

# Highlights

- A powerful analytics engine for dynamic planning, budgeting, forecasting, analysis and scorecarding
- Planning enabled through mobile devices including the Apple iPad to engage mobile contributors
- Guided modeling design and enterprise-scale deployment
- Integrated scorecarding and strategy management to align resources and initiatives with corporate objectives and market events
- Integration with powerful business intelligence and predictive analytics solutions for stronger business foresight
- Control and management by Finance and line-of-business users, with adherence to IT standards
- On-cloud deployment with all the functionality of an on-premise solution

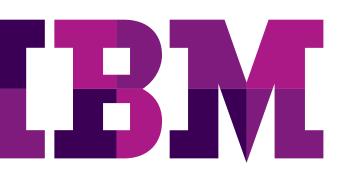
# **IBM Cognos TM1**

Planning, analysis and scorecarding capabilities to drive personal, departmental and enterprise-wide performance management

## **Overview**

Many Finance departments shortchange their enterprise performance management activities because they're wasting time on manual tasks, such as collecting, validating and correcting data, to spend adequate time on the more important task of analysis. They rely on systems—ranging from spreadsheets to ERP solutions—that are disconnected, outdated, static, insecure, completely dependant upon IT, and lacking the performance and data reliability essential for today's analytics.

IBM Cognos® TM1® transforms planning, budgeting, forecasting analysis and scorecarding to establish a more dynamic, reliable performance management system. Metrics to measure progress toward objectives are modeled easily and linked dynamically to actions and forecasts Cognos TM1 facilitates "what-if" scenario analysis and high-participation planning throughout the enterprise. Mobile workers can submit monthly forecasts through mobile devices to sustain uninterrupted productivity. Integration with enterprise reporting solutions delivers business insight in any format at the point of impact. Flexible deployment options for cloud or on premise help meet diverse IT requirements. And with its distributed administrative capabilities, Cognos TM1 enables localized responsibility for the planning process across business units, functions and geographies—all in a single, secure environment.



With the full range of planning processes tied to the operational front lines, planners and analysts can uncover hidden business opportunities, anticipate problems, increase profits and manage capital more effectively. Cognos TM1 facilitates best practices such as driver-based planning, rolling forecasts and profitability analysis blended into planning. It elevates the work of Finance to proactively managing the company's overall performance.

# A common platform for comprehensive performance management

Cognos TM1 offers enterprise planning and analytics built on a common information and technology platform. This enables users to employ the same skills as they adopt additional performance management capabilities, saving time and cost. Cognos TM1:

- Enables you to create detailed plans, budgets and forecasts based on contributions from users throughout the organization.
- · Provides a holistic view of performance and profitability.
- Engages mobile users with mobile capabilities, including a mobile client for the Apple iPad.
- Includes integrated scorecards and strategy management to help monitor metrics and align resources and initiatives with business objectives and market events.

- Supports what-if analysis of alternative forecasts, which are reflected immediately in charts, reports and dashboards.
- Offers a choice of interfaces, including IBM Cognos Analysis for Excel, to encourage high participation planning and accommodate a broad range of work styles, businessspecific personal analysis and options for collaboration.
- Provides a managed, governed process that is controlled by Finance, with line-of-business users managing their own work, without the need for constant IT support.
- Features an innovative, guided modeling environment that eases development of flexible models without batch processing.
- Integrates with IBM Cognos Business Intelligence in a single performance management platform that consolidates data from multiple sources and applications.
- Offers a choice of distributed (online or offline) or centralized planning deployments for a range of users and activities.
- Expands beyond planning to include business intelligence and predictive and risk analytics, dashboards, scorecards and reports, including standard general ledger, accounts receivable and accounts payable reports.
- Works in conjunction with dozens of Cognos Performance Blueprints—pre-configured templates that help transform essential processes quickly, at less cost and with less risk.
- Provides flexible deployment options: from cloud to on-premise operation.

