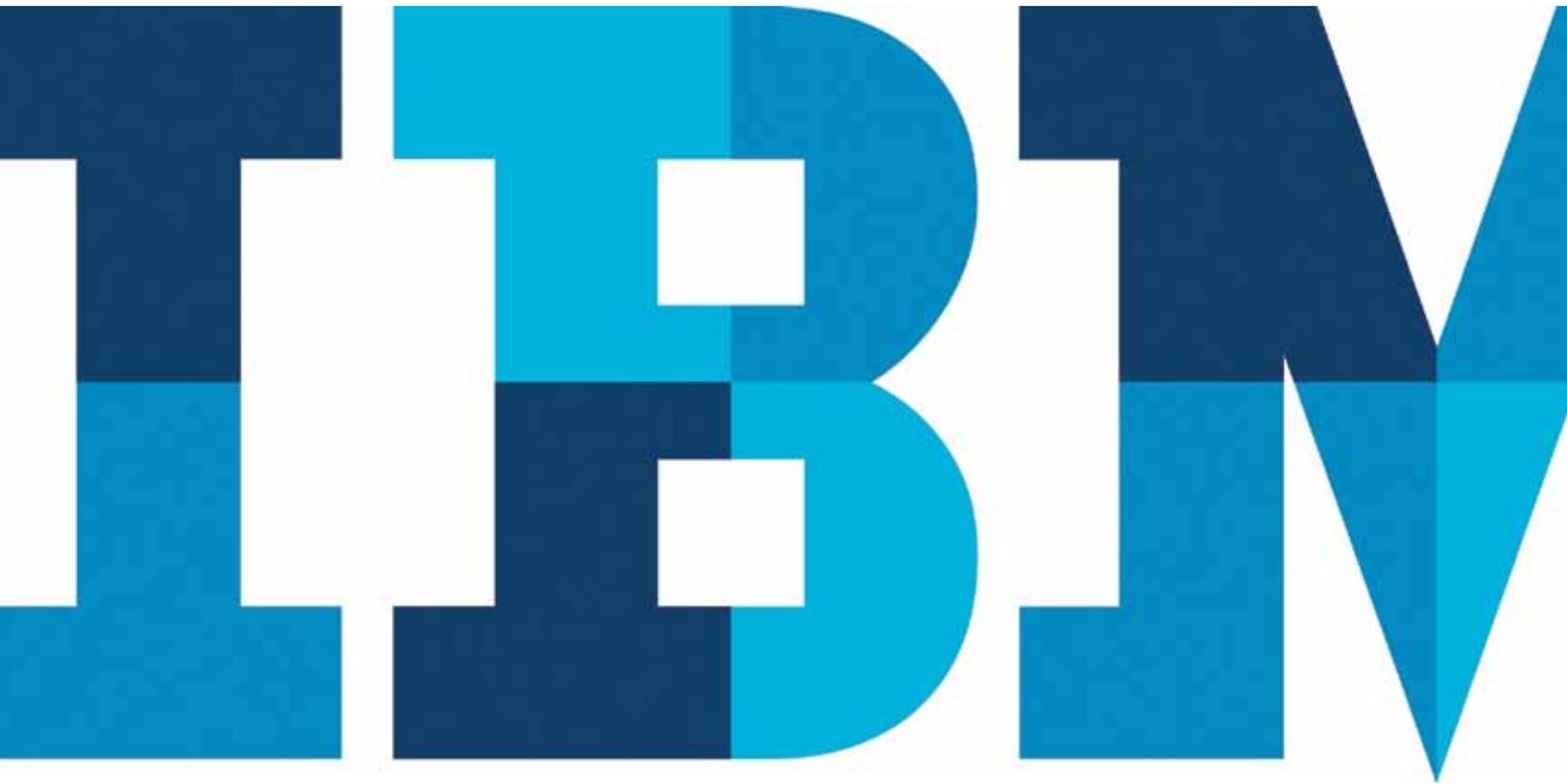


Reporting for midsize companies

Empower your business with self-service reporting



Contents

- 3 Business problems**
 - The value of reporting
 - 3 Business drivers**
 - The business perspective
 - The IT perspective
 - 4 The solution: IBM Cognos Express Reporter**
 - Complete reporting coverage
 - High-impact visualizations
 - Self-service reporting
 - Adaptive report creation
 - A single, powerful foundation for reporting and beyond
 - 11 Conclusion**
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Abstract

