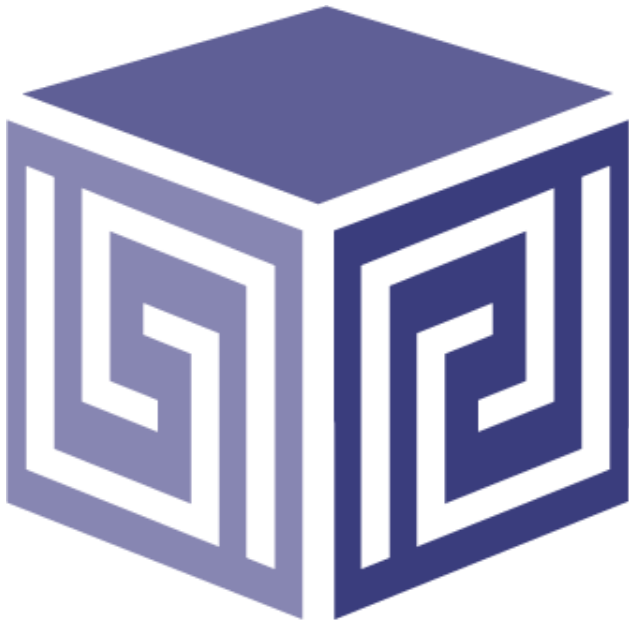


Budgeting and Planning with Microsoft Excel and Oracle OLAP



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Agenda

- Introduction
- Overview of Oracle OLAP
- Budgeting Process
- ClearView Overview
- Demo
- Q&A



Vlamis Software Solutions, Inc.

Company History

- Founded in 1992 in Kansas City, Missouri
- Oracle Partner and reseller since 1995
- Developed more than 200 Oracle BI systems
- Specializes in ORACLE-based:
 - Data Warehousing
 - Business Intelligence
 - Data Transformation (ETL)
 - Web development and portals
- Delivers
 - Design and integrated BI and DW solutions
 - Training and mentoring
- Exclusive supplier world-wide for Windows-based Oracle BIC2G BI & EPM VMs
- Expert presenter at major Oracle conferences
- www.vlamis.com (blog, papers, newsletters, services)



Vlami Software Solutions, Inc.

OpenWorld Presentations

Presenter	Time	Title
Tim Vlami Dan Vlami	Sun 10:30	Lies, Damn Lies, and Visualizing Data with Oracle BI
Cathye Pendley	Tue 1:00	Budgeting and Planning with MS Excel and Oracle OLAP
Chris Claterbos	Tues 1:00	Oracle's Strategic OLAP Technologies: Oracles Essbase and Oracle OLAP



Vlami Software Solutions, Inc.

Dan Vlami

- Developer for IRI (former owners of Oracle OLAP).
- Founded Vlami Software in 1992.
- Wrote portions of Oracle Sales Analyzer.
- Beta tester for Oracle products including OBIEE 11g.
- Oracle ACE.
- Expert speaker at Oracle conferences.
- Co-author of new book “Oracle Essbase & Oracle OLAP”.
- Conference Chair for 2008 BIWA Summit.
- BA Computer Science Brown University.

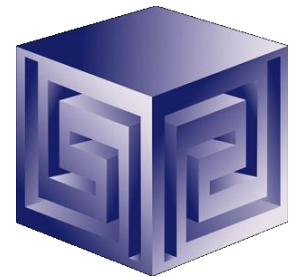
dvlamis@vlamis.com 816-781-2880



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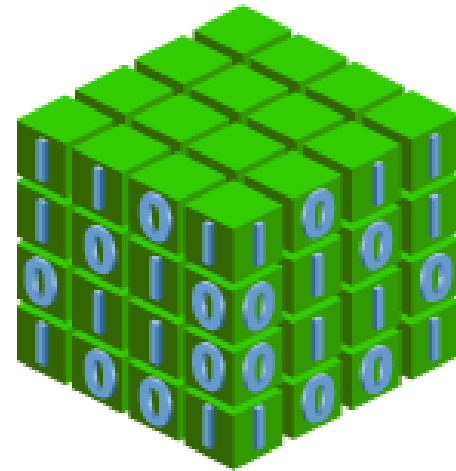
Cathye Pendley

- 17 years as BI developer (DSS, EIS)
- Oracle OLAP / Express since 1993
- Started with IRI in 1993 and joined Oracle Consulting 1995 (DW)
- Brief break from consulting and served as Director of IT 2002-2004
- Joined Vlami Software Solutions 2004
- Consultant
- Presenter at different Oracle BI conferences



OLAP Option

- A **summary management solution** for SQL based business intelligence applications
 - An alternative to table-based materialized views, offering improved query performance and fast, incremental update
- A **full featured** multidimensional OLAP server
 - Excellent query performance for ad-hoc / unpredictable query
 - Enhances the analytic content of Business intelligence application
 - Fast, incremental updates of data sets