With these diverse capabilities, Cognos TM1 helps companies collaborate and adapt quickly to changing business conditions. Analysts can develop models and link them to other models to form a cohesive system, and deploy the models to workgroups or individual users throughout the organization for contribution. Users in a variety of functions including sales, marketing and HR can analyze planning results and explore alternative scenarios through an easy-to-use graphical interface, sharing plans in dashboards or reports, and prompting team members for comments and validation. Planning team members can also easily blend in complex profitability analysis or predictive analytics.

# Integrated scorecarding and strategy management

In the face of business volatility and uncertainty, many companies struggle to adapt to changes in the competitive environment. They seek to translate strategy into execution while maintaining maximum flexibility. Finance organizations in particular need to define the right key performance indicators (KPIs) and link them to concrete plans and forecasts that measure progress toward objectives. With Cognos TM1, metrics management and scorecarding is integrated with planning. Gaps between forecasts, targets and actual results can be updated dynamically to improve visibility, insight and control over the levers of performance.

## A choice of innovative interfaces

In addition to the standard Cognos TM1 interface, users can choose to access Cognos TM1 through IBM Cognos TM1 Web and these other interfaces.

### **IBM Cognos Analysis for Excel**

The Cognos Analysis for Excel interface enables users to take full advantage of their skills in Microsoft Excel. The easy-to-use Exploration UI can be used with Cognos TM1 data sources directly, with no dependency on the business intelligence server. This allows slice-and-dice exploration via drag and drop of members, views and subsets. It also allows users to write back to the Cognos TM1 cube.

The Cognos Analysis for Excel Flex view for Cognos TM1 enables users to:

- Convert an exploration or drag a view directly to a cell
- Use Set Editor and drag and drop to change members or simply type names in cells
- Add Formats and Calculations
- Add Content from multiple sheets
- Link maps with Microsoft Excel functions and Cell References

#### **IBM Cognos Insight**

Cognos Insight is the personal business analytics desktop that transforms planning and analytics for the individual contributor by accommodating the non-spreadsheet user. Not locked in by spreadsheets, planners can push the boundaries of participation as deeply and as widely as required—and halt the development of shadow planning systems that hinder cooperation. Users who are intimate with the operations of the business can examine causes, trends and options in depth, and develop plans that reflect the complex dynamics of the business, spotlighting drivers that need to be incorporated into the planning process.

When accessing Cognos TM1 through Cognos Insight, users can pull the data of their choice onto their desktop from managed or personal sources without the assistance of IT. They can then build plan prototypes with personalized dimensions and hierarchies, and run what-if scenarios on their plan data. They can dive deep into data to examine the profitability of the business, analyze hierarchies such as product families down to the SKU level or customer family sets, and view the effects of a costing change. The quick, easy development and experimentation with the plans is aided by intuitive gestures for exploration, instant re-calculations, and rich visualizations. To share planning ideas, users can collaborate with multiple groups by:

- Promoting their findings in a tailored dashboard in Cognos Business Insight for broad distribution
- Publishing the material to be read as a report in Cognos Business Intelligence
- Moving the plan to the Web as an application for limited or widely distributed access

#### IBM Cognos TM1 Mobile Contributor

Today, business is done in every environment imaginable, from office spaces with rows of cubicles to the front lines, where your people work directly with your customers. Cognos TM1 enables you to engage your planning contributors regardless of where they do their work, whether it be in an office on the fifteenth floor or at a customer's location.

The new Cognos TM1 Mobile Contributor supports mobile users with a client designed specifically for the Apple iPad. This enables the most mobile of your users to participate in the planning process, whether they are contributors, approvers or both, as if they were working right there in the home office. You can use Cognos TM1 Mobile Contributor to:

- Access any Cognos TM1 planning application
- View submission status for approval.
- Interact with cube views in a grid or chart format.
- Change values and submit them back to the plan, where the data is instantly updated on the Cognos TM1 server and available for review.

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Figure 1: Cognos TM1 Mobile Contributor enables remote users to review and update plans from the Apple iPad.