To thrive and grow, midsize organizations need better insight into their business, making business reporting a top priority for IT and business users alike. Lean on resources, midsize companies need a single reporting solution that addresses the full range of reporting requirements and users. IT managers look for a single reporting solution that is easy to implement and manage, leverages existing IT infrastructure and delivers the capabilities employees need. IBM® Cognos® Express Reporter delivers complete, self-service reporting and ad hoc query capabilities that empower business users to view, modify or author reports of any kind with a simple and powerful web-based interface, as well as view and interact with reports offline on a PC or Apple iPad.

Overview

Cognos Express Reporter lets you author and share a range of report types drawing on various data sources to meet the needs of business users in your company. You may use Cognos Express Reporter on its own to meet your reporting needs. You may also extend it to encompass all of your business intelligence (BI) and planning requirements as part of a complete IBM Cognos Express solution.

Midsized companies can use Cognos Express to build an information-driven business culture, transform raw data into meaningful information that can help drive strategic business decisions and link the insights gained from business intelligence to actions through the planning process.

Cognos Express delivers complete reporting, analysis, dashboard, scorecard, planning, forecasting and budgeting capabilities in one integrated solution purpose-built for workgroups and midsized organizations. The reporting module—Cognos Express Reporter—lets business users access, modify and author any type of report from any data source and in any combination, quickly and easily. Cognos Express Reporter addresses the full range of reporting requirements—operational, transactional, production, managed, dashboards and ad hoc querying.

Business problems

The value of reporting

Business reporting and reports communicate your company's performance to you in a way you can understand and monitor. Reporting leads you to take action on company information. It creates a common context for decision making in every department and at every level. Reporting is an integral part of managing business performance.

IT departments may be challenged to deliver these values to the wide variety of users, all with different needs, and with reports that draw on a wide variety of data sources. Most reporting solutions fail to address these broad and diverse requirements. This is a critical flaw in many reporting deployments. If you can't serve the variety of users and access the full range of data, you will find it difficult to deliver the "single view of the truth" modern organizations need.

Many midsized organizations use separate reporting tools for different capabilities and styles of reporting. The structure of the underlying data often dictates the reporting tool. Relying on different reporting tools for different requirements causes problems. Different metadata structures and data architectures make it difficult for IT to ensure data consistency. Maintaining multiple reporting applications means a higher total cost of ownership (TCO). Vendor-specific security models limit scalability and network performance. Each reporting application has its own performance limits, which force networks to work at the lowest common denominator. This in turn means other enterprise components such as enterprise resource planning (ERP) systems, databases or application servers are not being used to their full value.

It also means end user frustration. End users have 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. This backlog is created because most reporting solutions have an all or nothing approach to functionality or because these solutions don't allow business users to create or modify reports themselves.

Addressing these challenges has been anything but simple.

Business drivers

The business perspective

For business users, the right reporting software is the one that lets them work with information the way they want. This means being able to access relevant information quickly and easily. It means confidence that the numbers you see are the same throughout the organization. It means reports are presented in context so everyone can share and make informed decisions rather than waste time debating the numbers.

Teamwork is integral to solving business problems. Reporting software must enable people to collaborate and share information. Teams include workers with different roles and abilities. The reporting software must be flexible. Business users need a reporting interface that reflects their needs rather than a generic one for highly technical or power users.