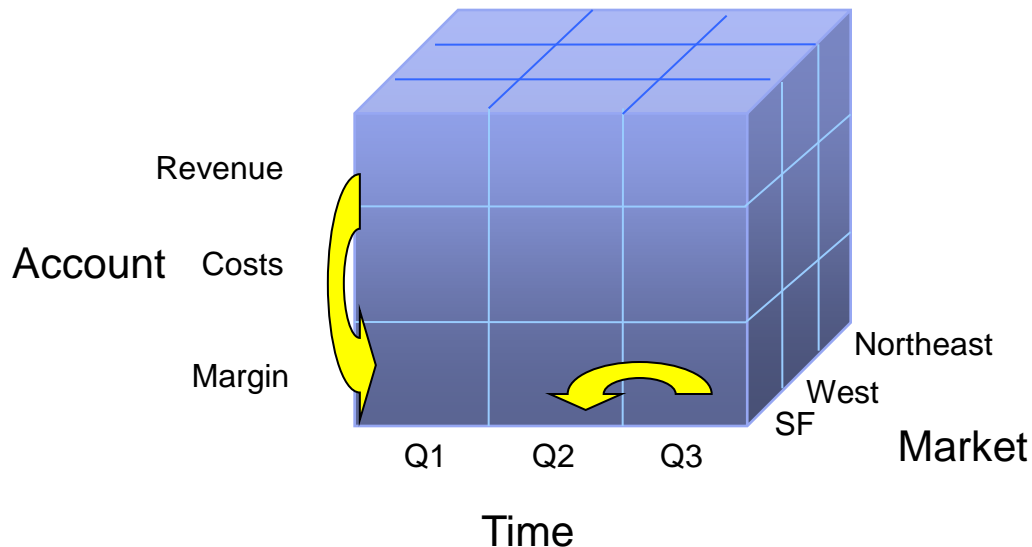


Easy Analytics

Optimized Data Access Method

How do dollars compare this Quarter versus Last Quarter

What is the margin for each market in each quarter?



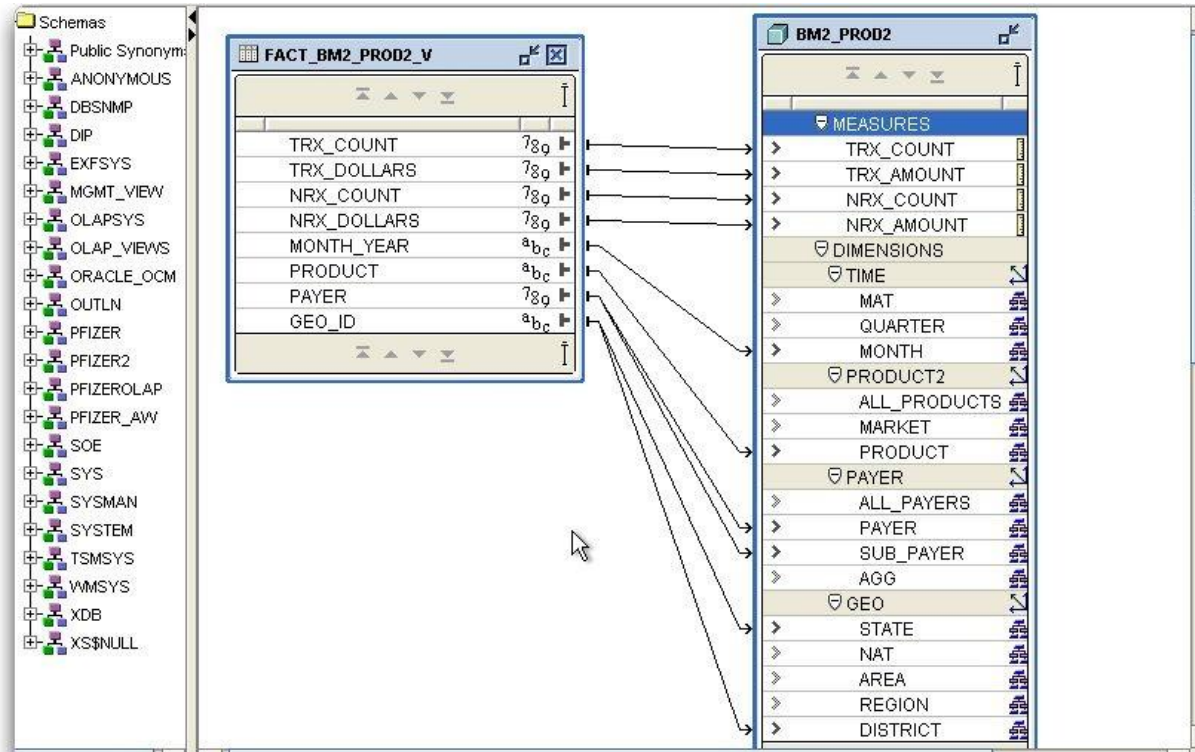
- Data stored in dense arrays
- Offset addressing – no joins
- More powerful analysis
- Better performance



