Demand Management,
Real-Time S&OP
and
Predictive Trade Planning
Oracle to own the mission critical planning and advanced statistics processes & functions with top CPG manufacturers and other verticals.
Agenda

Overview of Demantra’s Acquisition By Oracle

Industry Challenges and Demantra Solution

Demand Management

Advanced Demand Modeling

Real-time Sales & Operations Planning Overview

Trade Promotion Management
What We Announced…

• Oracle acquired Demantra, Inc.
  • Transaction closed June 2006
  • Terms undisclosed

• About Demantra
  • Best-in-class provider of demand-driven business solutions
    • Demand Management
    • Real-time Sales & Operations Planning
    • Predictive Trade Promotions Planning and Optimization
  • Founded in 1996; headquartered in Waltham, MA
  • 85 employees; world-class talent with deep domain expertise
  • Approximately 140 marquee customers in multiple key industries
    • Consumer packaged goods, consumer durables, media & entertainment, quick service restaurants, life sciences
Why Demantra

- Demand-driven planning is a large, growing segment
  - Represents 3 of the 4 top initiatives in planned SCM investments*
  - Market dynamics need sophisticated demand management solutions
  - Managing new products and cannibalization key to profitability
  - Effective trade spend is a necessity in retailer dominated market
  - Traditional forecasting giving way to demand sensing and shaping
  - Increasing complexity of supply chains causing demand data to explode

- Demantra has proven segment leadership
  - Quickest way to close gaps and get to next-generation

- Complementary customer base provides immediate benefits
  - Consumer Goods, Life-Sciences, Media specific functionality

- Suitable infrastructure
  - Demantra products built on Oracle database
  - Over 75% of Demantra customers own Oracle applications

Drivers for Advanced Demand Management

**Market Changes**
- Retailer consolidation - emergence of Channel Masters
- Shrinking product lifecycle
- Increased competition for share and space
- Move to lean business practices

**Process Implications**
- Migration of business processes back up the value chain
- Need for Real-time, store/SKU planning and execution
- Need for well-targeted and optimized promotions
- Need for one-number planning and integrated S&OP processes

**Business Impacts**
- Increased vendor-specific programs and products
- Increased charge-backs and deductions
- Increased use of promotions and results of Out Of Stock
- Increased volatility and risk

**Application Requirements**
- Detailed, real-time view of supply and demand across the supply chain
- Comprehensive Demand Management linked to holistic S&OP process
- Analytic, Statistics optimized approach to promotion and demand management

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What Analysts said about Demantra before …

“Demantra is one of the most scalable applications studied for demand planning”
Lora Cecere et al, AMR, March 2006

“Demantra .. can model complex and stressful demand planning situations as well as (the) BI vendors, but with a significantly better understanding of the business processes that need to be formalized enterprise wide.”
Tim Payne, et al, Gartner, November 2005

“Demantra leads the pack: Demantra’s Trade Promotion Management Solution provides market-leading functionality in promotional uplift modeling”
- George Lawrie, Forrester, June, 2004,
What they now say about this deal...

“One interesting thing about the Demantra solutions that it is part of application and part of platform. The platform allows it to plug into companies’ sales and operations planning process, which tend to be very different from one company to the nest.”

Steve Banker, ARC Advisory, Global Logistics and Supply chain Strategy

“Oracle is serious about building a best-in-class SCM product. … This makes Oracle a much more serious contender in the SCM market.”

Lora Cecere, AMR

“The Oracle acquisition of Demantra also will put additional pressure on Oracle rival SAP to improve its demand management and sales & operations planning tools …but, SAP has a long way to go.”

Lora Cecere, AMR

“While the solution has greater functionality than existing Oracle solutions it is designed to be complex on the inside, so that it is simple on the outside.”

- Steve Banker, ARC Advisory Group
Demantra’s Key Customers
Largest Evaluation of Demand Driven Planning Solutions Ever!

