An Introduction to Oracle Business Intelligence (BI) Platform

NYOUG

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Shyam Varan Nath

Oracle Corporation

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Agenda

- Introduction to Business Intelligence
- Oracle components of BI
- A case study of Integrated BI platform
- Q&A

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About me…

- Principal Consultant in Business Intelligence and Warehousing group at Oracle, also called the BI Practice
- Oracle Certified Professional, DBA track, since 1998 – Oracle database version 7.3 onwards
- Worked in industry domains like Finance industry, Telecomm, Healthcare, law enforcement etc.
- Speaker in Oracle Open world (2003), IOUG/Collaborate (2005-06), NYOUG (June), IEEE conferences etc

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O V E R V I E W

Business Intelligence

What is Business Intelligence?

- Business intelligence (BI) is a broad category of application programs and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make better business decisions.
- BI applications include the activities of decision support, query and reporting, online analytical processing (OLAP), statistical analysis, forecasting, and data mining.

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…cont. What is BI?

- Normally describes the result of in-depth analysis of detailed business data. Includes database and application technologies, as well as analysis practices.
- Sometimes used synonymously with “decision support,” though business intelligence is technically much broader, potentially encompassing knowledge management, enterprise resource planning etc
- In other words BI is the process of gathering information in the field of business. It can be described as the process of enhancing data into information and then into knowledge.
- BI is carried out to gain sustainable competitive advantage, and is a valuable core competence in some instances.

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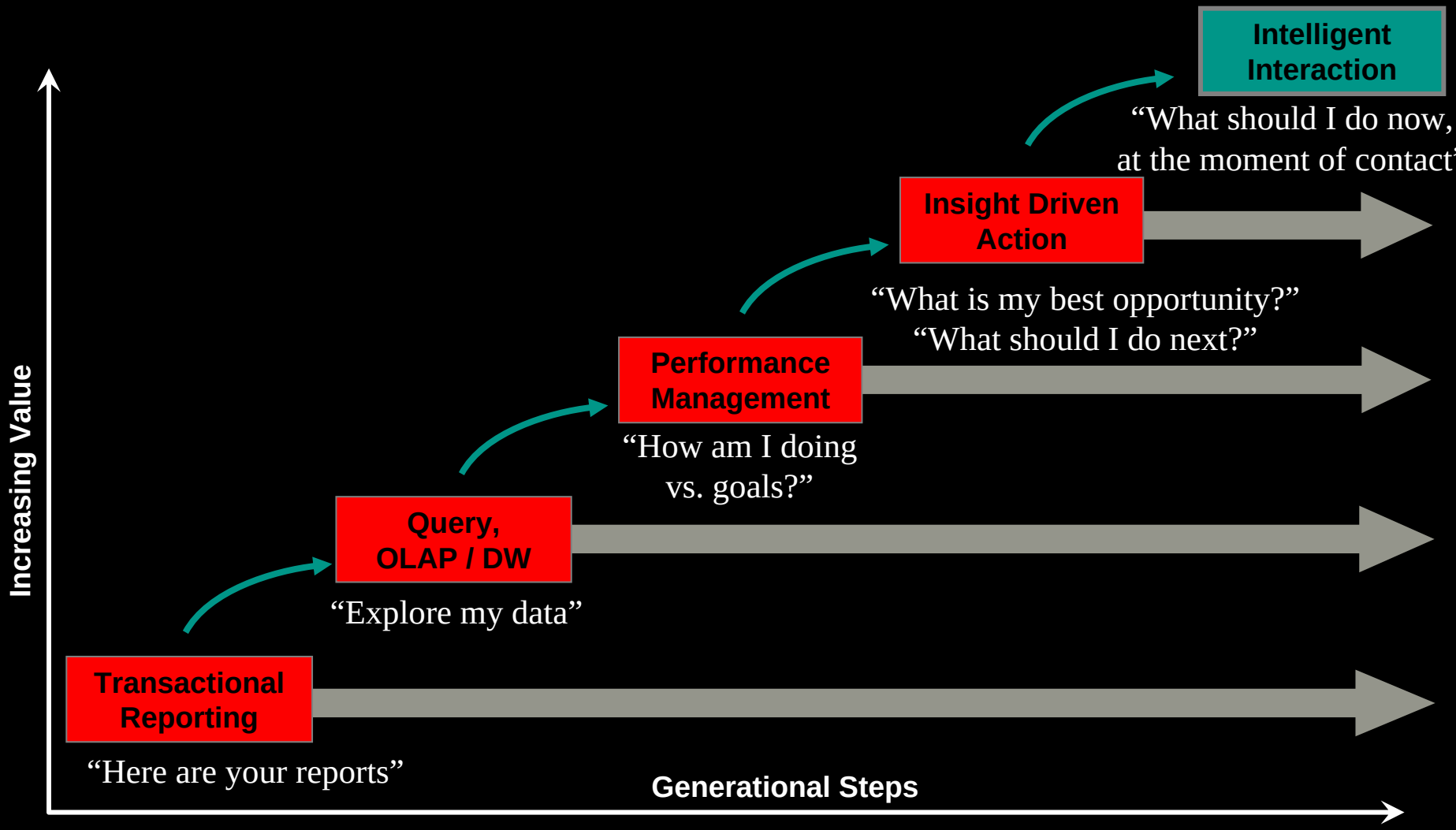
Business Intelligence-Driven Enterprise



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Fusion Objectives

Greater Business Insight

Deep and Adaptive Industry Processes

Superior Ownership Experience

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BI on the Fusion landscape

Business Insight Delivery

- Information-Driven Fusion Applications

BI Applications

- Corporate Performance Management
- Role-Based Dashboards

Analytic Foundation

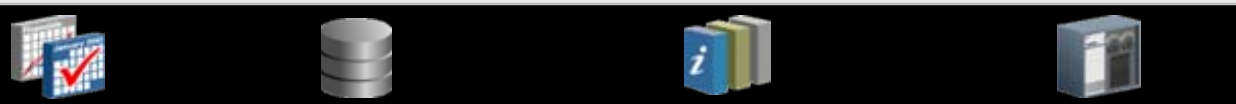
- Analytic Components
  - KPIs
  - Queries
- Business Triggers
  - Events
  - Actions
  - Alerts

BI Technology

- Business Activity Monitoring
- Data Mining
- Data Warehouses
- OLAP

Fusion Middleware

- ETL
- Business Process Engine
- Data Quality



What Is Greater Business Insight?

A level of business insight where every user throughout the organization is guided by relevant, timely, consistent, and accurate information to make the most informed decision at the moment that action should be taken.

