

Understanding an OLAP Solution from Oracle

*An Oracle White Paper
April 2008*

NOTE:

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Table of Contents

Introduction	4
Similarities between the Oracle Database OLAP Option and Oracle's Hyperion Essbase	5
Commitment to Product Development	5
Overview.....	5
Architectural Heritage	5
Oracle's Hyperion Essbase: Middle Tier OLAP	5
Oracle Database OLAP Option: Database-Centric OLAP.....	6
Architecting the Appropriate Oracle OLAP Solution	6
The Purpose.....	7
Oracle's Hyperion Essbase	7
Oracle Database OLAP Option.....	7
The Buyer.....	8
Oracle's Hyperion Essbase	8
Oracle Database OLAP Option.....	9
Typical End Users.....	10
Oracle's Hyperion Essbase	10
Oracle Database OLAP Option.....	10
Typical Front Ends.....	11
Oracle's Hyperion Essbase	11
Oracle Database OLAP Option.....	12
Data Management.....	13
Oracle's Hyperion Essbase	13
Oracle Database OLAP Option.....	14
ORACLE OLAP CASE Studies.....	14
Oracle's Hyperion Essbase Case Studies.....	14
Southwest Airlines.....	14
Land O' Frost	15
Oracle Database OLAP Option Case Studies	16
Ford Motor Company	16
The Gallup Organization	17
Better Together.....	18
Conclusion.....	19
About Oracle Corporation.....	19

Understanding an OLAP Solution from Oracle

INTRODUCTION

The twin pillars of the Oracle OLAP (Online Analytical Processing) solution are Oracle's Hyperion Essbase and Oracle Database 11g OLAP Option. Like twins, they share similar characteristics; however they are individuals with their differences.

This white paper discusses these two Oracle OLAP solutions.

The term online analytic processing (OLAP) describes a category of business intelligence (BI) software that supports activities ranging from self-service reporting and analysis, to comprehensive planning and budgeting systems. The OLAP category is not monolithic; there are many different types of OLAP products, each of which seek to provide solutions to certain problems and to service certain user communities.

What OLAP products have in common is the ability to support business users with a user experience that is highly interactive. Beyond that, OLAP products can differ significantly in terms of user experience, performance, analytic capabilities, target audiences, and architecture. For example, some OLAP products simply provide a dimensional query model for data stored in relational tables as a means of presenting data to business users in a way that is easy for users to define their own queries and navigate data interactively. This OLAP product differs from one that also provides performance benefits and rich analytical capabilities. It is also very different from an OLAP product that is designed to support a planning and budgeting application.

With the acquisition of Hyperion Systems in 2007, Oracle finds itself owning the two most capable OLAP products on the market—Essbase and the OLAP Option to the Oracle Database. While both products fall within the OLAP category and have some similar capabilities, they are different in significant ways. This paper will help the reader understand where these products are similar and where they differ. Most importantly, it will help the reader architect the Oracle OLAP product that is most appropriate for his or her application.

Similarities between the Oracle Database OLAP Option and Oracle's Hyperion Essbase

It is useful to begin the discussion with the similarities between the Oracle Database OLAP Option and Oracle's Hyperion Essbase. Both are servers (rather than end user GUI reporting tools) and have the capability of storing data in cubes and dimensions. As such, they share some similar capabilities, including:

- Excellent query performance for queries that require summary level data.
- Fast, incremental update of data sets that is required to facilitate frequent data updates.
- Rich calculation models that may be used to enrich cubes with analytic content.
- A dimensional model that presents data in a form that is easy for business users to query and define analytic content.

Because Oracle's Hyperion Essbase and the Oracle Database OLAP Option are both servers and provide these core capabilities, it might be easy to think of them as being so similar as to be interchangeable. This is not the case. Each product focuses on delivering OLAP capabilities into different types of applications and for different classes of users and buyers.

Commitment to Product Development

Both Oracle's Hyperion Essbase and the Oracle Database 11g OLAP Option are strategic, go-forward products for Oracle. What this means is that both products will continue to have substantial investments made to enhance both the performance and scalability of the two products. As a result, there should be no doubt that both Oracle's Hyperion Essbase and the Oracle Database OLAP Option are strategic products that will be developed, supported, and used within the Oracle product line for the foreseeable future.

