SAP BusinessObjects Analysis for MS Office Deployment Strategy

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10/22/2014
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The Tool - SAP BusinessObjects Analysis

SAP BusinessObjects Analysis, the edition for Microsoft Office and the edition for OLAP, are premium alternatives to respectively, SAP BEx analyzer and SAP BEx Web analyzer. SAP recommends that customers adopt SAP BusinessObjects Analysis to support strategic BI projects in the area of advanced multidimensional analysis of OLAP data sources, to allow power-users to design sophisticated analytical applications/templates and it will serve as a premium alternative for BEx Web application designer.

- **SAP BusinessObjects Analysis, edition for Microsoft Office**, is a set of add-ins for Microsoft Office (MS Office). It enables advanced multidimensional analyses of OLAP sources in Microsoft Excel, Excel workbook-based BI application design, and the creation of interactive Microsoft PowerPoint presentations from OLAP sources. From a functionality perspective, the edition for Microsoft Office is a premium alternative to the Excel analyzer tool of the SAP BEx suite (SAP BEx Analyzer).

- **SAP BusinessObjects Analysis, edition for OLAP**, is a Web-based advanced analysis client for business analysts to run advanced multidimensional analysis of OLAP sources, and create workspaces for private or shared use. From a functionality perspective, the Web edition replaces SAP BusinessObjects Voyager (Voyager) and is a premium alternative to the Web analyzer tool of the SAP Business Explorer suite (SAP BEx Web analyzer).

System Architecture

- SAP BusinessObjects Analysis supports SAP BusinessObjects Enterprise as the strategic BI platform for all SAP BusinessObjects BI clients. This platform will leverage integrated lifecycle management as well as best interoperability between the clients, in future. It also provides basic services such as connection management and single-sign on.
Integration Capabilities

- SAP BusinessObjects Analysis, edition for Microsoft Office can be used without SAP BusinessObjects BI platform—a so-called lean deployment—or in combination with the SAP BusinessObjects BI platform. SAP recommends using BI platform for productive use of the Office Add-in, as BI platform supports main services such as central repository including security, interoperability and, in future, lifecycle management. But we can also use it without BI platform and store and distribute workbooks locally or on any share drive.

- With regard to the navigation between different sets of data or even different sets of BI client tools, SAP BusinessObjects Analysis, edition for Microsoft Office provides the capability to create an analysis view, which then can be consumed by SAP Crystal Reports for Enterprise or SAP BusinessObjects Web Intelligence etc.

- The SAP recommendation is to create a single OLAP connection to the entire BW system or to Infocubes. While this offers the ease of maintaining fewer connections (as opposed to the situation where 1 OLAP connection would be created per BEx query), we do not want the users to unnecessarily navigate Info-areas that they may not require/may not be supposed to view. However this access matter to all Info-areas can be managed through BW roles.

- BICS connectivity is the recommended way for BI tools to connect to Business Explorer (BEx) queries on the SAP NetWeaver BW server. After we configure the OLAP connection in the Central Management Console (CMC), we can build our first workbook using SAP BusinessObjects Analysis, edition for Microsoft Office.

Version Management

Client Prerequisites

- MS Office 2003, MS Office 2007 or MS Office 2010 (on MS Windows XP and higher)
- PowerPoint Add-in only available for MS Office 2007 and MS Office 2010
- SAP GUI installation not mandatory. But local SAPLOGON.INI file required if we don’t use BI Platform for connection management
- Pre-requisites for BO Analysis for Office 1.4 deployments are Windows-7 (not XP-Pro) on the desktop and SAP BO BI-4.1 on the platform side.

Server Prerequisites

- Only SAP NetWeaver BW 7.0 (and later releases) is supported. Recommendation is to use BW 7.0 EHP1 or even SAP NetWeaver BW 7.3 as there are significant TCO.
- We can connect to BEx queries built with Query Designer 3.5 or 7.0 as long as the underlying SAP NetWeaver BW system has been migrated to 7.0 or a later release. BEx queries are consumed directly by any SAP BusinessObjects BI 4.0 front-ends
- Required SAP Business Objects BI Platform: 3.1 or higher (can run side-by-side with SAP NetWeaver BW)

What is not possible with BO Analysis for Excel?