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Greater Business Insight Challenges

- Information fragmentation – no enterprise view
- Inability to incorporate external data
- Latency in decision making process
- Lack of alignment between strategy and operations
- Inability to continually monitor operational performance

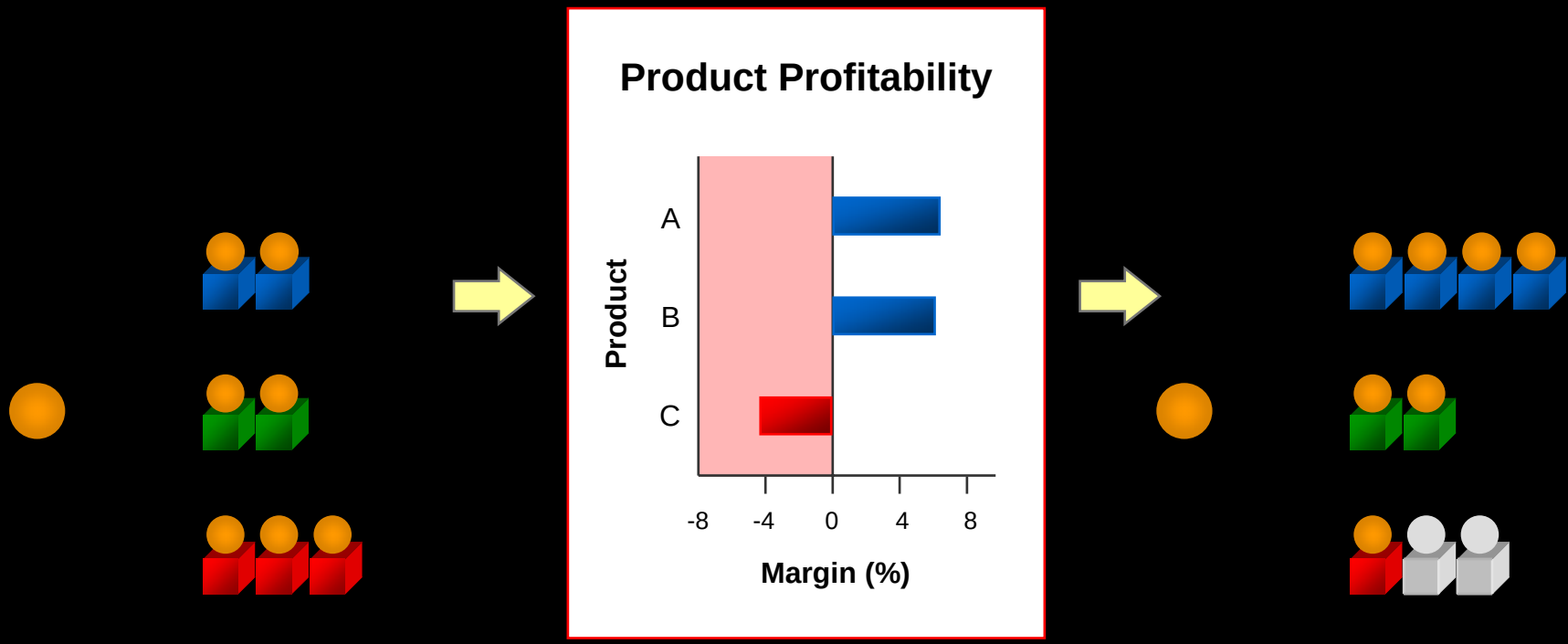
Delivering Greater Business Insight

- Aligning Operational Decisions with Strategic Objectives
- Embedding Actionable Intelligence within Transactions
- Creating a Trusted Source of Business Information

Greater Business Insight in Action

Example: Production Management

Question → *Insight* → *Action*



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Oracle's Strategy for Business Insight Applications

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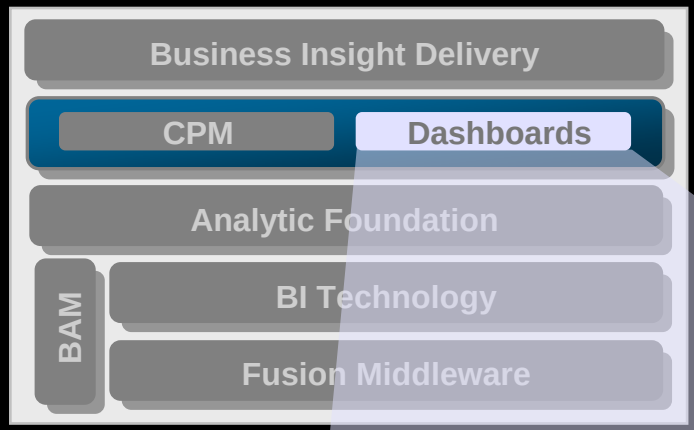
Role-Based Dashboards



Applications that enable users to monitor business performance, and drill down on exceptions to diagnose problems and take action

Detect Business Issues and Opportunities → **Diagnose Problems** → **Decide Course of Action**

Continually Monitor Performance

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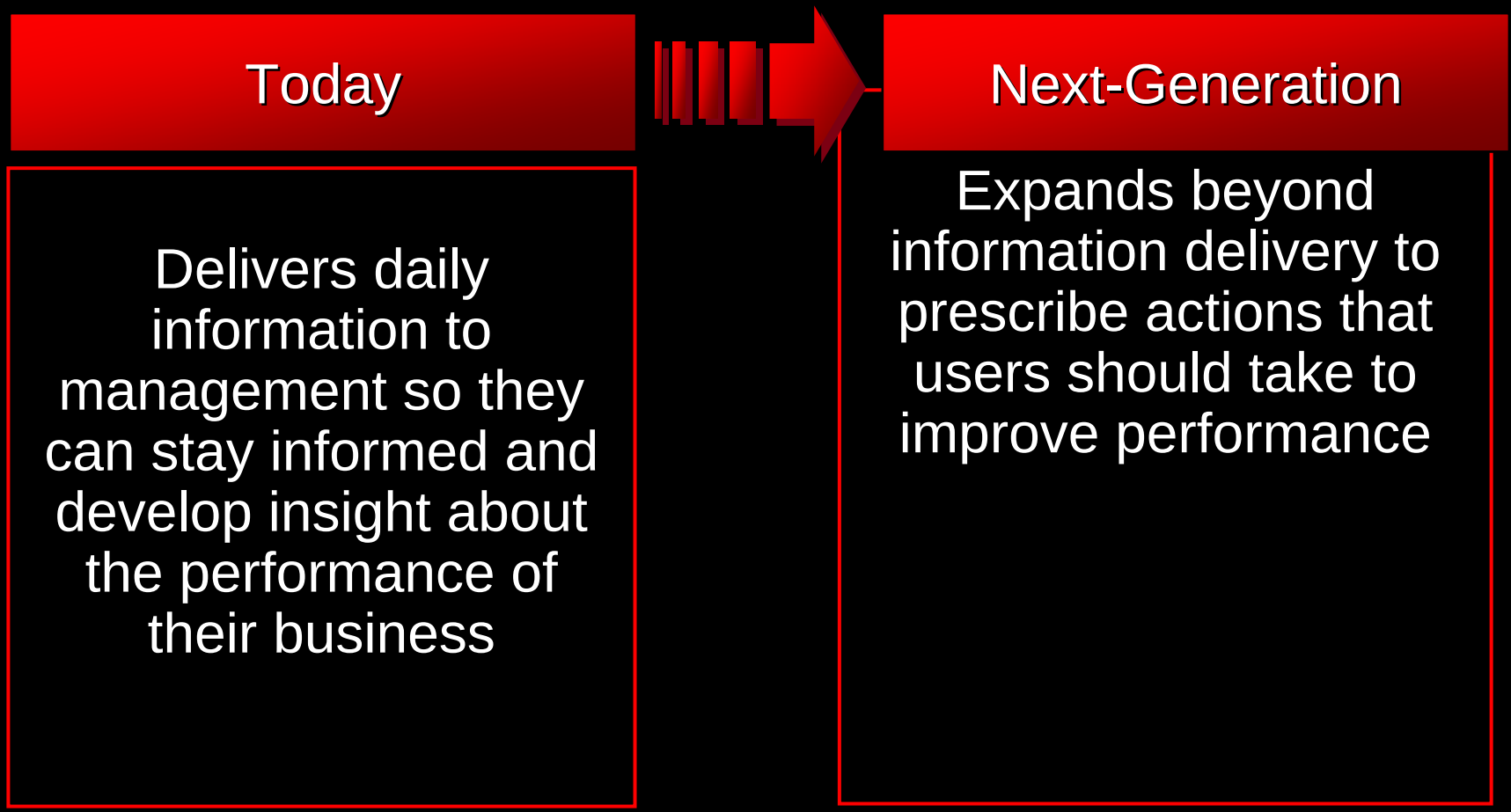
Next-Generation Dashboards