### Cognos TMl Performance Modeler solution design and deployment

Cognos TM1 Performance Modeler, with its advanced modeling environment, provides seasoned planners with a full array of analytics and model building tools as well as planning application deployment – all with unprecedented ease of use. Because Cognos TM1 Performance Modeler eases application design with a guided development process, planners can employ best practices such as:

- Driver-based planning and rolling forecasting, enhancing Finance's contribution to enterprise performance management
- · Broad involvement in the modeling process
- Frequent, rapid prototyping and linking of models to meet the broad range of enterprise planning and profitability analysis

Within Cognos TM1 Performance Modeler, the finance or business analyst can design a planning and analysis solution, such as a departmental expense plan or bring in an existing model from Cognos Insight. The Feeder Optimization features in Cognos TM1 Performance Modeler can automatically generate a proposed set of feeders for cubes in the model, whether rules were defined manually or generated automatically from Calculations and Links. Designing the model includes:

- Defining dimensions, such as product, customer or cost center
- Building cubes such as sales planning or customer profitability analysis to support the planning requirements of business users
- Creating or modifying calculations, aided by pre-configured calculation expressions
- Importing data and metadata from multiple sources, and mapping it to the model with simple drag-and-drop gestures

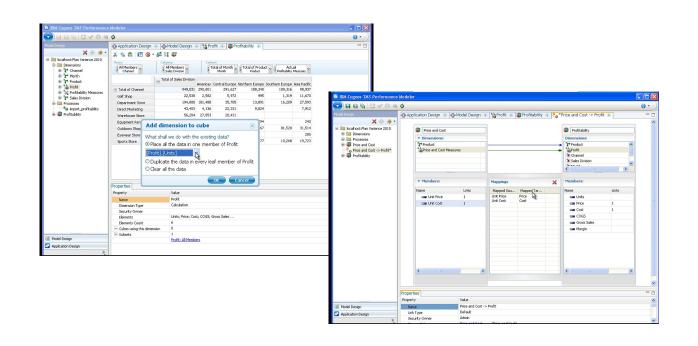


Figure 2: With this innovative modeling environment, financial planners can add dimensions to cubes or map dimensions to multiple cubes and other dimensions with point-and-click ease.

With a user-friendly graphical interface, analysts can link applications (or cubes) with simple drag-and-drop gestures, coupling financial resource management with operational performance commitments. Guided modeling design engenders more modeling and scenarios, allowing more time for deep analysis as well as greater confidence in planning and forecasting.

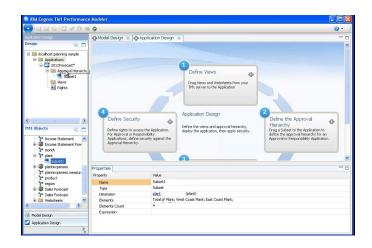
Cognos TM1 Performance Modeler offers features including:

- Three dedicated panes for content, working area, and properties
- Wide use of drag-and-drop and WYSIWYG (what you see is what you get) functionality
- Dock-able editors
- · Simple spreadsheet-like dimension calculations
- Graphical mapping for moving data between models and across dimensions within the models
- · An inter-editor refresh to highlight changes
- Guided import for data and metadata from sources such as IBM Cognos Business Intelligence

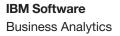
# Solution deployment for planning, analytics and reporting

Cognos TM1 Performance Modeler also provides a process for deploying managed planning, analysis and reporting that spans personal, work group and enterprise requirements. Application design guides the planner through steps to set workflow, preferred client and application views and rights.

For planning contribution, Cognos TM1 Performance Modeler provides a broad array of application styles and interfaces through Cognos Insight and Cognos TM1 Web Sheets.



*Figure 3*: As part of the guided process for deploying a planning "application," a planner or administrator adds a subset to the planning application, defining the approval hierarchy.



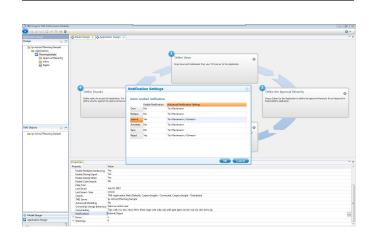


Figure 4: Within governed planning, the financial analyst sets parameters for email notifications such as plan changes or freezes.

