IBM Cognos Business Intelligence
Version 10.2.1.1

New Features Guide
Before using this information and the product it supports, read the information in "Notices" on page 23.

Product Information
This document applies to IBM Cognos Business Intelligence Version 10.2.1.1 and may also apply to subsequent releases.

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Introduction

IBM® Cognos® Business Intelligence enables companies to outperform by giving business users the freedom they need to make smarter decisions.

This release also offers platform enhancements that help IT deliver enterprise-scale analytics.

This document provides an organized view of the new features of IBM Cognos Business Intelligence. For more information about new and changed features, see the specific product documents such as installation guides and user guides.

Audience

This guide is for information technology administrators, data modelers, report authors, and users of IBM Cognos Business Intelligence. To use this guide effectively, you should be familiar with one or more of the following items, depending on your role in your organization:

- IBM Cognos Business Intelligence and its components
- The existing server environment and security infrastructure in your organization
- The business requirements of your company
- The business intelligence environment of your company
- Database and data warehouse concepts
- Security concepts

Finding information

To find IBM Cognos product documentation on the web, including all translated documentation, access one of the IBM Cognos Information Centers (http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp). Release Notes are published directly to Information Centers, and include links to the latest technotes and APARs.

You can also read PDF versions of the product release notes and installation guides directly from IBM Cognos product disks.

Accessibility Features

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products. This product has accessibility features.

Forward-looking statements

This documentation describes the current functionality of the product. References to items that are not currently available may be included. No implication of any future availability should be inferred. Any such references are not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of features or functionality remain at the sole discretion of IBM.
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Chapter 1. Analytics that everyone can use to answer key business questions

Organizations need to make the most of a workforce that is increasingly driven to multi-task, network, and collaborate. IBM Cognos Business Intelligence delivers analytics that everyone can use to answer key business questions.

Easily view, assemble, and personalize information

Business users often do not know how to access the information that they need, and the available tools might not provide the freedom to combine and explore information in the way they want. IBM Cognos Business Intelligence provides features that allow business users to easily view, assemble, and personalize information to follow a train of thought and generate a unique perspective. Using a single place to quickly see a view of their business, users can quickly personalize content, build on the insights of others, and incorporate data from various sources. These capabilities ensure that more people are engaged in providing unique insights and delivering faster business decisions. Giving business users greater self-service control reduces demands on IT and business intelligence systems.

Explore all types of information

If a separate tool is required, it is difficult to incorporate statistical results with core business reporting. IBM Cognos BI allows business users to consume fact-based statistical evidence to support key decisions directly in the IBM Cognos BI environment. The ability to explore all types of information from all angles to assess the current business situation provides a deeper understanding of the patterns that exist in data. This allows business users to quickly deliver reports that include statistical insight and validation, and distribute these reports to the larger business community.

Analyze facts and anticipate strategic implications

Business users need tools that let them accurately evaluate and identify the impact that different scenarios will have on the business and on the bottom line. IBM Cognos BI allows the business user to analyze facts and anticipate strategic implications by simply shifting from viewing data to performing more advanced predictive or what-if analysis. Understanding the scenarios that affect business enables the business user to make informed recommendations to the business and provides an increased competitive advantage.

IBM Cognos family

The IBM Cognos family of products includes IBM Cognos Insight, IBM Cognos Express®, and IBM Cognos Enterprise. IBM Cognos Enterprise can be IBM Cognos TM1®, IBM Cognos Business Intelligence, or both.

The IBM Cognos family of products provides integrated solutions that are the right size for your organization. The solutions are scalable and deployable in different sized environments, from a desktop to a single server to a server farm. Because the solutions share a common foundation, you can start with a limited solution that
addresses an immediate need, and then expand your solution over time. For example, you might expand your solution in the following way:

- Start by using IBM Cognos Insight for data discovery, visualization, and planning.
- Add a server that uses IBM Cognos Express to share the insights that your users acquire. Create additional analytics to help with planning, analysis, and reporting from large data sets.
- As your user community grows or your analytic requirements change, expand your capabilities by using IBM Cognos Enterprise (IBM Cognos TM1 and IBM Cognos Business Intelligence). From a server you can remotely install Cognos Insight on desktops across your organization. You can acquire insights from real-time corporate information and collaborate with members of your organization through mobile devices.

The following table provides a comparison of products in the IBM Cognos family.