OVERVIEW

Architectural Heritage

Both Oracle's Hyperion Essbase and the Oracle OLAP Option were two of the leading OLAP engines. Both store information in a multidimensional format. However, given the product strategy of the two companies, the products have taken two different paths.

Oracle's Hyperion Essbase: Middle Tier OLAP

Oracle's Hyperion Essbase comes from a history of OLAP applications based in the middle tier. The strategy of Hyperion Essbase centers on custom analytics and BI applications with a focus on enterprise performance management (EPM). This strategy addresses the what-if, modeling, and future-oriented questions that companies need answered today in order to see into the future.

Typically, Essbase applications are started and maintained by business analysts. The buyer is usually in the line of business (LoB). The typical end users are line of business users who query and create data with the Essbase tools and Hyperion applications. The line of business typically has a large degree of uncertainty and needs to understand a dynamic and changing environment;

The data management strategy allows Oracle's Hyperion Essbase to easily combine data from a wide variety of data sources, including the Oracle Database. Oracle's Hyperion Essbase is part of the Fusion Middleware architecture.

Essbase is the OLAP server that provides an environment for rapidly developing custom analytic and enterprise performance management applications.

Oracle Database OLAP Option: Database-Centric OLAP

The purpose of Oracle OLAP is to improve the performance and analytic content of SQL-based BI applications.

The typical end user is a SQL-based BI tool user who queries data in the Oracle Database. The data management strategy has been optimized for data in the Oracle Database. Oracle OLAP is part of the Oracle OLAP option in the Oracle RDBMS architecture.

ARCHITECTING THE APPROPRIATE ORACLE OLAP SOLUTION

This paper suggests five questions one should ask when deciding which Oracle OLAP solution is correct for a specific application:

- What is the purpose of the application?
- Who is the buyer of the application and who will support it?
- Who is the end user, what needs to they have and what tools will they use?
- How will the application acquire and manage data?
- Is the application best served by a middle tier or database OLAP architecture?

In order to highlight the differences between Oracle's Hyperion Essbase and Oracle OLAP, let us view five aspects of the Oracle OLAP solution: the purpose, buyer, typical end user, typical front end, and data management.

	Oracle's Hyperion Essbase	Oracle Database OLAP Option
Purpose	Custom analytic & BI applications with a focus on EPM; built and maintained by analysts	Improves the performance and analytic content of SQL-based BI applications
Buyer	Line of business (LoB)	IT
Typical End Users	LoB users who query and create data within Essbase tools and OLAP applications	Users of SQL-based business intelligence tools who query data in the database
Data Management Strategy	Easily combine data from a wide variety of data sources	Optimized for data in the Oracle Database
Architecture	OLAP in a server, part of Fusion Middleware	OLAP in the Oracle Database

Figure 1: Oracle's Hyperion Essbase and Oracle Database OLAP Option Comparison

The Purpose

Oracle's Hyperion Essbase

Oracle's Hyperion Essbase is designed to support custom analytic and business intelligence applications, with a particular focus on EPM applications. EPM applications often require complex data calculation models. For example, EPM applications have a calculation model that solves a chart of accounts, income statement or balance sheet. The definition of calculation models within an EPM application is implemented by the line of business. The Essbase Outline Editor, the primary modeling tool of Oracle's Hyperion Essbase, is designed allow the line of business user to create and manage complex calculation models; programming skills are not required.

As a platform for EPM applications, Oracle's Hyperion Essbase provides the ability to easily consolidate data from a wide variety of data sources—relational database, general ledgers, spreadsheets, and so forth—into a line of business view of the data.

Oracle's Hyperion Essbase tools are oriented for a business user, rather than a highly trained technician. Oracle's Hyperion Essbase also provides the line of business with capabilities to build custom analytic applications.

Oracle Database OLAP Option

The OLAP Option to the Oracle Database is designed to improve SQL-based business intelligence tools with improved query performance and enhanced analytic content. The Oracle Database OLAP Option cubes are most often used within an Oracle data warehouse and are designed to improve the performance and analytic content of BI tools such as Oracle Business Intelligence Enterprise Edition, Micro Strategy, and Business Objects.

