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# Share Point Server 2007 for Business Intelligence

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**ABSTRACT:** Business intelligence (BI) is a broad category of applications and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make better business decisions. Enterprises use business intelligence as an effective tool for decision making in order to improve product and services quantity. In this paper, we describe about business intelligence and features of SharePoint Server 2007 allow to share, control, and reuse business information. Office SharePoint Server 2007 can link and integrate the business applications, such as SAP, Siebel, and Microsoft SQL Server 2005, allowing us to easily publish reports, lists using Microsoft Office Excel workbooks, a SQL Server Reporting Services report, or a Microsoft Office Access report.

## I INTRODUCTION

Traditionally, the tools for accessing large amounts of unstructured data for the purpose of analysis were available only to people with years of experience in data warehousing or data mining. Publishing to the Web by using data from multiple sources is something historically restricted to developers and consultants. By using the new features available in Office SharePoint Server 2007, information workers can assemble data from multiple sources and publish that data on the Web.

Office SharePoint Server 2007 can link to business applications, such as SAP, Siebel, and Microsoft SQL Server 2005, allowing you to easily publish reports, lists, and key performance indicators (KPIs).SharePoint server 2007 Provide business intelligence (BI) capabilities to every employee, so they can share, control, and reuse business

information in order to make better business decisions. The BI features of Office SharePoint Server 2007 provide Web and programmatic access to published Microsoft Office Excel spreadsheets, programmatic reuse of critical line-of-business data, and easy development of Web-based BI dashboards that can incorporate rich, data-bound key performance indicators (KPIs), Web Parts, and published spreadsheets. SharePoint fills several roles in the enterprise document and collaboration space, and provides integration with other business intelligence tools.

## II. BUSINESS INTELLIGENCE (BI)

Business intelligence systems combine operational data with analytical tools to present complex and competitive information to planners and decision makers. The objective is to improve the timeliness and quality of inputs to the decision process. Sometimes business intelligence refers to on-line decision making, that is, instant response. Good use of business intelligence helps we organize data about our organization so that it is useful, actionable, and capable of transforming our underlining business processes. These goals are achieved as follows:

Business intelligence is a natural outgrowth of a series of previous systems designed to support decision making. The emergence of the data warehouse as a repository, the advances in data cleansing that lead to a single truth, the greater capabilities of hardware and software, and the boom of Internet technologies that provided the prevalent user interface all combine to create a richer business intelligence environment than was available

previously. BI pulls information from many other systems. Figure 1 depicts some of the information systems that are used by BI.

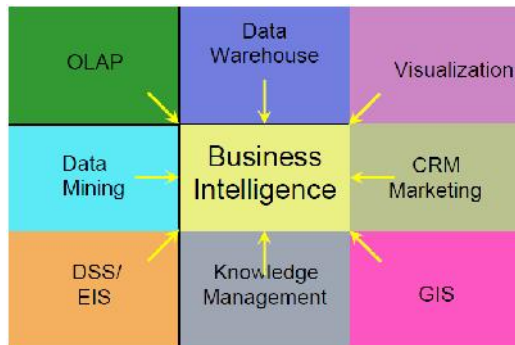


Figure 1: BI Relation to Other Information Systems.

where: OLAP = on-line data processing, CRM=customer relationship management, DSS=decision support systems, GIS = geographic information systems

BI converts data into useful information and, through human analysis, into knowledge. Some of the tasks performed by BI are:

- Creating forecasts based on historical data, past and current performance, and estimates of the direction in which the future will go.
- “What if” analysis of the impacts of changes and alternative scenarios.
- Ad hoc access to the data to answer specific, non-routine questions.
- Strategic insight

By converting data, base of knowledge was build for organization, knowledge workers act more efficiently in pursuing key business goals and managers can identify opportunities for improvement and make decisions based on that knowledge to improve business processes.

### III SHAREPOINT SERVER 2007 FEATURES FOR BUSINESS INTELLIGENCE

Office SharePoint Server 2007 provides many tools that enable we to display information and build knowledge in our organization. We can use the personalization and targeting features of Office SharePoint Server 2007 to increase the usability of

our data and enable knowledge workers in our organization to act on the information built on that data. We can aggregate content across many sources and find it more easily by using search features. Office SharePoint Server 2007 supplements these features with an important set of features for business intelligence.

These features include: Integrated, flexible spreadsheet publishing, Share, manage, and control spreadsheets, Web-based business intelligence using Excel Services, Data Connection Libraries, Business Data Catalog, Business Data Web Parts, Business Data actions, Integrated business intelligence dashboards, Report Center, Key performance indicators, Filter Web Parts.

### IV DATA INTEGRATION FEATURES OF OFFICE SHAREPOINT SERVER 2007

As specified above, Business intelligence frequently use online analytical processing (OLAP) tools to provide meaningful data and expose underlying patterns that might not be otherwise apparent. Office SharePoint Server 2007 uses Microsoft SQL Server 2005 Analysis Services. OLAP and SQL Server 2005 Analysis Services are preferred for large data sources that have relatively stable and unchanged data. That data is then used to create information in processes that change more quickly.

#### A) *Integrated, flexible spreadsheet publishing*

Office Excel 2007 provides an integrated publishing experience that lets information workers easily choose what they want to share with others and determine how others can interact with published spreadsheets.

#### B) *Share, manage, and control spreadsheets*

Share business data broadly while maintaining control and helping to protect sensitive information. Provides access to spreadsheet data and analysis through server-calculated, interactive Office Excel spreadsheets from a Web browser. Use these spreadsheets to maintain and efficiently share one centralized version of the truth while helping to protect any sensitive or proprietary information

embedded in documents, such as financial models, by limiting access to portions of the spreadsheet and auditing their usage.