*Table 1. Comparison of the key capabilities of Cognos Insight, Cognos Express, and Cognos Enterprise*

<table>
<thead>
<tr>
<th>Key capabilities</th>
<th>Cognos Insight</th>
<th>Cognos Express</th>
<th>Cognos Enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboards</td>
<td>X</td>
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<tr>
<td>Analysis</td>
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<tr>
<td>What-if scenario modeling</td>
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<tr>
<td>Planning and budgeting</td>
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<tr>
<td>Production reports</td>
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<tr>
<td>Microsoft Office integration</td>
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<tr>
<td>Support for Apple iPad</td>
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<td>X</td>
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<tr>
<td>Support for other mobile devices</td>
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<td></td>
<td>X</td>
</tr>
<tr>
<td>Enterprise-wide collaboration</td>
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<td>X</td>
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<tr>
<td>Software Development Kit</td>
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</table>

The Cognos family addresses the business intelligence and performance management needs of the following entities:

- Individuals who require personal, desktop analytics can meet their needs with Cognos Insight.
- Midsize organizations or workgroups within larger organizations can meet their needs for integrated reporting, analysis, and planning by using Cognos Express.
- Large enterprises that need to deploy analytics capabilities to hundreds or thousands of people can meet their needs with Cognos Enterprise.
Cognos Business Insight and Cognos Business Insight Advanced are renamed

Two product components are renamed in this release to avoid confusion with the names of other components. IBM Cognos Business Insight is now IBM Cognos Workspace. IBM Cognos Business Insight Advanced is now IBM Cognos Workspace Advanced.

Enhancements to Cognos Workspace

IBM Cognos Workspace (formerly named IBM Cognos Business Insight) has several enhancements to improve the user experience.

For more information about Cognos Workspace, see the IBM Cognos Workspace User Guide.

Extensible visualizations

You can use new and innovative visualizations in Report Studio and IBM Cognos Workspace Advanced. You can also consume the new visualizations in IBM Cognos Workspace. This feature makes use of Rapidly Adaptive Visualization Engine (RAVE) to introduce new visualizations such as treemaps, heatmaps, and network diagrams.

New visualization types might become available over time on IBM AnalyticsZone (http://www.analyticszone.com). You can download and use new visualization types in your environment. You can also engage IBM to produce custom visualizations that are specific to your business needs.

Embedding and customizing workspaces

In applications or portals that are able to display referenced web content, you can embed workspaces. Embedded workspaces can include or omit parts of the IBM Cognos user interface.

In applications or portals that contain a prompted workspace, users can append prompt parameter values to the URL to pass new prompt parameter values to the workspace or to avoid being prompted.

Cutting, copying, and pasting widgets and duplicating tabs

You can cut, copy, and paste widgets from one tab to another, from one workspace to another, or to or from the global area. You can also duplicate tabs. Duplicating tabs is a convenient way to use one tab as a template for another. Duplicating tabs saves time and helps to give workspaces a consistent look and feel.
Support for IBM Cognos Theme Designer

IBM Cognos Theme Designer provides a graphical user interface that makes it easy to tailor IBM Cognos BI applications to your brand requirements. You can replace images, change colors, or edit html to get the look you want. You can produce multiple themes for users to choose from, or different themes for each tenant or application in multiple tenant environments.

In addition to existing support for Cognos Theme Designer by IBM Cognos Connection and IBM Cognos Viewer, this version adds support by IBM Cognos Workspace.

To download Cognos Theme Designer and its documentation, go to IBM developerWorks (http://www.ibm.com/developerworks) and search for “IBM Cognos Theme Designer”.

Filtering on multiple related data items in select value filter and slider filter widgets

In select value filter and slider filter widgets, you can filter on multiple related data items from different reports. For example, you have a report on your workspace that has a Years data item and another report that has a Years_1 data item, but both refer to the same data. You can filter on both data items together.

Automatically refresh filter values in slider and select value controls

In previous versions, values in slider filter and select value filter widgets were not refreshed when data was refreshed in their corresponding source report widgets.

Now you can automatically refresh values in slider filter and select value filter widgets whenever data is refreshed in their corresponding source report widgets. This is especially convenient for source report widgets that are updated frequently.

Automatic chart recommendation

In the widget toolbar, you can click Change Display Type to automatically get the best display type for the data. IBM Cognos Workspace analyses the data and produces the most suitable display type.