Oracle Database OLAP Option cubes efficiently manage summary data for dimensionally modeled data, such as star and snowflake schemas. The Oracle Database OLAP Option cube can be introduced transparently to SQL-based BI tools as a cube-organized, materialized view—in which case the SQL-based BI application queries relational tables with SQL, and the Oracle Database automatically rewrites queries requiring summary data to the cube. In this case, the OLAP Option cube simply acts as a summary management solution.

The Oracle Database OLAP Option cube is also used to enhance the analytic content of the Oracle data warehouse and SQL-based applications. In this use of the Oracle Database OLAP Option cube, analytic functions (for example, time series calculations) are defined within the cube and the data of the cube is presented in relational views (like a star schema). The SQL-based BI application queries the relational views of the cube direction (using SQL, of course) and benefits both the content and query performance of the Oracle Database OLAP Option cube.

The Purpose	
Oracle’s Hyperion Essbase	Oracle Database OLAP Option
Provides line of business (LoB) with the capability to build custom analytic applications with complex calculations	Provides IT with the ability to enhance the performance and analytic content of the Oracle Database
Provides a platform for enterprise performance management (EPM) applications	Improves SQL-based business intelligence tools with enhanced query performance and analytic content
Consolidates a variety of different data sources in the LoB view of data	Centralizes data, metadata, and business rules within the Oracle Database

Figure 2: The Purpose

The Buyer

Oracle’s Hyperion Essbase

The typical buyer of Oracle’s Hyperion Essbase, the line of business is the direct beneficiary of the EPM application and has the business expertise to design and implement it. As result, it has a critical need to acquire and own the EPM application and its foundation. The LoB benefits from a solution that is easily managed by business users and can be deployed without extensive support from IT.

The line of business that deploys an EPM application has special interest in:

- Performance management applications.
- What-if capabilities such as write-back and allocations.
- Pre-built applications and Microsoft Excel query and data entry.
- Tools appropriate for line of business users.

- The ability to consolidate data from disparate systems, with limited support from IT.

Essbase is designed from the ground up for use by lines of business. The administrative tools of Essbase are designed for business users. Data loading features support a wide range of data sources, including Excel. Packaged applications and Excel interfaces are also provided.

Oracle Database OLAP Option

The IT organization is the typical buyer of the OLAP Option. Enhancing the Oracle data warehouse and improving the BI tools that query the data warehouse are the primary interests of the information technology (IT) department. While end users certainly benefit from improved query performance and analytic content, it is the IT group that is responsible for managing the data warehouse and benefits most from a solution that is embedded in the data warehouse. As an embedded component of the Oracle data warehouse, the IT department has special interest in:

- Using the cube as a summary management solution for dimensionally modeled data.
- Extending the data warehouse with enhanced analytic content.
- Consolidating the management of data, metadata and calculations within the database.
- Having the ability to query OLAP cubes with SQL-based BI tools and Excel.
- Leveraging existing infrastructure for an incremental, cost-effective solution.

The Oracle Database OLAP Option, as an embedded component of the Oracle Database, is designed to meet the requirements of IT. Cube-organized, materialized views allow the cube to be used as a summary management solution. The SQL interface to cubes supports SQL-based BI tools. IT organizations simply use a feature of the Oracle Database they already own, thus leveraging the investment in the Oracle Database and the database administrators (DBAs) who already manage it.

The Buyer	
Oracle's Hyperion Essbase	Oracle Database OLAP Option
Primarily LoB (Occasionally IT)	Primarily IT (Occasionally LoB)
Special Interest in: <ul style="list-style-type: none"> • Performance management applications • Advanced write-back capabilities and allocations • All available via Excel or pre-built applications • Designed and built by the LoB with limited IT Support • Using data from disparate systems 	Special Interest in: <ul style="list-style-type: none"> • Summary management solution for database • Extending the database with analytic content • Centralized management of data • Querying analytic content using Excel and SQL-based BI tools • Leveraging existing infrastructure • Incremental, cost-effective solutions

Figure 3: The Buyer

Typical End Users

Oracle's Hyperion Essbase

The typical end user of Oracle's Hyperion Essbase comes from the business side, such as a business analyst, financial analyst, quantitative end user, or professional in business or executive management. The implementer of a Hyperion Essbase-based solution is typically the same LoB user that uses the EPM applications and end-user query and reporting tools. This user is likely to be a skilled financial analyst or other business-oriented user with strong quantitative and analytical skills. For example, the implementer of Oracle's Hyperion Essbase solution might be financial analysts that need to grow beyond Excel's ability to support a scalable and collaborative analysis or planning system. IT might be involved in hosting the Essbase-based application, but usually does not manage the content of the system.

