【IBM SOA講堂】Lotus動員協作：IBM Dashboard Accelerator與商業智慧整合

鄭志傑
IBM 資深資訊工程師
chengcc@tw.ibm.com

IBM Certified System Administrator
WebSphere Portal

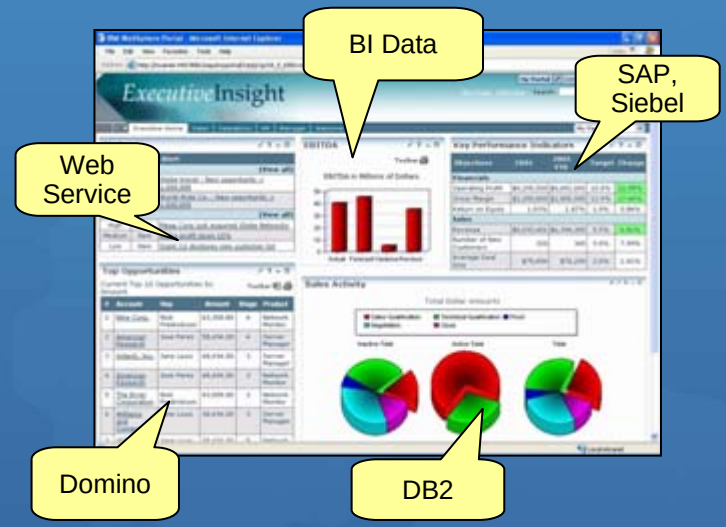
© 2008 IBM Corporation

Agenda

- What's New in Dashboard Accelerator 6.1
- Supported Platforms
- Packaging
- Integration with Cognos

IBM Dashboard Accelerator 6.1

Helps organizations **reach performance data wherever it resides**, delivering it as **real-time key performance indicators** via **personalized, portal-based dashboards**. It also provides alerts and tools to help users take action at the greatest point of impact - before issues become critical.



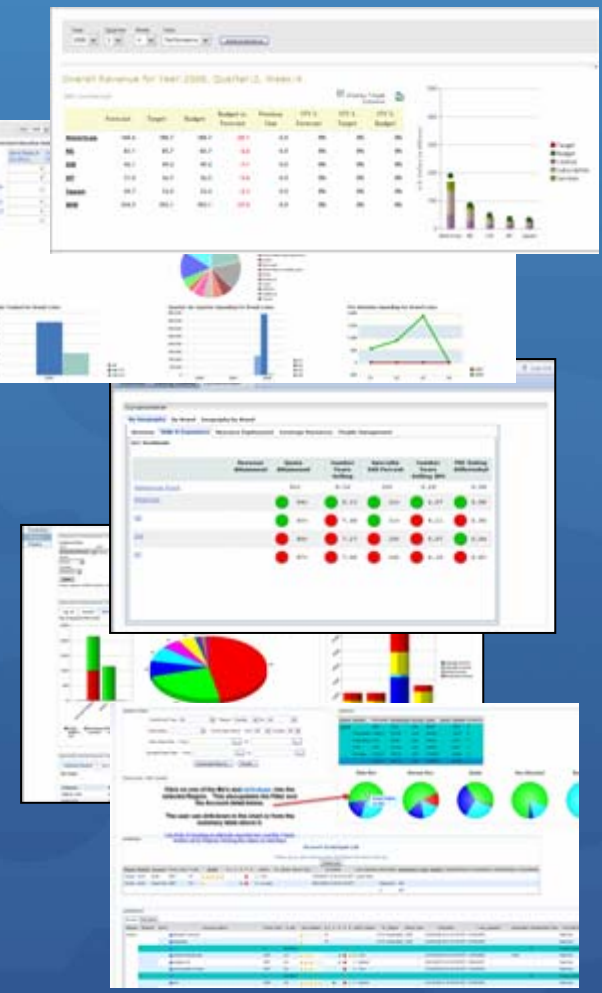
- **Drive Alignment** around a common, visible set of goals
- **Automate** manual or resource-intensive processes with personalized, graphical UI tailored to each job role
- **Access** information wherever it resides with integrated, real-time views
- **Take Action** through intuitive views that aid proactive response to issues via Portal collaboration and workflow integration
- **Cut Costs** using rapid assembly tools that cut the time, cost, and skills required to build dashboards

  - **Announce:** June 24, 2008*
  - **eGA:** June 30, 2008*

**Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way.*

New Dashboard Accelerator Deployments Inside IBM

Audience	Business Focus
WPLC Sales Management	Review latest (weekly) WPLC forecast and business outlook for quarter.
SWG Sales and Senior Management	Visibility into SWG enablement/training investment being made in different brand and regions and productivity yield
SWG Sales and Senior Management.	Visibility into SWG sales resources, how deployed, skills, productivity and productivity. Gain insight necessary for sales workforce strengthening. Enable strategic decisions.
SWG NEIOT Sales and Senior Management	Align Specialty and Brand Resources with SWG Pipeline Opportunities. Ensure Specialty/Brand Coverage and Progressing to Close
WPLC Sales Management and Competitive Team	Visibility into WPLC competitive deals and resource coverage



New 6.1 Release

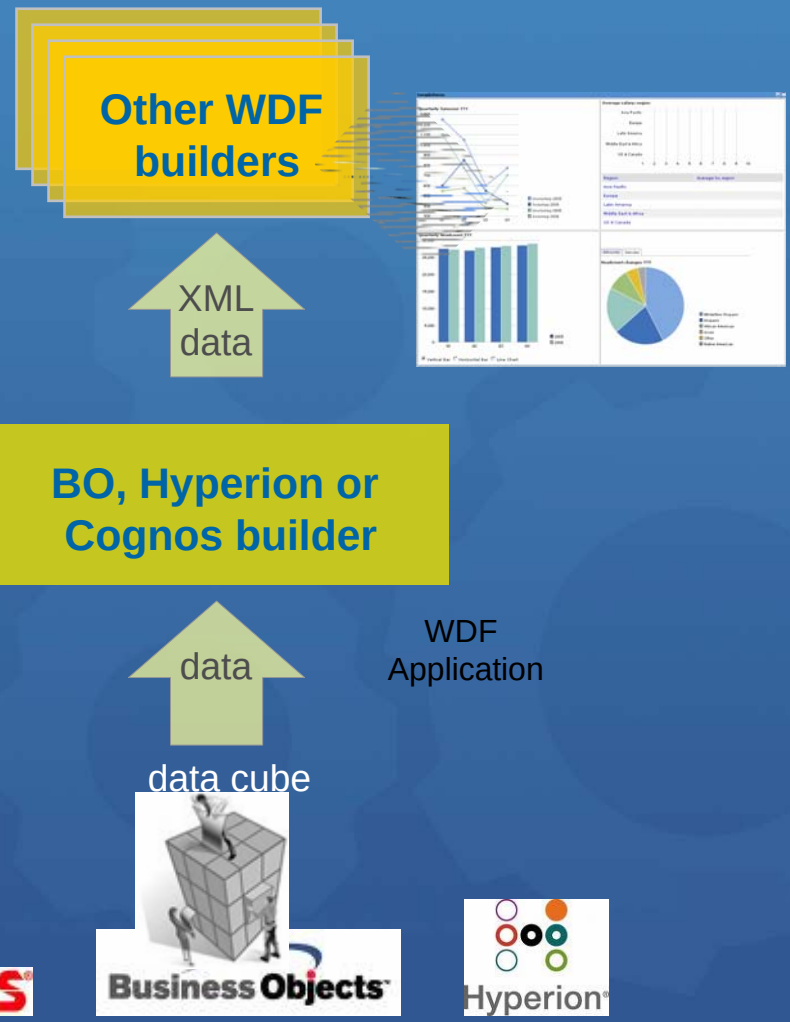
IBM Dashboard Accelerator 6.1
What's New?

- **Business Intelligence Builders**
  - Surface Cognos, Hyperion or Business Objects data in a Portal dashboard
  - Easily integrate with other data sources through rich, in
- **Dashboards Everywhere**
  - Build *once*, deploy where you need
    Portal, WAS, Notes 8, Quickr teamrooms, Blackberry c
    Sametime clients*
- **Enhanced Dashboard SMS Alerting**
  - Now covering more than 600 networks in 200 c
- **New WebCharts 3D and Flash Animated Ch**
- **Builder Enhancements**
- **Flexible, Customizable Scorecard**

*Sametime integration available as Tech Preview

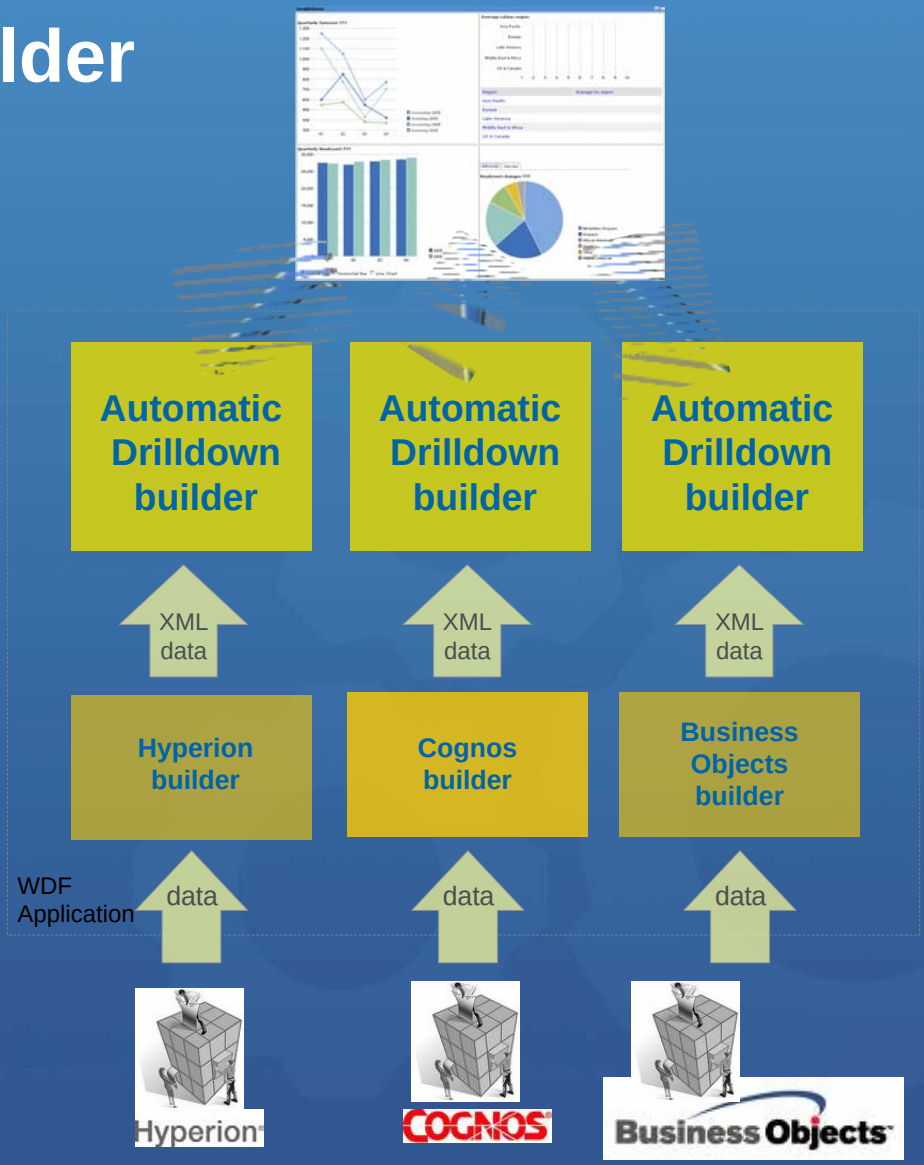
New Business Intelligence Builders

- Business Objects Builder
  - Reads data from Business Objects reports it to other Dashboard builders to generate dashboard charts and reports
  - Supports Business Objects Enterprise XI R2
- Hyperion Builder
  - Reads data from in Hyperion's Essbase cube
  - Provides it to other Dashboard builders to generate charts an reports
  - Supports Essbase 7.x and 9.x
- Cognos Builder
  - Provides the ability to select and query data from Cognos reports
  - Provides XML data as input for other Dashboard builders to generate charts and reports
  - Investment protection: Leverages reports that customers already have in place
  - Supports Cognos BI 8.x