The Change Display Type drop-down list in the widget toolbar lists up to five of the most highly recommended display types. The Change Display window lists the recommended display types in order and explains why each one is recommended.

To see the original interface, which lists all available display types whether they are recommended or not, click the All tab in the Change Display window.
Tabbed workspaces

With tabbed workspaces, you can organize content on multiple tabs in a single workspace. Typically, each tab contains information about a particular area.

For example, you create a workspace with separate tabs for Marketing, Sales, and Revenue.

Global area in tabbed workspaces

A tabbed workspace includes an area that is common to all tabs in the workspace. Here you can keep any object in view as you click though the tabs in the workspace.

For example, you created a workspace with separate tabs for Marketing, Sales, and Revenue. You add a Region filter to the global area so that you can filter on regions as you click through the tabs.

Chart interaction

You can select a chart or one or more parts of a chart and apply actions. For example, you can filter the chart contents.

Freeze column and row headings

You can freeze column and row headings in lists and crosstabs. Freezing the headings keeps them in view as you scroll through the data.

Viewing column and row heading details

In a crosstab, you can expand a column or row heading to view the details that make up the data.

For example, you expand a region heading to display the cities in that region.

Printing a workspace

The print preview feature in a web browser enables you to adjust settings such as scaling and orientation to make your workspace fit on a printed page.

Enhancements to Cognos Workspace Advanced

IBM Cognos Workspace Advanced (formerly named IBM Cognos Business Insight Advanced) has several enhancements to improve the user experience.

For more information about Cognos Workspace Advanced, see the IBM Cognos Workspace Advanced User Guide.

Extensible visualizations

You can use new and innovative visualizations in Report Studio and IBM Cognos Workspace Advanced. You can also consume the new visualizations in IBM Cognos Workspace. This feature makes use of Rapidly Adaptive Visualization Engine (RAVE) to introduce new visualizations such as treemaps, heatmaps, and network diagrams.
New visualization types might become available over time on IBM AnalyticsZone (http://www.analyticszone.com). You can download and use new visualization types in your environment. You can also engage IBM to produce custom visualizations that are specific to your business needs.

**Expanded text-based filtering**

You can define dynamic filters based on text patterns appearing in the values to be filtered. In addition to selecting specific values, you can enter filter options which include “Starts with”, “Ends with”, “Contains”, and “Matches SQL Pattern”.

**Simplified custom grouping**

In addition to using the Custom Grouping dialog box to create custom groups, now you can create, edit, combine, and remove custom groups by using the right-click context menu.

**Sharing sets between reports**

When you work with dimensional data, you can designate a set as shared. Shared sets appear in the model tree for inclusion in other reports that are created by you or by other IBM Cognos Workspace Advanced users. Shared sets can be designated with Run Time or Design Time inclusion. If Run Time is selected, the report uses the shared set as it was defined. If Design Time is selected, the report caches the contents of the shared set as it was defined and uses this definition until it is refreshed by the report author.

**Showing values as percentages**

When you work with dimensional data in a crosstab, you can display values as a percentage of the total. You can specify whether to show the values as a percentage of the total for rows, columns, or both.

**Improved searching using "ends with"**

You can search on items that end with a particular string. This search criterion can be used when creating filter conditions, defining custom groups, searching the metadata tree, locating items in the expression editor, creating intersections, or creating Top/Bottom or Set Filter conditions.

**Enhanced crosstab headers**

In crosstabs, you can display headers that indicate the parent categories of the data items in the columns and rows. The headers help users to understand where the data is located in the hierarchy.
Automatic group and summary behavior for lists
You can enable or disable the automatic generation of summaries for lists. When enabled, grouped columns appear first in the list.

Copy data with number formatting
In IBM Cognos Workspace Advanced, you can copy data from a list or crosstab and paste it into a Microsoft Excel 2007 spreadsheet, while maintaining number formatting. This is a convenient way to quickly export your analysis.

Enhancements to Report Studio
Report Studio and Active Report have several enhancements to improve the user experience.

For more information, see the IBM Cognos Report Studio User Guide.

Report booklets
By using report booklets, you can reference and merge content from multiple IBM Cognos BI reports. Report booklets are especially convenient if you have a large amount of IBM Cognos BI content that you want to reuse and present in new ways.

For example, you are a financial advisor. You use report booklets to collect content from various IBM Cognos BI reports into personalized, professional-looking financial reports for each client.

