dashboard experience. Adobe Flash as a technology caches downloaded data locally. This means the software delivers an almost instantaneous experience when doing simple re-sorts, order changes or other changes.

Features supporting the dashboard's dynamic ability include:

- Up-to-date visibility: Event-enabled capabilities in IBM Cognos 8 BI can provide up-to-date views of key metrics and business operations as data or reports changes.

- Point-and-click ease: An intuitive interface, including pre-built components and data connectors, lets you create or assemble dashboards connected to trusted company data.

- Connectivity to IBM Cognos 8 BI as a Web service: Increase the value of IBM Cognos software information by transforming it into easy-to-understand live visual models with point-and-click ease.

- Connect: Refresh views of your business performance in your dashboard by connecting with the underlying reports and data.

- See historical data, simple data models and trends: Assemble dashboards based on your current and historical corporate data; change your time view with 'sliders' or analyze other dimensions by using 'filters'.

- Drill-down charts: Present report data in easy-to-understand charts and graphics and go to report-level details with one click.

- Use templates and pre-built components: Access a library of pre-built reports, templates and applications based on IBM Cognos software to deliver comprehensive business dashboards.
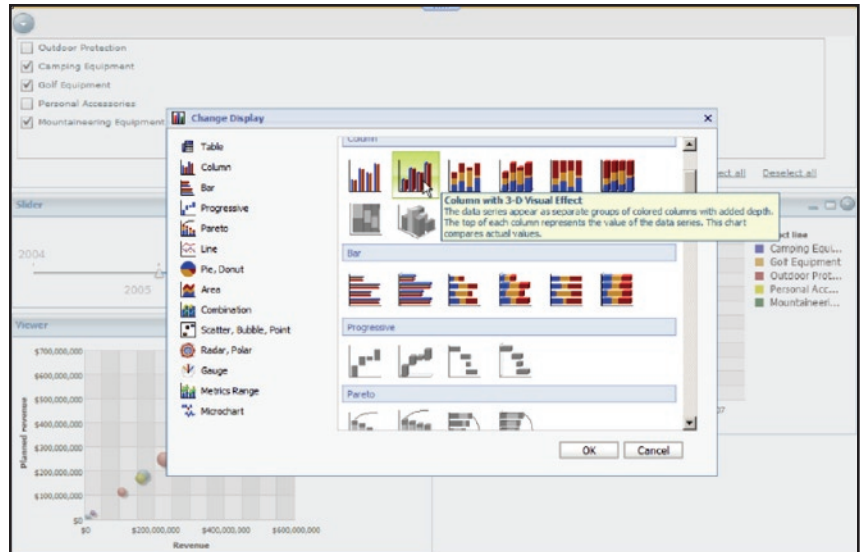
Personalized

Business users complain about too much data as often as not enough. Dashboards are one way to cut through information clutter; personalized dashboards take this value one step further, giving each person a 'birds-eye' view of their role.

Personalized dashboards demand an intuitive environment so people can request, edit and adapt dashboard content. This means

- Business users and executives can change content or layout of existing dashboards without difficulty and frustration.

- Business users have no constraints on the type of content and how to view it, i.e., not limited to premade reports or IT views of reports.

- Dashboards are fast and easy to assemble, based on trusted, IT-validated reports and data, so business people don't have to author reports from scratch.

These requirements drive dashboards to have an easy-to-use drag-and-drop interface and freedom from (and for) IT— so business people can craft the dashboard that fits their need.

Personalized dashboards extend an important tool for better business control, and will undoubtedly increase the use and prevalence of business intelligence. Just as important, they help free up IT resources by putting controls in the hands of users for scalable management of BI implementations.

End users have the ability to change graph types to personalize their dashboard and then see the changes almost instantly.

Features supporting the dashboard's ability to be personalized include:

- Flexible user interface and design capabilities: Each user can personalize their dashboard to present the information they need within pre-set templates and standards; customize charts and graphs; set thresholds; and assemble entirely new dashboards with a simple point-and-click interface.

- Self-service dashboards: Individual and casual users can easily customize and modify pre-built dashboards for their own view of the business.

- Role-based information delivery: Integrated data-level security ensures that each user can assemble a dashboard only from reports he/she has clearance to access. Further, if you share a dashboard with another person, that person's view of the dashboard is restricted to his/her security level.

The Solution

IBM Cognos 8 Go! Dashboard software operates in two basic modes, Assembly and Interactive. With Assembly you can build dashboards from pre-existing parts; with Interactive you can view and interact with the dashboard. Both modes deliver personalization.