The end users of Oracle's Hyperion Essbase applications and business intelligence tools can include anyone in the organization ranging from operations to executive management.

Oracle Database OLAP Option

The implementer of an Oracle Database OLAP Option-based solution is typically an IT professional—most often a data warehouse designer, application developer, or database administrator. This user typically has database and SQL skills. Often, but not always, the Oracle Database OLAP Option implementer will have programming skills. The Oracle Database OLAP Option implementer might be the

same professional that deploys and manages middle tier BI tools such as Oracle Business Intelligence Enterprise Edition, Business Objects, Cognos, or MicroStrategy. A line of business user might be involved in the design of the business model on which the cube will be based.

The end users of Oracle Database OLAP Option applications and BI tools can include anyone in the organization ranging from operations to executive management.

Typical End Users	
Oracle's Hyperion Essbase	Oracle Database OLAP Option
LoB analyst	End users of SQL-based query and reporting tools and applications
Financial analyst	SQL application developer
Quantitative end user	Oracle Database administrator (DBA)
LoB management	Some LoB users for cube design
Executive management	

Figure 4: Typical End Users

Typical Front Ends

Oracle's Hyperion Essbase

The typical front end of Oracle's Hyperion Essbase is Microsoft Office, including Excel, OBIEE+ (Oracle's Hyperion Reporting tools) and/or search engines such as Google OneBox or Oracle Secure Enterprise Search.

When it comes to the business intelligence tools market, it is likely that the tools that will be used in the BI solution will influence the selection of the OLAP solution. The end-user community may have a preference for a specific tool. It is important that the OLAP solution support tools that the end-user community already has in place. The ability to use Microsoft Excel as a front end is a near universal requirement. Oracle's Hyperion Essbase was designed with Microsoft Excel as its fundamental access tool.

Oracle's Hyperion Essbase utilizes open platforms that support industry standard query languages and APIs. As a result, a wide variety of BI tools can be used to query Oracle's Hyperion Essbase solution.

Oracle's Hyperion Essbase has long been a key component of the Hyperion business intelligence tools stack. Front end tools utilized are:

- Microsoft Excel
- Hyperion Web Analyzer

- Hyperion Interactive Reporting
- Hyperion Visual Explorer
- Hyperion Smart Space
- Google OneBox and Oracle Secure Enterprise Search

Oracle Database OLAP Option

Oracle Database OLAP Option utilizes open platforms that support industry standard query languages and APIs. Oracle Database OLAP Option cubes can be queried with SQL. As a result, a wide variety of BI tools can be used to query each OLAP product.

As mentioned above, when it comes to the business intelligence tools market, it is likely that tools used in the BI solution will influence the selection of the OLAP solution. The ability to use Microsoft Excel as a front end is a near universal requirement and Oracle Database OLAP Option cubes can be queried with it.

The OLAP Option, as a component of the Oracle Database, has been designed to be used by the business intelligence tools that are used to query the data warehouse using SQL and the Oracle OLAP API. These include:

- Microsoft Excel
- Oracle Business Intelligence Enterprise Edition
- BusinessObjects
- Cognos
- MicroStrategy
- Custom SQL-based application, such as those built with Oracle Application Express

These SQL-based tools might query the cube directly or indirectly as a cube-organized materialized view.

Typical Front Ends	
Oracle's Hyperion Essbase	Oracle Database OLAP Option
MS Office: Excel, Word, PowerPoint	Oracle BI EE
Hyperion Planning	Hyperion (OBI EE +)
Hyperion Financial Reporting	Business Objects
Hyperion Web Analyzer	Cognos
Hyperion Interactive Reporting	MicroStrategy
Hyperion Visual Explorer	Other SQL-based BI tools
Hyperion Smart Space	Custom SQL-based applications
Custom Development via API	Oracle OLAP Excel add-in
Google OneBox, Oracle Secure Enterprise Search	Oracle Discoverer Plus OLAP

Figure 5: Typical Front Ends

Data Management

Oracle's Hyperion Essbase

The data management of Oracle's Hyperion Essbase allows for the consolidation of data from multiple data sources including many different databases, flat file, Excel and other financial sources.