Use Analytic Workspace Manager

Reduce Administration & Maintenance of Aggregates

- Simplified Cube Creation
 - Single mapping & administration of cube replaces one or more procedures for each MV



Budgeting Process

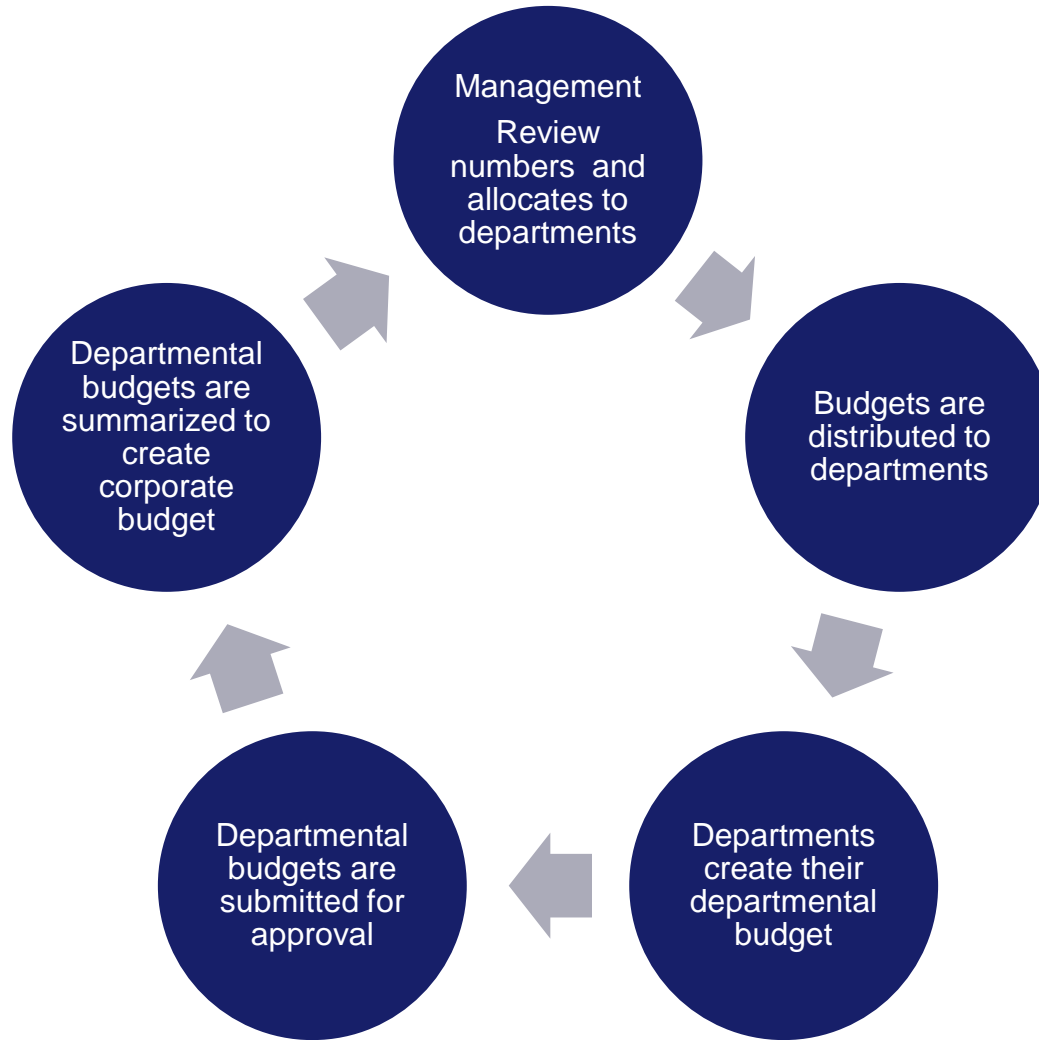


- Budgeting: Do you feel you have to fight for every dollar?