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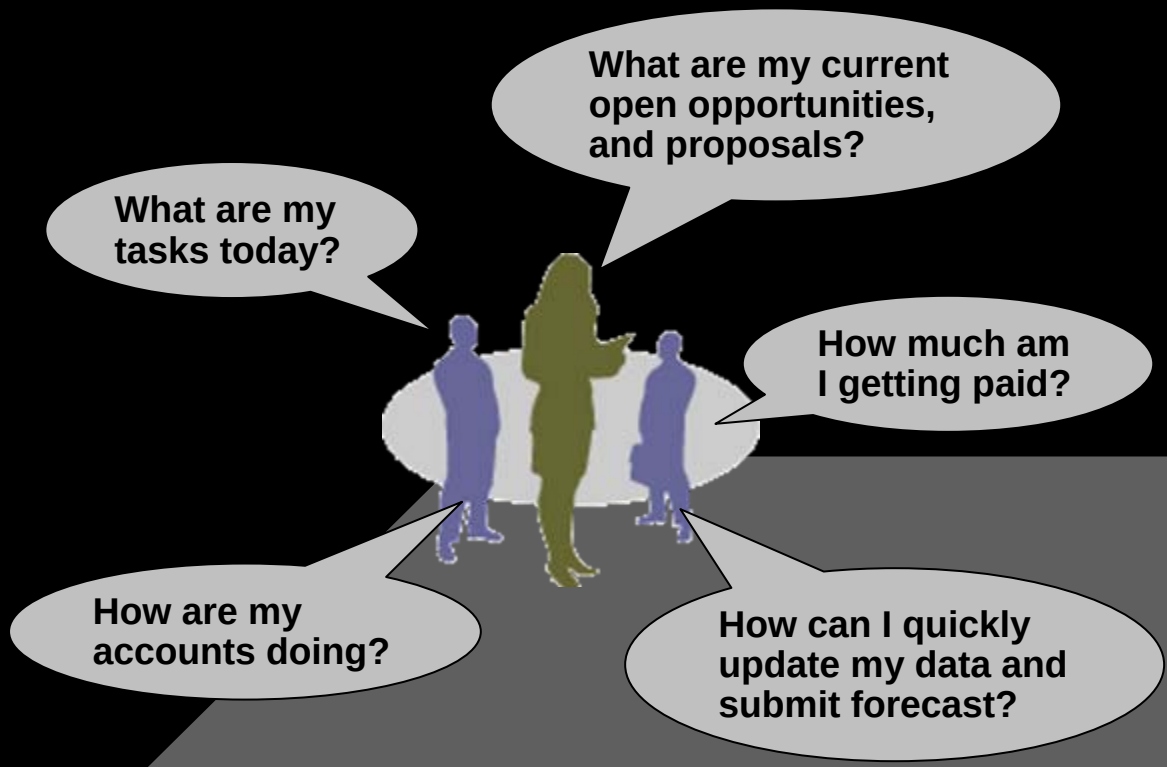
The Information Gap



Sales Rep Pain Points

- X **Cannot identify the immediate actions and records to focus on**
- X **Lengthened and delayed data entry due to cumbersome navigation path**
- X **No easy way to track progress of leads, opportunities, and proposals**
- X **Require assistance from IT to generate reports (data security and sensitivity)**

Reduced Productivity

Decreased Customer Satisfaction

Diminished Decision Making

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Closing the Gap

Provide Dashboards With:

- ✓ Tight integration with transaction applications
- ✓ Quick links to overviews of sales actions and daily tasks
- ✓ Ability to track progress of leads and opportunities
- ✓ Role-relevant analytics spanning entire sales cycle
- ✓ Easily personalized data views