As a solution that is database independent, Oracle's Hyperion Essbase is a middle tier server. Oracle's Hyperion Essbase cubes are stored in Oracle's Hyperion Essbase data files independently of the Oracle Database.

The line of business user of Oracle's Hyperion Essbase requires the ability to source the cube with data from multiple data sources, including relational databases, flat files, Excel, financial ERP applications, SAP BW, etc. Essbase facilitates this process by providing LoB user-friendly tools that load data directly from these sources into the Oracle Hyperion Essbase cube.

Oracle's Hyperion Essbase users very often create new data within the Essbase cube using calculation scripts and by writing back directly to the cube, often using Excel as the user interface.

Oracle's Hyperion Essbase cubes are designed using the Essbase Outline Editor, a tool that is easily used by the LoB cube designer. Using the Outline Editor, the user defines both the structure and content of the Essbase cube. Essbase metadata is embedded in the Essbase cube and discovered using Essbase APIs.

Oracle Database OLAP Option

The Oracle Database OLAP Option, as part of the Oracle Database, populates cubes by selecting from relational sources that are available in the Oracle Database instance. This relational source can include tables, view, flat files (as external tables), DB links, gateways, etc. Data that can be presented more or less as a star or snowflake schema can be used as a data source to the OLAP Option cube.

Oracle Database OLAP Option cubes are often enhanced with additional data using calculation scripts defined by IT. Write-back to the Oracle Database OLAP Option cube is accomplished using SQL to update a table and then invoking a process to cause the cube to select data from that table.

Oracle Database OLAP Option cubes are designed and managed using Analytic Workspace Manager. This tool is designed to be utilized by the Oracle DBA or cube-savvy LoB user. Metadata describing OLAP Option cubes can be queried from the Oracle data dictionary using SQL.

Data Management	Oracle's Hyperion Essbase	Oracle Database OLAP Option
Data Store	Essbase cubes in the middle tier	Oracle cubes in the Oracle Database
Data Acquisition	Allows LoB to consolidate data from multiple data sources including RDBMS, flat files, Excel, financial ERP applications, SAP BW, etc.	Allows IT to populate cubes from any relational source in the Oracle Database (tables, external tables, gateways, etc.)
Data Creation	LOB users often create new data via calculation scripts and user write-back	IT users often create new data via calculation scripts to extend the data warehouse
Metadata	Managed in Essbase via analyst-friendly tools	Managed in Oracle Data Dictionary

Figure 6: Data Management

ORACLE OLAP CASE STUDIES

After reviewing the theoretical differences, let us take a more pragmatic view. In this section, we will examine four Oracle OLAP case studies—two from each side.

Oracle's Hyperion Essbase Case Studies

For the Oracle's Hyperion Essbase case studies, we will examine Southwest Airlines and Land O' Frost.

Southwest Airlines

Southwest Airlines faced a major crisis. They needed to project cash flows in the face of extraordinary uncertainty about customer travel plans, fuel prices, new security regulations and other variables in the wake of September 11th. The

solution was implemented with alternative cash flow scenario models, capital spending plans, 15-month rolling forecasts and “business cockpits” (multidimensional dashboards). The buyer was the VP of finance, and the user community consisted of business users in finance, reservations, and ground operations.

Key to survival and success was determining how long cash balances of \$1 billion (based on immediately deferred capital spending, halted discretionary spending, and borrowing \$400M on a line of credit) on 9/11 would last, which depended on return in revenues.

On September 11th, Oracle’s Hyperion Essbase enabled Southwest to model many scenarios that provided the moral support, comfort level, and confidence for the many departments working hard to make it through that fateful day. Within five days, Southwest was able to setup all scenario models. Southwest Airlines was able to forecast with two percent of outcome entirely in Essbase, providing top to bottom and bottom to top analysis capabilities.

Essbase performed very well. Queries that would have taken at least four hours to write, run, gather data for, then enter on a spreadsheet and analyze, are instead accomplished in one minute with Essbase. Finance was spending 75 percent of its time accumulating data and 25 percent of its time analyzing. With Essbase, those ratios are now 10 percent and 90 percent, respectively.