Budgeting Process

The Cycle

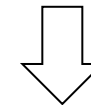


Budgeting Process

Tools Required to Budget

- ❖ Input
- ❖ Allocate
- ❖ What if Analysis
- ❖ Summarize

1	CHANNEL	Catalog	World New York										
2	CUSTOMER	Business	World New York										
3		Q1-09		JAN-09		FEB-09		MAR-09					
4		Sales	Cost	Profit	Sales	Cost	Profit	Sales	Cost	Profit	Sales	Cost	
5	-CD/DVD												
6	External 48X CD-ROM				100.0	50.0		100.0	55.0		100.0	50.0	
7	External - DVD-RW - 8X				50.0	100.0		50.0	120.0				
8	Internal - DVD-RW - 8X				100.0	100.0		105.0	100.0				
9	Internal 48X CD-ROM												



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	CHANNEL	Catalog											
2	CUSTOMER	Business World New York											
3		Q1-09			JAN-09			FEB-09			MAR-09		
4		Sales	Cost	Profit	Sales	Cost	Profit	Sales	Cost	Profit	Sales	Cost	Profit
5	-CD/DVD	605.0	575.0	30.0	250.0	250.0	0.0	255.0	275.0	-20.0	100.0	50.0	50.0
6	External 48X CD-ROM	300.0	155.0	145.0	100.0	50.0	50.0	100.0	55.0	45.0	100.0	50.0	50.0
7	External - DVD-RW - 8X	100.0	220.0	-120.0	50.0	100.0	-50.0	50.0	120.0	-70.0			
8	Internal - DVD-RW - 8X	205.0	200.0	5.0	100.0	100.0	0.0	105.0	100.0	5.0			
9	Internal 48X CD-ROM												



ClearView Overview

Application Architecture – Client Server

Database Tier

Oracle Database (10g or 11g) Enterprise Edition with OLAP Option:



Use Oracle Analytic Workspace Manager (AWM) to manage Oracle OLAP Analytic Workspace

Use Oracle SQL Developer/SQLPLUS utilities to manage database components



Oracle OLAP Data Dictionary Views (built in for 11g, need to manage separately for 10g)

ClearView Meta data (Tables, Stored Procedures...)



ClearView Overview

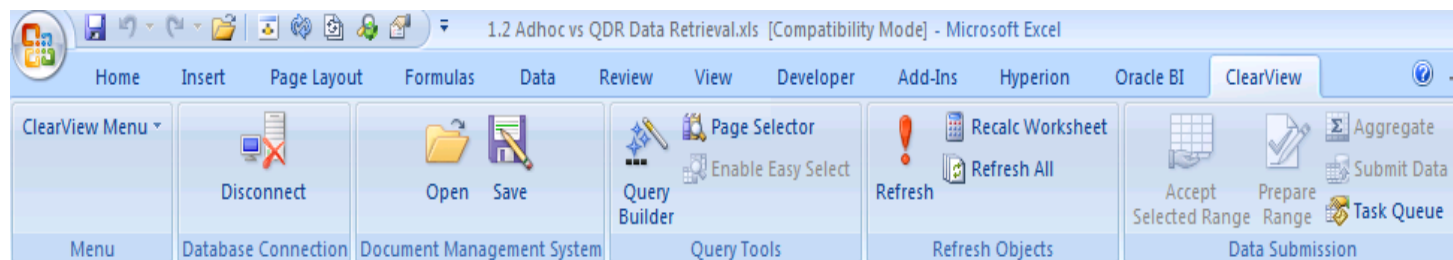
Application Architecture – Client Server

Client Tier

Microsoft Excel (Versions 2002, 2003 and 2007 supported)

ClearView Automation COM Addin (a single dll)

Oracle Database Client (requires only the ADO components for communication with the database)



ClearView Overview

Reporting

Ad Hoc Report Creation

- ❑ Query Builder ease of use, drag and drop dimension in report edges
- ❑ Multiple selection, select all children, adding descendants and last descendants using Hierarchies
- ❑ Support Dimension Attributes
- ❑ Drilling down and drilling up on Row and Column edge dimensions
- ❑ Page Selector support to view different slices of data base on page dimensions

PRODUCT	Total Product	Software/Other	Hardware
1	PRODUCT		
2	2009		
3	-Total Channel		
4	Sales	Profit	How Is Margin
5	-North America	6944056	Needs Improvement
6	+Canada	297186	On Track
7	+United States	6646870	Needs Improvement
8	-Asia Pacific	5984700	Needs Improvement
9	+Australia	11814	Needs Improvement
10	+Hong Kong	53035	Needs Improvement
11	+Japan	4127274	Needs Improvement
12	+Singapore	907951	On Track
13	-Europe	5620623	Needs Improvement
14	+France	2200967	Needs Improvement
15	+Germany	2849722	Needs Improvement
16	+Italy	132618	On Track
17	+Spain	656015	Needs Improvement
18	+United Kingdom	8588781	Needs Improvement



ClearView Overview

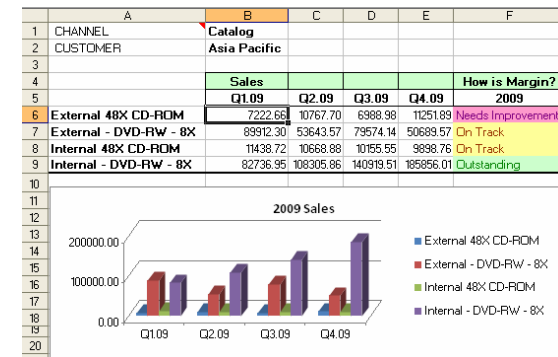
Reporting

Board Ready Reporting

- ☐ Create a highly formatted report, extend the report over the page dimensions with Table of Contents to create a report deck
- ☐ Refresh the reports at any time to get current data
- ☐ Easy select feature employing auto complete that allows insertion of rows and columns without disturbing formatting