The IT perspective

In addition to existing reporting pressures on IT, the department is under scrutiny and required to justify or cut spending. Especially in midsize organizations, cost cutting remains a major focus for CIOs.

Fortunately, the barriers to effective reporting also point to the solution. To reduce their total cost of ownership, organizations can benefit from a single reporting software application. A single solution reduces the complexity of the reporting environment for IT while delivering more for the organization's business users. A complete reporting solution needs to:

- Recognize and accommodate different kinds of users.
- Provide complete coverage for all types of reports.
- Access all enterprise data, regardless of the source.

The solution: IBM Cognos Express Reporter

As part of the Cognos Express solution, Cognos Express Reporter delivers a simple web-based interface to address all reporting needs of a midsize company. It easily extends beyond reporting to include all BI and planning capabilities in a one-stop, integrated solution purpose-built for workgroups and midsize organizations.

With Cognos Express Reporter, users can develop any and all types of reports from simple inventory lists to high-volume billings and high-impact business dashboards. Cognos Express Reporter meets the needs of every kind of user from simple report consumers to professional authors and developers. As a preconfigured solution, it smoothly integrates into your existing IT infrastructure without creating the need for additional security, databases or redundant environments.

Cognos Express Reporter gives authors 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. These objects allow organizations to extend the boundaries of traditional reporting, giving them unprecedented ways to view their business performance.

Reports can be built with multiple data queries. Each query can draw data from any data source or a combination of sources and be linked together in context or left as independent. Users can arrange report objects by dragging and dropping them into the report authoring window. The report layout automatically adapts and rearranges itself as report objects are added or removed. Casual or novice users can author and modify their own reports with minimal training or IT involvement. The flexibility of the task-based interface reduces the time required to author and modify a report.

Cognos Express Reporter makes departmental reporting easy. And as midsize organizations grow and expand globally, it simplifies complex global reporting. Global midsize enterprises can bring divisions, departments and international organizations together so they are all working from the same information. You can extend the power to create, distribute and modify reports to everyone across your organization. Its advanced authoring capabilities match user needs and operate on a proven web services architecture.

Complete reporting coverage

IT departments have identified the barriers they face when supplying every kind of report to every kind of user. Cognos Express Reporter addresses these requirements by:

- Recognizing all user types
- Adapting to any data source
- Supporting all report types
- Improving user access

Recognizing all user types

In a typical organization, your role dictates the type of information you need and the format in which you need it. Users operate on a continuum ranging from basic report recipients to the IT administrators who support all BI capabilities and users. Between these two extremes are executives that need at-a-glance understanding of the business; managers who need to report on, analyze and track performance metrics; professional report authors who create and modify complex reports; and casual users who need easy access to regularly distributed reports and other BI content.

Complete reporting coverage means that one reporting system has the flexibility to let each group work with information the way that they want to, without being overwhelmed by excess capabilities. Report recipients can easily access and share reports in their own working language. Business managers can drill into reports and collaborate with other users. Executives can get business dashboards for at-a-glance summaries of critical information. Cognos Express Reporter recognizes and adapts to each user's needs. Its task-based interface offers enough functionality to avoid overwhelming the casual user and sufficient power to serve the sophisticated needs of an expert. Having the right interface for the right user drives adoption.

Adapting to any data source

All companies, large and small, have diverse data sources, and this diversity continues to grow. Cognos Express Reporter gives you access and visibility across heterogeneous data sources, whether relational or OLAP. For instance, a single report may be sourced from multiple relational databases, data marts, data warehouses, ERP data, flat files, OLAP and real-time XML data. You can create reporting applications in a development environment and deploy them on production databases. Database connections can be dynamically set at report runtime based on user prompting or session parameters. This data source flexibility gives organizations a comprehensive view of their business through their reports.