Improved Sales Effectiveness

Increased Customer Value

Empowered Sales Force

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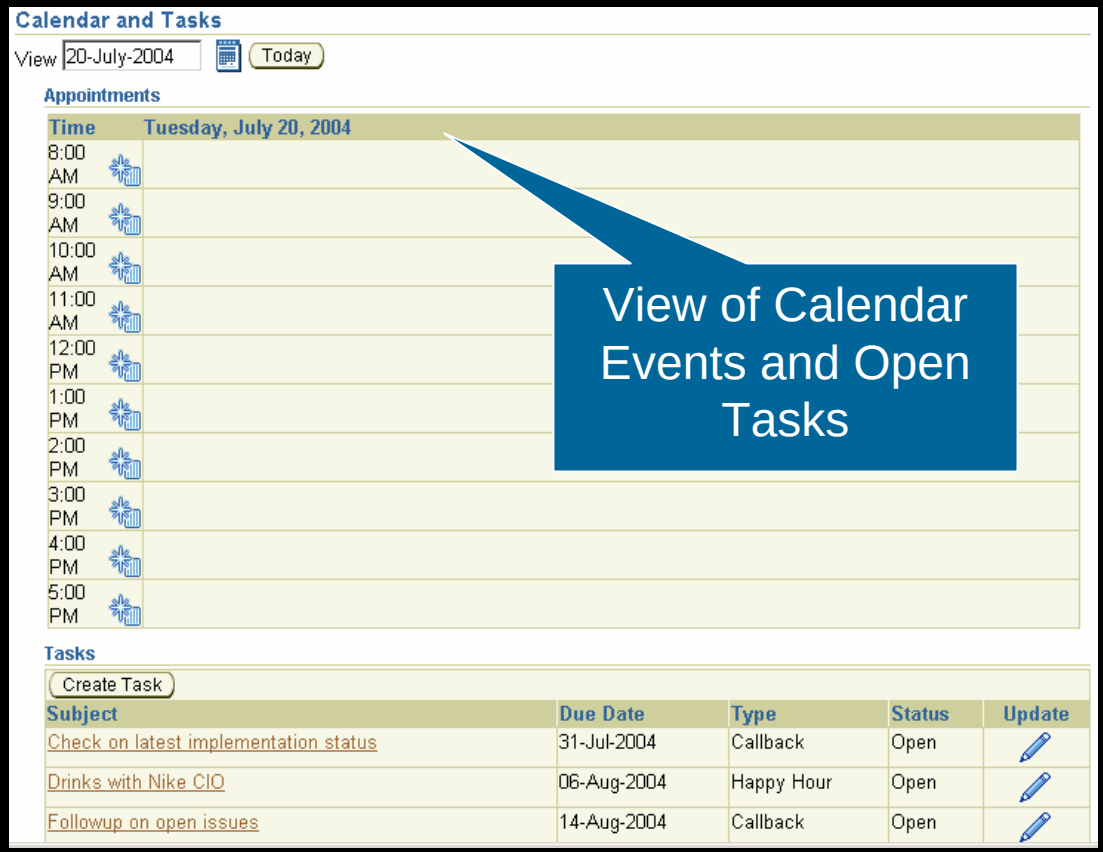
Oracle Sales Dashboard

Quick access to what you need to KNOW and what you need to DO



View of Calendar Events and Open Tasks

Quick Links to Critical Sales Actions

Shortcuts

- Calendar
- Customers
- Contacts
- Leads
- Opportunities
- Quotes
- Proposals
- Sales Campaigns
- Forecast
- Reports
- Tasks
- Commission Statement
- Commission Year to Date Summary

Latest Submitted Forecast

Last Submitted 12-Mar-04 19:42:25

- Best Case: 125,000.00
- Forecast: 120,000.00
- Worst Case: 15,000.00

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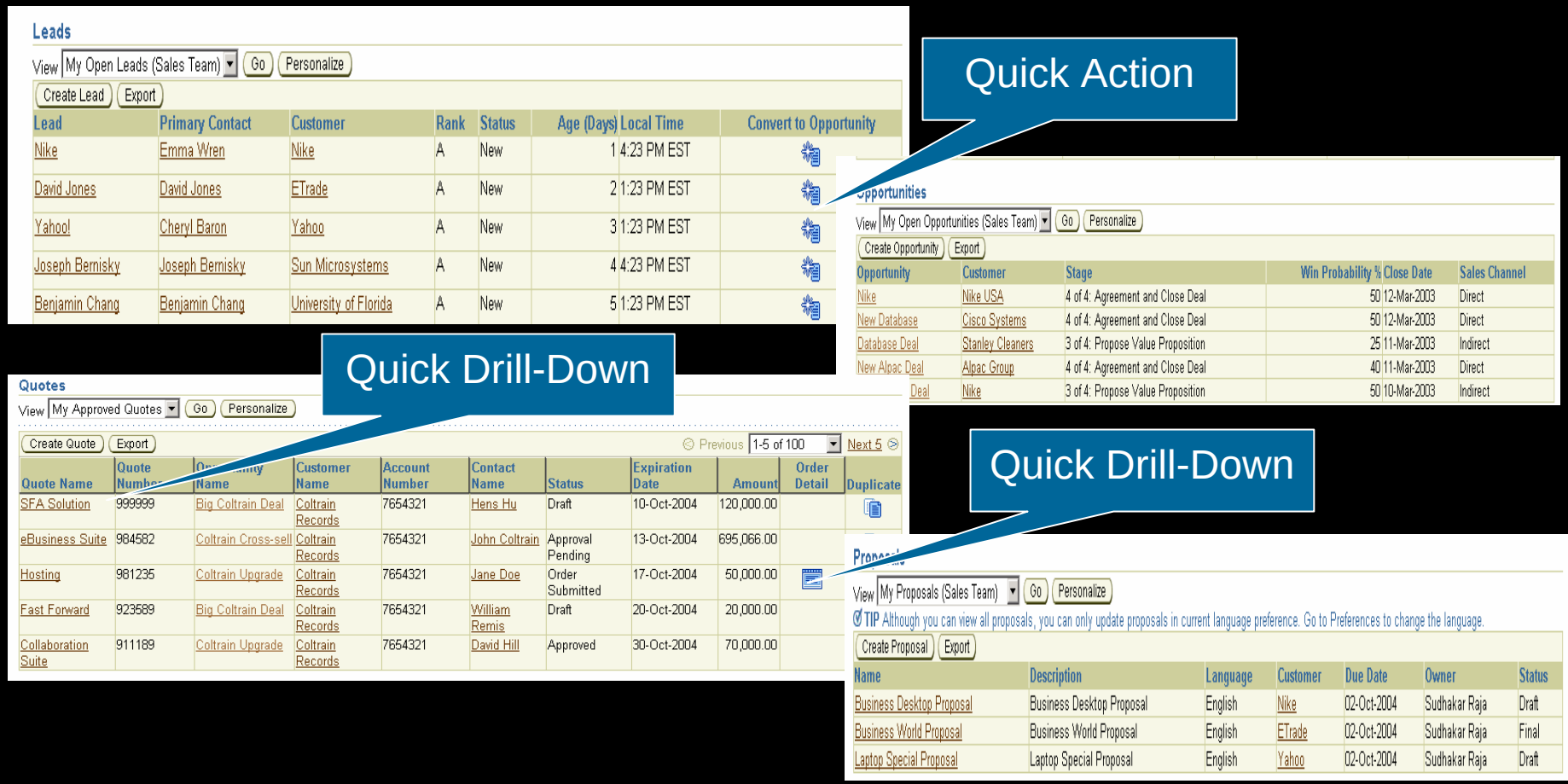
Oracle Sales Dashboard