Share Reports

- ☐ All Workbooks are saved directly into the Oracle Database
- ☐ Folder maintenance to support sharing of Queries/Workbooks
- ☐ Query and Workbook deletion and restoration



ClearView Overview

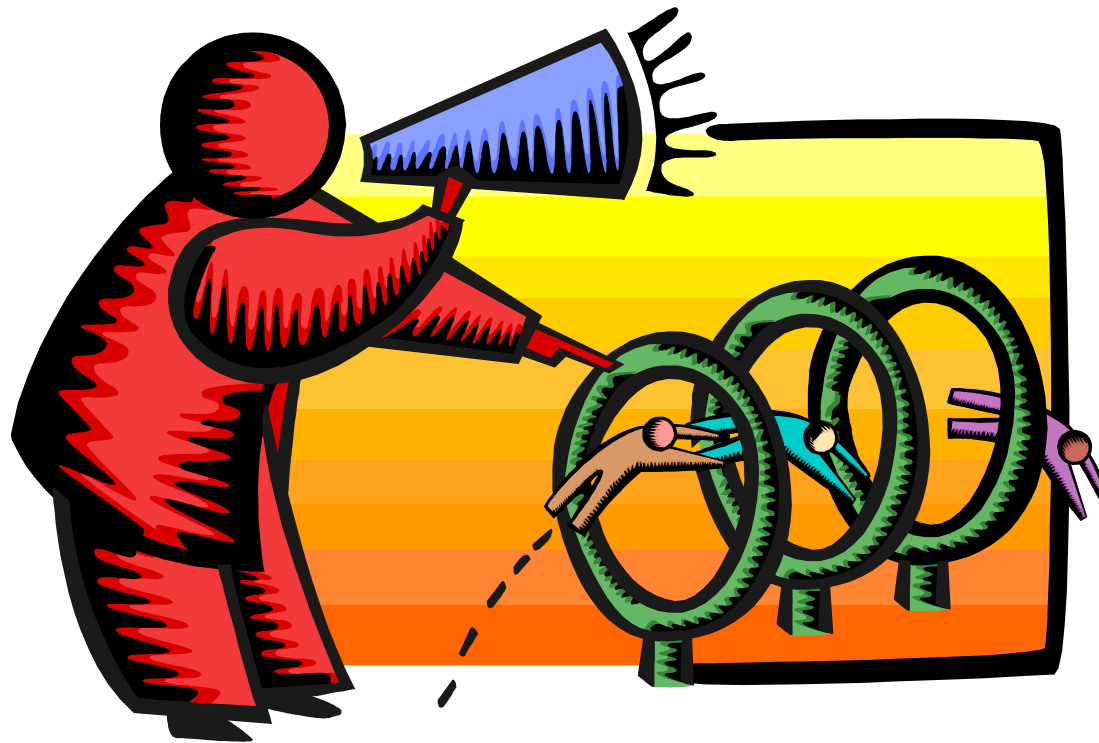
Budgeting Features

- ☐ Enable/Disable Cubes for updates
- ☐ Provides Muti-cube write back
- ☐ Recalculate/Model the data prior to submission
- ☐ Submit data, and see the calculated results
- ☐ View status of submission using task processor
- ☐ Resubmit prior submissions
- ☐ View details of submissions
- ☐ Maintains history of all prior submissions
- ☐ Track Data feature queries prior submissions

	A	B	C	D	E	F	G	H
1	User	Cube	Submitted	Started	Completed	Elapsed Time	Status	Task
2	CVDEMO	UNITS_CUBE	08-14 10:49:40	08-14 10:49:42	08-14 10:49:45	00:00:03	COMPLETE	CVDEMO_20090814_104940
3								
4	Record	Measure	TIME	CHANNEL	CUSTOMER	PRODUCT	Value	Status
5		1 COST	2009.01	CAT	BUSN WRLD NY	EXT CD ROM	50	LOADED
6		2 COST	2009.02	CAT	BUSN WRLD NY	EXT CD ROM	55	LOADED
7		3 COST	2009.03	CAT	BUSN WRLD NY	EXT CD ROM	50	LOADED
8		4 COST	2009.01	CAT	BUSN WRLD NY	EXT DVD	100	LOADED
9		5 COST	2009.02	CAT	BUSN WRLD NY	EXT DVD	120	LOADED
10		6 COST	2009.01	CAT	BUSN WRLD NY	INT 8X DVD	100	LOADED
11		7 COST	2009.02	CAT	BUSN WRLD NY	INT 8X DVD	100	LOADED
12		8 SALES	2009.01	CAT	BUSN WRLD NY	EXT CD ROM	100	LOADED
13		9 SALES	2009.02	CAT	BUSN WRLD NY	EXT CD ROM	100	LOADED
14		10 SALES	2009.03	CAT	BUSN WRLD NY	EXT CD ROM	100	LOADED
15		11 SALES	2009.01	CAT	BUSN WRLD NY	EXT DVD	50	LOADED
16		12 SALES	2009.02	CAT	BUSN WRLD NY	EXT DVD	50	LOADED
17		13 SALES	2009.01	CAT	BUSN WRLD NY	INT 8X DVD	100	LOADED
18		14 SALES	2009.02	CAT	BUSN WRLD NY	INT 8X DVD	105	LOADED
19								

