

SOFTWARE POWERS THE INTERNET


#1 in e-business

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B2B Collaborative Commerce
 e-Hub Exchanges

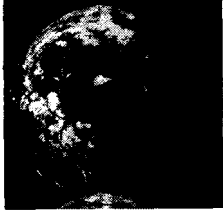
Session Agenda

- E-Business Economy - B2B
- What is C-Commerce?
 - Marketplace or Businessplace?
- C-Commerce Business Models
 - Horizontal, Industry, Private
- C-Commerce via Exchange Solution Models
 - Marketplace Exchange
 - Supply Chain Exchange
 - Product Development Exchange
- Integration is key... NOT Functionality

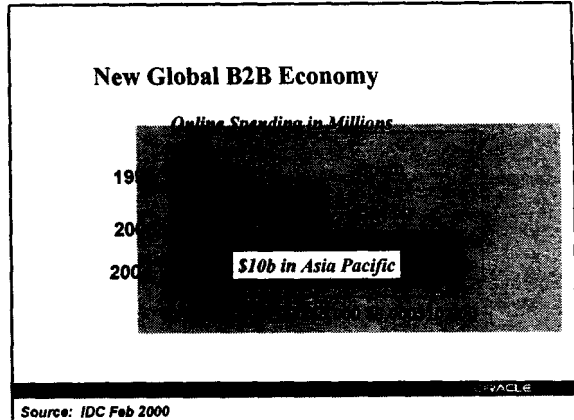
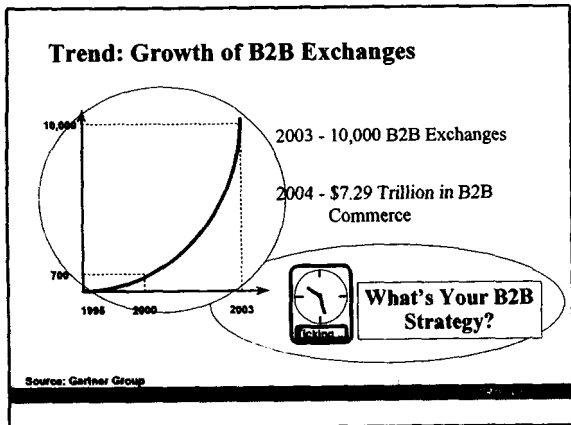


E-Business Economy

The Internet Changes Everything



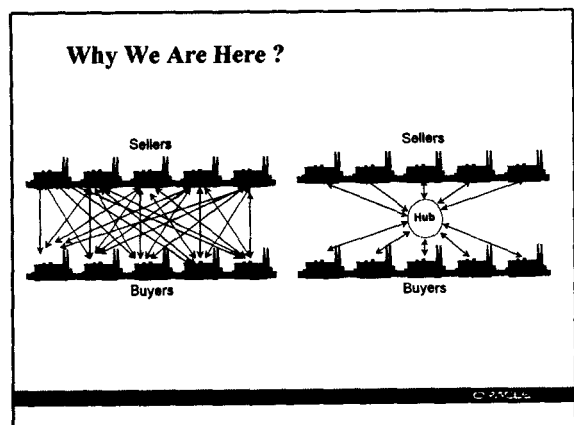
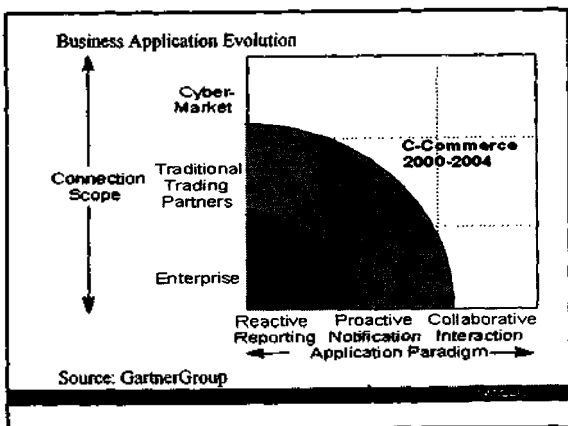
- Not just a new technology
- A new way of creating wealth



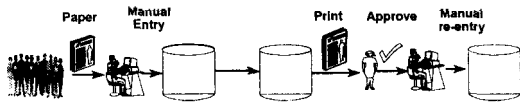
What is C-Commerce?