- Oracle Seeks a Way to Gain Marketshare on SAP
  - Undergoes Largest Evaluation of Best in Class DP and TPMO Solutions
  - Dovetails with Oracle’s Acquiring of Best of Breed Solutions
- Combination creates a comprehensive demand and supply chain planning offering for Fusion infrastructure
  - Demantra: Best-in-class solutions for demand management, sales & operations planning and trade promotions management & optimization
  - Oracle: Supply chain planning and enterprise management applications, middleware and database technologies
Comprehensive Demand-Driven Planning Footprint

DEMANTRA
Demand Chain Planning

Demand Management
Demand Management
Advanced Forecasting
Real-Time Sales and Operations Planning

Trade Promotion Management
Predictive Trade Planning
Deduction and Settlement Management
Promotion Optimization

Supply Chain Planning
Network Design
Inventory Optimization
Supply Planning
Order Promising
Collaborative Planning
Production Scheduling

Oracle EBS
SCM & FIN

Siebel CRM
Trade Management Execution

JD Edwards E1
SCM & FIN
Oracle Value Chain and Infrastructure Readiness

- Demantra staff integrated into Oracle functional organizations
  - Specialist development, support, consulting, and sales teams to maintain focus
  - Demantra team to lead Oracle’s demand chain planning efforts to draw on proven expertise and success

- Oracle infrastructure to expand Demantra products globally

- Development – Integration team composed of Demantra, APS, JDE, and Siebel managers and developers
- Consulting – Internal and partners in place and trained
- Support – Existing Demantra support in Boston and Israel augmented by Oracle global support
What should existing Oracle/Numetrix Demand Planning customers do?

- **Which product should I use?**
  - Already own Oracle DP?
    - Yes: Continue with Oracle DP - Oracle will support existing Demand Planning products - learn more about Demantra long term.
    - No: Continue as is - possibly use planned Oracle integrations when they become available.
  - Already bought Demantra?
    - Yes: Buy & implement Demantra - evaluate use of planned Oracle vs. custom integrations based on your project timing.
    - No: Planning a 2006 go-live?
      - Yes: Seriously evaluate switching from Oracle DP to Demantra.
      - No: Learn more about Demantra - possible switch to Demantra may make sense in certain situations.

- Already Live?
  - No: Continue as is - possibly use planned Oracle integrations when they become available.
  - Yes: Buy & implement Demantra - evaluate use of planned Oracle vs. custom integrations based on your project timing.
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Demand Profitability!

Collaborative, 360° visibility for demand-driven enterprises

CREATE Demand

MANAGE Demand

FULFILL Demand
Competitor’s Vision...
Demantra Vision…
Planning at Shelf/Sku Level

Component Shelf - CTO
Retail Shelf

Raw Material Bin at your Customer
Industry Challenges

- Long Manufacturing Lead Times
- Stock outs & non-availability
- Excessive Inventory
- Low Service Levels
- Promotion's negative ROI
- Loss of Revenue
- NPI Failure
- New Lines, Products & Product Lifecycles
- New customer Planning
- Sell in Vs Sell through
- Multiple Product Attributes make Demand Planning challenging
- Promotions fluctuate demand
- Poor collaboration between Sales, Marketing, Demand Management, Operations and with CUSTOMERS
- High Inventory Costs

Real-Time S&OP helps companies solve these Challenges and increase Profitable Revenue Growth
Pain Points

- RT S&OP and DM
  - High Inventory Levels
  - Low Service Level
  - Request from Customer to manage VMI
  - Low Inventory Turns
  - High Price Protection Fund
  - Lack of internal Communication
  - S&OP Failure or no S&OP process
  - Low Forecast Accuracy

- TPM
  - Over-Spend of Trade Funds
  - No Promotion Profitability knowledge
  - High level of Deduction
  - Unknown spending
Demantra’s End-to-End Solution