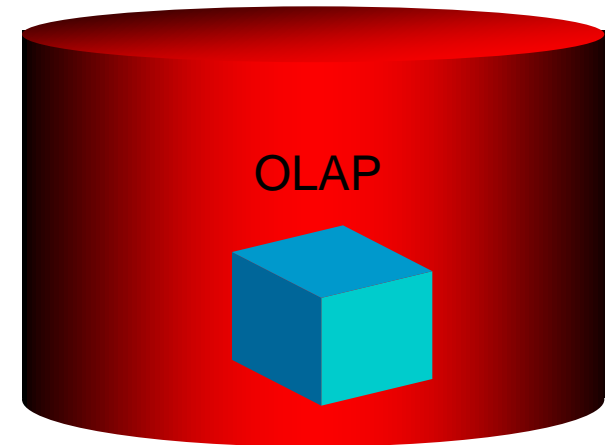


Demo of ClearView



Oracle OLAP 11g – Relational and OLAP!

- An integrated component of Oracle Database 11g that enables companies to easily gain insights into business performance. It offers:
 - Exceptional query, calculation and data preparation performance
 - Rich analytic capabilities
 - Simple user model that reflects business usage
- Oracle OLAP is the only OLAP engine on the market
 - ✓ This is fully embedded within a database
 - ✓ That is fully accessible via SQL