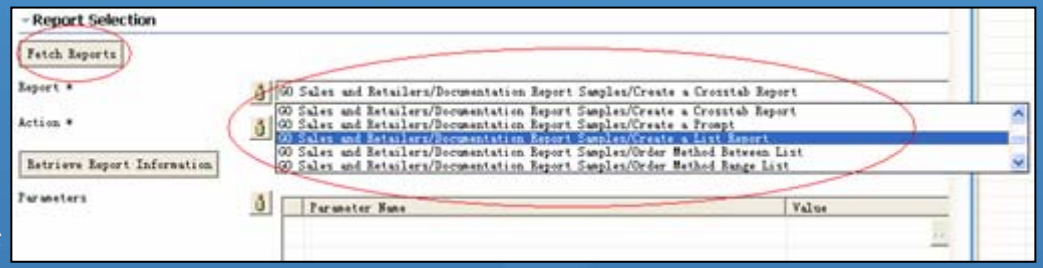
Automatic Drilldown Builder

- Generates UI and automatic drill down capabilities for information coming from any data source, including multi-dimensional data
- Allows end user to drill up or down through the data
- Reads and presents data from the BI data access builders



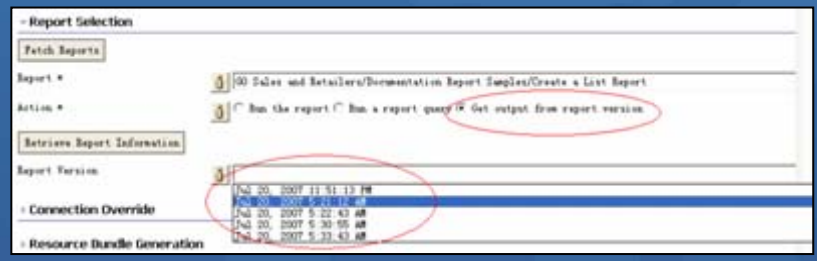
Example:
Cognos Builder

Traverse Available Reports

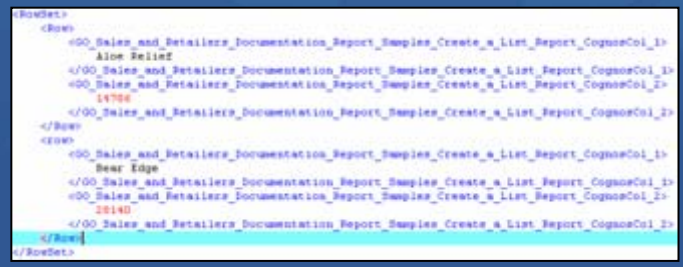


Execute the Report and Query

Display Report Version

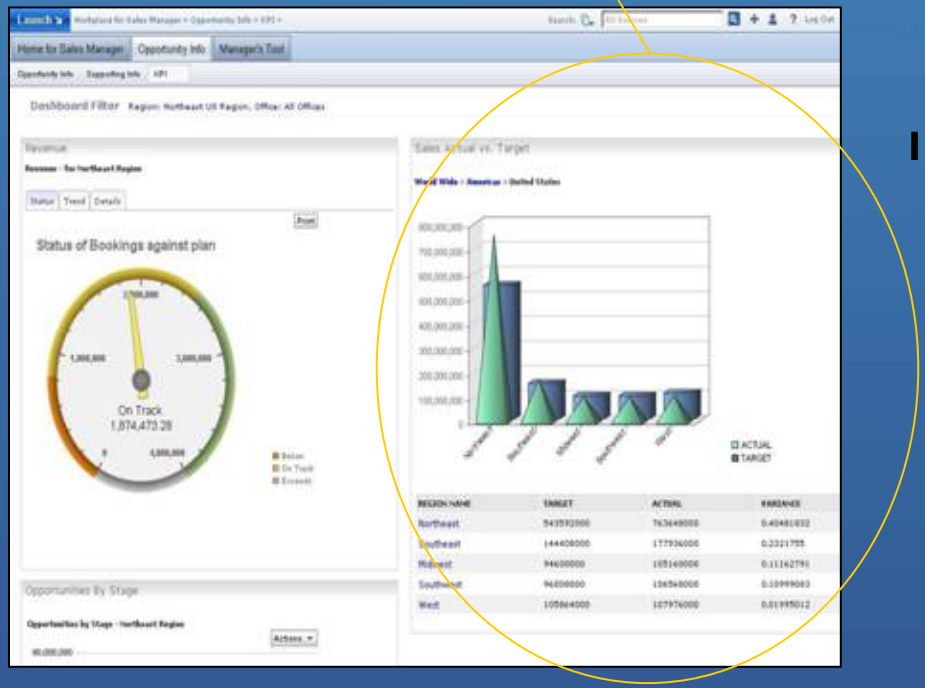


Retrieve XML Data

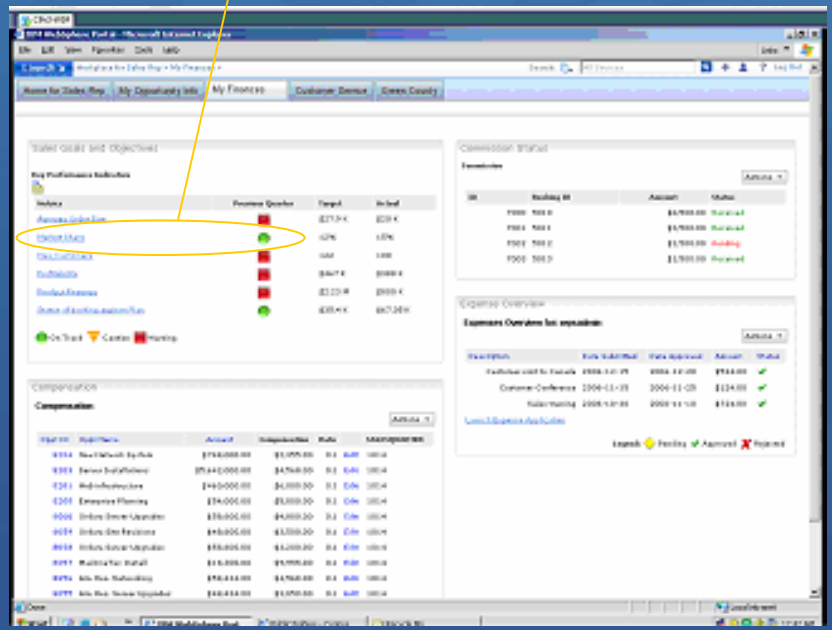


Display BI Data Elements or Reports in Portlet

Multi-Dimensional Cognos Portlet



Individual or Calculated Cognos Element



Dashboards Everywhere

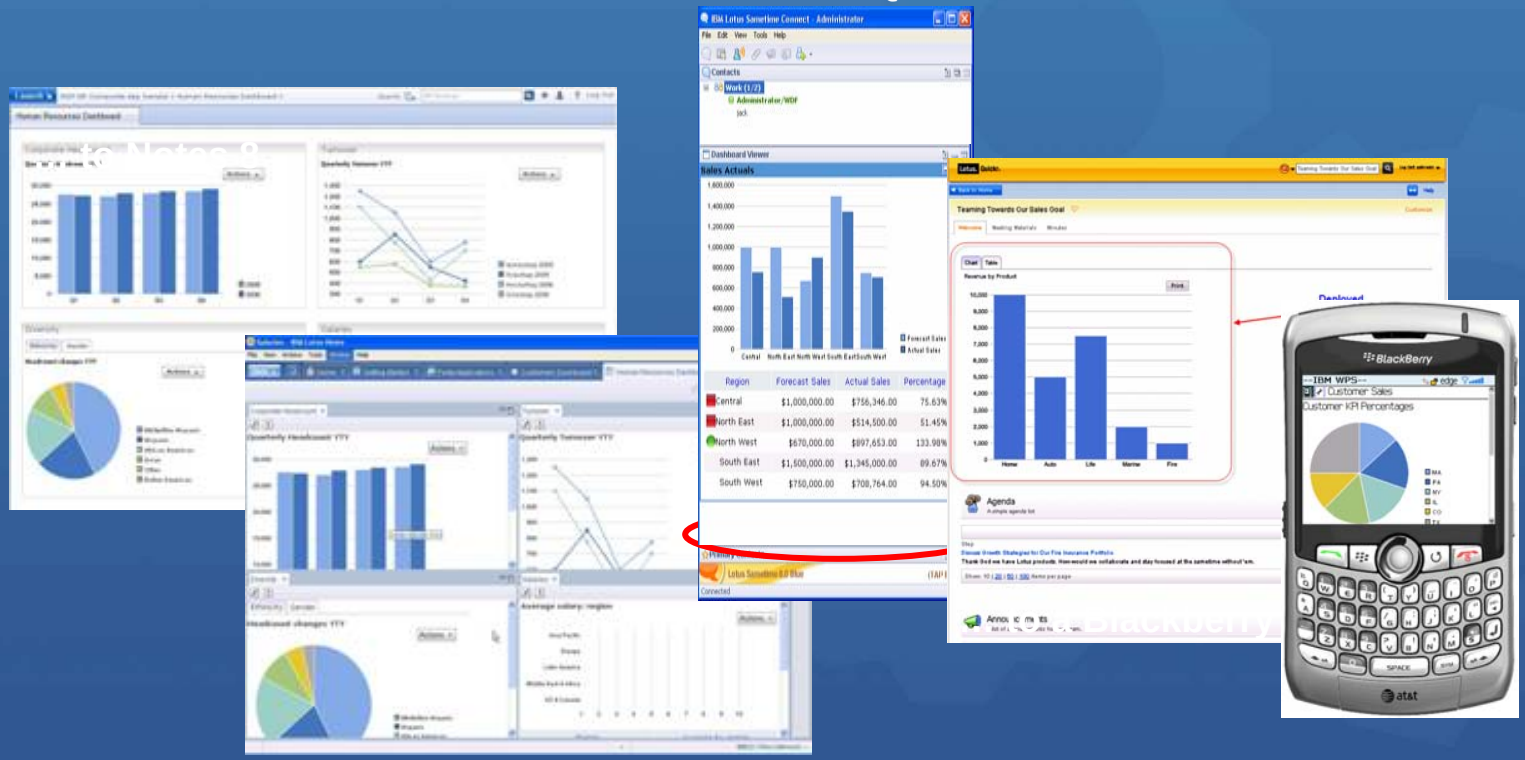
Extended deployment options

- Build Once, deploy *same* dashboard to any client

… to a Sametime Client*

…to WebSphere Portal or WAS

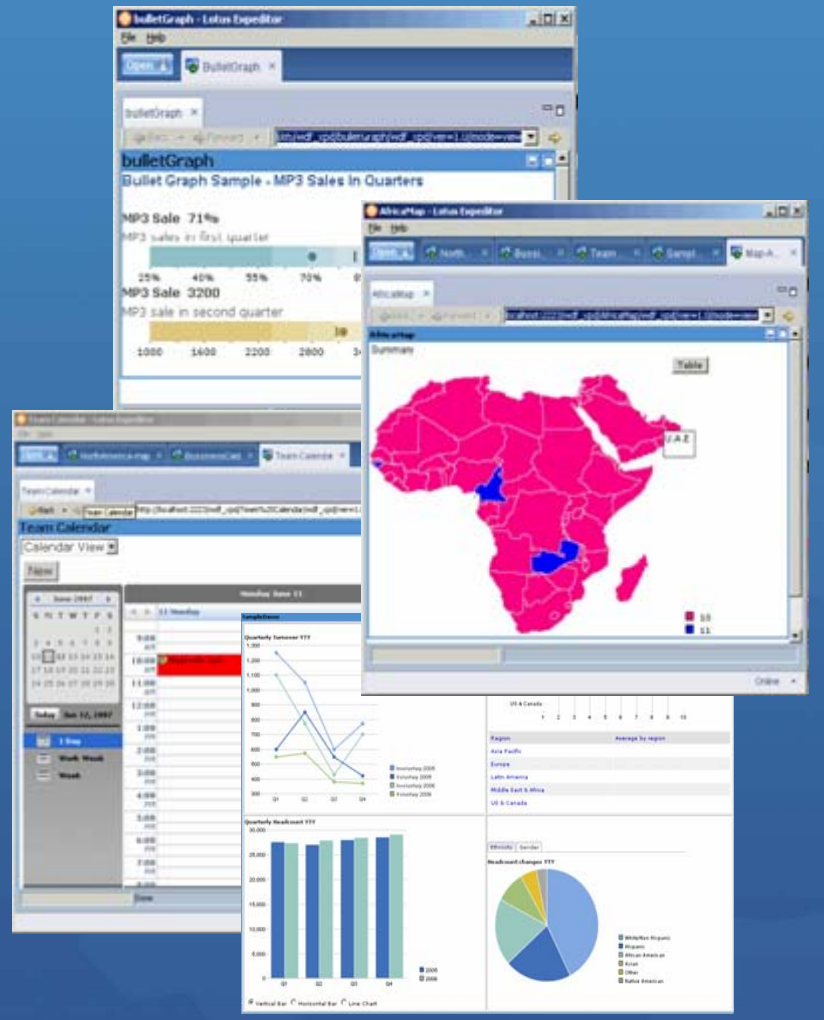
… to a Quickr Teamroom



* ST support available as Tech Preview

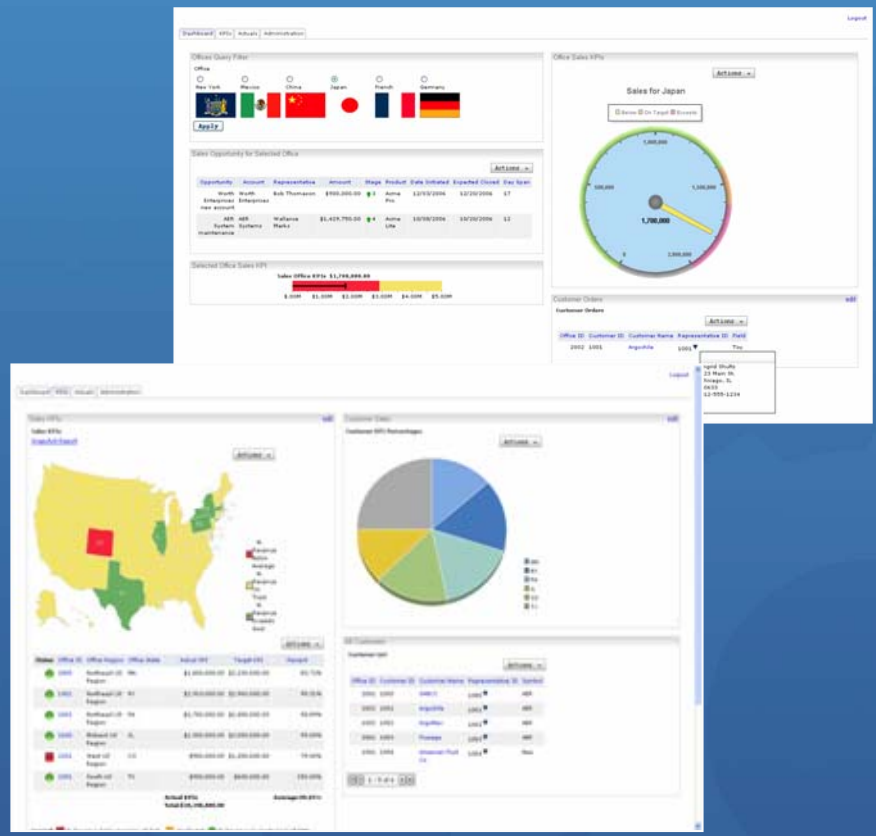
Dashboards in Notes 8