Users need a reporting capability that can report against multidimensional, as well as relational data. Cognos Express Reporter offers an open data strategy that allows sophisticated reporting with bursting, scheduling and other features from either relational or multidimensional sources. When used with dimensional data, query and reporting capabilities provide automatic recognition of hierarchies and automatic drill-up and drill-down capabilities for both text reports and charts, without the need for authoring by the user. Queries on OLAP sources and dimensionally modeled relational data can be enabled for drilling up and down on each dimensional hierarchy.

Supporting all report types

A reporting standard needs to deliver across all reporting requirements: from ad hoc, managed, business, statement-style and dashboard reports to invoices, statements and bills. This standard must allow for high usability and interactivity and be built with individual users in mind. At the same time, it must support sophisticated formatting and high scalability and be batch-oriented.

Cognos Express Reporter addresses all of these requirements. It delivers a zero-footprint, easy-to-use, browser-based interface for all reporting functionality. This eliminates the need for IT to install and manage client desktop software, and ensures users can access and work with the reports they require to be effective in their job.

Improving user access

Effective use of BI requires putting it in the hands of a broad range of users and bringing it into the familiar working environments they use each day. Cognos Express Reporter provides simple, intuitive, drag-and-drop authoring capabilities that are easily accessible from a web browser for self-service reporting by any user, from novice to expert. With its common metadata model, Cognos Express Reporter presents information to users in business terms that they understand so they can easily and instantly find the information they need and use it in their reports without depending on IT resources for help.

Enabling mobile and disconnected BI

Users need information about the business, whether they are in the office or on the go. This content should be as accessible on a mobile device as it is on a desktop—so all workers are equipped with timely information to make informed decisions, regardless of location.

Cognos Express Reporter provides extended support for mobile and touch devices, including the Apple iPad, allowing workers to access up-to-the-second information and reports wherever they are. It also extends the reach to include non-BI consumers who are not connected to the infrastructure. IBM Cognos Active Report enables users to access and interact with report and dashboard content whether or not they are connected to the BI network.



Figure 1: Offline users can view and interact with report or dashboard output using IBM Cognos Active Report.

High-impact visualizations

In addition to accessing and distributing the right data, effective reporting software must also present business information in a variety of formats for ease of understanding and exploration. Cognos Express Reporter provides rich visualization options that can be combined to create interactive reports for maximum visual impact. IBM Cognos Express offers the full range of dashboards—operational, tactical, strategic—to help you monitor, measure and manage corporate performance.

You can create dashboard reports that use geographic or spatial maps to present data in different forms such as cities, countries, building floor plans, seats in an airplane or parts of the human body. These can be combined with interactive charts such as gauges, horizontal progress charts and combination charts. Since charts are typically used to integrate different data, authors can build multiple queries into the same chart as well as individual portions of a chart. You can drill up or down through chart elements to see the big picture or the essential detail. Administrators can take advantage of the multilingual capabilities of Cognos

Express to create dashboards that appear in each user's working language. Like all other reports available with Cognos Express Reporter, dashboards draw on the full variety of relational sources and the embedded analytics server.



Figure 2: Get rich dashboard visualizations from a single authoring solution.

Traditionally, BI reporting software has focused on the needs of professional report authors or “power users” despite the fact that few people in midsize organizations possess these skills. For maximum value and the lowest TCO, advanced reporting software needs to support not just experts, but also the full range of business users. This means easy-to-use, self-service reporting for everyone that needs to author reports and support for a team-based approach to reporting that allows groups to collaborate when creating reports. For midsize organizations that have global requirements, the report authoring capabilities of Cognos Express Reporter support multilingual report distribution so the whole business can benefit from new information.

Companies that deliver these advanced authoring abilities will expand the user base for business reporting beyond professional authors and improve their organization’s decision-making ability.

Self-service reporting

The point-and-click approach found in Cognos Express Reporter gives business users the ability to create and enhance reports more quickly and ensure a more timely distribution of information. Removing any barriers between queries and reports simplifies overall authoring. Users can share information faster by reusing queries and report objects created by others. Sharing responsibility for report creation with others in the organization eases the reporting workload for IT.