"The collaborative and fluid interaction of a community of personnel, business partners and customers that are joined together by the Internet, component and integration technologies, which result in agile but highly integrated 'virtual' multi-company enterprises."

Gartner Group, August 1999

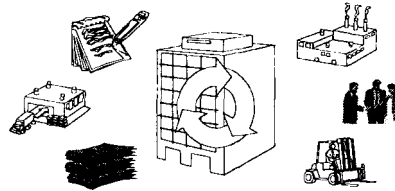


Today's Business



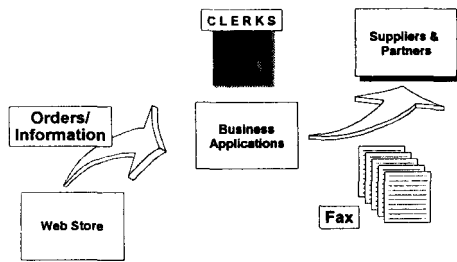
- Today's e-business will not be competitive
 - Inefficient Administrative Processes
 - Internally focused, not customer/supplier focused
 - Limited Business Intelligence
 - Local implementations, not global

Yesterday, Enterprise Efficiency

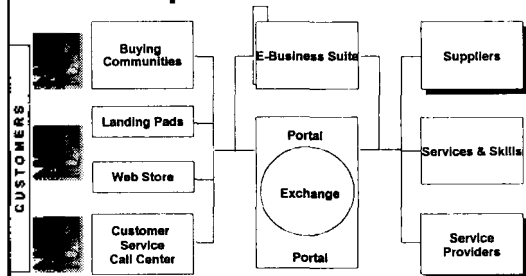


Closed Loop Internal Processes,
Poor Partner Coordination

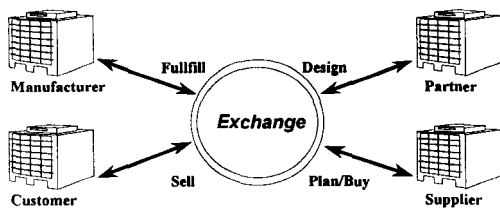
E-Business Is In Its Infancy



True E-Business Via Exchange Is The Next Step



Today, B2B Exchanges




Enter New Markets, Improve Sourcing,
Accelerate Innovation, Meet Customer Commitments

Marketplace
or
Businessplace?

B2B is Much More Than Just Buying and Selling...

Design Better Products	Supplier Tracking	Sell with Partners
Innovate Faster	Agree on Forecasts	Partner Marketing
Eliminate Expediting	Schedule Agreement	Jointly Service
Staff Projects	Inventory Planning	Reduce Time to Market