- Expeditor 6.1.x supports JSR168 portlets
- You can build an Expeditor WAB (Web Application Bundle) from a WDF/WPF JSR168 project and use its portlets/web applications on Rich Client Platforms such as Expeditor 6.1.1 and Notes 8 Client.
- WPF 6.0.2 (Q4) supports portlets on rich client platforms
- All Dashboard features supported except annotations, alerting, team calendar and limited query filter

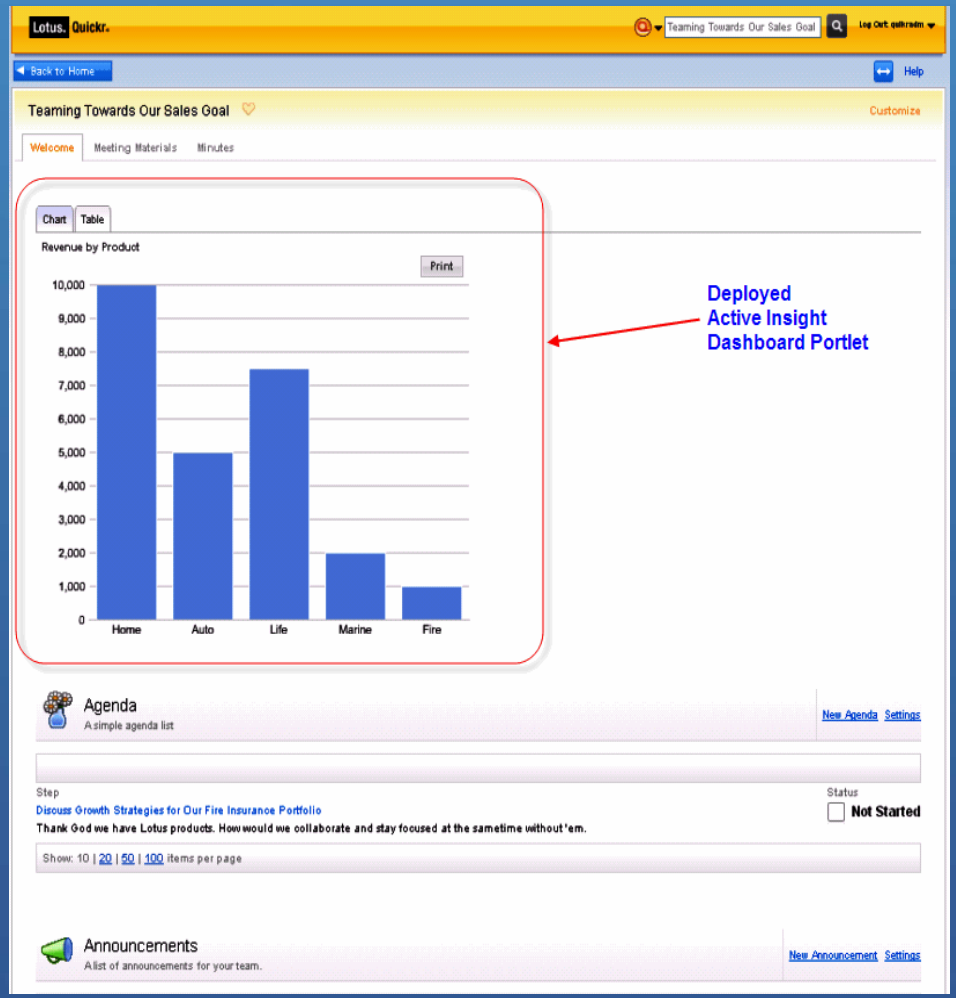


Dashboards on WAS

- New Tutorial Sample App
  - Wraps existing Sample App for WAS
  - Demonstrates how to build role-based dashboard application with the help of WDF on WAS
  - Reflects the best practices of WDF dashboards development.
  - Based on same sample app used in on Portal and in Redpaper
- All features supported except annotations, alerting, team calendar and limited query filter



Dashboards and Quickr



- Certifies Dashboards to run with Quickr J2EE Portal
- Shows linked value of multiple solutions to customers – Dashboards in Quickr
- Requires customer to buy full Portal license to use Dashboards beyond Quickr database

