Oracle Supply Chain Management

• Introduction
• Supply Chain Management
• Cases

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Traditional Supply Chain Pressures

**Margin Pressure**
- Intensified Global Competition
- Limited Pricing Power
- Economic Uncertainty
- Shorter Product Lifecycles

**Customer Expectations**
- Product & Service Innovation
- Higher Quality, Rapid Delivery
- Channel Demand Variability
- Decreasing Customer Loyalty

**Response:**
*Automation*
Faster, Cheaper Processing
New Supply Chain Pressures

Margin Pressure
- Intensified Global Competition
- Limited Pricing Power
- Economic Uncertainty
- Shorter Product Lifecycles

Customer Expectations
- Product & Service Innovation
- Higher Quality, Rapid Delivery
- Channel Demand Variability
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Supply Chain Complexity
- Highly Customized Products
- More Global Supply Base
- Contract Mfg / Outsourcing
- Fragmented Supply Chains

Compliance & Risk Mgmt
- Corporate Governance
- Industry Mandates
- Communication Standards
- Environmental Responsibility

Your Company

Suppliers

Customers
Create New Challenges

*How Do I…*

... select the right balance between outsourcing and in-house production?

... structure pricing strategy to better shape product demand?

... deliver 100% perfect orders while still minimizing inventory?

... recall only contaminated lots while keeping good products on the shelf?

... deliver premium service to my top customers while containing cost?

... ensure service quality while relying on 3rd party service providers?

... comply with industry mandates such as RFID and still maintain margins?
Supply Chain Management

- New customer demands
- More reliable products <> less possibilities for service income
- More complex products <> Higher skilled people - higher costs
- Develop new service products
- Better resource utilization and better integrated value chains

Using Oracle planning tools for optimizing resources and spare parts
Information Promotes Collaboration

Suppliers
- Product Specifications
- Sales & Order Forecast
- Negotiations, Contracts
- Delivery Commitment
- Invoices & Payments
- Contract Manufacturing
- Carrier Bookings
- Drop Shipment
- Spares Replenishment
- Project Schedule

Your Company

Product Requirements
- Sales & Order Forecast
- Pricing & Promotions
- Orders
- Promise Dates
- Delivery Status
- Bill Presentment
- Payment
- Product Warranties
- Service Requests

Customers
However, There Are Obstacles…

- Disparate Systems, Processes, Technologies
- Fragmented Data in Information Silos
- Limited Partner Communications
Market Changes – New members in the Oracle Family

- Web Store
  - Broadvision
- Planning
  - i2
- Call Center
  - Siebel
- Procurement
  - Ariba
- Sourcing
  - Commerce One
- Barcoding
  - ClearOrbit
- Warehousing
  - IMI
- Maintenance
  - Indus
- Field Service
  - FieldCentrix
- Transportation
  - G-Log
- Core ERP
- Peoplesoft
- JDE
- Retek
Oracle’s Approach to Business Applications

Unique Information Architecture

- Start with leading business practices
- Build a robust suite of applications on a common data model
- Enable modular deployment by business flow
- Leverage open standards to promote integration and low-cost deployment
Supply Chain Footprint

**Product Development**
- Adv Product Catalog
- UCCnet Trading Connector
- CAD Sharing & Viewing
- Collaboration Suite
- Product Intelligence

**SC Planning**
- Collaborative Planning
- Demand Planning
- Advanced SC Planning
- Constraint Optimization
- Inventory Optimization
- Global Order Promising
- Exception Management
- Planning Intelligence

**Procurement**
- Sourcing
- Procurement Contracts
- iProcurement
- Services Procurement
- Purchasing
- Supplier Collaboration
- Oracle Supplier Network
- Receivables
- Payables
- Purchasing Intelligence

New in 11i.10
Supply Chain Footprint

**Manufacturing**
- Mfg Scheduling
- Discrete Manufacturing
- Flow / Lean Mfg
- Process Manufacturing
- Project Manufacturing
- Shop Floor Mgmt
- Mfg Intelligence