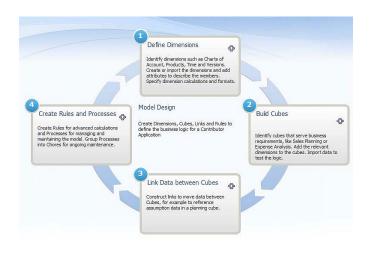


Figure 5: To enable a governed planning process, Cognos TM1 guides the planner or administrator through steps to set workflow, preferred client and application views and rights.

# Cognos Analytic Server – distributed architecture for scalability and interactivity

Cognos Analytic Server lets an organization choose centralized or distributed deployment for its Cognos TM1 planning activities, depending upon the level of interactivity desired. The "thin client"—Cognos TM1 Web—supports centralized planning. The distributed process—using Cognos Analytic Server – supports higher levels of planning participation, either online or offline, for continued planning when disconnected from the server.

The high-performance OLAP engine at the core of Cognos Analytic Server enables on-demand, in-memory analytics for large or complex data sets with real-time query and calculation performance. Users can analyze frequently changing data for millions of items, such as SKUs or transactions. For example, users can:

- Review sales daily or even hourly, by store, brand or sales representative.
- Analyze day-by-day profitability and customer churn for thousands or even millions of customer accounts.
- Track trends in spending over minutes, hours, days, weeks, months—whatever period is required.

The 64-bit OLAP technology of Cognos Analytic Server meets even the most complex, multi-dimensional analytics needs of large-scale operations, so a user can query data whenever he or she needs to — no matter how vast the data set may be. In addition, the user can view instant updates from streamed data and drill through to transaction systems for added context and thus greater accuracy in decision making.

To rapidly access valuable information locked away in back-office applications, Cognos Analytic Server includes data connectors that are shared with IBM Cognos Business Intelligence to streamline the loading of disparate data or metadata into models. A user can also create his or her own processes to automate data importation, metadata management and other tasks. The Cognos TM1 Operations Console, a web-based tool, makes it easy to manage Cognos TM1 servers. An administrator can dynamically monitor, sort and filter thread activity on Cognos TM1 servers, including monitoring threads running on multiple Cognos TM1 server instances. The Cognos TM1 Operations Console also provides a health check feature which determines the current state of each monitored server.

# Deploy Cognos TMl on cloud to lower cost and speed time to value

Organizations can accelerate their time-to-value and lower their adoption costs with the subscription-based on-cloud offering for Cognos TM1. The availability of on-cloud deployment enables you to choose the best delivery mechanism for your corporate environment—without sacrificing capabilities or limiting future deployment options. When you deploy on the cloud, you can add or remove users as needed while minimizing the costs related to capital equipment, software licenses and IT infrastructure. You also gain benefits in cost accounting by shifting costs from capital to operating expenses.

#### **Technical specifications**

#### **Operating Systems for TM1 Server**

- AIX 6.1, 7.1
- Red Hat Enterprise Linux AS 5.3, 6.3 on x86
- Novell SUSE Linux Enterprise Server v11 SP1 on System z
- Microsoft Windows 2012 Server 64-bit
- Microsoft Windows Server 2008 R2, R2 SP1 (Standard and Enterprise)

#### **Operating Systems for TM1 Clients**

- · Microsoft Windows 8 (Professional and Ultimate)
- · Microsoft Windows 7 SP1 (Professional and Ultimate)
- Microsoft Windows Vista SP2
- Microsoft Windows XP Professional SP3

#### Supported Microsoft Excel Versions:

 Microsoft Excel 2007, 2010, 2013 (Excel 2003 is no longer tested, though should be compatible for Perspectives usage)

#### **Database Support**

- IBM DB2 10.1, 9.7, 9.5, 9.1
- Microsoft SQL Server 2012, 2008 and 2005
- · Microsoft Access (via TM1 32-bit only)
- Oracle 10g Release 2
- Oracle11g Release 3
- SAP NetWeaver 2004s BI, 7.0 EHP1 (via Cognos TM1 Package Connector)
- Teradata 12, 13, 13.1
- Neteeza 4.6, 5, 6, 6.2