- Content distribution via email, which, as of the 4.0 FP3 release, is not yet possible. There are plans for a future release to integrate SAP BusinessObjects Analysis, edition for Microsoft Office with the scheduling and publication mechanism of our SAP Business-Objects BI platform.
- For specific formatted reporting content (such as an income statement or a balance sheet), where the design needs to be layout focused, is not possible, as with normal MS Excel.
- Content cannot be available online, offline, and on mobile devices (for sales representatives on the road). Highly aggregated information and alerting on key measures is not possible too.
- Users can not perform scenario-based analysis, where the user is able to see the data but can also influence certain factors and see the impact on the overall numbers, for example, a what-if analysis in a sales planning workflow.
What is possible with BO Analysis for Excel?

- Integrated Planning integration
- Hierarchy use
- Rename Descriptions
- Calculations
- Member selection
- Top N / Bottom N ranking
- Filter by measure (Key Figures) & Characteristic Values (Members) & Constants
- Conditional formatting or Traffic light symbol for Characteristic / Key Figures
- Subtotal & Grand-Total
- Powerpoint integration from the excel result sheet & property changes of the PPT
- Display Property changes for key figures & characteristic
- SAP BusinessObjects Analysis, edition for Microsoft Office is tightly integrated with the Microsoft Office environment. For example, charts in the Microsoft Excel environment use the Microsoft Excel charting engine and can be formatted and configured using the standard Microsoft Excel charting functionality. Another example is tables in Microsoft PowerPoint, which can be formatted and configured using the standard layout and design options available with Microsoft PowerPoint.
- Workbook are important feature of Business Object Analysis for MS version, which we can store in BO Enterprise only and apply its lifecycle management. Of course, we can also store workbooks locally or on any share folder.
- SAP BusinessObjects Analysis offers a set of commands and functions for data/meta data access that can be embedded in workbooks and VBA coding. In this sense, SAP BusinessObjects Analysis is very "close" to Microsoft Excel and is more flexible in terms of formatting.
- Possible to Integrate with SAP Portals
- Possible to adapt Single Sign-on
- Can co-exist with Bex Analyzer
- Can be consumed by SAP Crystal Reports for Enterprise or SAP BusinessObjects Web Intelligence etc.

Possible Data Sources

- Can use a direct access method via BI Consumer Services (BICS) to connect to BEx queries and InfoProviders in our SAP NetWeaver BW system.
- Can use a direct access method via BICS to connect to BEx queries based on transient providers in the SAP ERP system. The transient provider requires SAP ECC 6.0 enhancement package 5.
- Can use the shared connections from SAP BusinessObjects and the direct access method via BICS to connect to the BEx queries and InfoProvider in SAP NetWeaver BW, as well as to the BEx queries combined with the transient provider.
- Can connect/establish a direct link to SAP HANA.

Software Installation Options

- It is a rather fast client installation that can be accomplished within a few minutes. Software is available in the network drive for use.
- IT department can deploy the software onto specific user’s computer using the automatic deployment tool called “SCCM” available in the UK. Similar tool may also be available in the USA.
Migration Capabilities
- SAP is planning migration support for a future release of Analysis, edition for Microsoft Office. This migration support is mainly targeted to simple BEx workbooks without high customization (VBA, items etc.).

Licensing Information
- For SAP BusinessObjects BI package and SAP Application Business Expert users it is equipped with all licenses necessary to run SAP Business Objects Analysis edition for Microsoft Office.
- In essence; there is a license for SAP BusinessObjects Analysis if we do not have a license for SAP BusinessObjects BI package. SAP account executive can be contacted for further information.

Security Management
Model – Separating Functional Access Groups from Data Access Groups
- This model is probably the most common model to implement as it has the right balance between flexibility and cost of development and maintenance. Here we have 2 sets of groups: one that defines “functional access” and one that defines “application access”. A user is then a member of one of the functional groups and one or more application groups; this then defines overall access.