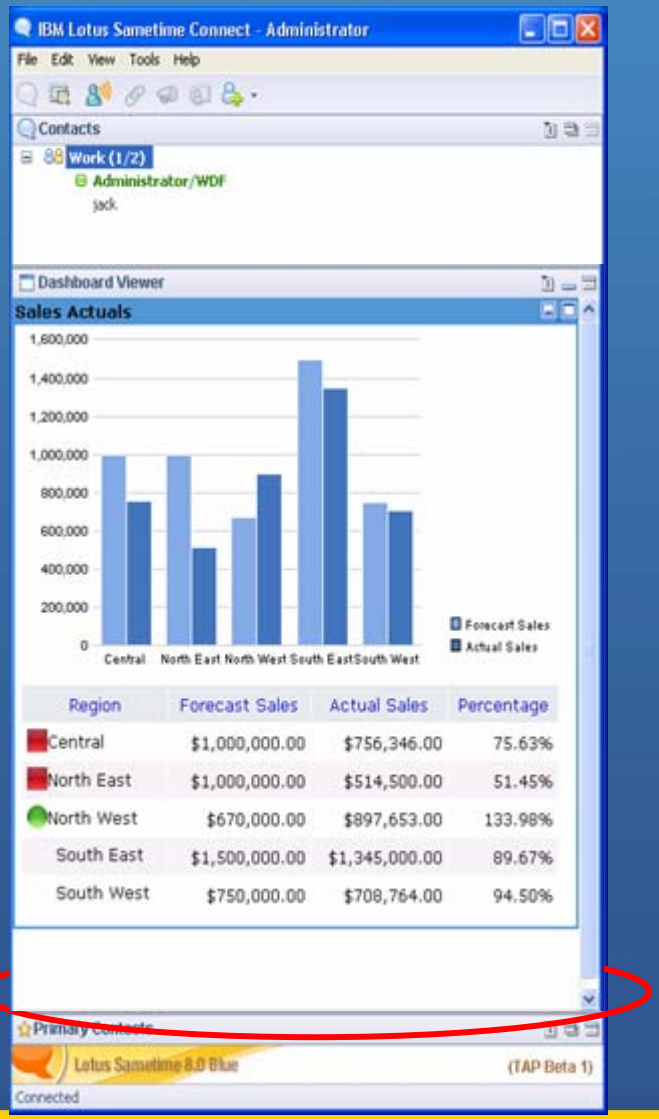
Dashboards on BlackBerry Devices

- Leverages Portlet Factory profiling features
- Simple versions of existing portlets can be created for mobile devices without having to write additional code
- WebSphere Portal's chtml theme can be leveraged to provide content for BlackBerry devices.

http://www.ibm.com/developerworks/wikis/display/PortletFactoryID/IBM+-+Client+device+profile+selection

Dashboards in Lotus Sametime

Tech Preview in Dashboard 6.1 Release



- Dashboard portlets can run within a Sametime client
- The slide tray displays the portlet application in a browser/portlet view
- Runs as Web Application Bundle via Expeditor
- Details to come via Product Wiki page

Prerequisites

1. Sametime 8.0
2. Expeditor 6.1.1 plug-ins for Sametime
   - ✓ *Portal Support 6.1.1.200707311521*
   - ✓ *Portlet Container 6.1.1.200707311521*
   - ✓ *Eclipse Java Development Tools 6.1.1.200707311521*
   - ✓ *Web Container – JSP Compiler Bridge 6.1.1.200707311521*

   * Available on the Expeditor client product CD, in the directory *desktop/updates/platform*
3. Browser / Portlet Viewer Plug-in for ST 8 Client

Broader SMS Alerting

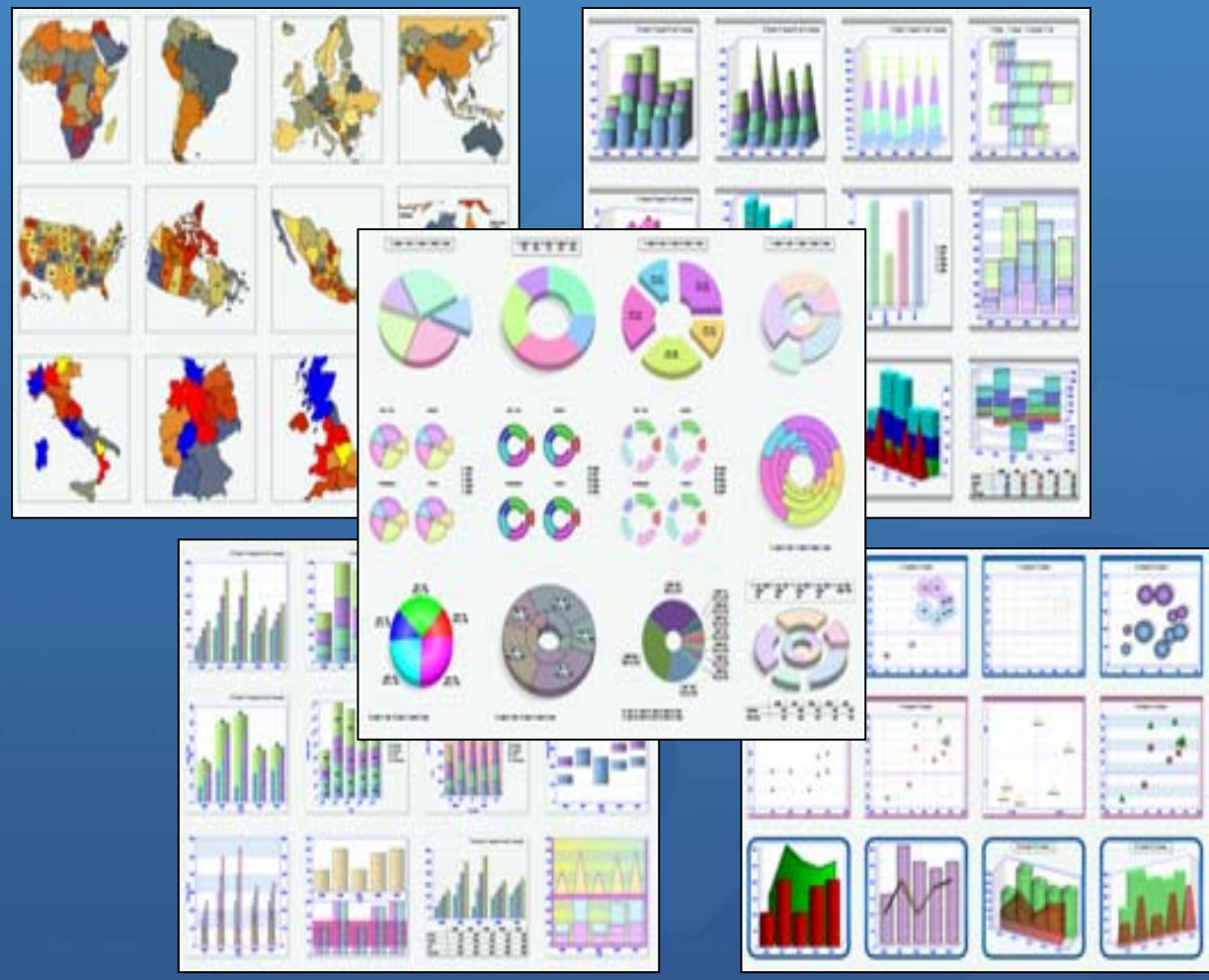
- **Broader SMS Alerting Coverage**
  - Now customers can use Clickatell and CellTrust SMS gateways send alerts from Dashboard applications
  - More carriers in more countries
    - ✓ Clickatell SMS Gateway – serves 600 networks in 200 countries
    - ✓ CellTrust RelationshipMobile – 400 carriers in 160 countries
  - Increased customer sat over our prior solution

Clickatell
Any message, anywhere.

CELLTRUST™
SECURE MOBILE INFORMATION MANAGEMENT

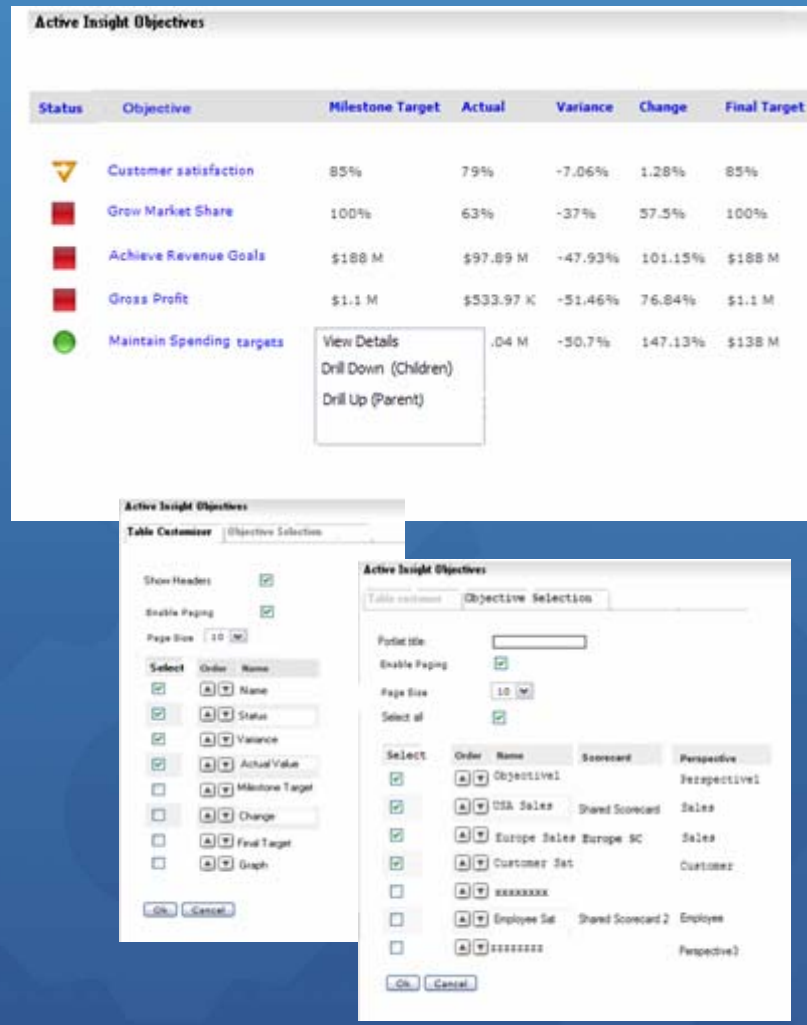
Enhanced Charting

- Now includes Greenpoint WebCharts 3D version 5.2
- Enhanced charts, maps, gauges and design capabilities
- Animated, flash, 3D options
- Users can choose which chart to use on-the-fly