Report booklets can provide a single table of contents, sequential page numbering, and rationalized prompting to prevent redundant data collection. Report booklets can be scheduled, saved, and run in IBM Cognos Connection like other IBM Cognos BI reports.

Extensible visualizations in standard reports
IBM Cognos BI version 10.2.1 introduced extensible visualizations in active reports. Now, extensible visualizations are available in standard reports also. You can use new and innovative visualizations in Report Studio and IBM Cognos Workspace Advanced. You can also consume the new visualizations in IBM Cognos Workspace. This feature makes use of Rapidly Adaptive Visualization Engine (RAVE) to introduce new visualizations such as treemaps, heatmaps, and network diagrams.

New visualization types might become available over time on IBM AnalyticsZone (http://www.analyticszone.com). You can download and use new visualization types in your environment. You can also engage IBM to produce custom visualizations that are specific to your business needs.

Extensible visualizations in active reports
With extensible visualizations, you can use new and innovative visualizations in active reports. This feature makes use of IBM Rapidly Adaptive Visualization Engine (RAVE) to introduce new visualizations such as treemaps, heatmaps, and network diagrams.

Extensible visualization provides new charts and more-interactive versions of existing charts. It also introduces improved animation with charting. Report authors benefit from an improved authoring experience when they incorporate RAVE visualizations.

You can copy sample visualizations to a gallery that is available from the Active Report authoring environment.

New visualization types might become available over time on IBM AnalyticsZone (http://www.analyticszone.com). You can download and use new visualization types in your environment. You can also engage IBM to produce custom visualizations that are specific to your business needs.

**Microsoft Excel export formatting options**

When exporting to Microsoft Excel from IBM Cognos Workspace Advanced or Report Studio, you can choose whether repeating crosstab cells or grouped list columns will be grouped upon export, or whether the values will be repeated for each row or column.

**Improved IBM Cognos Active Report integration with IBM Cognos Workspace**

You can use check boxes and sliders in workspaces in IBM Cognos Workspace to control IBM Cognos Active Report.

You can define public variables and range variables in Cognos Active Report that allow Cognos Workspace check boxes and sliders to control active reports in a workspace.

**Interactive repeater tables**

You can add interactive behavior to repeater tables in IBM Cognos Active Report.

Adding interactive behavior to repeater tables is useful for creating button bars and grids of custom content. For example, you can insert a data item in a repeater table that shows a different chart for each data value. You can customize the repeater table so that the data values appear as buttons in a two-column grid.

**Inherited table styles in lists and crosstabs**

When an item is inserted in a list or crosstab, the item inherits the table style of one of the items in the data container.

By default, items inherit the style of an item of the same type. For example, if you insert a measure in a list, the measure inherits the style of a measure that is in the list, if one exists. Inheritance rules control which style is inherited.
Writing query macros in the expression editor

You can use the expression editor to write macros in query expressions. The macro syntax is the same as in previous releases and IBM Cognos Framework Manager.

Prompt API

With the prompt API, report authors can write JavaScript applications to customize the standard prompt functionality available in IBM Cognos Report Studio. The prompt API can query and set user selections, validate typed-in values using patterns, set default values using expressions or query data, and more. Sample reports exist to demonstrate various usage scenarios of the prompt API.

Global classes for accessible reports

New global classes that you can apply to text objects were added to IBM Cognos Report Studio. The new classes make text easier to read for visually impaired users.

The new global classes are as follows:

- Heading 1 to heading 6
- Emphasize text
- Strong text

Enhancements to Lifecycle Manager

Lifecycle Manager has several enhancements to improve the user experience.

For more information about Lifecycle Manager, see the IBM Cognos Lifecycle Manager User Guide.

My Folders support

In addition to accessing Public Folders content, Lifecycle Manager enables you to select some or all of your personal My Folders content for validation or benchmarking projects. In open projects, you can access My Folders content that belongs to the authenticated user.

Ability to delete Lifecycle Manager projects

You can use the New Project window or the Open Project window to delete projects. This enables you to remove unneeded projects conveniently, without requiring access permission to the Lifecycle Manager installation location.

Enhancements to IBM Cognos Mobile

IBM Cognos Mobile has several enhancements to improve the user experience.

For more information about IBM Cognos Mobile, see the IBM Cognos Mobile Installation and Administration Guide.