Functional Groups
- We first define the required functional access groups. We can have 3 functional groups of “Basic”, “Intermediate” and “Advanced”; where again we have an inheritance model of increasing rights. This, along with the “Everyone” group defines the ‘baseline’ security model. Users will be a member of at most one of these 3 groups, if a user is in more than one then the resolved access will be that of the more advanced group.

BI Application Groups
- We also create user groups that define separate BI Applications. The BI application (FI, FI-AP, FI-AR, SD, MM, PUR etc) itself defines data access, that is, it controls access to reports and universes that comprise the application. Users can belong in one or more of these groups.

A user then belongs to one functional group and one or more application groups. It should be noted that a user can then only have the same functional access across applications. I.e. if a user is a “Basic” user in one application they must also be a Basic user in any other application they have access to. A second similar point is that each application must reuse same functional access model, that is, we can’t have two Basic groups with different functional access in two different applications.
Use of BW based authorization objects

- The queries and InfoProvider can be secure with authorization objects+Roles in BW.
- BW authorization Objects assigned to roles are them mapped to BO roles defined in CMS.

Advantages

- Flexible model. Easy to interpret what access a user has by examining group membership
- Easy to promote user functional access without impacting application access.
- User can access multiple applications as required

Limitations

- All applications must use same functional access model – “Basic” in one application is same as Basic in another
- A user can’t have different functional access in different applications – i.e. user can’t be Basic in one application while Intermediate in another.

Comparative Features (BEX & BusinessObjects-Analysis MS)

SAP BusinessObjects Analysis, edition for MS Office is not a successor to BEx Analyzer. It is a premium offering to BEx Analyzer and SAP targets to support most of the BEx Analyzer scenarios with it.

Table below shows which objects are supported when using SAP BusinessObjects Analysis, edition for Microsoft Office as a BI client tool.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of decimals</td>
<td></td>
</tr>
<tr>
<td>Calculate rows as (local calculation)</td>
<td></td>
</tr>
<tr>
<td>Sorting</td>
<td></td>
</tr>
<tr>
<td>Hide/unhide</td>
<td></td>
</tr>
<tr>
<td>Display as hierarchy</td>
<td></td>
</tr>
<tr>
<td>Reverse sign</td>
<td></td>
</tr>
<tr>
<td>Support for reading master data</td>
<td></td>
</tr>
<tr>
<td>Data Types</td>
<td></td>
</tr>
<tr>
<td>Support for CHAR (characteristics)</td>
<td></td>
</tr>
<tr>
<td>Support for NUMC (characteristics)</td>
<td></td>
</tr>
<tr>
<td>Support for DATS (characteristics)</td>
<td></td>
</tr>
<tr>
<td>Direct Access using BICS</td>
<td></td>
</tr>
<tr>
<td>Support for TIMS (characteristics)</td>
<td></td>
</tr>
<tr>
<td>Support for numeric key figures such as Amount and Quantity</td>
<td>Yes</td>
</tr>
<tr>
<td>Support for type Date (key figures)</td>
<td></td>
</tr>
<tr>
<td>Support for type Time (key figures)</td>
<td></td>
</tr>
<tr>
<td>SAP Variables — Processing Type</td>
<td></td>
</tr>
<tr>
<td>User input</td>
<td></td>
</tr>
<tr>
<td>Authorization</td>
<td></td>
</tr>
<tr>
<td>Replacement path</td>
<td></td>
</tr>
<tr>
<td>SAP exit/custom exit</td>
<td></td>
</tr>
<tr>
<td>Precalculated value set</td>
<td></td>
</tr>
</tbody>
</table>

### General Features for Variables

<table>
<thead>
<tr>
<th>Feature</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for optional and mandatory variables</td>
<td></td>
</tr>
<tr>
<td>Support for key date dependencies</td>
<td></td>
</tr>
<tr>
<td>Support for default values</td>
<td></td>
</tr>
<tr>
<td>Support for personalized values</td>
<td>No</td>
</tr>
</tbody>
</table>