The self-service reporting capabilities of Cognos Express Reporter allow business users to:

- Build ad hoc reports that draw on multiple, heterogeneous data sources.
- Drag a drop multiple reports, web links, text and graphics, as well as interactive filters and sliders, to create dashboards.
- Distribute reports and dashboards with personalized content for each recipient from a single report using automatic prompt controls.
- Schedule simultaneous or sequential batch reporting jobs for multiple output formats, destinations and views.
- Distribute reports on demand or according to schedule based on time, calendar, events or an external trigger.

- Distribute reports through event management notifications when business conditions occur that require immediate action.
- Choose viewing preferences for the reporting interface, including language or other preferences based on geography such as time, currency and data formats.

Collaborative workflow

Between identifying the need for a report and delivering the finished product, users may share ideas, suggestions and modifications, as well as authoring experience and skills. Cognos Express Reporter removes the limitations frequently associated with collaborative report development due to the need to use different reporting products and interfaces for various report types or users. With a single query definition, you can deliver collaborative report development to people with different roles and experience levels—and from different areas of the company.

The single architecture for viewing, querying, analyzing and authoring means business users can work together on any report. A business manager can author a simple ad hoc report and pass it to a professional report author for improvements – to add pagination, report objects or complex data query constructs. Once complete, the business manager can distribute the finished report to the intended recipients.

Multilingual distribution

Cognos Express Reporter supports multiple languages from a single metadata layer, out of the box. Report authors can define which report elements need to adapt to each recipient's working language, including the user interface and report content. These elements are automatically detected and displayed appropriately across supported languages.



Figure 3: The same pixel-perfect production report rendered in English, Japanese and Russian.

Adaptive report creation

Most banded report writing applications follow a rigid linear format that forces users to use archaic methods such as: custom coding and duplication of files (one per language), if-then-else statements to modify the format per language and overlay text strings with if-then-else formatting options to hide all but one overlay. Few solutions address issues such as prompt controls, formula language syntax, UNI-CODE or special word wrapping.

Producing reports in different languages often means producing a series of reports or translating them afterwards. Report writers typically display individual source data records, which may result in hundreds or thousands of records. Presenting this large amount of data is unusable to the end user and costly for network bandwidth and performance.

Cognos Express Reporter solves these problems through adaptive flow authoring. Instead of creating specifically targeted and rigid reports for small groups of users, report authors can create a report once and then deploy it for use across the enterprise. With adaptive flow authoring, objects are arranged top to bottom in your reports. Just like a word processor document or web page, when you create a report with Cognos Express Reporter it is automatically resized for the layout that best suits each end user. This includes a wide variety of potential output devices and displays ranging from a typical desktop monitor to hand-held computers.

This sophisticated drag-and-drop report layout and formatting is controlled using tables and table cells. In a process similar to HTML authoring, report authors can nest tables inside tables. Users see just as much information as is required for their own needs and have just as much functionality as is 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.

Adaptive flow accelerates report distribution, expands the potential user base for each report and makes modification of existing reports as easy as drag-and-drop.

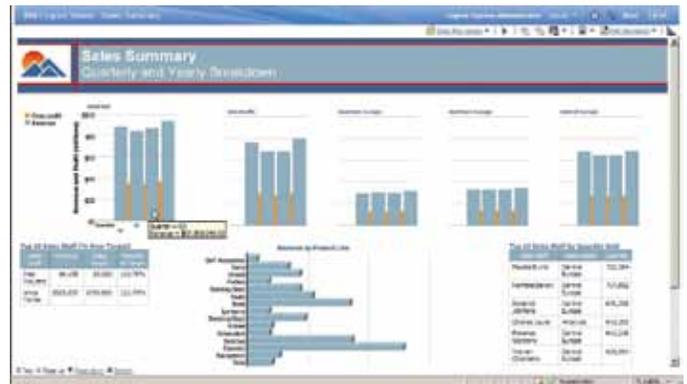


Figure 4: Create complex reports with drag-and-drop simplicity.