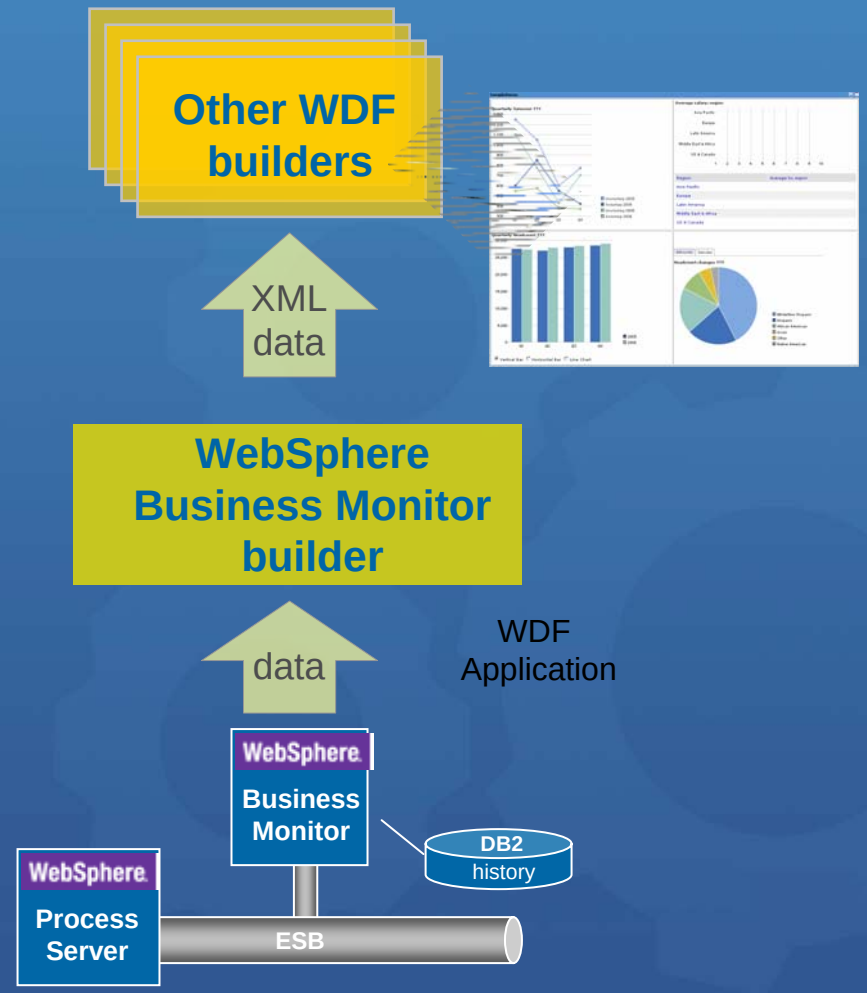
Scorecard Flexibility

- **More Flexibility to Organize and Navigate Scorecards**
  - Support for more layers of nested objectives
  - Reusable and Shared objectives
  - Objective Categories let users tag objectives with a keyword and then filter a scorecard by category
- **Group Scorecards**
  - Hierarchy-independent -- can be used independent of LDAP
  - Create any number of scorecards per user, Name and categorize scorecards however you desire
- **Use WDF to Customize the Scorecard**
  - New public API with JavaDoc for querying and presenting custom views of scorecard data.
  - More and enhanced Web Services for querying scorecards, perspectives, objectives, initiatives, targets, actual values, linkages, etc.
  - Objectives and Initiatives are now URL-addressable
- **Flexible Scorecard Deployment Options**
  - Enhanced mini-scorecard with new JSR 168 support
  - Deployable to Notes 8 or Sametime using Expeditor



New WebSphere Business Monitor Builder

- REST based Builder for accessing WebSphere Business Monitor
- Leverage KPIs and metrics that WebSphere Business Monitor has calculated
- Extends and enhances investment in WebSphere Business Monitor by providing presentation and integration flexibility
- Ties Portal / WDF into IBM SOA story
- Available NOW in the IBM SOA Catalog and Lotus Business Solutions Catalog



Excel Builder Enhancements

- 50% of all operational data is tracked in spreadsheets or presentation files today
- This builder enables more robust features that simplify spreadsheet data import into a Dashboard
  - handle data of particular formats
  - handle excel pivot tables
  - handle sheets with spaces in tab names
  - customization of generated schema
  - cell selection widget
  - import of a single/specific data row

Other Builder Enhancements

Calculation Builder

- A new builder that can perform calculations on XML data
- Supports three types of calculations: Row Calculation, Column Calculation and Row-Column Combined Calculation.

Row-Column Calculation

Sales Rep	Opportunity03	Opportunity04	Customer	Grow
Luciano Silva	3,000,000	4,000,000	GE	33%
Luciano Silva	4,000,000	5,000,000	Amway	25%
Luciano Silva	5,000,000	7,000,000	Philips	40%
Luciano Silva	4,000,000	5,333,333		33%
Nicole Carrier	4,000,000	6,000,000	GE	50%
Nicole Carrier	3,000,000	8,000,000	Amway	166%
Nicole Carrier	3,500,000	7,000,000		100%

Enhanced Annotation Builder

- Expands existing Annotation builder by enabling ability for comment authors to edit their annotations

New WebSphere Business Modeler Builder

- Lets WBM Data surface through a unified Dashboard in WebSphere Portal
- Available via WebSphere Portal Catalog

Platforms

Server Platforms

	Team Edition 6.1	Dashboard Accelerator 6.1 (Dashboard + Scorecard)
Windows		
Server 2003, Server 2003 Enterprise	X	X
2000 Server and Advanced Server	X	X
AIX		
IBM AIX 5.3	X	X
Linux		
Red Hat		
Red Hat Enterprise Linux Enterprise Server v4.0	X	X
Red Hat Enterprise Linux Advanced Server for (x86-32) v4.0	X	X
SUSE		
Suse SLED 9.x	X	X
I5 /OS (OS/400 for System i5)		
iSeries v5.r4	Q3	Q3 08
Sun		
Solaris 10	Q3	Q3 08
zLinux		
Red Hat Enterprise Linux Advanced Server 4	N/A	Q3 08
SUSE Linux Enterprise SLES for OS/390 9, 2.6 Kernel 31 bit	N/A	Q3 08
zOS		
1.7, 1.8, 1.9	N/A	Q4 08

Dates listed here are planned as of June 2008. They are provided for your information only and may be subject to change without notice

Client Platforms

Browser

	Dashboard Accelerator 6.1
Internet Explorer	
IE 7.x	X
IE 6.0 SP1 (SP2 on Windows XP)	X
Mozilla	
Firefox 2.0	X
Firefox 1.5.x	X

Designer OS

Microsoft Windows	
Vista Premium	X
XP Professional	X
2000 Professional	X
Linux	
Red Hat Enterprise Linux 5.1	X
SUSE 10	X

Designer Development Environments

Eclipse	
3.2.x	X
Rational Application Developer	
IBM Rational Application Developer 7	X
IBM Rational Software Architect 7	X
IBM Rational Web Developer 7	X

Packaging

Dashboard Accelerator: Part Numbers

Description	SW Part
Lotus ActiveInsight	D60BKLL
Lotus ActiveInsight for zLinux	D61Y7LL
Lotus ActiveInsight for zOS	5655-U15
Lotus ActiveInsight Team Edition	D60BALL
WebSphere Dashboard Framework	D60ZRLL
WebSphere Dashboard Framework zLinux	D61YFLL
WebSphere Dashboard Framework zOS	5655-U13
Trade Up from WDF to ActiveInsight	D6135LL
Trade Up from WDF to ActiveInsight, zLinux	D0ZAZLL
Portal/LAI Server Bundle	D04MVLL
Trade Up from Portal Express to Team Ed	D04MJLL

Prices listed here are planned for the United States as of planned eGA June 2008. They are provided for your information only and are subject to change without notice. Other pricing configurations may be available. Refer to your local geography pricing resource for current pricing.

Dashboard Accelerator Entitlements

Entitlements

PRODUCT	ENTITLEMENT	EXCLUSIONS / LIMITATIONS
IBM Lotus ActiveInsight	Full	Features the WebSphere Dashboard Framework
Dashboard KPI Catalog	No charge unlimited access/downloads	

Packaging / Target

PRODUCT	INTENT
IBM Lotus ActiveInsight	Enterprise offering; Sell to existing WebSphere Portal Server customers as an add-on (alone or along with other accelerators) . Entitles full use license of WebSphere Dashboard Framework.
IBM Lotus ActiveInsight Team Edition	Offering for SMB or departments within larger enterprises; *includes full entitlement to WebSphere Portal Express an WebSphere Portlet Factory*
Dashboard Accelerator + Portal Server Bundle	Enterprise offer – ActiveInsight bundled together with WebSphere Portal Server

Integration with Cognos

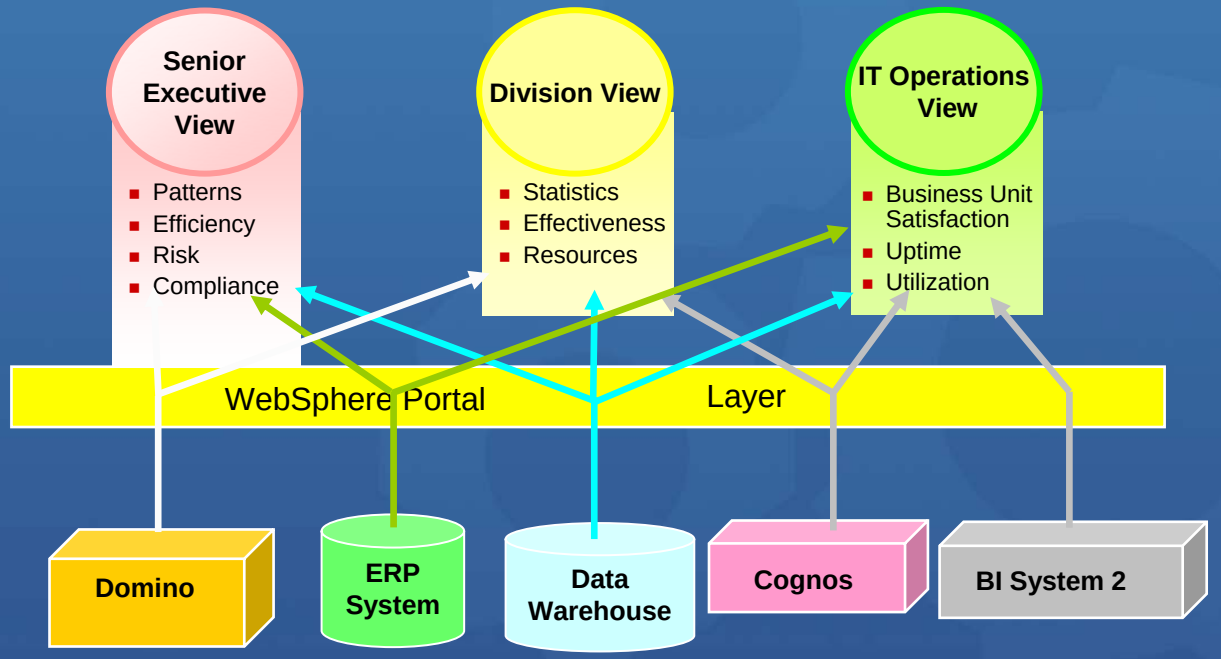
How Dashboard Accelerator Extends the Value of Cognos BI

Action Oriented	Lets end users take action directly from within the dashboard using collaboration and workflow integration
Customizable	Provides personalized, secure, role based experience where end users can customize their choice of layouts, graphics and more
Context and Content	Rapidly assembles information from *BI systems and beyond* into new, intuitive contexts Easily integrates with feeds and applications to improve insight and decision making (search, calendar, REST, operational data)
Optimized for WebSphere Portal and WAS	Enables WebSphere Portal Applications to readily integrate BI data Inherits Portal features, tooling and TCO advantages
Lightweight Footprint and TCO	Zero footprint solution enables direct or real-time access to data sources Eliminates need for Java development
Rich Collaborative Client Dashboards	Allows the same dashboard to be built once, and deployed to choice of collaborative platforms including Portal, WAS, Notes, Sametime or Quickr Teamrooms

Assembling Information into New Intuitive Role Based Contexts

- Boost user productivity by placing information in the right context
  - Work with BI data as a service that can interact with data from other databases, desktop apps, ERP systems, datamarts, web resources, collaborative data stores and more
- Span BI and other Operational Data Sources
  - *50% of companies have between 4-13 different BI solutions (Forrester)*

- Dashboard Accelerator provides a way to create…
  - customized, personalized views
  - spanning disparate information
  - at a low resource cost



Source: David Gootzit Gartner PCC Summit, 2007

Functional Overview

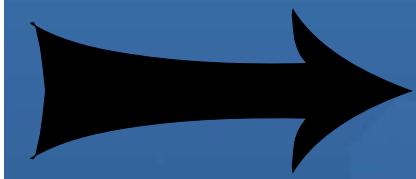
- Cognos Data Access builder is used to bring data from a Cognos Content Store report into the dashboard application.
- At design time, user can fetch a report list from Cognos server, and traverse the list until the desired report is located.
  - User can also extract parameters from the selected report and specify values for them.
- At runtime, the selected Cognos report will be run on Cognos server, and the report result (XML data) will be gotten by this builder and be available for other WDF (WebSphere Dashboard Framework) builders to use.

