Increase Supply Chain Responsiveness

Presenter’s Name
Presenter’s Title
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Agenda

• Leadership in Electronic Manufacturing Services (EMS)
• Increase Supply Chain Responsiveness
• Results Achieved by Oracle Customers
### Oracle in High Technology

<table>
<thead>
<tr>
<th>Did You Know?</th>
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<tbody>
<tr>
<td><strong>All of the top 25</strong> Electronic OEMs run Oracle Applications</td>
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<td><strong>7 of the top 10</strong> semiconductor companies run Oracle Applications</td>
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The Challenges We’re Hearing

OEM Visibility

“How do I retain control of my business, while meeting the demands of my OEM customers?”

“How do I retain control of my business, while meeting the demands of my OEM customers?”

“What new services can I offer to increase my revenue and margins?”

“[Offer]...services performed before the product hits... floor, such as writing the embedded software for a mobile phone, ...during the assembly process, ...advanced environmental testing or real-time quality reports to the customer...after the product ships, in the form of repair, warranty or support services...environmental testing of products or real-time reporting of manufacturing and quality to their OEM customers.”

“About 1900 of them are in this sub-$250M range... these EMS companies are not going after the super-high volume consumer products... These players are focused on the industrial, military, and medical segments...(they) position themselves as more of a flexible, responsive, and relationship based provider relative to the larger players.”

Movers and Shakers- Asia/Pacific: ODMs, EMS Reign Supreme
The Challenges We’re Hearing

“Mega-Sites”
“How can I further reduce my cost and increase the speed at which I respond to my customers?”

“The industrial campus boasts a growing roster of components producers and a cavernous distribution center ... The complex has its own high-speed telecom network, power plants, and medical center—even a first-rate soccer field and a bus fleet... [The] site is just one of a number of manufacturing campuses the company owns or is building in countries such as China, Brazil, and Hungary.”

BusinessWeek- Barons Of Outsourcing

Shared Services
“How can I leverage shared services to lower my cost and globally adopt best practices?”

“Tapping into... strengths of shared services, the world's largest manufacturer of personal computer motherboards has anchored its HQ operations...what it calls a "strategic, multi-functional centre." These include procurement, sales, marketing, customer support, product management, administration and finance...”

Singapore’s EMS Industry: Ascending The Value Chain
OEM Visibility Challenge

“OEM Visibility”

“How do I retain control of my business, while meeting the demands of my OEM customers?”

“...OEMs these days want the management, visibility, and control as if they were doing their own manufacturing, but without the costs, risks, and logistics, which they are happy to leave to the EMS houses.”

EMSNOW  The June Quarterly Forum

EMS continue to face competition with ODM. This effects future growth and profitability. Supply Chain responsiveness become key strategy to cost and revenue growth

TFI : EMS revenue growth 1990-2005
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## Increase Supply Chain Responsiveness

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Business Challenges Faced by EMS Companies in Responding Rapidly to OEM Demand Changes

Current state of most EMS companies

- Most planning process are sequential and on non-integrated systems
- Most planning process are internal focus rather than customer focus.
- Sales & Operations Planning (S&OP) processes are cumbersome and not flexible enough

EMS companies faced with:

- Poor demand/supply visibility resulting in supply-shortages and inventory write-downs
- Long component lead times, multiple configuration changes during lengthy build cycles.
- Short life cycle of products affect long-term commitment of capacity and procurement
Oracle’s Demantra Solution Enables EMS Companies to Utilize Real-time Sales & Operations Planning
Respond Quickly to Demand Changes

1. Improve demand visibility, analyze it and get the forecast right
2. Balance supply, demand and budgets
3. Synchronize one number plan across finance, marketing, sales, production and supply chain
4. Execute and monitor these plans
5. Identify gaps and shape demand to ensure profitable revenue growth
Demantra Sales & Operations Planning Transforms EMS Companies by Becoming More Responsive to OEM Demand Changes

- **Get real-time visibility to all demand signals**
  - Move from a regimented periodic to a continuous demand planning process
  - Forecast at a more detailed level – product line, products
  - OEM sales & marketing, distribution centers – multiple units of measure and currencies
  - Include point of sale or shipping information in real time

- **Leverage advanced analytics to accurately predict demand**
  - Use any combination of quantitative or qualitative data to establish your base line forecast
  - High precision statistical forecasting, no statistical background required – Superior Bayesian-Markov forecast analytics
  - Forecast based on attributes and characteristics such as color, size, style, and so on