Tracking and drill-down into transactional details



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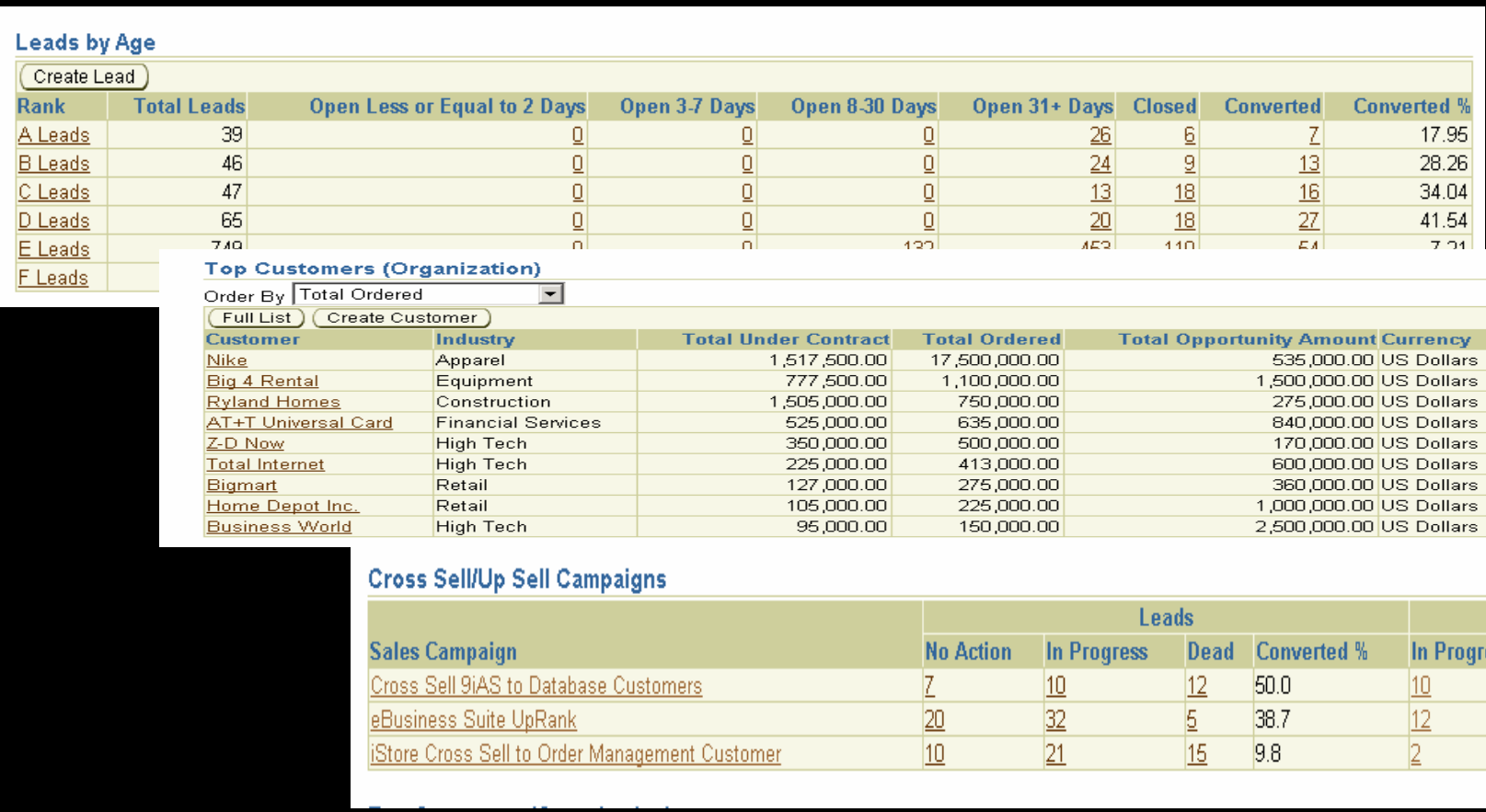
Oracle Sales Dashboard

Relevant analytics that span the entire sales cycle, plus integration with DBI for additional analytics



Leads by Age

Create Lead

Rank	Total Leads	Open Less or Equal to 2 Days	Open 3-7 Days	Open 8-30 Days	Open 31+ Days	Closed	Converted	Converted %
A Leads	39	0	0	0	26	6	7	17.95
B Leads	46	0	0	0	24	9	13	28.26
C Leads	47	0	0	0	13	18	16	34.04
D Leads	65	0	0	0	20	18	27	41.54
E Leads	749	0	0	132	453	110	54	7.21
F Leads								

Top Customers (Organization)

Order By: Total Ordered

Full List | Create Customer

Customer	Industry	Total Under Contract	Total Ordered	Total Opportunity Amount	Currency	Open Opportunities
Nike	Apparel	1,517,500.00	17,500,000.00	535,000.00	US Dollars	1
Big 4 Rental	Equipment	777,500.00	1,100,000.00	1,500,000.00	US Dollars	2
Ryland Homes	Construction	1,505,000.00	750,000.00	275,000.00	US Dollars	1
AT+T Universal Card	Financial Services	525,000.00	635,000.00	840,000.00	US Dollars	2
Z-D Now	High Tech	350,000.00	500,000.00	170,000.00	US Dollars	1
Total Internet	High Tech	225,000.00	413,000.00	600,000.00	US Dollars	1
Bigmart	Retail	127,000.00	275,000.00	360,000.00	US Dollars	1
Home Depot Inc.	Retail	105,000.00	225,000.00	1,000,000.00	US Dollars	1
Business World	High Tech	95,000.00	150,000.00	2,500,000.00	US Dollars	1

Cross Sell/Up Sell Campaigns

	Leads				Opportunities			
Sales Campaign	No Action	In Progress	Dead	Converted %	In Progress	Lost	Won	Won %
Cross Sell 9iAS to Database Customers	7	10	12	50.0	10	11	8	18.9
eBusiness Suite UpRank	20	32	5	38.7	12	6	18	6.5
iStore Cross Sell to Order Management Customer	10	21	15	9.8	2	1	1	2.4