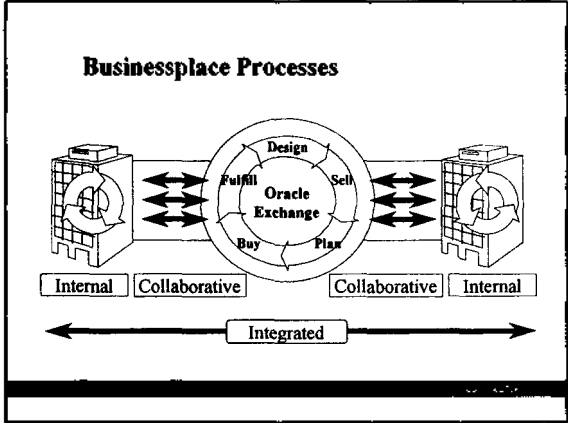
The Businessplace











Easy Access Through Personalized Portal

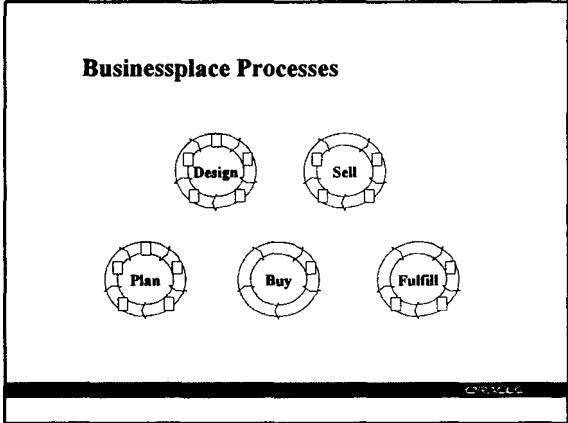
The Businessplace, Benefits

- Collaborative Business Processes on the Internet
- Leverage Internal Business Rules
- Integrate With New and Existing Systems
- Highly Personalized Portal Access



Businessplace Processes, An Example

 Set Business Goals	 Internal Step
 Design Product	 Collaborative Step
 Track & Approve Spending	
 Source through Auction	
 Evaluate Bids & Award	
 Share Business Documents	



Toward a Supplier Value Proposition?

- Collaborative exchange networks for supplier community
- Marketing, EPS, Market Maker, Growth Strategy, Etc

Problem	Action	Use of Exchange
Excess inventory	Need to sell product	Seller auction
Buyers need less	Need to redirect product	Search for another buyer in need
Buyers need more	Make or find more	Initiate buyer auction
Sometimes I can't produce	Find more or notify fast	Initiate buyer auction or send notification
I need to produce for the best buyers	Know who is best	Utilize business intelligence


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Toward a Buyer/Consumer Value Proposition?

- Collaboration, Fulfillment, VAOs, Etc.

Problem	Action	Use of Exchange
Producer has a variance	Find other sources	Search or buyer auction
Customers need less	Redirect product	Search for another buyer in need; seller auction
Customers need more	Find more or find more sources	Initiate buyer auction
I need to produce for the best buyers	Know who is best	Utilize business intelligence

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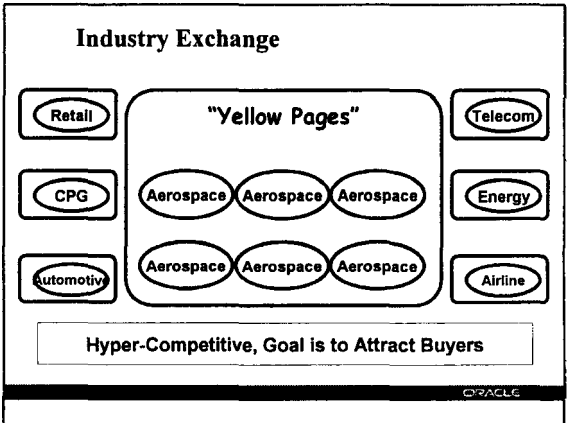
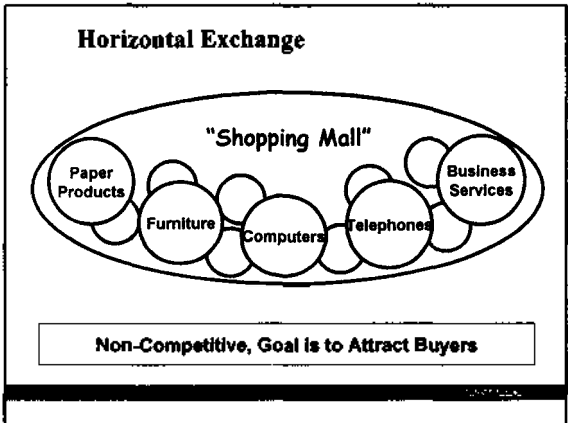
Collaborative Commerce Business Models

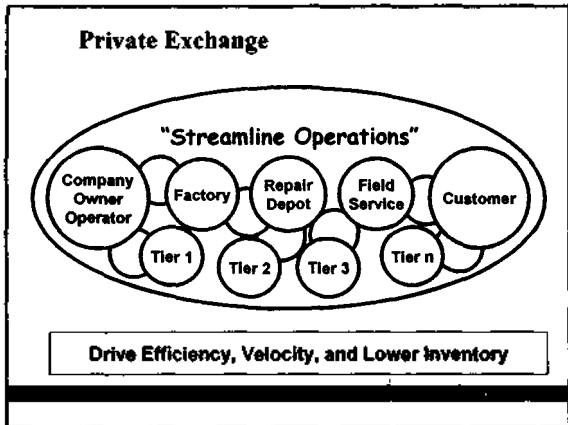
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Business Models