- **Get quickly to an improved consensus number**
  - Use multi-dimensional analysis to adjust, allocate, and rollup
  - Collaborate with internal and external constituents
  - Workflow driven forecasting exceptions ensures responsiveness
  - Track changes through comprehensive audit trails
  - Capture contract win assumptions with assumption based forecasting
With Demantra, EMS Companies Are Able to Balance Supply, Demand, and Budgets

Determine Supply Plan: Evaluate Supply Constraints

- **Aggregate level planning**
  - Plan at item or product family level
  - Apply constraints selectively
    - Critical items and bottleneck resources
    - Flexible plan scope

- **Examine alternate scenarios**
  - Determine sourcing strategy
  - Alternate suppliers
  - Alternate manufacturing methods
  - Make versus buy decisions

- **Collaborative supply planning**
  - Include suppliers in the process

- **Reduce non-value added costs and exception overload**
  - Automated exception handling
Consensus Planning Helps EMS Companies Drive a Single Plan Across the Entire Organization
Inclusive Consensus Process Improve Plan Quality and Acceptance

- Each department uses own units of measure
- All groups participate equally
- Consensus based on inputs and weightings from groups at various levels of detail
EMS Companies Look to Real-time Information for Rapid Response
Use Exception Processing to Identify Potential Problems

- Establish KPIs
- Compare current weekly forecast to budget
- Use analytics to identify potential problems
- Collaboration workbench coordinates response by role
- Route these issues to the person or department that can develop a resolution
- Escalate unresolved issues to S&OP planning committee
Collaborative Planning Across Supply Network and Extended Supply Chain is at the Core of EMS Execution

Full Visibility and Synchronization Across the Extended Supply Chain

- Plan your extended supply chain
  - Share forecasts and supply commits with customers and suppliers
  - Get visibility to supplier capacity
  - Reallocate key components
  - Make alternate sourcing decisions

- Reduce inventory cost and improve fulfillment
  - Suppliers manage your inventory
  - Manage your customers’ inventory

- React quickly to supply chain exceptions
  - Waterfall analysis
  - User-configurable exceptions
  - Automated exception handling via workflow
Vtech Builds a Consumer Driven Supply Chain With Demantra

COMPANY OVERVIEW
- VTech is one of the world’s largest suppliers of corded and cordless phones and a leading supplier of electronic learning products. Founded in 1976, Vtech manufacturers innovative, high quality consumer electronics products, and distributes them to markets worldwide in the most efficient manner.

CHALLENGES/OPPORTUNITIES
- Legacy systems a hodge-podge of incompatible hardware and software
- Inefficient planning and execution leading to rising costs
- Excess inventory; poor response to market requirements

SOLUTIONS
- Real-time Sales and Operations Planning and Demand Management

CUSTOMER PERSPECTIVE
“Demantra’s solution allows us to collaborate with our customers in a single, consistent planning environment where changes in forecasts dynamically update replenishment and shipment plans. This next generation CPFR solution allows VTech to maintain its lead in the consumer electronics business by delivering the highest possible service levels, while reducing current inventory levels.”
Nick Delany, Senior Vice President

RESULTS
- Increased order fill rate from 55% to over 95%
- Increased inventory turns from 3x to 6x per year
- Reduced logistics costs by 65%
- Reduced retail compliance fines by 85%
- Reduced price protection claims by 40%
- Rapid time-to-benefit with implementation in 90 days
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Business Challenges in EMS Companies Related to Optimizing Inventory in a Global Environment

- EMS companies are running on multiple silo systems. This prevents an integrated, global view of inventory, purchasing and planning.

- EMS companies are handling complex configurations requiring predictive modeling of risk polling to balance the risk of out of stocks with inventory write downs due to overstock.

- Product complexity includes parts with long lead times.

- Limited capability in simulating “what if” scenarios to optimize inventory in multiple sites environment
EMS Companies Need Strategic Network Optimization
Optimize Inventories for Mega-sites and High-mix/low Volume Manufacturing

- Optimize EMS supply chain network
  - Use demand scenarios as input
  - Compare time-phased network configurations

- Model all supply chain elements
  - Distribution centers, processing facilities, ship methods, stores, suppliers, and customers
  - Costs: transportation, operating, sourcing, facility ramp-up and shut-down, labor, and storage

- Optimize sourcing
  - Output best sourcing strategy for downstream supply chain and inventory planning

- Simulate changing business conditions
  - New businesses and new markets
  - Outsourcing decisions
  - Demand scenarios
Oracle Provides EMS Companies With an Inventory Postponement Optimization Capability
Manage to Uncertainty, Reduce Inventory, Improve Customer Service

- Inventory levels and policies are synchronized across the entire supply chain
- Manage to uncertainty
  - Demand, supply, and lead-time variability
- Pull model, driven by point of postponement
- Higher customer service at lower inventory cost
- Time-phased safety stock buffers at all levels
- Multiple target service levels
Oracle Inventory Optimization Uses Pooled Risk Model to Achieve Inventory Optimization and Postponement for EMS Companies

Risk is “pooled” because a lower quantity of a common sub-assy is required to meet a given service level

- Reduce inventory without sacrificing customer service
- Use analysis tools to determine:
  - Where to optimally hold inventory (stage & location)
  - What quantities to hold
  - What safety stock to keep
- Evaluate KPIs to assess service levels, postponement strategies, revenues, costs...