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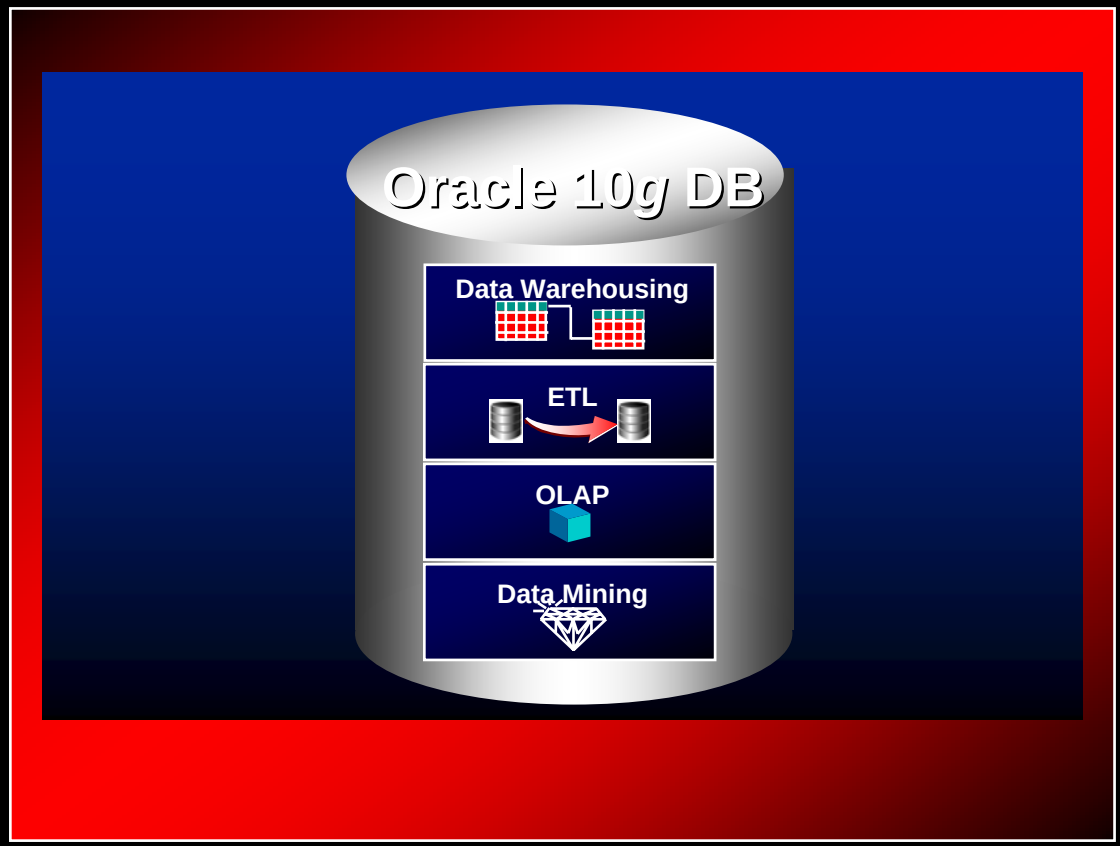
ENTERPRISE PLATFORM FOR

Business Intelligence

Oracle Business Intelligence Vision

Oracle approach …



- Single database
- Single server
- Tight Security
- Standard interfaces
- Simplified environment
- "Analytical Database"
- Fast conversion of data to information

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Business Intelligence

Query and Reporting	OLAP	Data Mining
Extraction of detailed and roll up data	Summaries, trends and forecasts	Knowledge discovery of hidden patterns
"Information"	"Analysis"	"Insights & Prediction"
Who are buying homes these days?	**What is the** average **income** of the home buyer, by region, by year?	**Who will** re-consolidate loans in the next 6 months and why?

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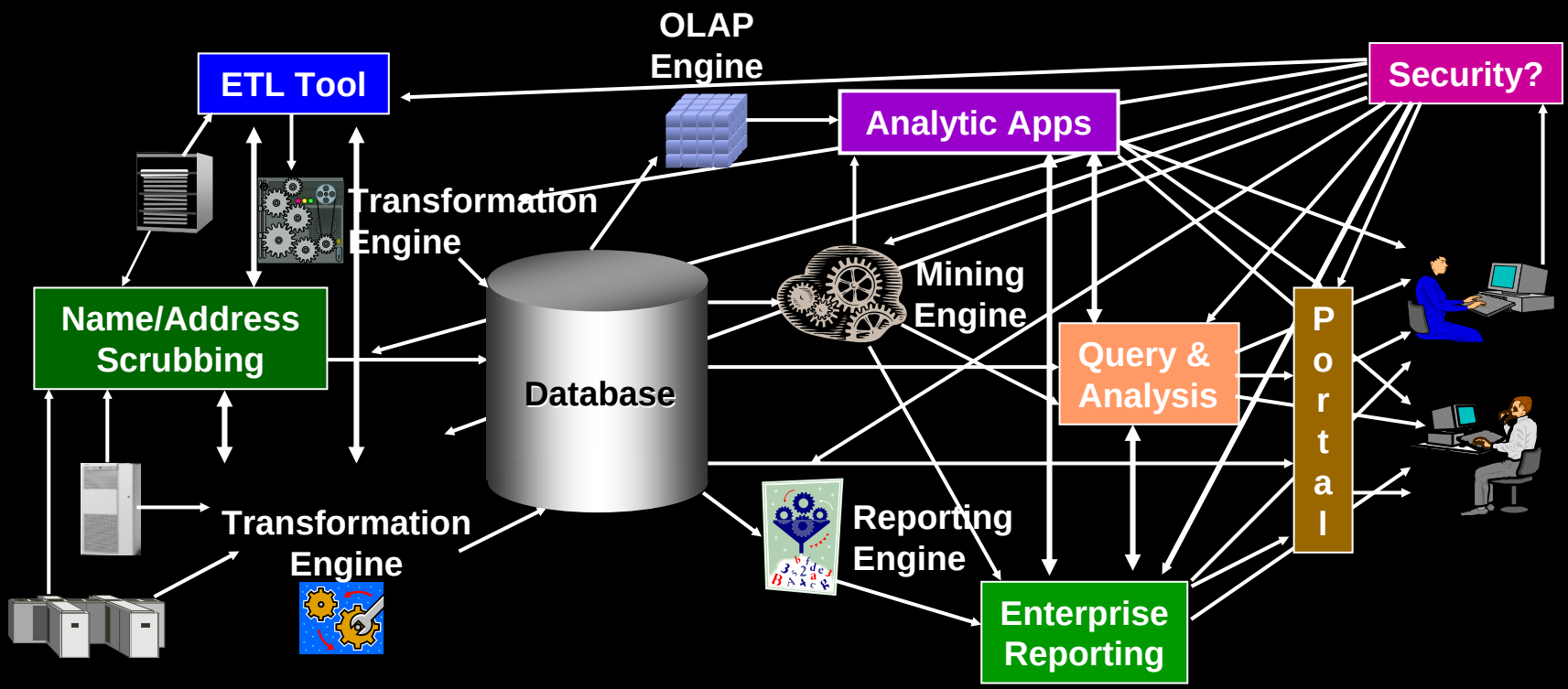
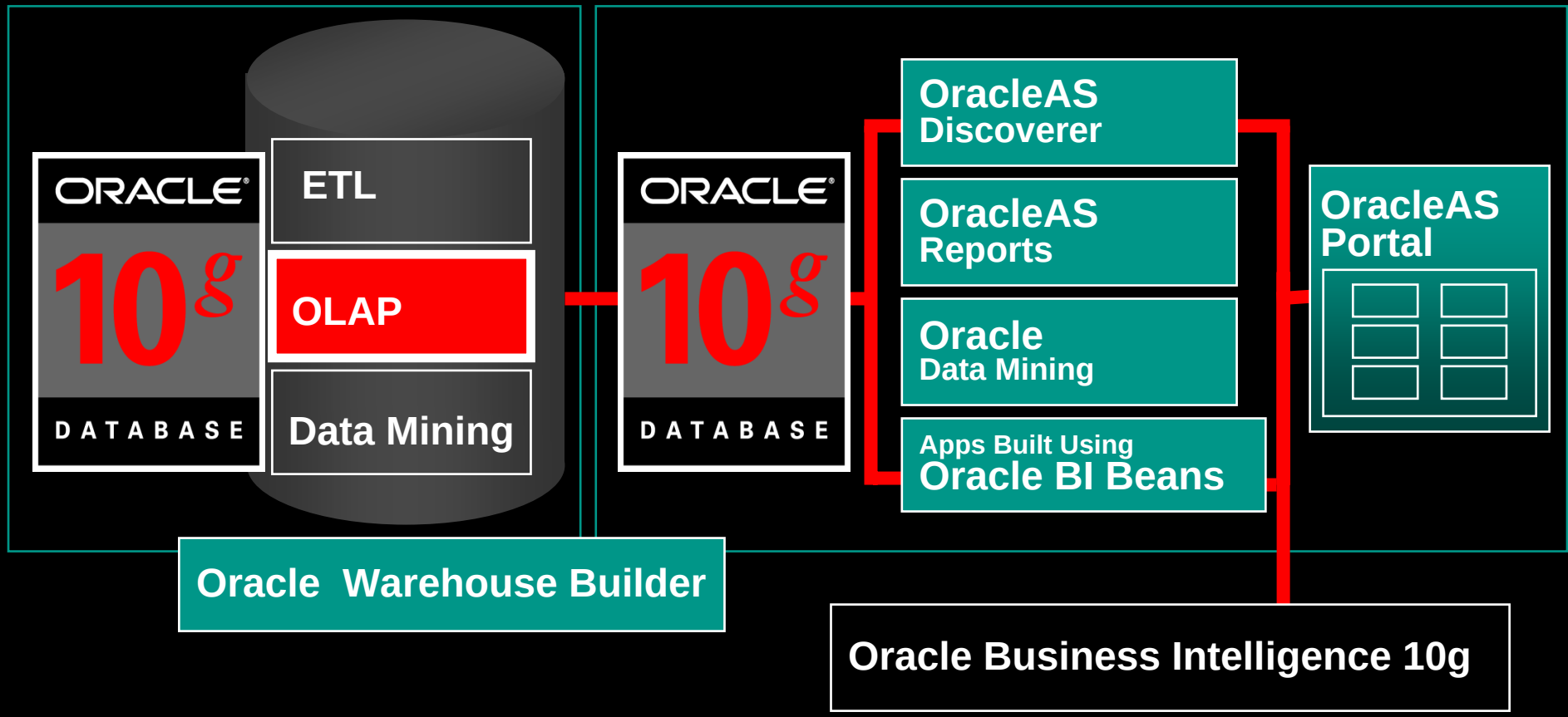
Common Customer Environment
Multi-Vendor, Un-integrated