User interface enhancements

With the new IBM Cognos Mobile interface, you can navigate BI content in a more visual way. In addition to other features, you can sort your local content and pause and restart report downloads.
Automatic configuration

iPad users can tap on a web location (URL) to automatically configure the IBM Cognos Mobile application to connect to the BI server. This greatly simplifies configuration by eliminating the need to type long URLs and choose configuration settings.

Faster mobile reports

Multi-page reports that are manually executed are retrieved and presented one page at a time, rather than all at once.

This reduces peak server loads and also enables IBM Cognos Mobile users to open and interact with large reports quickly, without waiting for the entire report to download. Users can swipe the screen or tap a button to retrieve the remaining pages in the report, up to the maximum number of pages, as defined by the mobile administrator.

The behavior of scheduled reports remains unchanged.

High-fidelity reports

IBM Cognos Mobile has enhanced its support for HTML reports on mobile devices.

The enhancements include:

• Rendering of additional fonts
• Page layout
• Prompt controls
• Drill-through actions
• Saved html output

The capabilities for IBM Cognos Workspace on mobile devices and the drill-through actions between active reports and regular reports remain unchanged from the previous release.

Zooming on active reports

When viewing 10.2.1 versions of active reports on Apple iOS devices, users can zoom in and out using the standard pinch gesture.

Apple push notifications

You can now use Apple push notifications to notify the users of the IBM Cognos Mobile native iPad application about the availability of new IBM Cognos Business Intelligence reports.
The supported notifications include badges and text alerts. Sounds are not supported.

For more information, see the IBM Cognos Mobile Installation and Administration Guide.

**Burst reports to Cognos Mobile**

Reports can now be distributed to IBM Cognos Mobile users by bursting.

Users receive burst reports in the language specified in their preferences in IBM Cognos Connection. If the report is not burst in the language specified by the user's preference in Cognos Connection, the user receives the report in the server default language.

Users can also receive multiple versions of burst reports, with the burst key appended to the report name. For example, a sales manager who is responsible for multiple regions receives the burst report for each region.

For more information about burst reports, see the IBM Cognos Report Studio User Guide and the IBM Cognos Business Intelligence Administration and Security Guide.

**Improved search with field-level search capability**

IBM Cognos Connection search delivers more relevant results, faster. It also offers greater control, enabling you to search by a specific field. For example, entering "+name:product" searches for the term "product" in the "name" field.
Chapter 2. Collaborative business intelligence and workflow

Organizations need agile and responsive decision making processes to effectively respond to market opportunities and challenges. IBM Cognos Business Intelligence provides tools that support collaborative business intelligence and workflow allowing businesses to share insights and gain alignment.

Establish decision networks

Teams that do not share insights or solicit input from colleagues limit their ability to make informed decisions. By connecting people to information and other people, IBM Cognos BI helps teams to establish dynamic decision networks and expand their collective intelligence. Efficient decision networks reduce the time, expense, and resources required to gather information.

Provide transparency and accountability

Business users must understand and trust the data that they use to make business decisions. Business users need to understand what has happened to data from source to report. IBM Cognos BI features ensure that all user communities have the same understanding of data, providing transparency and accountability to drive alignment and consensus. When users understand and are confident about the information they use, IT spends less time dealing with questions about data.

Communicate and coordinate tasks

Actionable insights are often lost because it is not easy to capture the insight as a task. IBM Cognos BI provides the tools that teams need to communicate and coordinate tasks to engage the right people at the right time. Any member of a team can initiate a task and assign activities to the appropriate team member. The team can track activities from creation to closure to ensure better business outcomes.

Controlled access to Cognos Workspace functions and features

As an administrator, you can control the access of users to IBM Cognos Workspace functions and features at a granular level.

Based on the capabilities that you grant for them, users can have the following types of workspace permissions:

- View and print workspaces, drill up and down on the workspace data, add comments, and use slider filters and select value filters if they are available in the workspace.
- Interact with the widget data through the widget toolbar that provides options such as sorting, deleting, swapping rows and columns, and changing the report display type.
- Access all functions and features in Business Insight and perform any task, including changing the workspace layout and style, and adding and deleting workspaces.

For more information, see the IBM Cognos Workspace User Guide and the IBM Cognos Business Intelligence Administration and Security Guide.
Controlled access to Cognos Mobile

As an administrator, you can control the access of users to IBM Cognos Mobile, using the Mobile secured function.