Use Planned Inventory Points that Enable Flexibility
Interceramic, Mexico and USA

Live on ASCP, IO, and DP since 2002

Company

• Headquartered in Mexico, Interceramic produces, distributes, and sells through company owned stores and franchises ceramic tile and other household fixtures.
• Interceramic is one of the largest companies in the world dedicated to the production and commercialization of ceramic floor and wall tile

Planning problem solved

• Plans production, distribution, and retail replenishment

Unique aspects of implementation

• 91 Distribution centers, stores, and franchises
• 4 Plant warehouses 7 Manufacturing plants
• 3000 BOMs, 100,000 SKUs

• High automation of planning process
• Improved customer service levels
• Improved interdepartmental coordination
• Improved inventory visibility
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What Are the Business Issues Related to Strategic Sourcing & Purchasing

EMS companies are pressure to:
• Drive higher efficiencies in the purchasing organization and supporting the value chain
• Need to be able to rapidly integrate acquisitions for purchasing leverage
• Need to track materials to ensure they meet regulatory compliance (ROHS)
• Need to reduce material costs through leverage of purchase consolidation for volume discount
Oracle Strategic Sourcing and Purchasing Analytics
Optimize Purchase Price Variance Opportunities
EMS Companies Need to Automate Purchasing Processes
Free Buying Professionals to Focus on Strategic Activities

- Pre-Defined Policies
- Approved Supplier Lists
- Negotiated Contracts
- Blanket Agreements
- Supplier Information
- Drop Ship Details

Supply Base Management

Consolidate All Demand
Approve & Allocate
Generate Order Documents
Receive, Reconcile, and Pay

Flexible Procurement Automation

Exceptions
Manual Approval

Demand Workbench

Spend Categories
Indirect Goods
Services
Engineered Goods
Direct Materials

Suppliers
Business Services
Consumables & Supplies
Engineer to Order
Parts & Components
EMS Companies Need Embedded Sourcing Rules to Make Buyers More Productive
Determine the Right Supplier Allocation and Create Orders Without Buyer Intervention

**Rules-Based Auto-Sourcing Engine**
- Configurable allocation logic with flexible hierarchies
- Define for item, commodity, cost center location

**Consolidated Demand**
- Goods & Services

**Purchasing Documents**
- POs
- Blanket release
- RFQs
- etc.

**Automatic Communication**
- Supplier Portal
- OSN* / XML / EDI
- eMail
- Fax

- Global contracts & blanket agreements
- Demand plan, one-time purchases
- Approved supplier lists
- Supplier profiles
- Approval logic (optional)

*Oracle Supplier Network
EMS Companies Need to Operate Globally to Share Purchasing Agreements and Maximize Contract Utilization

- Centrally manage and share agreements within or across business units
- Capture base pricing, discounts, payment terms, volume agreements (cumulative and retroactive pricing on received / invoiced goods supported)
- Automatically utilize agreement and pricing to issue orders
EMS Companies Need to Use Enterprise Wide Purchasing Enforcement

Ensure All Business Units Are in Compliance With Corporate Policy

Corporate Policy Controls

- Approval policies
- 3-way match approval level
- Pricing, receiving, and invoicing tolerances
- Vendor hold enforcement
- Security hierarchy
- Contingent worker access

Flexible Purchasing Definitions

- Multi-Org Access Control (MOAC)
- Date formats
- Time zones
- Tax rules
- Chart of accounts
- Fiscal & legal requirements
- Supported languages and currencies

Accommodate Global Requirements

Purchasing Execution Controls

- Numbering options
- Price break types
- Supplier qualifications
- Tax defaults
- Default accrual accounts
- Accrual – receipt / period end
- Reporting & transaction currencies
- Configurable document styles

Support Unique Transactions

Centrally Manage Policies and Procedures
Inventec Multimedia & Telcom Uses ASCP and Collaborative Planning to Increase Responsiveness

COMPANY OVERVIEW
- Global provider of hardware and software products.
- Annual production quantity is 7 million notebook computers and 2 million servers.
- $3.5B revenue, Wireless Voice and Data Services