Southwest Airlines	
Business Problem	Needed to project cash flow in the face of extraordinary uncertainty about customer travel plans, fuel prices, new security regulations, and other variables after 9/11
Solution	Alternative cash flow scenario models, capital spending plans, 15-month rolling forecasts, and “business cockpits” (multidimensional dashboards)
Buyer	VP of finance
User Community	Business users in finance, reservations, ground operations

Figure 7: Southwest Airlines Case Study

Land O’ Frost

Land O’ Frost is one of the world’s largest providers of luncheon and deli meats. Incorporated in the late 1940’s by founder Antoon van Eeekeren, the original business began in Chicago with frozen food storage and distribution, including meats, which is where the company name was derived. In 1958, the business was reorganized to focus on the manufacture and sale of thinly sliced packaged meat products. In the 1980’s, the company pioneered retort packaging—a technology that provided longer shelf life at room temperatures without chemical additives.

Today, the company employs over 1,000 people and distributes its products across all 50 states, as well as exporting to Mexico and Puerto Rico. It has three distribution centers in the US and sells its products through the largest grocery and mass merchandizing chains in the country. Its brands include Deli-Shaved, Dagwoods, and Premium One Pound.

Land O' Frost had a requirement to do marketing lift analysis. For example, if the company launched a coupon campaign, they needed to determine what the sales lift was by product. They wanted to know how the campaign affected sales over the life of the campaign, in addition to calculating the ROI of the campaign. They also needed to integrate data from a number of sources including third-party data, data from legacy systems, ERP data from JD Edwards, as well as data stored in multiple SQL server databases. They evaluated a number of pre-packaged solutions for marketing analysis and determined that their requirements were unique enough that a custom solution was required.

They implemented a custom solution of Oracle's Hyperion Essbase in less than two months and are now able to effectively analyze their campaign performance.

Land O' Frost	
Business Problem	Visibility into marketing campaign effectiveness
Solution	Marketing analysis application that integrates internal data from JDE, SQL Server, with external demographic feeds. Calculates percentage lift of marketing promotions and identifies advertising ROI by campaign
Buyer	Marketing (also used in Finance)
User Community	Business users in finance, reservations, and ground operations Managed by marketing analysts, accessed by marketing and advertising managers

Figure 8: Land O'Frost Case Study

Oracle Database OLAP Option Case Studies

For the Oracle Database OLAP Option case studies, we will present Ford Motor Company and The Gallup Organization.

Ford Motor Company

Ford Motor Company's challenge was to analyze energy consumption patterns within an automotive assembly plant with the goal of rescheduling peak usage to coincide with times of day and with lower per unit costs. The solution was to consolidate energy meter readings in an Oracle Data Warehouse, including OLAP cubes utilized for time series analysis. The buyer of the Oracle OLAP solution was IT. The user community was the line of business users at product unit and cost

center levels. They queried the Oracle Data Warehouse with the OLAP cube utilizing Business Objects Web Intelligence and Spreadsheet Add-in.

Ford faced the following challenges when approaching this problem:

- Enable automated and manual collection of detailed transactional data from the factory’s many energy meters.
- Enable near real-time analysis of energy consumption, requiring frequent and rapid update of the data warehouse.
- Enable detailed analysis of past energy consumption.

The Oracle Database OLAP Option solution:

- Was implemented by the IT department, in consultation with line of business.
- Consolidated and centralized data sources using Oracle Database 10g and Oracle Warehouse Builder, enabling rapid data aggregation and near real-time analysis of energy usage.
- Allowed line of business at the production unit and cost center levels to rapidly analyze data using Oracle OLAP, Business Objects Web Intelligence and the Oracle Business Intelligence Spreadsheet Add-In.