In Assembly, you have the options to craft the dashboard with drag-and-drop ease:

• Choose a template layout for your dashboard page

• Add reports, parts of reports, or metric content by dragging it from a content pane. You can also add IBM Cognos tools and portlets from a wide selection.

• Add filters to the dashboard elements (reports, etc.) to get the information you require.

In Assembly mode, you can also take an existing dashboard and change the layout options (e.g., drag one report to the upper right to make it more prominent); or select entirely different content from the content list available to you to add or change what the dashboard displays.

In Interactive mode, you can change your choice of graphic displaying a report (e.g., you may have turned a tabular report into a bar graph — switch it to a line-area graph or other choice); sort and filter the dashboard data to fit your need; refresh existing portlets, and many other options.

The easy-to-use interface lets you assemble and customize content to meet your business requirements. Most importantly, as part of the IBM Cognos 8 BI system, you know that you are selecting components from pre-authored and trusted business intelligence content. This means you can render a dashboard yourself, much faster than building your own report from scratch, and make decisions with confidence because you're working from the single version of corporate truth.

Trusted

Once BI tools are in-house, one of the biggest impediments to greater usage is poor data quality.[2] With IBM Cognos 8 Go! Dashboard software, reports, report elements, and other data elements placed in the content pane are pre-validated by IT.

IT is mandated to ensure that all business intelligence capabilities, such as reports and dashboards, are built on trusted data. The requirement for trusted data is perhaps the major reason to select dashboard capabilities that are part of a business intelligence system rather than as a stand-alone.

- As your BI and performance management deployment expands to reach more users, IT is monitoring the broad range of transactional, financial and operational data for quality and consistency.

- Compliance legislation worldwide mandates business—as opposed to IT alone— take ownership and ensure the quality of data reported and acted upon. Business and IT are working together to understand the issues with the data.

- Data security will be part of the BI implementation, and IT will have set data governance rules and procedures.

Data quality is also as much a change management issue as a technical one, says Wayne Eckerson in his TDWI study.[3] This can be especially true of a dashboard implementation, because users may reject new reports that present data in a different format with different metrics or results—even though the data is accurate. Having the ability to drill-through a dashboard element to the underlying report, as with IBM Cognos 8 Go! Dashboard software can help manage this issue.

Features of IBM Cognos 8 Go! Dashboard delivering trusted information include:

• IT manages the data and content available to business users to craft their dashboard. This insulates business from technical data cleansing worries, while at the same time, engages them to flag contextual data errors based on their knowledge of what the data says.

• Drag-and-drop content pane with clean data elements means business users know their dashboards are built with trusted information.

• Integration with the full suite of IBM Cognos software for business intelligence and performance management means commonly defined metadata.

• Access to the full range of data quality support available from IBM Cognos software and services, such as the IBM Cognos Data Quality Rapid Assessment Service and IBM® Information Server® WebSphere® QualityStage.

Leveraging trusted IBM Cognos data by way of published reports or report parts give business flexibility and IT peace of mind.
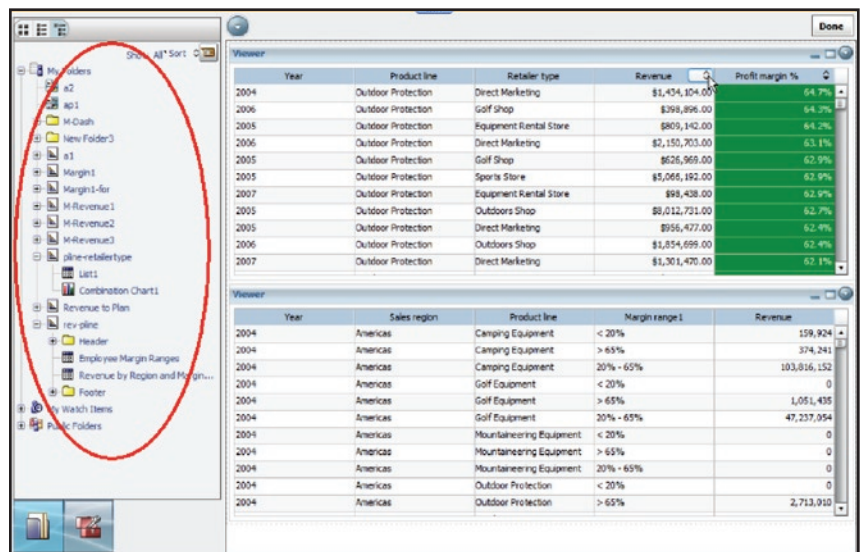
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Extensible

IT must ensure dashboards support overall IT policies and take advantage of existing BI elements where possible. In the past, business users have been frustrated by having to use any number of different interfaces (reports, dashboard, Web, news ticker) to get a complete picture. They are also looking for a way to integrate their report or dashboards into the corporate approved portal.