Use your existing IT infrastructure

One of the goals of midsize organizations is to reduce the total cost of reporting or the cost per report incurred by your organization. While saving money on reporting, IT must ensure that the reporting investment doesn't cost people, time or money in other areas. At the same time, IT must make the most of its existing investments. To deploy a reporting solution, you must be able to leverage your existing IT investments and get further return on these investments.

Cognos Express Reporter includes everything you need for immediate use in a preconfigured solution. It plugs into your existing infrastructure with minimal impact and can be deployed within an hour. A single, centralized web-based console manages all administrative aspects of installation, deployment and ongoing management, using only a few simple mouse clicks. There is no extra burden on IT staff and no additional investment in software infrastructure.

This simplicity eliminates the time and costs associated with more complicated, developer-centric implementations. You are more productive right away. It also reduces the complexity of deployment and ongoing maintenance, which minimizes the IT resources required.

A single powerful foundation for reporting and beyond

Cognos Express Reporter, like all Cognos Express modules, is part of the IBM Cognos 10 Family, which delivers a shared set of integrated core capabilities, including:

- **Flexible data access** – provides access to relational, OLAP and local data sources in any combination through the use of centrally managed data models and metadata.
- **Single metadata layer for all reporting** – presents a single, business friendly view of information so users can work with familiar terms and avoid the complexities of the underlying data structures.
- **Common web portal** – enables users to publish reports and create compelling dashboards using any Cognos Express module to deliver a single, shared view of the business.
- **Tight security** – uses role-based access with a single sign-on.
- **Powerful in-memory analytics server** – enables lightning fast queries and on-the-fly calculations regardless of the size or complexity of the data set.
- **Single management console** – offers push-button installation, configuration and operation to manage the entire solution.

This shared foundation enables you to add new Cognos Express capabilities with “plug and play” ease. And because Cognos Express is derived from the proven capabilities of IBM Cognos software, you have a growth path for today and for the future.

The Cognos 10 family of products delivers the essential foundation for Business Intelligence, Performance Management and Business Analytics solutions. These products are designed to work together to help individuals, workgroups and entire organizations gain value from applying analytics to every business decision.

Cognos 10 products are right-sized for your organization and integrated so you can start addressing your most pressing needs with the confidence that you can grow your solution to meet future requirements. For example:

- Initial deployments can address the needs of individuals by instantly deploying the desktop capabilities of IBM Cognos Insight for data discovery and planning.
- Workgroups or departments can grow to share that insight through a server, add reports on larger data sets and interact with them on mobile devices with Cognos Express.
- Organizations can combine those insights with real-time and corporate information, place them on scorecards and deploy broadly with IBM Cognos Enterprise.

Conclusion

As midsize organizations 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 takes advantage of existing IT infrastructure and has the ability to grow. Cognos Express Reporter is that solution.

Its flexible, self-service design enables users to create, view and modify reports that combine information from a variety of different sources and to build different types of reports that support their needs. With Cognos Express Reporter, reporting is no longer complex for IT or business users. This is reporting at its best.

Using Cognos Express Reporter, you can begin to turn silos of data into meaningful information, turn information into insight and transform insight into action. By connecting reporting, analysis and planning, you will drive better business outcomes.

About IBM Business Analytics

IBM Business Analytics software delivers actionable insights decision-makers need to achieve better business performance. IBM offers a comprehensive, unified portfolio of business intelligence, predictive and advanced analytics, financial performance and strategy management, governance, risk and compliance and analytic applications.

With IBM software, companies can spot trends, patterns and anomalies, compare “what if” scenarios, predict potential threats and opportunities, identify and manage key business risks and plan, budget and forecast resources. With these deep analytic capabilities our customers around the world can better understand, anticipate and shape business outcomes.

For more information

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