**Logistics**
- Inventory Management
- Mobile SC Apps
- Warehouse Mgmt
- Transportation Planning
- Transportation Exec
- Sensor Based Services
- Fulfillment Intelligence

**Service**
- iSupport
- TeleService
- Field Service
- Mobile Field Service
- Advanced Scheduler
- Spares Management
- Depot Repair
- Service Contracts
- Interaction Center
- Service Intelligence

**Maintenance**
- Enterprise Asset Mgmt
- Self-Service Work Reqs
- Property Manager
- Maintenance Intelligence

New in 11i.10
Information Drives Decision Making
Identify and Act Upon Improvement Opportunities

- Real-time updates on key performance indicators
- Complete information from summary to detail
- Information across all supply chain domains
- Presentation via role-based dashboards
- Internet browser-based delivery to your desktop
- Compare performance against different time periods and organizations
Oracle Advanced Planning

Complete e-business planning solution

- Supply Chain Intelligence (SCI)
- Sales and Operations Planning (SAP)
- Demand Planning (DP)
- Inventory Optimization (IO)
- Supply Chain and Manufacturing Planning (ASCP)
- Global Order Promising (GOP)
- Deployment Planning* (ASCP)
- Manufacturing Scheduling (MS)
- Transportation Planning (TP)
- SC Exception Management (CP)
- Collaborative Planning (CP)

From short-term to long-term

From detail to summary

* Future

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Traditional Approach

Multi-step planning processes, high latency, limited collaboration

• Response 1: Maintain Excess Inventory
• Response 2: Reserve Production Capacity

Supply Chains Built on INVENTORY
Move To A More Competitive Model

E-Business planning solution: zero latency, real-time collaboration

- Enable closed loop collaborative planning processes across your value chain
- Have complete supply chain visibility
- Make better decisions
- React immediately to disruptions in supply chain

Build a responsive Supply Chain on INFORMATION not inventory
• Powec – Norwegian based company bought by Power One
• Sell and produce power supplies and energy systems
• Started to implement a new manufacturing solution
• Focus changed to implement a new global Supply Chain Solution
Power-One Announces On-Time Z-One™ Digital IBA Production Release

FNP300 AC-DC Front End
Understand the advantages of a microcontroller-managed AC-DC front end

Z-One Digital IBA
Digitally integrated power management and conversion architecture dramatically simplifies power system development

Forza Power System
Forza Power System delivers up to 16kW from a single-shelf configuration

FNP300
Onboard microcontroller manages AC-DC front end and PC interface

AC-DC Power Supplies
(overview)
- Product Selector
- Download Data Sheets/App Notes by Part Number
- Board, chassis, & rack mount
- Modular high power products
- Battery chargers
- Cassette style
- DIN-rail mount
- CompactPCI
- Distributed power front ends

DC-DC Converters
(overview)
- Product Selector
- Download Data Sheets/App Notes by Part Number
- High density bricks (1/8 to full)
- maxyz IBA products
- Non-isolated SIPs
- Industry-standard board mount
- Rack, chassis, & DIN-rail mount
- Cassette style
- Compact PCI

DC Energy Systems
(overview)
- Product Selector
- Download Data Sheets/App Notes by Part Number
- Modular rectifiers
- System controllers
- Monitoring/Management software
- Power switches and switches
- Primary and secondary distribution
- Complete power systems

Admin | Resources | Universal Access
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Supply Chain Management – Vision Statement

• Provide Power-One with a competitive advantage by driving to the lowest cost and the shortest lead times.
• Building a cost effective Global Supply Chain by using Oracle planning tools, techniques and the right people.
• Be a part of our Customer’s Supply organization.
Energy Solutions - Supply Chain in Action