IBM Cognos 8 Go! Dashboard software can be your business homepage, or become an element of your business homepage.

In addition to BI elements such as graphs based on pre-authored reports, you can add and embed:

• Your mailbox for regularly delivered BI reports.

• Links to Web pages or the actual Web pages (such as maps).

• RSS readers to capture, for example, external business news and multimedia.

• IBM Cognos 8 Go! Search capacity, letting you search through all of your accessible BI content for information not generally delivered to you.

• Applications authored by your IT using the IBM® Cognos® 8 Software Developer Kit that extend and customize your BI deployment (scorecards, mashups, and more).

Features of IBM Cognos 8 Go! Dashboard software-enabling extensibility include:

- Data and lifecycle management: The Assembly and Interactive modes let you organize data connections in one place for easy administration. Move dashboard models from conception to production easily. Add trusted IBM Cognos extensions in the same way.

- Secure, interactive data visualization: IBM Cognos 8 Go! Dashboard is specifically designed to leverage the IBM Cognos 8 platform. You can connect live to trusted corporate data sources subject to the governance enabled by the IBM Cognos 8 platform's security. You can assemble dashboards from content you are authorized to see. Share the dashboard with someone else, and when they log-on to view it, their security settings 'filter' the dashboard to remove any content that they are not authorized to view. IT can set security on the reports and data, knowing that all applications will respect it.

- IBM WebSphere Integration kit: Integrate IBM Cognos 8 Go! Dashboards and content into your IBM WebSphere Portal. Turn IBM Cognos dashboards into IBM WebSphere portlets without having to code. Create complex dashboards which connect across portlets. Further, through Web Services for Remote Portlets (WSRP) you can embed parts of your dashboard, or the entire dashboard in your corporate portal.

Conclusion

Dashboards with IBM Cognos software

Dashboards are an integrated part of the larger IBM Cognos business intelligence and performance management system. Use graphical reporting, comprehensive metrics monitoring and scorecarding with IBM Cognos 8 BI. Deploy operational dashboards on fast-changing data with IBM® Cognos® Now! software.

IBM Cognos 8 Go! Dashboard joins the Go! family that extend the value of this IBM Cognos BI software. The IBM Cognos 8 Go! products help bring the power of business intelligence across the last mile to more people inside your organization. The result — faster, better decisions. But more importantly, the fostering of an information-based decision-making culture.

This is dashboards' value in your organization. This value is built on spreading a single version of the truth throughout your organization. This means dashboards built on trusted BI that draws on all necessary data sources, not limited by vendors, and accessible to all required people, subject to organization-wide security governance.

"Island" implementations of business intelligence and dashboards may suit today's needs, but will definitely cause business and IT headaches tomorrow. Clients choose IBM Cognos software for the longer view, building organization-wide trust and use of data for better decisions.

About IBM Cognos BI and Performance Management

IBM Cognos business intelligence (BI) and performance management solutions deliver world-leading enterprise planning, consolidation and BI software, support and services to help companies plan, understand and manage financial and operational performance. IBM Cognos solutions bring together technology, analytical applications, best practices, and a broad network of partners to give customers an open, adaptive and complete performance solution. Over 23,000 customers in more than 135 countries around the world choose IBM Cognos solutions.

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Request a call

To request a call or to ask a question, go to www.ibm.com/cognos/contactus. An IBM Cognos representative will respond to your enquiry within two business days.

Endnotes

1 Wayne Eckerson, "Pervasive Business Intelligence, Techniques and Technologies to Deploy BI on an Enterprise Scale" TDWI Best Practice Reports (Third Quarter 2008): page 4

2 Wayne Eckerson, "Pervasive Business Intelligence, Techniques and Technologies to Deploy BI on an Enterprise Scale" TDWI Best Practice Reports (Third Quarter 2008): page 4.

3 Wayne Eckerson, "Pervasive Business Intelligence, Techniques and Technologies to Deploy BI on an Enterprise Scale" TDWI Best Practice Reports (Third Quarter 2008): page 9.