Plan for Demand → Understand Demand

Real-Time Sales and Operations Planning

Trade Promotion Management  Demand Management  Retail Planning & Store Replenishment

Business Process Platform

Shape Demand → Respond to Demand
Why Customers Buy Demantra

• For Demand Management & S&OP
  • Gold Standard for executing the DDSN Vision
  • Increased forecast accuracy “out of the box”
  • Scalability to plan at Store/SKU/Hour level
  • Integrated Analytics Platform
  • Collaborative Planning & BP Environment Driven By Workflow
  • Ability to Monitor S&OP Variability

• For Trade Promotions Mgt & Optimization (TPMO)
  • Industry leading Trade Promotion Statistics
  • Calculate the true “Net Lift” of a promotion by identifying cannibalization and pantry loading
  • Predict the impact of future promotions
  • Optimize promotions based on a combination of goals
  • Track all details of a promotion on a single screen
  • Integrated Settlement Management process
  • Collaborative solution across all functional areas syncing SCM with Sales
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Demand Management

• Statistical Forecasting
  • Bayesian-Markov Mixed Model Programming
  • Causal forecasting
  • ‘Out of box’ accuracy to the half-hourly bucket
  • Store level forecasting based on POS data
• Support for Multiple Demand Streams
• Consensus Forecasting
• High-volume Forecasting
• Workflow, Alerts, and Exceptions
• Multi-dimensional analysis, reports, and graphs
• Flexible OLAP Worksheets
Demand Management Differentiators

- Manage at any level of time, product and location aggregation
- New Product Introduction
  - Supports product lifecycle management
  - Chaining capabilities to existing products
- Shape Modeling
  - Use comparable products demand shapes as input
  - Generate composite new shape and align to actual demand
- Attribute Based Forecasting
  - Analyze demand for a group of combined attributes
  - Uses business rules for product level modeling
- Assumption Planning
  - Supports qualitative forecasting
  - Current and past assumptions are modeled
Agenda

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Advanced Demand Modeling Technology
Bayesian – Markov Modeling

“They say no two economists ever agree, so Chrysler tries averaging their opinions” - Wall Street Journal

- We find the Models that will produce the best forecast for the historical data.
- We identify the best combination out of many models - each contributes forecast characteristics to the overall combined model.
- We give each selected model its weight according to the extent each one of them explains the data.
- We create a “hybrid weighted average model” ranked by an objective criterion – Success.
- Does not rely solely on history - incorporates external information and Causal Factors.

The solution…. is designed to be "complex on the inside, so that it is simple on the outside”. This means it needs less tuning and less experienced demand planners will find it easier to work with than many solutions. – ARC, June 2006

“From an isolated process to a full Demantra RT S&OP - within six weeks of going live our ‘A-items’ improved 45% in accuracy.” – Sagi Srinivas, Johnson & Johnson MD&D
Powerful Analytics
Yield Maximum Accuracy

Multiple Causal Factors
- Promotions
- History
- POS
- Shipments

Promotion Events
- Seasonality
- Causal Analysis
- Trend
- Cyclical Patterns
- Outlier Detection

Optimal Introduction
Seasonality of Products
Effect of Weather on Promotion Effectiveness
Baseline
Promo Lift
Cannibalization
Powerful Analytics
Yield Maximum Accuracy
Bayesian-Markov Modeling vs. Best Fit Approaches

Mean Absolute Percentage Error

SKU

Source: Demantra CPG customer
### Measure Performance

#### Forecast Accuracy

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<th>Demand</th>
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<th>2 Month Lag WMAPE</th>
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**MAPE – Mean Absolute Percent Error**

Demantra Customers are weighting by accuracy volume, revenue and inventory cost.
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Enterprise Disconnect - Life without Real Time S&OP