Ford Motor Company	
Business Problem	Analyze energy consumption patterns within an automotive assembly plant with the goal of rescheduling peak usage to coincide with times of day and with lower per unit costs
Solution	Consolidate energy meter readings in Oracle Data Warehouse, including OLAP cubes used for time series analysis
Buyer	IT
User Community	Line of business users at product unit and cost center levels who query Oracle Data Warehouse with OLAP cube using Business Objects Web Intelligence and Spreadsheet Add-in

Figure 9: Ford Motor Company Case Study

The Gallup Organization

The Gallup Organization provides healthcare satisfaction metrics to thousands of healthcare providers based on survey data from tens of thousands of patients per year. Because of the volume of data and privacy issues, Gallop requires a data infrastructure that is highly scalable, reliable, and secure. The data must be accessible to a wide variety of applications, including SQL-based business intelligence applications.

The Gallup IT organization implemented an infrastructure that uses the Oracle Database Warehouse, including Oracle OLAP, to achieve a highly scalable and secure solution with deep time series and other analytic features. The goal was to gain the ability to support business intelligence applications without replicating large amounts of data in specialized analytical databases. The Oracle-based data infrastructure supports more than 1,000 concurrent users without compromising performance, reliability, or security. The solution supports rapid response time for a custom SQL-based application, even for large documents that contain more than 20 thumbnail graphs and 20 cross tabs per page (as many as 40 queries per page view).

The Gallup Organization	
Business Problem	Allows a large user community of third-party health providers to analyze healthcare satisfaction polling data
Solution	Consolidate healthcare satisfaction survey data in an Oracle Data Warehouse, including Oracle OLAP cubes. A custom SQL-based reporting application relies on the cube for required analytics and fast query response
Buyer	IT
User Community	1,000+ concurrent third-party healthcare providers querying OLAP cubes

Figure 10: The Gallup Organization Case Study

BETTER TOGETHER

Both Oracle's Hyperion Essbase and the Oracle Database OLAP Option provide powerful MOLAP solutions. However, implemented together, they can provide a complete MOLAP solution.

Oracle's Hyperion Essbase and Oracle Database OLAP Option are not mutually exclusive. They work better together. Oracle's Hyperion Essbase provides a platform for performance management and pervasive BI. Oracle Database OLAP Option is a powerful enhancement to a data warehousing environment. Better together, the two MOLAP solutions provide complementary benefits for a complete MOLAP solution.

Both Oracle's Hyperion Essbase and the Oracle Database OLAP Option provide powerful MOLAP solutions. However, implemented together, they can provide a complete MOLAP solution.

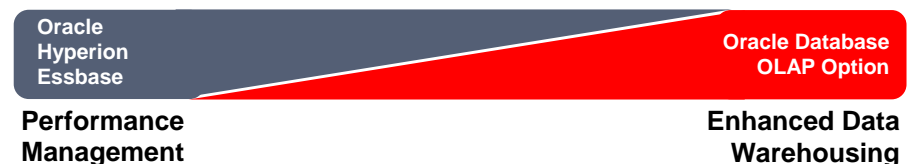


Figure 11: Better Together

CONCLUSION

In conclusion, both Oracle's Hyperion Essbase and the Oracle Database OLAP Option share common characteristics such as excellent query performance, fast update, rich analytic content and a dimensional model. Oracle's Hyperion Essbase is designed for LoB-managed EPM applications. Oracle Database OLAP Option is designed for IT-managed database summary. Implemented together, their capabilities provide a complete MOLAP solution.

ABOUT ORACLE CORPORATION

Oracle is the leader in Enterprise Performance Management (EPM), unifying Performance Management and Business Intelligence (BI), supporting a broad range of strategic, financial and operational management processes. Oracle provides a complete and integrated system for managing and optimizing enterprise-wide performance. This allows organizations to achieve a state of management excellence – being smart, agile and aligned – which provides competitive advantage and leverages their operational investments.

- **Smart** – Leverage market-leading products and technologies that address enterprise-wide requirements and drive new insights into your business
- **Agile** – Enable advanced integration that improves agility and lowers costs of ownership
- **Aligned** – Drive pervasive intelligence across the enterprise by linking strategic, financial and operational management processes

For more information, go to <http://www.oracle.com/epm>. Contact us with any comments or questions at epmgbu_wv@oracle.com.



Understanding an OLAP Solution from Oracle

April 2008

Authors: Michael Schrader

Contributing Authors: William Endress, Fred Richards

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com

Copyright © 2008, Oracle. All rights reserved.

This document is provided for information purposes only and the contents hereof are subject to change without notice.

This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission. Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.