Functional Overview (Continued)

Cognos Viewer - Create a List Report Report Studio

Log On About

Product name	Quantity
Aloe Relief	14,786
Bear Edge	28,140
Bear Survival Edge	25,392
Blue Steel Max Putter	3,188
Blue Steel Putter	8,816
BugShield Extreme	69,996
BugShield Lotion	51,126
BugShield Lotion Lite	54,928
BugShield Natural	47,360
BugShield Spray	46,664
Calamine Relief	18,362
Canyon Mule Carryall	19,022
Canyon Mule Climber Backpack	23,082
Canyon Mule Cooler	17,944
Canyon Mule Extreme Backpack	11,052
Canyon Mule Journey Backpack	11,598
Canyon Mule Weekender Backpack	12,854
Compact Relief Kit	5,974
Course Pro Gloves	17,466
Course Pro Golf Bag	1,746

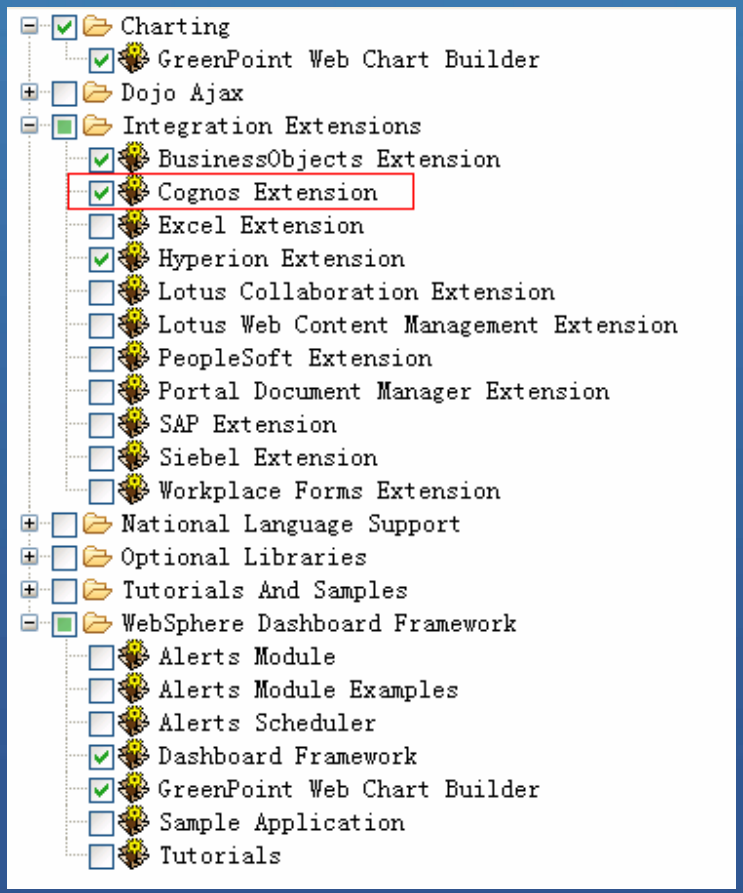


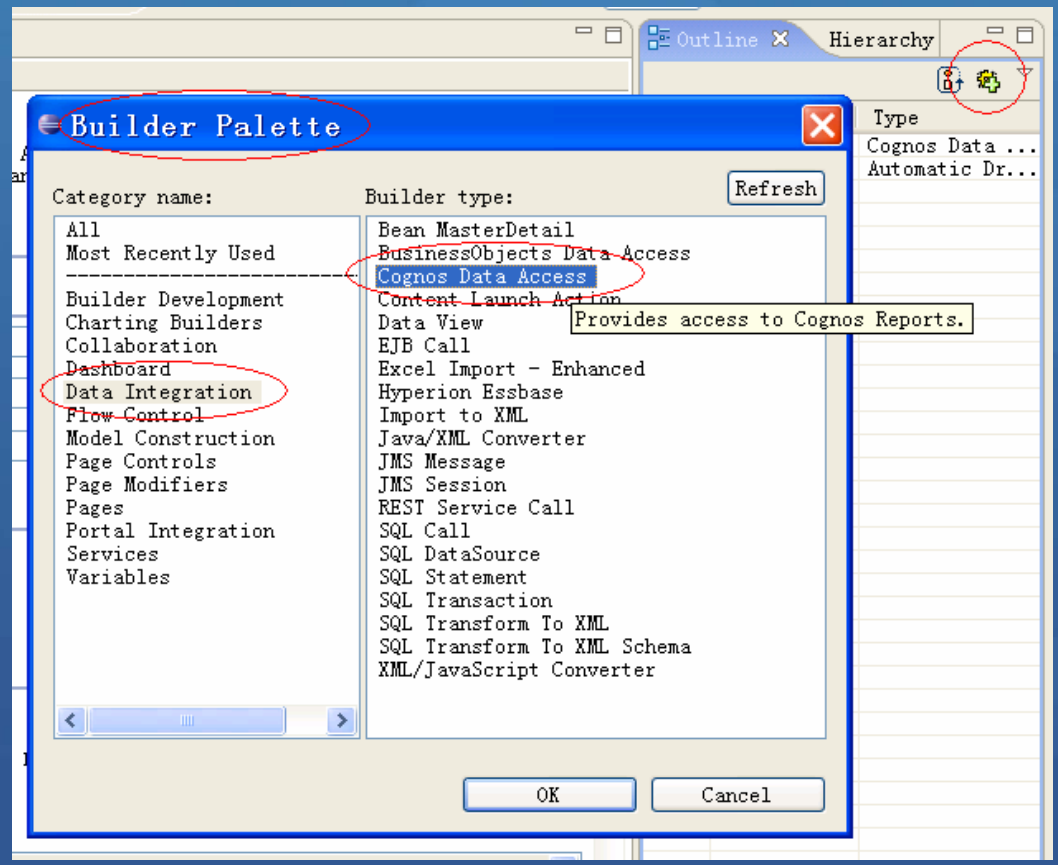
Product name	Quantity
Aloe Relief	14,786
Bear Edge	28,140
Bear Survival Edge	25,392
Blue Steel Max Putter	3,188
Blue Steel Putter	8,816
BugShield Extreme	69,996
BugShield Lotion	51,126
BugShield Lotion Lite	54,928
BugShield Natural	47,360
BugShield Spray	46,664
Calamine Relief	18,362
Canyon Mule Carryall	19,022
Canyon Mule Climber Backpack	23,082
Canyon Mule Cooler	17,944
Canyon Mule Extreme Backpack	11,052
Canyon Mule Journey Backpack	11,598
Canyon Mule Weekender Backpack	12,854
Compact Relief Kit	5,974
Course Pro Gloves	17,466
Course Pro Golf Bag	1,746

WebSphere Dashboard Framework

How to Add Cognos Data Access Builder

- At the WebSphere Dashboard Framework project creation, select the “Integration Extensions/Cognos Extension” feature set
- Open Builder Palette and select Cognos Data Access builder under “Data Integration” category



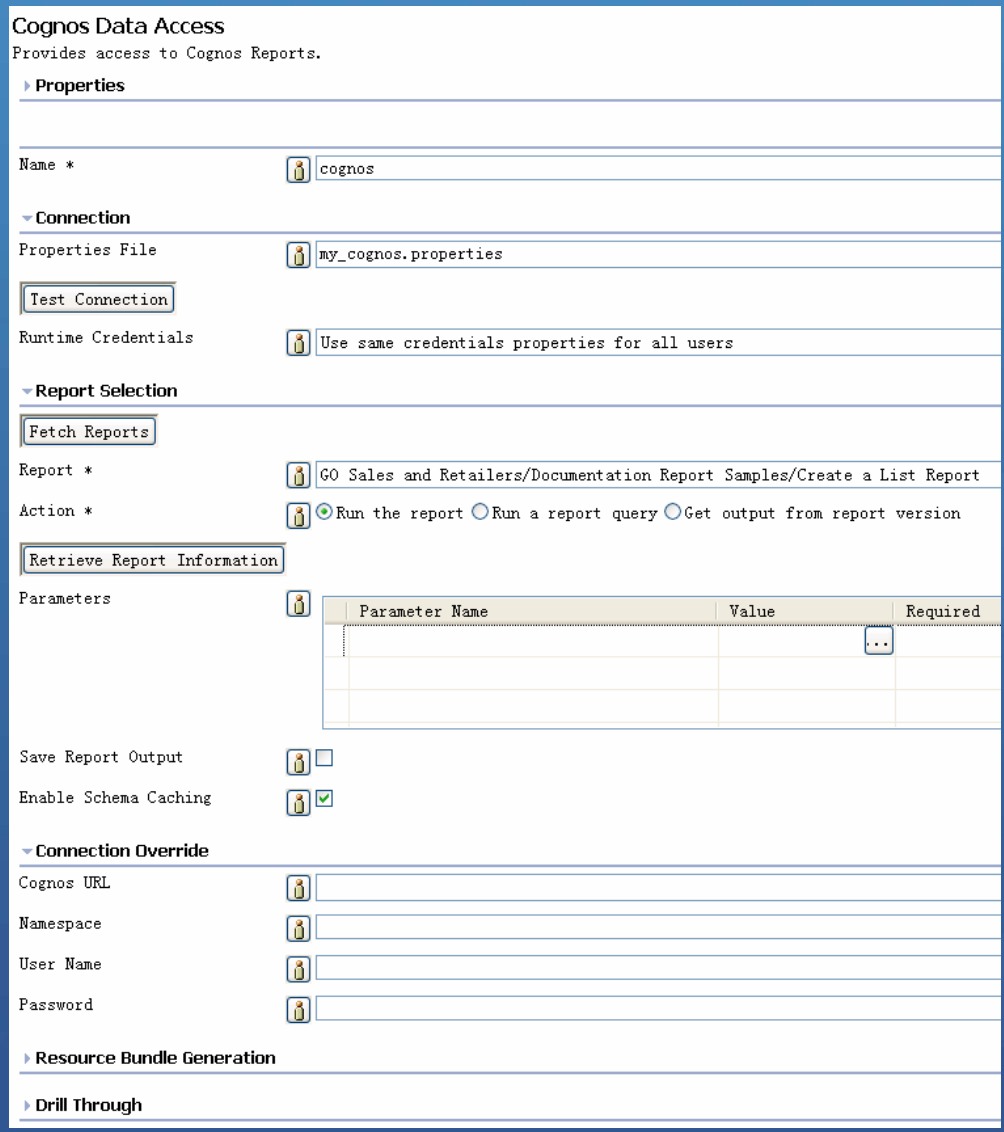


How to Set Up the Cognos Environment

- To use the Cognos Data Access builder, you must have installed the Cognos server and configured the project and the properties file to match your environment.
- Follow these steps to set up the environment and the project:
  - 1. Verify that the Cognos server is running
  - 2. Create a dashboard project that contains the Cognos Extension feature set.
  - 3. Copy the following .jar files from the <Cognos_install_directory>\c8\sdk\java\lib directory to the <project_name>/WebContent/WEB-INF/work/lib directory.
    - ✓ cognos-axis.jar
    - ✓ cognosClient.jar
  - 4. Copy the following .jar files from the <project_name>/WebContent/WEB-INF/lib directory to the <project_name>/WebContent/WEB-INF/work/lib directory.
    - ✓ jaxrpc-api.jar
    - ✓ saaj-api.jar