*C) Web-based business intelligence using Excel Services*

Excel Services empowers spreadsheet authors to easily and broadly share spreadsheets that use the new business intelligence (BI) functionality through the browser. Fully interactive, data-bound spreadsheets including charts, tables, and PivotTable views can be created as part of a portal, dashboard, or business scorecard, without requiring any development.

*D) Data Connection Libraries*

Data Connection Libraries are centralized SharePoint document libraries that store Office Data Connections (ODC); ODCs describe connections to external data. Centralizing Office Data Connections makes it easier to share, manage, and discover data connections that can be used by any Microsoft Office program.

*E) Business Data Catalog*

The Business Data Catalog (BDC) tightly integrates external data into the Office SharePoint Server 2007 user experience, providing access to external data residing within backed line-of-business applications, and enabling the display of and interaction with external data through a set of Business Data Web Parts.

*F) Business Data Web Parts*

Use SharePoint Business Data Web Parts for viewing lists, entities, and related information retrieved through the Business Data Catalog.

*G) Business Data actions*

With no custom coding, easily create actions that open Web pages, display the user interfaces of line-of-business applications, launch InfoPath forms, and perform other common tasks. Use the convenient links that appear beside business objects returned from the Business Data Catalog.

*H) Integrated business intelligence dashboards*

Create rich, interactive BI dashboards that assemble and display business information from disparate sources by using built-in Web parts such as dynamic KPIs, Excel spreadsheets, Microsoft SQL Server Reporting Services reports, or a collection of business data connectivity Web Parts that can visualize information residing in back end line-of-business applications.

**V INFORMATION PRESENTATION AND REPORTING FEATURES OF OFFICE SHAREPOINT SERVER 2007**

For Presenting and reporting, Office SharePoint Server 2007 Business Intelligence features is the Report Center, Key performance indicators, Filter Web Parts, Excel Services.

*A) Report Center*

An out-of-the-box site optimized for report access and management, including a report library, data connection library, and a dashboard template. These sites, hosted by the new Report Center, provide consistent management of reports, spreadsheets, and data connections. The Report Center is a site that provides a central location for storing reports that are common to a group, whether it is as small as a one team or as large as an entire organization. The Report Center site provides a central location for business-intelligence-related information. It contains special document libraries for storing reports, lists, and connections to external data sources. It also provides access to page templates and Web Parts to help you create pages and lists that contain business information. Within the Report Center, users can search for items by using categories, view a calendar of upcoming reports, and subscribe to reports that are relevant.

*B) Excel Services*

Excel Services enables you to store an Excel workbook on a server and then publish any part of that workbook on a Web page. Users need only a browser to view and interact with the live data. The workbook is published on the Web page by using the Excel Web Access (EWA) Web Part. One advantage

of publishing workbooks in a Web Part is that all of the calculation occurs on the server. As a result, the business logic in the workbook is never exposed. Another advantage is that there is only one copy of the workbook, and it is stored in a central, secure place.

#### C) Key performance indicators

KPIs communicate goals and status to drive results. Using the KPI Web Part, a user can create a KPI list within a Web Part page, without writing code. The KPI Web Part can display KPIs from Microsoft SQL Server Analysis Services, Excel spreadsheets, SharePoint lists, or manually entered data. Key Performance Indicator (KPI) is a visual cue that communicates the amount of progress made toward a goal. KPIs are valuable for teams, managers, and businesses to evaluate quickly the progress made against measurable goals. KPIs are created by using KPI lists and then are displayed by using special KPI Web Parts. You can store KPI lists in the Report Center or in any other site in Office SharePoint Server 2007, where they can be reused by anyone with permissions to access them.

#### D) Filter Web Parts

Filters enable dashboards to be personalized by communicating shared parameters among Web Parts on a dashboard. The parameters passed can be automatically applied based on user profiles, SharePoint lists, the BDC, manually entered information, and so forth. Filters allow us to display only the subset of data that you are interested in viewing. Another way to use filters is to display a workbook in an Excel Web Access Web Part and link that workbook to a filter that allows people to choose a product for which they want to view information.

### VI DETERMINE BUSINESS INTELLIGENCE NEEDS FOR OUR ORGANIZATION

Our business intelligence needs for each business process will correspond to the essential steps of business intelligence: The essential steps of business intelligence are:

- Connect to business data sources and collect data.

- Present business data as information.
- Query and analyze data.
- Act on data.
- Plan line-of-business applications and the Business
- Plan business data profiles and business data lists.
- Plan business data search, KPIs, and reports.
- Plan dashboards, the Report Center site, and business data actions.

By using Excel and Excel Services in Office SharePoint Server will make more efficient business decisions at the corporate level.

### VII CONCLUSION

Microsoft Office SharePoint Server 2007 Provide business intelligence (BI) capabilities to everyone, so they can share, control, and reuse business information in order to make better business decisions. Office SharePoint Server 2007 can deliver enhanced authoring, business document processing, Web content management and publishing, records management, policy management, and support for multilingual publishing. The BI features of Office SharePoint Server 2007 provide Web and programmatic access to published Microsoft Office Excel spreadsheets, programmatic reuse of critical line-of-business data, and easy development of Web-based BI dashboards, Web Parts, and published spreadsheets. Microsoft Office SharePoint Server 2007 features are especially useful for designing, developing, deploying, and managing business intelligence solutions.

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