Move production from Norway to Far East
Global System Integration

- Deliver global product’s for global customer’s
  - “The customer shall not see the difference”
- Using Oracle Forecasting and Supply Chain Planning for Optimization
- One database for traceability
- One tool for recording serial number’s on deliveries
- Global distribution of documentation
- Can deliver from “anywhere” through our 3PL-partner
Power One using Oracle Advanced Planning for the Global Supply Chain

Complete e-business planning solution

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Inventory Postponement Optimization
Inventory Optimization

*Utilize Postponement to Support the Lean Enterprise*

- Determine Where to Hold Inventory to Guarantee a Desired Service Level
  - Manufacturing plants
  - Distribution centers
  - Central warehouses
- Determine What Stage of Production to Hold Inventory
  - Finished goods
  - Die bank
  - Wafers
- Postpone Value-Add Activities Until Actual Demand Pull
Inventory Postponement Optimization

Key capabilities

- Reduce inventory without sacrificing customer service
  - Postponement
- Manage supply chain variability
- Choose the best service level strategy based on cost and revenue
- Invest in profitable channels, products, and customers
- Manage seasonality and product life cycle characteristics
  - Recommend time-phased safety stock to supply planning
- Out-of-the-box optimization
  - For planners, not programmers
Reduce inventory without impacting customer service.
Simulate multiple scenarios to find the optimal trade-off between cost and service level.
Cambridge Silicon Radio

Revenues

17" 28’ 68’ 253’ (1000$)

Revenues 4times 2003
Market share of 50%
Shipped 50 million single chips Bluetooth devices

A Fabless Company
IPO
CSR listed on the London Stock Exchange under the symbol CSR on 2 March 2004. It was originally listed at an offer price of 200p per share, representing an initial market capitalisation of £240 million and was the most successful European IPO of 2004.

CSR's Offices
- Aalborg, Denmark
- Lund, Sweden
- Detroit, Michigan, USA
- Richardson, Texas, USA
- Cambridge, UK
- Corporate Headquarters
- Seoul, Korea
- Tokyo, Japan
- Taipei, Taiwan

Total number of employees: 316

Cambridge Silicon Radio
A brief introduction to CSR:

CSR designs and manufactures single-chip wireless devices. Our business started with a focus on solutions for the 2.4GHz Bluetooth® personal area networking standard; in November 2004, we entered the IEEE 802.11 marketplace - a family of wireless standards also referred to as 'Wi-Fi' or 'Wireless LAN' - with devices capable of operation in both the 2.4 and 5GHz frequency bands.

CSR's leading position in the Bluetooth business has been won by a unique approach to IC design based on extremely high levels of integration, providing compelling performance and cost advantages to OEMs. This brand ethos has been carried through to 802.11 applications, with an IC architecture that integrates a new level of functionality embracing all three major variants of the protocol (802.11a, b and g), and IC choices that offer solutions for both current applications, and emerging embedded applications in portable consumer electronics devices (including mobile phone handsets) and home appliances.

In the Bluetooth market, CSR is ranked #1 in every Bluetooth market segment with a unit market share in excess of 50%.
Industry Solution - High Tech: Semiconductor

Front-end Process:
- Raw Silicon Ingot
- Polished Wafer
- Fabricated Wafer
- Probed Wafer

Back-end Process:
- Wafer/Die
- Assembled Device
- Tested Device

Collaborative Planning Process:
- Marketing Forecast
- Sales Forecast
- Mfg Forecast
- Demand Planning Process
- Consensus Forecast
- Automated Exceptions

Collaborative Supply Planning Process:
- Single Holistic Plan
- Automated Exceptions
- t = hours

Suppliers:
- Suppliers

Customers:
- Customers
- Portal

Portal:
- Internet
- Collaborative Planning Process

Automated Exceptions:
- Automated Exceptions

Secondary Lead Frame
- Gold Wire
- Molding Compound
CSR – is using Oracle’s Sophisticated Planning tools to get full visibility of all goods in the whole and outsourced Global Supply Chain.