Only users who are granted access to this secured function can access the IBM Cognos content through IBM Cognos Mobile. A new role named Mobile Users was added to the predefined roles in the Cognos namespace in IBM Cognos Administration to help with setting up access permissions for the Mobile secured function.

For more information, see the IBM Cognos Business Intelligence Administration and Security Guide.
Chapter 3. Platform enhancements to simplify and cost-effectively scale enterprise analytics

Organizations need agile and responsive decision making processes to effectively respond to market opportunities and challenges. IBM Cognos Business Intelligence delivers advances for IT to simplify and cost-effectively deliver enterprise-scale analytics.

**Accelerated model design with guided workflow driven modeling**

Many organizations find that it takes too much time and too many iterations for IT to build the right models. IBM Cognos BI provides guided workflow driven modeling that is based on established best practices. A workflow driven modeling process reduces the amount of time required to deliver the right model.

**Optimized performance with in-memory processing**

It is sometimes difficult to meet performance expectations because of complex processing requirements and related overhead on systems. In IBM Cognos BI, in-memory processing on 64-bit systems delivers optimized query generation with pattern intelligence, security-aware caching for query plan and query, and on-demand data and metadata caching for executed reports. These features help to deliver faster results and increased business satisfaction.

**Streamlined life cycle management with the ability to seamlessly upgrade**

The increasing scale of upgrade projects creates a challenge for IT. IBM Cognos BI reduces the complexity and risks of an upgrade by providing greater control over the upgrade process. IT can now use a staged upgrade approach to quickly deliver on new business requirements and manage costs. Other features make it easier for IT to track the application life cycle and validate content in a variety of environments before an upgrade.

**IBM Cognos Dynamic Cubes**

IBM Cognos Business Intelligence includes Dynamic Cubes, which is a query technology that lets you perform ad-hoc analysis over large volumes of data (greater than 1TB) with fast performance and low latency. This relational online analytical processing (ROLAP) technology takes advantage of in-memory and database aggregates to reduce data movement and computation, and improve responsiveness.

The Dynamic Cubes server includes self-analysis capabilities to further improve performance by recommending changes or additions to available aggregates, based on observed queries.

To take advantage of Dynamic Cubes, IBM Cognos BI includes the Dynamic Cubes server, a modelling interface called IBM Cognos Cube Designer where you can design your cubes, as well as an Aggregate Advisor that suggests improvements to available aggregates.
For more information about IBM Cognos Dynamic Cubes, see the *IBM Cognos Dynamic Cubes User Guide*.

**Dynamic Cubes API**

You can use the Dynamic Cubes application programming interface to generate and deploy Dynamic Cubes programmatically.

For more information and code samples, go to [IBM developerWorks](http://www.ibm.com/developerworks).

**Secure dimensions and attributes**

With IBM Cognos Cube Designer, you can apply security at a more granular level. In addition to securing hierarchies or levels, you can secure individual dimensions or attributes. For example, for confidentiality purposes, you secure the Salary attribute in an Employee dimension.

If the rest of the model was not significantly changed, you can reload access permissions and clear cached security information while the cube is still running.

**Support for customer-defined database security tables**

By taking advantage of existing security tables in your reporting database, IBM Cognos Cube Designer can greatly simplify the process of defining security filters and views for Dynamic Cubes.

**Support for First, Last, and Current Period aggregation rules**

IBM Cognos Dynamic Cubes supports First, Last, and Current Period aggregation rules. These rules are widely used in the retail, warehousing, financial services, and banking industries. The addition of these rules aligns IBM Cognos Dynamic Cubes with other IBM Cognos products, including PowerPlay Transformer.

**Usability enhancements for Cube Designer**

The auto-design feature of IBM Cognos Cube Designer has improved hierarchy detection for results that are more reflective of the data.

In addition, the model validation capability includes performance indicators to help identify potential performance problems in the Dynamic Cube model.

**Enhanced administration capabilities**
With the Dynamic Cubes administration console, you can deploy, configure, and manage Dynamic Cubes across multiple report servers from a single user interface. This is especially convenient, for example, when Dynamic Cubes are mirrored across multiple report servers for load balancing purposes or to achieve a high level of availability.

### Multiple tenant environments

Multiple tenant environments support multiple customers or organizations (tenants) by using a single deployment of an application, while ensuring that each tenant can access only the data that it is authorized to use.

IBM Cognos Business Intelligence provides built-in multitenancy capabilities. Before you can use IBM Cognos multitenancy, you must modify configuration files in your IBM Cognos Business Intelligence installation.