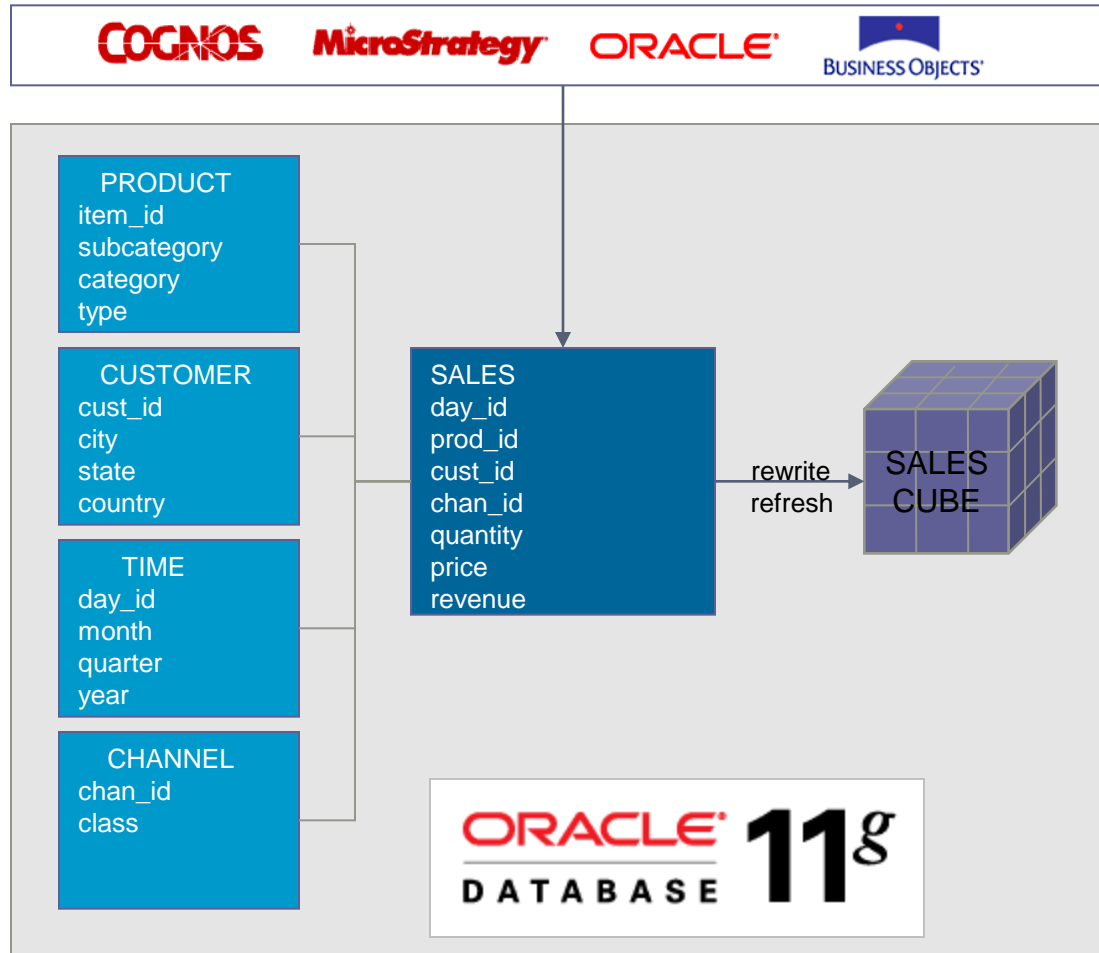


Therefore it can provide advanced calculation capabilities to any business application



Cube-based Materialized Views

Breakthrough Manageability & Performance

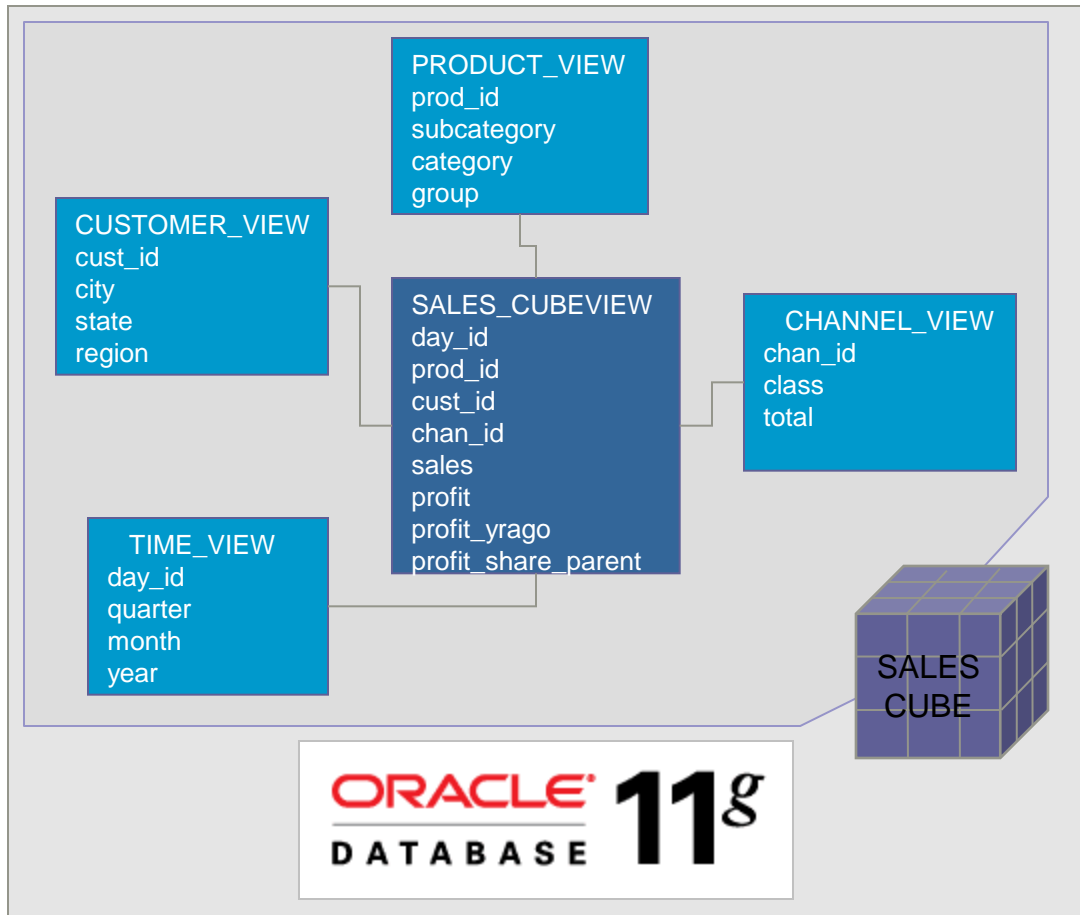


- A single cube provides the equivalent of *of thousands of summary combinations*
- The 11g SQL Query Optimizer treats OLAP cubes as MV's and rewrites queries to access cubes *transparently*
- Cube refreshed using standard MV procedures