- Protracted and complex implementation
- Escalating maintenance costs
- Poor and incomplete BI solution
  - Promotes information silos

Oracle Business Intelligence Solution
Complete, Integrated, and Open



Oracle Business Intelligence

"Predictive Insights Reports"

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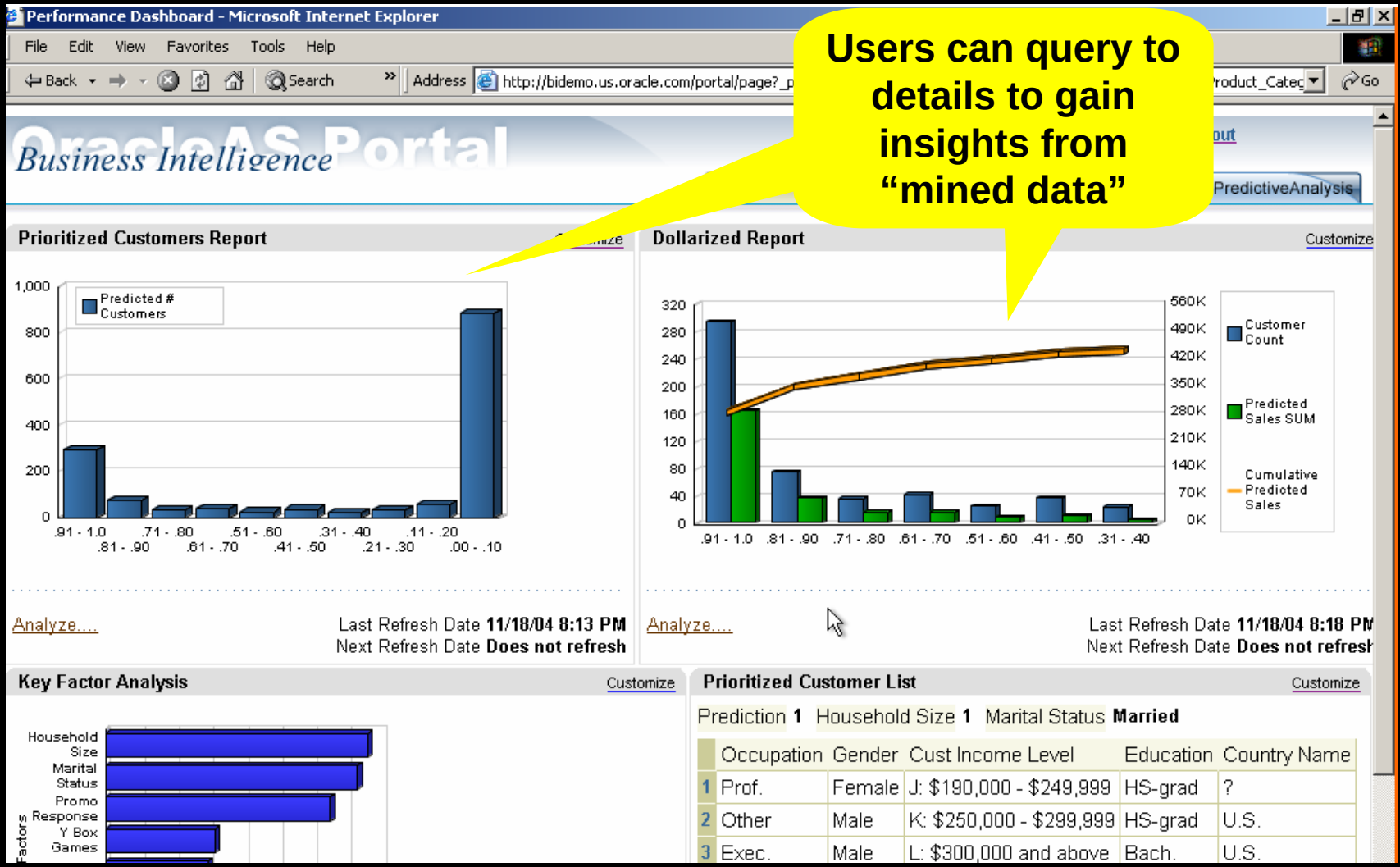
Oracle Business Intelligence