For more information, see the *IBM Cognos Business Intelligence Installation and Configuration Guide* and *IBM Cognos Business Intelligence Administration and Security Guide*.

### Full tenant impersonation capability for system administrators

System administrators can impersonate a single tenant to view and interact with the content from the tenant perspective.

System administrators can impersonate tenants from IBM Cognos Connection and IBM Cognos Administration, or by using the software development kit.

For more information, see the *IBM Cognos Business Intelligence Administration and Security Guide*.

### Multitenancy Administration tab in IBM Cognos Administration

In IBM Cognos Administration, administrators can use the Multitenancy Administration tab to manage all aspects of multiple tenant environments.

### Optional archive of public content

Administrators of multiple tenant environments can select all objects that belong to a tenant and export them to a Cognos BI deployment archive. Administrators now have the option to include public content (that does not belong exclusively to the tenant) in the same deployment archive. This enables administrators to more easily move an entire application from one Cognos BI environment to another.

### Tenant removal

System Administrators can remove a tenant and all associated BI objects from a Cognos BI environment.
Default account profiles for tenants

Account profiles are used to customize the user experience within Cognos BI. System Administrators can define default account profiles that are unique to each tenant's requirements.

Tenant lockout

When maintaining multiple tenant environments, it is sometimes necessary to prevent tenant users from accessing and modifying BI content. System Administrators can disable access to a Cognos BI application for a tenant. No user that belongs to the disabled tenant ID can access the BI application.

User session cancellation

System administrators can cancel all active user sessions of a tenant from a Cognos BI application, without impacting application availability for other users on the system.

Content store usage reports

Service providers for multiple tenant applications need to understand how individual tenants use Cognos BI. System administrators can easily export Cognos BI content store usage data to understand the number of BI objects that are associated with a tenant and the size of the objects that are stored in the Cognos BI content store.

Tenant on-boarding

System administrators can easily manage the creation configuration of tenants who can access the Cognos BI application. This enables service providers and owners of multiple tenant environments to control access without complex security configurations.

Improved performance and scalability

This release optimizes resource utilization and improves performance for increased scalability and user satisfaction. You will notice performance improvements to mobile, batch reporting, report rendering, active reports, dynamic cubes, bursting, and dynamic query.
64-bit IBM Cognos gateway

The IBM Cognos BI gateway provides 64-bit libraries that you can use.

When you configure the web server to view static IBM Cognos content, additional configuration is required before you can use the 64-bit libraries.

For more information about the 64-bit gateway, see the IBM Cognos Business Intelligence Installation and Configuration Guide.

64-bit IBM Cognos gateway as default in 64-bit installations

In earlier versions, if you installed the 64-bit versions of IBM Cognos Business Intelligence, the 32-bit version of the gateway components were the default versions. If you wanted to use the 64-bit version of the gateway, you had to manually move the 64-bit gateway files.

The 64-bit version of the gateway is now the default for all 64-bit installations. The 32-bit version of the gateway is the default for 32-bit installations.

64-bit Data Manager engine

You can use the 64-bit Data Manager engine to take advantage of additional memory available in 64-bit computer environments. This greatly increases the amount of data that can be loaded. It also reduces the need for memory management techniques, resulting in potential performance gains.

For more information, see the IBM Cognos Data Manager User Guide.

Archive content

With IBM Cognos Content Archival, you can archive report specifications and saved report outputs to an archival repository or to the file system. This allows you to adhere to regulatory compliance requirements and reduces the amount of content in the content store. You can view archived content from IBM Cognos Connection and search archived content using indexed search.

Previously, you could archive only to IBM FileNet® Content Manager, using the Content Management Interoperability Services (CMIS) specification. Now, you can archive to:

- IBM Content Manager version 8 (new for version 10.2.1)
- the operating system file system

For more information, see the IBM Cognos Business Intelligence Administration and Security Guide.

Store reports in an external object store
You can configure the Content Manager to store report output to a local drive or network share instead of in the content store database by configuring an external object store.

An external object store offers improved read and write performance by reducing the load on the Content Manager.

For more information, see the **IBM Cognos Business Intelligence Administration and Security Guide**.

---

**Ability to set content archiving for My Folders**

You can set content archiving for users' My Folders by adding repository connections to namespaces and namespace folders.