Cube Represented as Star Model

Simplifies Access to Analytic Calculations

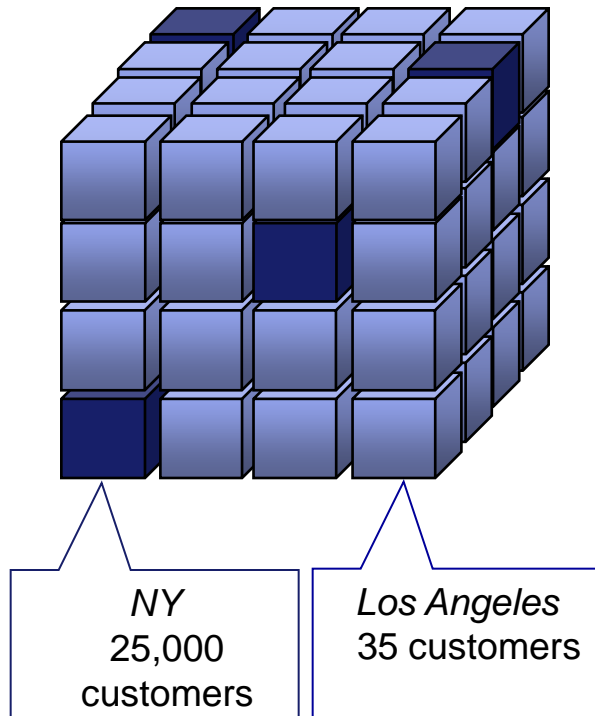




- Cube represented as a star schema
- Single cube view presents data as completely calculated
 - Analytic calculations presented as columns
 - Includes all summaries
- Automatically managed by OLAP



Cost Based Aggregation

Pinpoint Summary Management



-  Precomputed
-  Computed when queried

- Improves aggregation speed and storage consumption by pre-computing **cells** that are most expensive to calculate
- Easy to administer
- Simplifies SQL queries by presenting data as fully calculated



Easy Analytics

Fast Access to Information Rich Results

- Time-series calculations
- Calculated Members
- Financial Models
- Forecasting
 - Basic
 - Expert system
- Allocations
- Regressions
- Custom functions
- ...and many more

Snapshot of some functions

deprdecl	aggregate	abs	rank	chgdims
deprdeclsw	allocate	antilog	rem	instat
deprsl	categorize	antilog10	remainder	limit function
deprsoyd	correlation	arccos	round	statall
fintsched	fcopen	arcsin	sign	statdepth
fpmtsched	fcquery	arctan	sin	statequal
growrate	info	arctan2	sinh	statfirst
irr	normal	bin_to_num	smooth	statlast
npv	random	bitand	sort	statlen
vintsched	stddev	ceil	sqrt	statlist
vpmtsched	any	cos	tan	statmax
cumsum	average	cosh	tanh	statmin
lag	count	decode	truncate	statrank
lagabspt	every	exp	width_bucket	statval
lagdif	largest	floor	begindate	coalesce
lagpct	median	greatest	dayof	na2
lead	mode	intpart	ddof	nafill
movingaverage	none	least	enddate	naflag
movingmax	percentage	log function	endof	nullif
movingmin	smallest	log10	isdate	nvl
movingtotal	forecast	max	makedate	nvl2
total	modulo	min	mmof	ascii



One Cube Accessed Many Ways...

- One cube can be used as
 - A summary management solution to SQL-based business intelligence applications as cube-organized materialized views
 - A analytically rich data source to SQL-based business intelligence applications as SQL cube-views
 - A full-featured multidimensional cube, servicing dimensionally oriented business intelligence applications



Oracle BIWA SIG—Like Minded Users

- **BIWA TechCasts** (45-min webcasts + Q&A)
 - Any Oracle professional may submit abstracts for
 - **Audience is technical**
 - Live demos are strongly encouraged
 - Visit: www.oraclebiwa.org to submit
 - Apple iPod awarded to “best new presenter”
(see www.oraclebiwa.org for details)



• BIWA Training Days @ Collaborate 2010

- *“Get Analytical with BIWA Training Days”*
- April 18-22, 2010
- Las Vegas, Nevada



- Call for Presentations Open Now!
- REGISTER with “**BIWA2010**” for IOUG Special Member Rate



Wednesday TechCast Series

Example topics of particular interest to BIWA summit attendees include, but are not limited to the following:

Data Access and Data Integration

- Data quality
- Extract, transform, load (ETL)
- Accessing distributed data
- SOA integration

Data Warehouses

- Data Governance
- Master Data Management
- Partitioning
- Tuning warehouse
- Faster cubes for faster information
- Managing images

Reporting and BI Dashboards

- Better reports & better information
- Custom BI environments
- Real-time analytics
- Interactive dashboards & EPM
- OBI EE, Essbase & Oracle Database

Advanced Analytics

- Predictive analytics and modeling
- Data mining and text mining
- SQL Statistical functions
- Fraud detection
- Market basket analysis
- Churn and retention strategies
- Building & using OLAP “cubes”
- What if? Analysis
- Leveraging spatial data
- Time series and forecasting
- Harvesting more insight from data “Best practices”

Case Studies

Tips & Tricks



Questions?