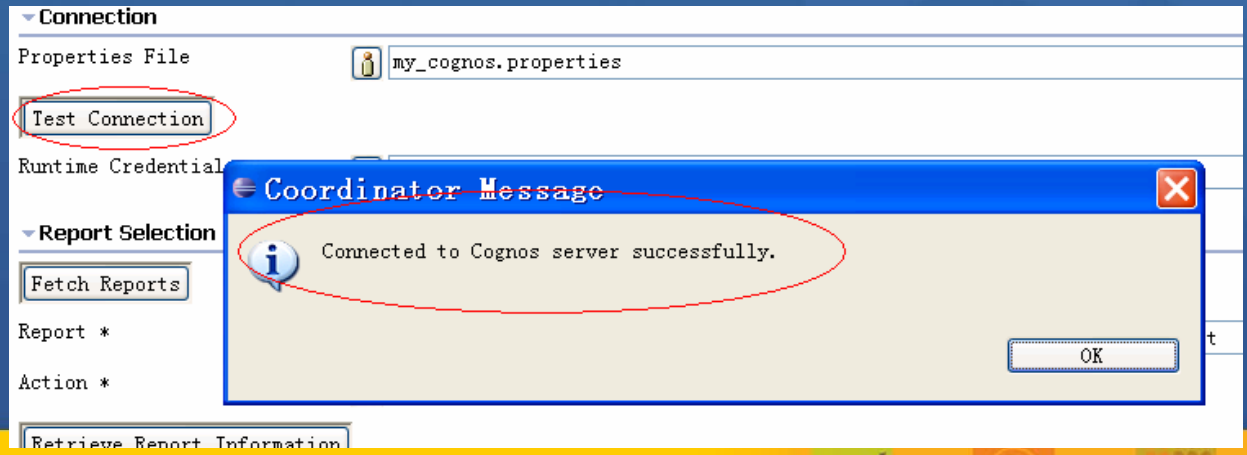
Builder UI Overview

- Builder inputs
  - **Connection**
    - Specify information used to connect to Cognos server
  - **Report Selection**
    - List all available reports on Cognos server
    - Select the action to get data
    - Extract parameters of selected report
  - **Connection Override**
    - Override connection information
  - **Resource Bundle Generation**
    - Generate label resource
  - **Drill Through**
    - Advanced inputs used to customize the drill through behavior



Main Features – Connect to Cognos server

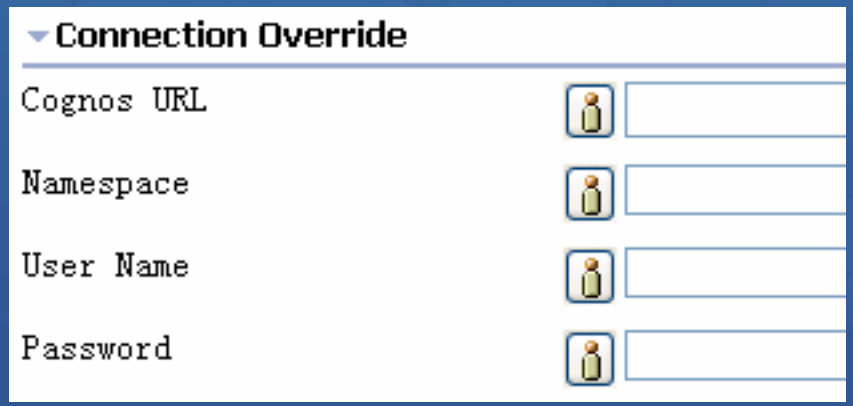
- Two ways to specify connection information
  - Using properties file to specify all connection information
  - Using “Connection Override” builder inputs to specify individual connection information item
- The properties file containing connection information must be put under **WEB-INF/config/cognos_config** directory
- The values in “Connection Override” builder inputs will override the values from properties file
- “Test Connection” button is used to verify the correctness of connection information. And it’s suggested to use “Test Connection” button to ensure the Cognos server is accessible before continuing to use this builder



Main Features – Connect to Cognos server (Continued)

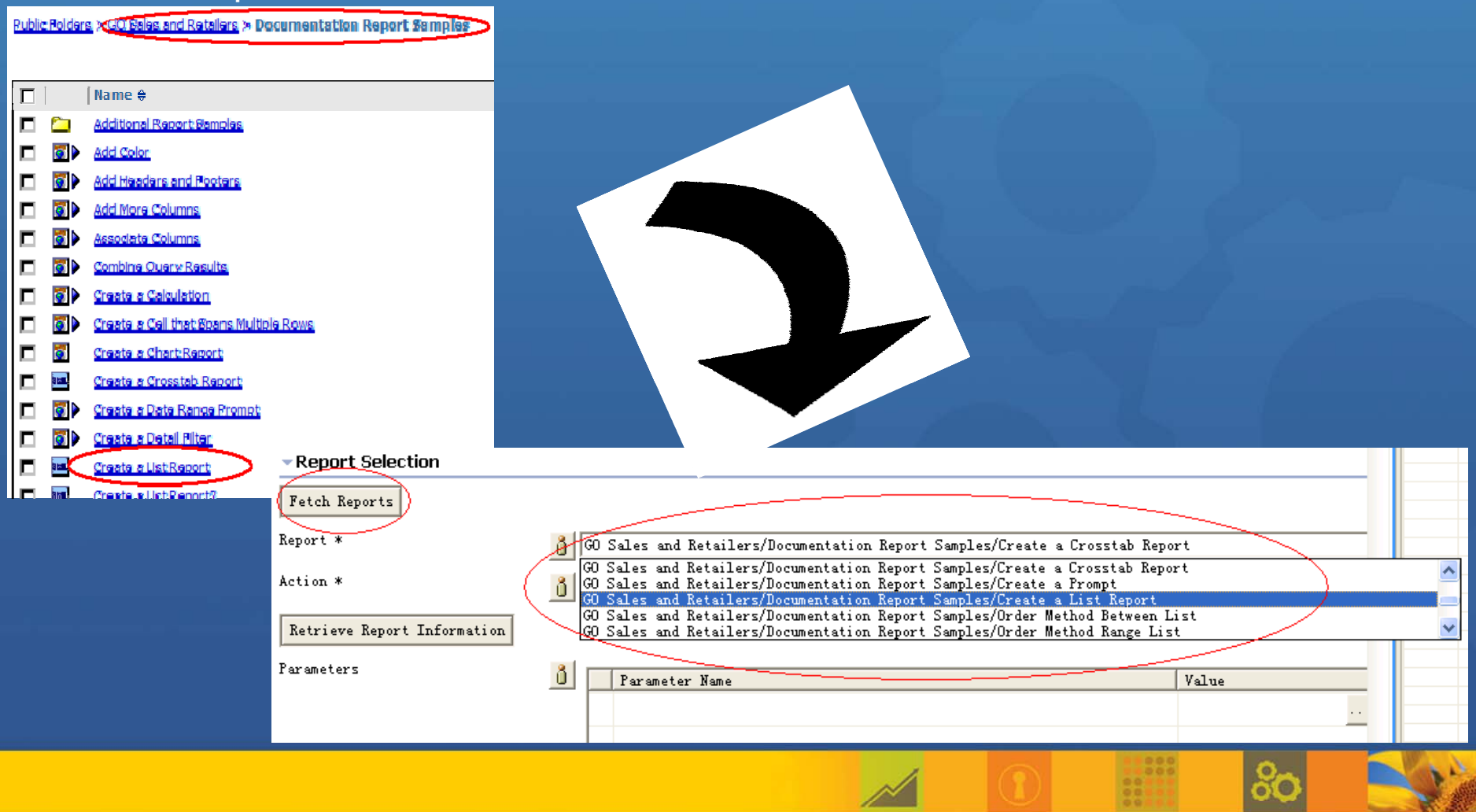
- To connect to the Cognos server, there are 4 values you need to specify:
  - CognosURL
    - ✓The dispatcher URL of Cognos server
  - Namespace
    - ✓The name space that is used to authenticate
  - Username
    - ✓The user that is used to log on Cognos server
  - Password
    - ✓The password of user. And this value can be obscured.

```
# Default connection properties for the Cognos Data Access builder.

# The dispatcher URL to access Cognos server
CognosURL=http://localhost:9300/p2pd/servlet/dispatch

# The name space to access Cognos server
Namespace=Cognos

# The user name to access Cognos server
Username=Administrator

# The password to access Cognos server
# You can specify the clear text or obscured value for it. For example,
# Password=cleartextpassword
#  or
# Password={obs}2Gj+pV4mC98BUWTUYfpiOm/KaFRpf3M=
#
# To retrieve an obscured value string for a cleartext value,
# use the "obscure" utility provided in WEB-INF/bin, passing it
# a cleartext string value and it will return an obscured value.
# You must then prefix that value with "{obs}" as shown above
# in the second proxyPassword example, to denote that it's obscured.
Password=
```



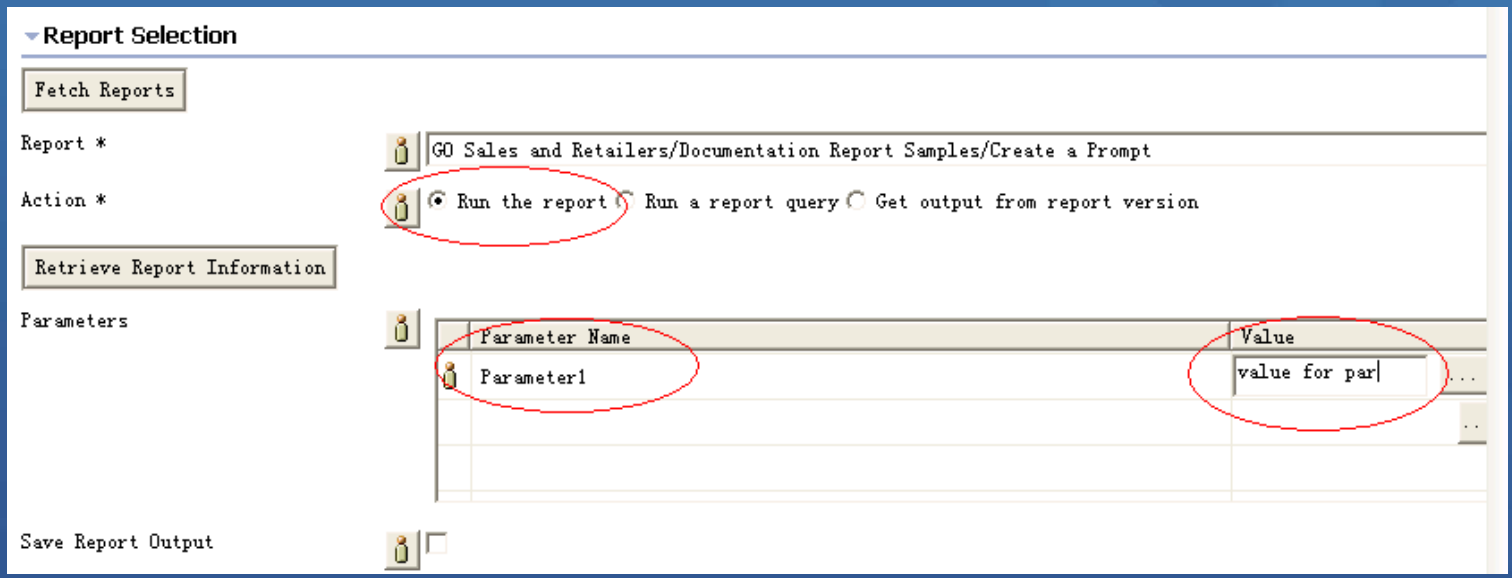
Main Features – List available reports at design time