Archiving the content of your users' My Folders in your external repository helps you to adhere to regulatory compliance requirements, and can enhance the scalability and performance of IBM Cognos products by reducing the size of content in the content store.

To archive existing My Folders content, you add a repository connection to a namespace or namespace folder and then select My Folders in the content archival task.

For more information, see the **IBM Cognos Business Intelligence Administration and Security Guide**.

---

**Granular deployment of My Folders**

You can back up and deploy individual users' My Folder content without the need for a full content store deployment.

The ability to back up and deploy individual users' My Folder content is especially convenient in the following scenarios:

- Staged moves or upgrades, in which specific users or applications are moved or upgraded to a new environment.
- Restoration of an individual user's account.

For more information, see the **IBM Cognos Business Intelligence Administration and Security Guide**.

---

**Enhanced language and currency support**

IBM Cognos Business Intelligence supports an expanded list of content languages, more currencies, plus additional product languages such as Catalan, Croatian, Kazakh, Slovenian, and Thai (new for version 10.2.1).

There is also enhanced support for bidirectional languages such as Arabic, Hebrew, Urdu, and Farsi. Report authors can control the display of native digits and the direction of text, crosstabs, and charts.
Support for Extended Japanese and Chinese characters

IBM Cognos Business Intelligence provides improved support for Japanese and Chinese ideographs in Unicode Supplementary Plane 2.

Server setting to specify rounding rule for data formatting

In previous versions, IBM Cognos Business Intelligence used the round half to even rule when rounding numbers. The round half to even rule is widely used in bookkeeping. However, precision regulations in some regions require different rounding rules (for example, the round half up rule). With IBM Cognos Business Intelligence, you can now choose a rounding rule to comply with the precision regulations that apply to you.

The following table describes the rounding rules that are available in IBM Cognos Business Intelligence.

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>halfEven</td>
<td>Round to nearest neighbor, where an equidistant value is rounded to the nearest even neighbor. This is the default rule.</td>
</tr>
<tr>
<td>halfDown</td>
<td>Round to nearest neighbor, where an equidistant value is rounded down.</td>
</tr>
<tr>
<td>halfUp</td>
<td>Round to nearest neighbor, where an equidistant value is rounded up.</td>
</tr>
<tr>
<td>ceiling</td>
<td>Round to a more positive number.</td>
</tr>
<tr>
<td>floor</td>
<td>Round to a more negative number.</td>
</tr>
<tr>
<td>down</td>
<td>Round towards zero.</td>
</tr>
<tr>
<td>up</td>
<td>Round away from zero.</td>
</tr>
</tbody>
</table>

For more information, see the IBM Cognos Business Intelligence Administration and Security Guide.

Improved support for data items with more than 15 digits of precision

Previous versions of IBM Cognos Business Intelligence were unable to support data items with more than 15 digits of precision. Up to 32 digits of precision are now supported in the dynamic query mode.

Save as Microsoft Excel 2007 data

The Excel 2007 Data report output format enables you to generate native Microsoft Excel 2007 spreadsheets containing list report data for further manipulation.

This format is similar to a comma separated values file (.csv). It has no formatting such as headers, footers, styling, or data formatting.
For more information, see the IBM Cognos Report Studio User Guide.

**Access to ERP data sources**

You can now directly access data sources from various ERP vendors using the dynamic query mode.

Support has been added for the following data sources:

- Salesforce.com
- SAP ECC
- Siebel

For more information, see the IBM Cognos Business Intelligence Dynamic Query Guide.

**DQM server logging on a report basis**

You can enable server logging for the dynamic query mode in IBM Cognos Dynamic Query Analyzer. Server logs are generated only for reports that are run in Dynamic Query Analyzer. Previously, trace logging had to be enabled for all reports run on the IBM Cognos Business Intelligence server.

For more information, see the IBM Cognos Dynamic Query Analyzer User Guide.

**Predefined LDAP configurations**

In IBM Cognos Configuration, you can configure your environment by selecting from a number of predefined LDAP authentication namespace configurations.

The following is a list of predefined LDAP configurations:

- LDAP - Active Directory
- LDAP - IBM Tivoli®
- LDAP - OracleSunOne

**Enhancements to supported environments**

IBM Cognos Business Intelligence provides enhanced support for environments.

To review an up-to-date list of environments that are supported by IBM Cognos Business Intelligence products, including information on operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, see the IBM Software Compatibility reports (http://www.ibm.com/support/docview.wss?uid=swg27037784).
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