### SAP Variables — Variable Type

<table>
<thead>
<tr>
<th>Feature</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single value</td>
<td></td>
</tr>
<tr>
<td>Multi-single value</td>
<td></td>
</tr>
<tr>
<td>Interval value</td>
<td></td>
</tr>
<tr>
<td>Selection option</td>
<td></td>
</tr>
<tr>
<td>Hierarchy variable</td>
<td>Yes</td>
</tr>
<tr>
<td>Hierarchy node variable</td>
<td>Yes</td>
</tr>
<tr>
<td>Hierarchy version variable</td>
<td>Yes</td>
</tr>
<tr>
<td>Text variable</td>
<td></td>
</tr>
</tbody>
</table>
Table below shows “Direct access method” using the BICS option uses the elements from the BEx query and how the objects are mapped to the navigation panel for SAP BusinessObjects Analysis, edition for Microsoft Office.

<table>
<thead>
<tr>
<th>BEx Query Element</th>
<th>SAP BusinessObjects Analysis, Edition for Microsoft Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic</td>
<td>For each characteristic you receive a field and with the menu members you can decide which part of the characteristic is shown as part of the overall result.</td>
</tr>
<tr>
<td>Hierarchy</td>
<td>Each available hierarchy is shown as an external hierarchy and can be used as part of the cross tab. In addition, you can use hierarchy levels as part of your cross tab; for example, you can show all members of Level 2 of the hierarchy.</td>
</tr>
<tr>
<td>Key figure</td>
<td>Each key figure is shown with the unit and scaling factor information.</td>
</tr>
<tr>
<td>Calculated/restricted key figure</td>
<td>Each calculated and restricted key figure is treated like a key figure. The user does not have access to the underlying definition in SAP BusinessObjects Analysis, edition for Microsoft Office.</td>
</tr>
<tr>
<td>Filters</td>
<td>Filters are applied to the underlying query and are visible in the navigation panel as part of the Filter area in the INFORMATION tab.</td>
</tr>
<tr>
<td>Display attribute</td>
<td>Display attributes become standard fields in the navigation panel and are grouped as subordinates of the linked characteristic.</td>
</tr>
<tr>
<td>Navigational attribute</td>
<td>Navigational attributes are treated the same way as characteristics.</td>
</tr>
</tbody>
</table>

**Possible User Experience**

- It helps to address the business needs and requirements
- It can help to increase the adoption of your overall BI implementation
- It can help to increase overall business self service
- It can consume and interact with information using prepared workbooks
- It can analyze operational metrics inside the Microsoft Office environment
- It can follow guided analysis using pre-built BI applications
Middle Management
- Analyze regional goals and strategic KPIs
- Analyze information to measure the progress toward set goals and KPIs.

Business Analyst
- Leverage actual and historical data to create detailed planning scenarios
- Leverage data and tools to provide answers ad-hoc to the management and executive team so that decisions are based on solid information.

Executive
- Oversee cross department / line of business performance and evaluate different scenarios for planning and forecasting purposes.
- Combine and review analytics with company strategies and goals to continuously improve company performance.

Individual Contributor
- Review regular account statements to control customer invoices and vendor accounts.
- Fulfill management requests for information as simply as possible.
Target User Groups:
BI Professional Business User

- Create live PowerPoint presentations
- Modern and familiar Microsoft Office user experience
- Build powerful Excel workbook BI applications
- Support BW-Integrated Planning

Target User Groups:
Data Analysts

- Few simple clicks to fast business insights
- Pervasive web-based analysis
- Interoperate with Webi and Crystal Reports
- Modern look-and-feel with intuitive drag-and-drop
- SAP BW, HANA, EPM and Microsoft Analysis Services
Target User Groups:
- IT
- Key Users
- Designers

Eclipse-based application design environment

iPad Apps

Premium alternative to BEx WAD

State of the art rendering: HTML5

- Power User / IT
  - Centralized creation of Analysis content (workbooks & PowerPoints)
  - Sophisticated workbook design (VBA APIs and so on)
- Business Analyst
  - Ad Hoc data access and data analysis, slicing & dicing, and so on, in Excel
  - Ad Hoc embedding of BI data into PowerPoint presentations
- Business User & Task Worker
  - Consuming pre-defined BI content in Microsoft Excel and Microsoft PowerPoint