"Predictive Insights Reports"



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Components of Oracle BI Platform

- OWB
- Discoverer/Oracle Reports/XML Publisher
- Siebel Analytics Dashboard
- Portal
- OLAP
- Data Mining
- BI Beans

(clips)

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A Case Study of

Business Intelligence based Solution

Oracle Protect Architecture Overview

PROTECT Dashboards – Portal / Disco Based

Law Enforcement Exec Dashboard

Regional Crime Analysis

Detailed Crime Report

Counter Terrorism Dashboard

CompStat Dashboard

PROTECT Crime Analysis

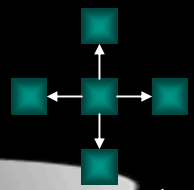
- Discoverer Ad-Hoc
- Excel based OLAP
- XML Publisher

Dashboard / PROTECT Warehouse Integration Layer

PROTECT Justice Data Repository

OLAP Support for
- Dashboard Metrics
- Compstat

Dimensional Model
- Flexible
- Extensible
- Advanced Analytics



Data Mining Support for
- Trends, Patterns, Hot Spots
- Narrative Text Mining

Workflow for
- Alerts
- Approvals

Grid / RAC for
- Scalability
- High Availability
- Manageability

Spatial Support for
- Visualization
- Proximity Searches

ETL-OWB Processes

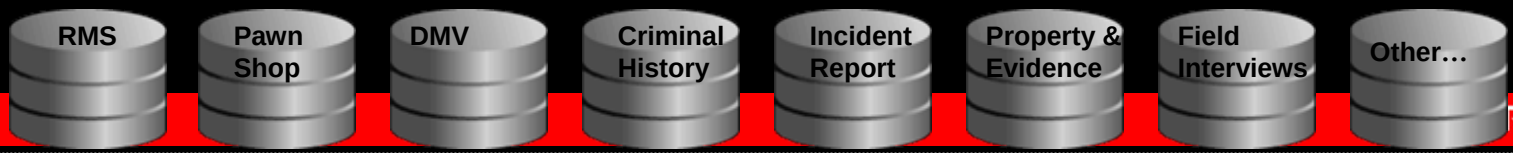
ETL Repository

Industry Compliant Integration Layer

XDB interface

XML Message Layer

Source Data



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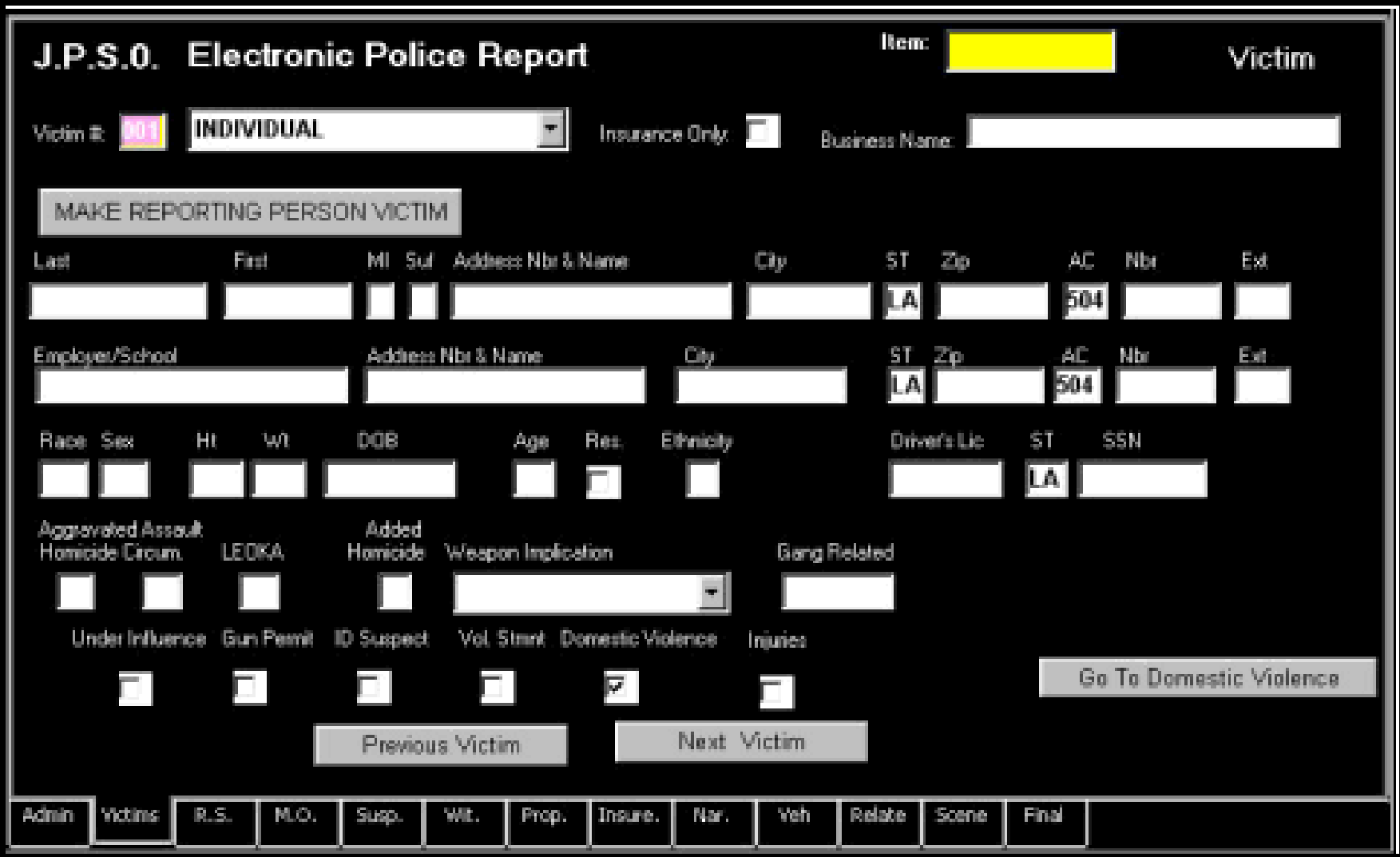
Transactional (Records Management) v/s BI System

…Police Report of the Incident



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BI Application Demo slides

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Q&A

Contact information:
Shyam.Nath@Oracle.com
(954) 609 2402 cell

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