Deploying Oracle® Hyperion Smart View for Office, Fusion Edition

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NOTE:

This paper assumes the reader has a basic understanding of Smart View, since this paper focuses new features introduced in release 11.1.1.0.0.

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INTRODUCTION

Oracle® Hyperion Smart View for Office, Fusion Edition (Smart View) provides a common Microsoft® Office interface for Oracle® Enterprise Performance Management (EPM) suite of products along with Business Intelligence (BI) data sources. Using Smart View, you can view, import, manipulate, distribute and share data in Microsoft® Excel, Word and PowerPoint interfaces.

This paper provides an outline of the capabilities of the latest version of Smart View that can be leveraged by organizations when interacting with Oracle Enterprise Performance Management (EPM) as well as Business Intelligence (BI) systems. For the purpose of this document EPM will include BI. Release 11.1.1.0.0 represents a major milestone for the Oracle EPM Suite of products with important new functionality and enhancements to several components. Smart View has accordingly been enhanced with a set of features to provide Office users a rich experience when interacting with EPM and BI data sources.

USAGE SCENARIOS

The Office environment is one of the predominant interfaces that power EPM and BI users, whose Smart View use usage can be classified as described below.

Ad Hoc Analysis

Ad hoc analysis is for users who use Excel to interactively investigate the data contained in the source(s), where they “slice and dice” the data. They may start with templates (such as East->Cola->Sales) or a blank sheet where they begin shaping and altering the grids of data as they work. Typically, users retrieve the data from Oracle EPM sources such as Essbase, Planning, Profitability or Financial Management using mouse clicks or drag and drop. Oracle Business Intelligence Enterprise Edition is also supported as a data source starting with release 11.1.1.0.0 of Smart View. Free form analysis is a variant of ad hoc analysis where users can type in member names from a dimension on a spreadsheet and refresh the data.

Predefined Form Interaction

EPM application users who execute predefined input or reporting forms find Smart View a convenient way of completing tasks within Office. Such users are planners, consolidators and the like who want to work in Excel for consistent experience compared to the web application or to tie other spreadsheet-based models into their process. For example, a prominent bottling company uses Smart View for Planning to incorporate data that is still housed in spreadsheet and workbook-based models.
**Pre-created Content Access**

Another area of use is for importing pre-created content, charts or grids, for example, from Reporting & Analysis products to PowerPoint, Word or Excel. The imported content can be refreshed from the Office environment.

**Reporting**

Reporting is another dimension of Smart View usage which leverages the capabilities of EPM and BI data retrievals. Once the data is available within Office, you can create reports as needed based on a combination of data sources. For example, Planning and Financial Management data could be used to compare actual to budget. The ability to compare multiple scenarios, for different periods, etc., enables more complex reports. The power of Office can be used to create Reports in the Office environment, which can be refreshed as needed.

**PLATFORM SUPPORT**

Smart View 11.1.1.0.0 is supported for Office 2003 and 2007, and for Microsoft® Office 2002 on XP.

**ARCHITECTURE**

It is important to understand the architecture in order to effectively deploy Smart View solutions for an enterprise. Smart View is an add-in that allows Microsoft® Office users to access EPM and BI data sources. Smart View accesses EPM data sources, via a middle tier commonly referred to as a provider. There are two categories of providers.

1. **Product-based provider**: This provider is specific to a given product and is capable of handling interactions with only that product; for example, Financial Management.

2. **Provider Services s**: This is a common provider service used to interact with EPM and BI sources.

Provider Services, a middle tier provider, was first released in version 9.3 and combined the abilities of two other middle tier components (Analytic High Availability Services and the Smart View Provider). It requires a web application server (WebLogic, for example) for deployment. Provider Services subsumed all the capabilities of the following:

- Analytic High Availability Services
- Smart View Provider
- XMLA Provider to Oracle Essbase
- Java API Provider to Oracle Essbase

It provides high-availability, clustering, and load balancing functionality for Java API, Smart View, and XMLA Clients for Essbase.
In the 11.1.1.0.0 release, the scope of Provider Services is expanded to incorporate Smart View client communication functionality for the following:

- Planning
- Oracle Business Intelligence Enterprise Edition (Oracle BI EE)

Provider Services is the enabler for the new features described in the following sections. Products accessed through Provider Services can take advantage of these features. Smart View can accommodate both types of data sources; hence data from Planning and from Financial Management can coexist in the same workbook for example.

**DATA SOURCE MANAGER**

Smart View Release 11.1.1.0.0 accommodates products designed to be used with Provider Services as well as products with individual product providers. For the data sources that are accessed via Provider Services, users need to know only one central URL, which is defined centrally by the administrator. This eliminates the need for users to define connections individually. From the administration perspective this is useful as well. If a data source location changes physical location to another server, the administrator has to modify the connection definition only once. This modification is transparent to users.