CHALLENGES/OPPORTUNITIES
- Siloed information and manual processes
- Inability to scale operations
- Lack of e-business capabilities
- Inadequate infrastructure to compete in a rapidly evolving industry

SOLUTIONS
- Oracle Financial
- ASCP
- Collaborative Planning
- Order Management
- iProcurement
- Purchasing
- Manufacturing

CUSTOMER PERSPECTIVE
“Oracle is the only company to offer a fully integrated enterprise information solution so you get a full 360 degree view of your customers and your business.”
C. H. Lee, President

RESULTS
- Eliminated 90% of manual effort in logistic processes
- Improved efficiency of shipping processes by 50%
- Reduced manufacturing lead-time from 12 days to 5 days
- Reduced inventory by 56%
- Provided WIP visibility through all stages of assembly
- Reduced ECO approval cycle-time from 5 days to 2 days
- Reduced overall purchase cost by 20%
Summary

- Demantra Sales and Operations Planning
  - Only enterprise suite with integrated, real-time sales and operation planning

- Strategic Inventory Optimization
  - Uniquely incorporates risk and uncertainty when determining inventory levels and locations

- Strategic Sourcing and Purchasing Analytics
  - Only enterprise solution that integrates real-time analytics with end to end purchasing process
The Only *Complete* EMS Solution
Oracle’s Increase Supply Chain Responsiveness Footprint
Market-Leading Middleware Platform

**Best-Selling**
- 32,000+ Customers Deployed
- 70% of World’s 50 Largest Firms
- $1B+ Business

**Highest Rated**
- Only vendor in Gartner and Forrester leader quadrants for all Middleware components.

**Fastest Growing Middleware**
- 2005 Growth Rates

**Most Comprehensive**

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Source: Gartner’s “Market Share: Application Integration and Middleware and Portal Software, Worldwide” 2005

Source: Forrester Research ranking of Application Platform Servers, April 2005

Oracle’s People Advantage

- 30,000 applications customers
- 30,000 middleware customers
- 220,000 database customers
- 1700 application ISVs
- 5000 middleware ISVs
- 9000 database ISVs
- 35 Fusion strategy council members
- 275,000 customers benefiting from shared innovation
- 29,000 developers, support engineers and consultants
- 1300 participants in early customer adoption programs
- 950 customers participating in Customer Advisory Boards
- 500 Industry & Product strategy council members
- 425 user groups
- 30,000 middleware customers
- 220,000 database customers
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- 950 customers participating in Customer Advisory Boards
- 500 Industry & Product strategy council members
- 425 user groups
- 30,000 middleware customers
Agenda

- Leadership in Electronic Manufacturing Services (EMS)
- Increase Supply Chain Responsiveness
- Results Achieved by Oracle Customers
What Customers are Achieving in Creation of Supply Chain Responsiveness

used Oracle EBS shared services to reduce infrastructure cost by 60%

reduced inventory by 56%, improved shipping efficiency by 50% and reduced manufacturing lead-time from 12 to 5 days with ASCP, Collaborative Planning and Discrete Mfg

decreased time for ECN approval and implementation with PLM, Collaboration Suite and Product Data Hub

used ASCP and Oracle EBS to improve partner collaboration, optimize production lines and JIT scheduling

enabled real-time response to demand changes and accurate order promising using Oracle EBS & ASCP

implemented Oracle EBS to provide a global operations view, improve inventory turns and customer responsiveness
**Industry Quotes**

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<th>“Oracle’s High Tech Manufacturing team has packaged a product that exhibits depth of understanding of industry drivers for this segment.”</th>
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<td>IDC</td>
<td>“Oracle is well positioned to drive innovation to the high tech industry. The company’s belief that it needs to maintain leadership across the high tech sector in order to stay in touch with innovative manufacturing developments for the rest of its business helps ensure Oracle’s commitment to this industry.”</td>
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<td>AMR Research</td>
<td>“Oracle’s Shop Floor Management, ...bridges the gap between the ERP system and the MES applications. Oracle provides the support for complex shop-floor transactions and tracks yield and product genealogy by bringing in the WIP data from multiple sources into a single repository so companies can see inventories and account for the cost accumulation as it moves through the operation.”</td>
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<td>Forrester</td>
<td>“Oracle's strong middleware platform and greater support of standards make it a better choice than SAP for customers who will rely on custom development as well as packaged apps.”</td>
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The Oracle Difference

Only Oracle…

• Only enterprise software with integrated, real-time and operation planning

• Uniquely incorporates risk and uncertainty when determining inventory levels and locations

• Only enterprise solution that integrates real-time analytics with end to end purchasing solution