#### **BI Integration:**

• IBM Cognos Business Intelligence V10.2.1, 10.2, 10.1.1

#### Web Browsers:

- Microsoft Internet Explorer 8, 9 or 10
- Mozilla Firefox ESR 17
- Chrome

#### Application\Web Servers:

- IBM WebSphere 8.5, 7.0
- Apache Tomcat 6.x

#### **Cognos Insight Client:**

- · Operating Systems (both x86 & x64)
- Microsoft Windows 7, 8
- Microsoft Windows Vista SP2
- Microsoft Windows XP Professional SP3

#### Web Browsers:

- Microsoft Internet Explorer 9 or 10
- Mozilla Firefox ESR 17
- Chrome

#### **IBM Cognos TM1 features**

Cognos TM1 enhances your planning, analytics and related reporting processes with:

- Personalized analysis and planning desktop. A customizable, personalized component that enables analytics, planning and reporting at the desktop.
- Innovation modeling. Guided modeling, data/metadata management and application design and deployment for planning, analysis, and forecasting
- Integrated metrics, scorecards and strategy management. Easily deploy scorecards and enable users to monitor key performance indicators (KPIs) and align capital allocations with business objectives.
- Choice of interfaces. Cognos Analysis for Excel, Cognos TM1 Web, Cognos Insight (for non-spreadsheet users) or Cognos Mobile Contributor--including a mobile client for the Apple iPad
- High performance analytics. Patented, 64-bit, in-memory OLAP for enterprise scalability and real-time scenario modeling to facilitate enterprise-wide planning and analysis.
- Security. Role-based security that supports multiple users and user types. Predefined selection options to ensure that users see only those portions of the plan that they need to.
- Microsoft Excel formatting on the web. All planners and stakeholders can read, write, perform "what-if" analysis and report with Microsoft Excel sheets right on the web.
- Administrative tools. Utilities for managing server performance and setting role-based access.
- Global support. Full Unicode support accommodates string lengths expanded beyond 255 characters. Language support for Japanese and simplified Chinese is included.
- Link to external applications. Link to IBM Cognos Business Intelligence and other applications to drive performance management outside of the planning function
- Connectors. Extend your ERP investments with the IBM Cognos data orchestration tool, which easily connects to data warehouses, Microsoft Excel worksheets or any ODBC-compliant databases.
- Cloud-based deployment option. Enjoy all the functionality of an on-premise solution without sacrificing capabilities or limiting future deployment options.
- Cognos Performance Blueprints. Templates for improving your planning processes, optimizing the use of Cognos TM1 and reducing your time to value at less cost and with less risk.

### Conclusion

IBM Cognos TM1 provides a dynamic, collaborative solution to meet all of your enterprise planning and analytics needs. It offers visibility to plans and forecasts, rapid what-if scenario modeling, and profitability analysis. And, when paired with IBM Cognos Business Intelligence, it addresses a breadth of reporting and scorecarding needs. With its personal analytics desktop and choice of centralized or distributed deployment methods, Cognos TM1 revolutionizes comprehensive bottom-up participation in the planning process and helps uncover hidden business options, increase profits and manage capital effectively.

### **About IBM Business Analytics**

IBM Business Analytics software delivers data-driven insights that help organizations work smarter and outperform their peers. This comprehensive portfolio includes solutions for business intelligence, predictive analytics and decision management, performance management, and risk management.

Business Analytics solutions enable companies to identify and visualize trends and patterns in areas, such as customer analytics, that can have a profound effect on business performance. They can compare scenarios, anticipate potential threats and opportunities, better plan, budget and forecast resources, balance risks against expected returns and work to meet regulatory requirements. By making analytics widely available, organizations can align tactical and strategic decision-making to achieve business goals. For further information please visit **ibm.com**/business-analytics

#### Request a call

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