The connections are organized logically by product areas, and users can pick the connection of their choice easily from a tree control. Smart Slices, discussed in the next section, are associated with a given data source and are available to users. The Data Source Manager can also be used to interact with other EPM sources, opening Planning Forms for example.
Some data sources (e.g. Reporting & Analysis) maintain their own native providers. User defined connections for these sources will be honored and continue to co-exist with the connections defined centrally and accessed via the Provider Service.

**Note:** In a release beyond 11.1.1.0.0, the goal is to include Financial Management as a data source accessed via Provider Service. Enterprise and Reporting & Analysis however will continue to have individual providers.

**SMART SLICE**

A Smart Slice is a perspective of a data source containing a set of dimension members that can be reused.

As analytic and financial databases grow in size (in respect to both dimensionality and scope of data), it is important to provide users with a better set of tools to focus in on the data and type of analysis they need. In the 11.1.1.0.0 release Smart View provides the ability for admin users to model supported data sources through the Smart Slice modeling interface. This lets admin users determine the specific dimensionality and preferences to make available to end users who desire access to a specific data perspective when working with a data source.

Users can pick from a pre-defined list of Smart Slices as a start instead of having to navigate to the data point of interest. Admin users can centrally define data views in the form of Smart Slices that are relevant for large number of users. The Smart Slice modeling interface allows admin users to perform the following actions:

- Filter an existing data source to provide more concise, user-friendly access
  - For example, an admin user could take a 12 dimensional model and anchor 9 of those dimensions at a specific slice in the dimension. The resulting ad-hoc model and experience would be filtered based on those anchored dimensions and only the remaining 3 dimensions will be shown during analysis.

- Specify default point of view for data sources
• Specify default alias table and other connection preferences
• Save grids as reporting objects off of a Smart Slice model for easy drag and drop reuse by end users. The same data is now available across Office - Word and PowerPoint.

DATA INTEGRATION & REPORTING

It is important to understand the architecture in order to effectively deploy Smart View.

As Office integration continues to evolve what in many cases customers are demanding the ability to create highly formatted, structured reports in Word, or dash-board like content in PowerPoint and Excel. Smart View will provide these capabilities in a Report Designer User Interface (UI), which allows data to be brought in from multiple data sources created as Smart Slices or by use of functions. This UI encompasses three phases:

1. Report layout
2. Query design
3. Formatting output

The Report Designer provides the following abilities:

• Multi-source reporting
• Report cascade
• Charts and other controls

Combined Data Display

With Smart Slice capabilities Smart View provides users the ability to display multi-data source on a single grid. For example, take the following grid:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Profit and Loss</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>January</td>
<td>February</td>
<td>March</td>
<td>April</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Revenue</td>
<td>$7,750,434</td>
<td>$3,729,270</td>
<td>$2,162,075</td>
<td>$3,729,270</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Cost of Goods Sold</td>
<td>$1,162,624</td>
<td>$543,230</td>
<td>$2,935,420</td>
<td>$2,935,420</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Gross Profit</td>
<td>$6,587,810</td>
<td>$3,186,040</td>
<td>$0</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Operating Expenses</td>
<td>$1,162,624</td>
<td>$543,230</td>
<td>$2,935,420</td>
<td>$2,935,420</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Net Income</td>
<td>$5,425,186</td>
<td>$2,642,810</td>
<td>$0</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The top portion of this grid is Essbase data; the bottom portion of the grid is Planning data. The final output of the Report Designer is not limited to two sections. The output can encapsulate multiple query sections as well as chart output (chart types supported by Microsoft® Office Web Components). Shown below is another example of combining data from multiple EPM sources.
Report Controls

In order to better support the reporting needs, the Smart View Report Designer leverages Microsoft® Office Web Components to provide the user with a set of objects for use in the report layout. Slider controls can be used for controlling multiple charts and tables from the same data source. Shown below are two outputs created using Smart View in Excel and PowerPoint.

Note: The charts rendered across the Office suite have the similar look and feel.

Cascade

In addition to other capabilities, the Report Designer provides cascaded output of reports in Excel. This will enable end users to create a report in Excel and cascade it to separate sheets based on members of a dimension not included as part of the report.

CONCLUSION

Historically speaking, many Excel-based add-ins were available to access EPM Suite of products. Smart View provides a convergence of these technologies into a single client with which Office users can leverage EPM data.
Smart View allows for application access (HFM, Planning for example), ad hoc analysis queries (Oracle® Business Intelligence Enterprise Edition, Essbase, Planning, etc.) and existing Reporting & Analysis content import. Smart View is not just an Excel add-in; instead it is an Office add-in with functionality in:

- Excel
- Word
- PowerPoint
- Outlook (if Word is your e-mail editor)

The ability to copy and paste data points across Microsoft® Office (Excel, Word, PowerPoint) provides an easy mechanism for moving relevant data points from one application to another.

Smart View makes EPM and BI data (Oracle® Business Intelligence Enterprise Edition) available via Microsoft® Office in a useful manner. Providing information within the productivity applications where users spend most of the day allows everyone in an enterprise to do their jobs better.