Regional President

SVP Regional Supply Chain

President Sales

Finance Director

Hey we agree we’ve never seen you going there before...more accurate short term numbers? Changing market dynamics? Why do we ship 50% of our volume in the last 3 weeks of every quarter? Speaking of the budget, we continue to miss the budget on volume and mix and our strategic plan always appears as a hockey stick. Do you guys just file years 2-4 of the budget? How could I file it? I’ve never seen it – who makes the 2-4 year budget plan anyway?
Collaborative Real-Time Sales & Operations Planning Across Functions

**Inputs**
- Strategic Plans
- Promotional & Volume Plans
- Demand Plans
- Capacity Plans
- Phase In/Phase Out Products

**Outputs**
- Profitability
- Service Levels
- Inventory Levels
- Promotion Effectiveness
- Plan Accuracy
Collaborative Real-Time Sales & Operations Planning Across Functions

**Inputs**
- Strategic Plans
- Promotional & Volume Plans
- Demand Plans
- Capacity Plans
- Phase In/Phase Out Products

**Outputs**
- Profitability
- Service Levels
- Inventory Levels
- Promotion Effectiveness
- Plan Accuracy

**Real-time**
- Actual Shipments
- Promotional Execution
- In-Flight Consumption Data
RT S&OP Collaborative Process

• Collaborative Process Enablers
• Develop Baseline Forecast
• Develop Consensus Plan
• Introduce New Products
• Manage Promotions
• Manage Replenishment
• Measure Performance
RT S&OP Collaborative Process

- Collaborative Process Enablers
- Develop Baseline Forecast
- Develop Consensus Plan
- Introduce New Products
- Manage Promotions
- Manage Replenishment
- Measure Performance
Collaborative Portal

- Integrated, Configurable KPI’s
- Real-time Alerts, Exceptions & Workflow messages
- Advanced Worksheet tools
Collaborative Worksheets

- Business Hierarchy features ease of navigation
- Comprehensive data series available out-of-the-box
- Integrated charting is selectable on-the-fly
- Online Notes and Audit Trail with digital signature
RT S&OP Collaborative Process

- Collaborative Process Enablers
- Develop Baseline Forecast
- Develop Consensus Plan
- Introduce New Products
- Manage Promotions
- Manage Replenishment
- Measure Performance
Develop Baseline Forecast
Statistical Forecasting

Current date, past & future are color coded for reference
View the statistical plan at any level of aggregation

On approval, system will Alert all participants
Planner adjustments can be entered, copy/pasted, or updated by the system
RT S&OP Collaborative Process

- Collaborative Process Enablers
- Develop Baseline Forecast
- Develop Consensus Plan
- Introduce New Products
- Manage Promotions
- Manage Replenishment
- Measure Performance
Develop Consensus Plan

Inputs display from entire collaboration group – Finance, Marketing, Operations, etc.

Each S&OP participant has a configurable role-based view

Review historical accuracy for each input

Integrated approval workflow process
RT S&OP Collaborative Process

- Collaborative Process Enablers
- Develop Baseline Forecast
- Develop Consensus Plan
- Introduce New Products
- Manage Promotions
- Manage Replenishment
- Measure Performance
Introduce New Products

- Run simulation on-the-fly
- The system automatically detects outliers
- Chain and view demand of comparable products
- Aligns forecast based on actual demand
- Accurately forecast demand for the new product
RT S&OP Collaborative Process

• Collaborative Process Enablers
• Develop Baseline Forecast
• Develop Consensus Plan
• Introduce New Products
• **Manage Promotions**
• Manage Replenishment
• Measure Performance
Manage Promotions
RT S&OP Collaborative Process

- Collaborative Process Enablers
- Develop Baseline Forecast
- Develop Consensus Plan
- Introduce New Products
- Manage Promotions
- Manage Replenishment
- Measure Performance
Manage Replenishments

- View current inventory, along with min/max levels
- View inventory projections based on safety-stock policies
- Adjust policy parameters as needed
RT S&OP Collaborative Process

• Collaborative Process Enablers
• Develop Baseline Forecast
• Develop Consensus Plan
• Introduce New Products
• Manage Promotions
• Manage Replenishment
• Measure Performance
Measure Performance
Integrated KPI’s

KPI’s are fully configurable from standard templates.