- After the user clicks the “Fetch Reports” button, all the available reports on Cognos server will be displayed in the “Report” dropdown list



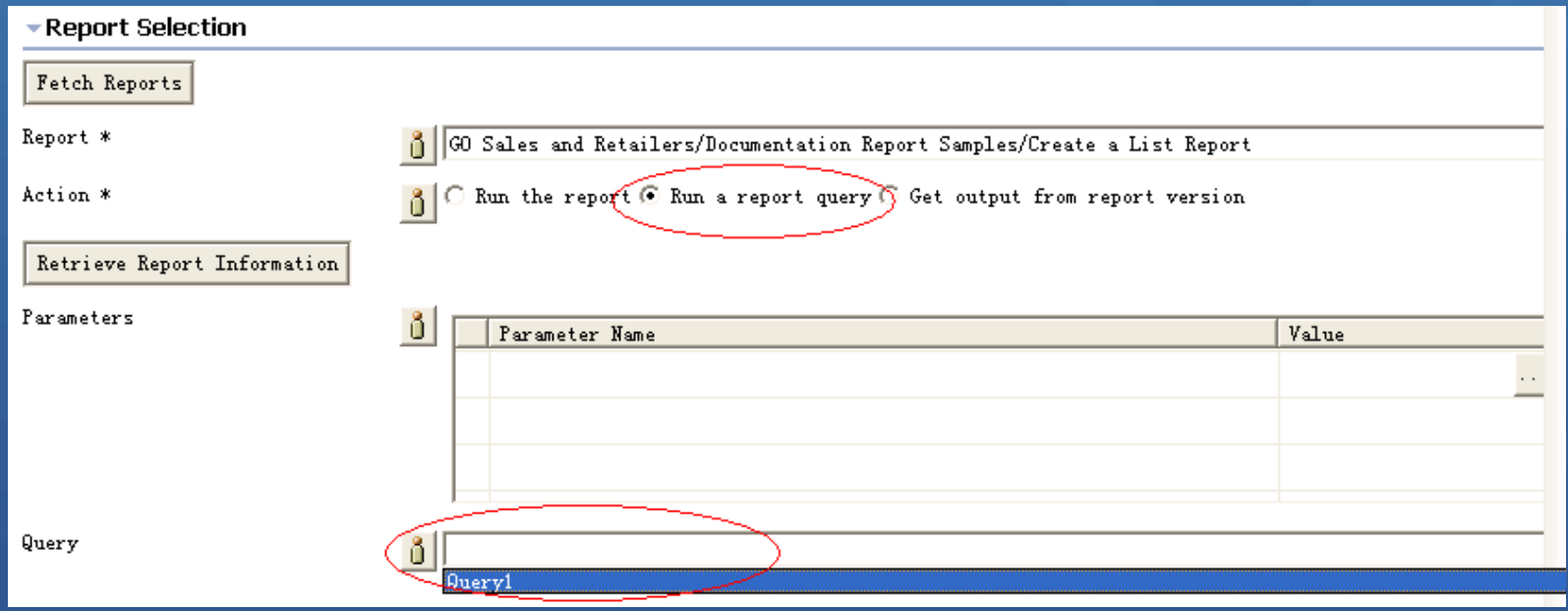
Main Features – Run a report

- Running the report is the most common usage
- User can also specify values to the parameters, after retrieving report information



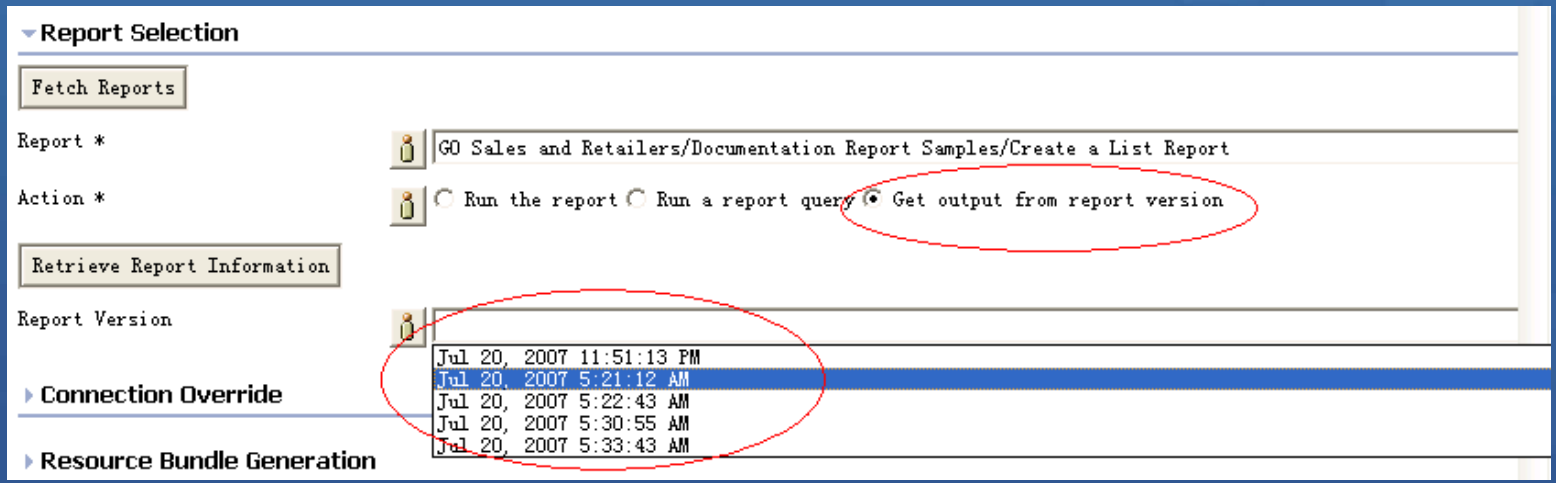
Main Features – Run single query

- Certain report may contain multiple queries. User can specify a single query to run, after retrieving report information



Main Features – Retrieve output of report version

- Certain reports contain versions, which are saved from the previous result of the reports that have been run. User can specify a report version and get its output data without running the report again, after retrieving report information
- The version time and format will be different in different locals. So in order to see exactly the same text as Cognos Connection displays, user should use the same local as Cognos server



Main Features – Retrieve and transform report XML data

- The report will be run on Cognos server as XML format
- The XML-formatted report output will then be transformed to tabular format, which can be consumed by other WebSphere Dashboard Framework builders or components

COGNOS 8

```
<dataset  xmlns="http://developer.cognos.com/schemas/xmld
    <metadata>
          <item name="Product name" type="xs:string"/>
          <item name="Quantity" type="xs:int"/>
    </metadata>
    <data>
        <row>
            <value>Aloe Relief</value>
            <value>14786</value>
        </row>
        <row>
            <value>Bear Edge</value>
            <value>28140</value>
        </row>
    </data>
</dataset>
```

```
<RowSet>
    <Row>
        <GO_Sales_and_Retailers_Documentation_Report_Samples_Create_a_List_Report_CognosCol_1>
            Aloe Relief
        </GO_Sales_and_Retailers_Documentation_Report_Samples_Create_a_List_Report_CognosCol_1>
        <GO_Sales_and_Retailers_Documentation_Report_Samples_Create_a_List_Report_CognosCol_2>
            14786
        </GO_Sales_and_Retailers_Documentation_Report_Samples_Create_a_List_Report_CognosCol_2>
    </Row>
    <row>
        <GO_Sales_and_Retailers_Documentation_Report_Samples_Create_a_List_Report_CognosCol_1>
            Bear Edge
        </GO_Sales_and_Retailers_Documentation_Report_Samples_Create_a_List_Report_CognosCol_1>
        <GO_Sales_and_Retailers_Documentation_Report_Samples_Create_a_List_Report_CognosCol_2>
            28140
        </GO_Sales_and_Retailers_Documentation_Report_Samples_Create_a_List_Report_CognosCol_2>
    </Row>
</RowSet>
```

WebSphere Dashboard Framework

Tracing and Debugging

- **This builder logs all the error messages and exceptions**
- **Examine the following log files**
  - In Portal Server/log: SystemOut.log, SystemErr.log
  - In WEB-INF/logs: event.log, general.txt

Frequently Asked Questions

- Q1: What versions of Cognos are supported ?
  - A: Cognos 8.1 and Cognos 8.2.
- Q2: Besides Automatic Drilldown builder, can this builder be integrated with Summary Drilldown builder and Hierarchy Drilldown builder ?
  - A: Yes. This builder will generate two data service operations. To work with Automatic Drilldown builder, the “getDataForDrill” operation should be used. While, the “getData” operation can be used to integrate with the Data Page based builders, such as Summary Drilldown builder and Hierarchy Drilldown builder.
- Q3: What types of Cognos report are supported ?
  - A: You can get data from both list-type and crosstab-type reports. However, the drill-through function supports only list-type report.
- Q4: Can I use annotation function when this builder integrates with Automatic Drilldown builder ?
  - A: Yes and annotation for table is supported. However, annotation for rows is not supported because of the lack of primary key information in Cognos result data.
- Q5: The drill-up menu item is always disabled when this builder integrates with Automatic Drilldown builder. How can I drill up to previous reports ?
  - A: The drill-through function links one report to another. Although there is no drill-up operation, breadcrumb navigation can help you to return to original reports.

Helpful Information and Documentation

- **Redbooks**
  - http://www.redbooks.ibm.com/redpieces/abstracts/redp4313.html
  - http://www.redbooks.ibm.com/redpieces/abstracts/redp4207.html
- **6.1 InfoCenters**
  - http://publib.boulder.ibm.com/infocenter/wdfhelp/v6r1m0/index.jsp
  - http://publib.boulder.ibm.com/infocenter/aihelp/v6r1m0/index.jsp
- **Support Forum**
  - http://www-128.ibm.com/developerworks/forums/dw_forum.jsp?forum=896&cat=9

Thank You!

© 2008 IBM Corporation