KPI Measures can be in units or currency, at any level of aggregation.

KPI Information may be forwarded as Alerts, Exceptions and Workflow messages.
Why Customers Buy Demantra for S&OP

- Gold Standard for Demand Driven Supply Network Vision
- Real-Time, Demand-Driven Planning Applications
- Most Sophisticated Planning Statistics - “out of the box”
- Integrated Analytics Platform
- Collaborative Planning Environment Driven By Workflow
- Technology - Scalability supports granular forecasting
  - Shelf/Rack/Store/DMA/DC x sku/item x week/day/hour
  - Automation and Scalability for Granular Demand Data Visibility
- Business Process Management with Exception Processing
VTech is a global provider of corded and cordless, telephones, electronic learning products and contract manufacturing services

• **Challenge**
  • Improve service levels and on-shelf availability with big box retailers in order to increase revenues, while keeping inventory levels and minimizing logistics costs

• **Strategy**
  • Implement a consumer driven planning process with retailers to reach a one-number plan using POS data and retailer merchandising schedules

• **Solution**
  • **Real-time Sales & Operations planning**

• **Results**
  • Rapid time-to-benefit with implementation in 90 days
  • Increased order fill rate from 55% to over 95%
  • Increased inventory turns from 3x to 6x per year
  • Reduced retail compliance fines by 85%
  • Reduced logistics costs by 65%
  • Reduced price protection claims by 40%
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Demantra Front Office Modules

- **Trade Promotion Management**
  - Budgeting and Fund Planning Process
  - Baseline Forecasting
    - Gold Standard in Forecasting would provide the most accurate baseline forecasting – feed SVP with Baseline
  - Promotion Coefficient Modeling
    - The Bayesian Forecasting engine model promotion attributes and generate real-time coefficient to generate the most accurate sales volume forecast.
  - Promotion Planning
    - Promotion Sandboxing with “what if” analysis, Cannibalization, halo effect etc. Time series view of tactics

- **Promotion Optimization**
  - The Salesman Guardian Angel. Achieve your objective with your budget constraints

- **Sync with Supply Chain apps**
  - Create visibility and mobilize inventories to support sales tactics – Out of stock reduction
Promotion Planning Process

Predictive Trade Planning

Trade Planning

Pre-Event Statistics

Trade Promotion Management

Trade Promotion Optimization

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<tr>
<th>Veh Type</th>
<th>Veh $</th>
<th>Cons Promo</th>
<th>Shelf Price</th>
<th>Sale Price</th>
<th>Units</th>
<th>Buydown</th>
<th>Lift</th>
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<td>$0.25</td>
<td>6.56</td>
<td>1,476</td>
<td>8,212</td>
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</table>

Demantra

Trade Promotion Management

ORACLE®
Pre-Event Analytics

Budget, Volume & Spending

Define Trade Funds including fixed and variable funding rates

Monitor Sales vs Quota

View Fund Budget, Allocation and Balances

Monitor & Report

Post-Event Analytics
Volume and Spending
Volume and Spending
Pre-Event Analytics

Budget, Volume & Spending

Cost/Benefit review of Planned Promotions

Drill-down into an individual promotional event

View Cannibalization across Brands & Promotional Groups

Monitor & Report

Decompose lift to identify components such as Pantry Loading

Post-Event Analytics
Color coding highlights when results are better (green) or worse (red) than planned.

Drill-down into an individual promotional event.

Decompose lift to identify components such as Cannibalization.

Compare Planned vs Actual Results.

Pre-Event Analytics

Budget, Volume & Spending

Monitor & Report

Post-Event Analytics
Q & A