Horizontal Exchange	Industry Exchange	Private Exchange
Leverage existing customer base to offer B2B services	Bring together key companies in an industry	Bring together key trading partners of sponsor company
Usually buying and selling of indirect goods across many industries	Focus on design, plan, buy/sell and delivery within an industry	Focus on design, plan, buy/sell and delivery within a supply chain

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Model Comparison

	Horiz.	Industry	Private
Generate Revenue	✓	✓	
Reduce Costs	✓	✓	✓
Streamline Operations		✓	✓
Facilitate Collaboration		✓	✓
Aggregate Demand	✓		✓

Oracle Walk-In Exchange

www.OracleExchange.com
Global, Open, Horizontal, B2B Exchange

Buyers Save Money		Identify new source of supply <ul style="list-style-type: none"> • Create a reverse auction • Create online orders • Deliver orders to suppliers
Suppliers Sell More		Access new sales channel <ul style="list-style-type: none"> • Manage catalogs • Create seller auctions • Acknowledge orders

Oracle Private Exchange

Optimize Your Supply Chain

- Create/brand an exchange for your trading partners
- Put your demand and supply chains online
- Integrate with 3rd party applications

Reduce Costs, Lower Inventory, Speed Innovation

Oracle Industry Exchange

Create an Industry Exchange

Dot.com:	Leverage early mover advantage and neutral status
Head of Supply Chain:	Leverage buying power and clout with key suppliers
Consortium:	Join together with key buyers and suppliers in your industry

Launch a Revenue Generating Business

Oracle Industry Exchange

Participate in Larger Markets

Exchange	Industry	SC Spend
Auto-Xchange	Automotive	\$600B
GlobalNetXchange	Retail	\$175B
RetailersMarketXchange	Convenience Stores	\$200B
FP-Xchange	Forestry Products	\$600B
GlobalTransportXchange	Global Transport	\$600B
HomeBuildersXchange	Construction	\$250B

more ...


Collaborate with Trading Partners in Your Industry

Horizontal Exchange	
Customer Focus:	Greater China Region
Benefit:	Demand aggregation
Operator:	Cable & Wireless Hong Kong Telecom
Participants:	Greater China business community
Market Size:	Estimated \$1 trillion by 2004

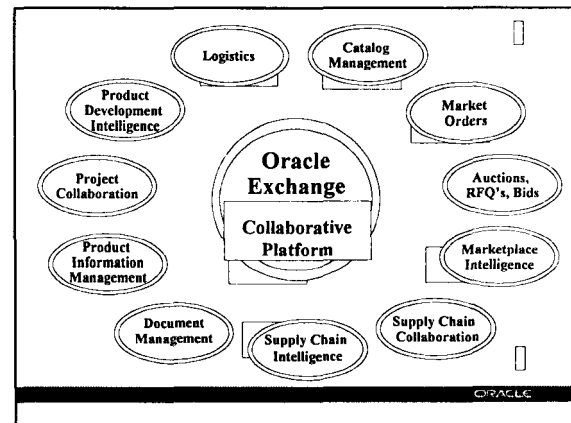
Industry Exchange	
<i>Retailers MarketXchange</i>	
Customer Focus:	Convenience Stores
Benefit:	Reduce costs and streamline operations
Operators:	Chevron, McLane's
Participants:	43,000 stores and customers
Market Size:	\$200 billion (US)

Industry Exchange	
<i>Way2Buy</i>	
Customer Focus:	Business-to-Government (B2G)
Benefit:	Reduce costs and streamline operations
Investors:	Kleiner, Perkins, Caufield and Byers
Participants:	Public schools, Government
Liquidity:	\$50 Million per Month

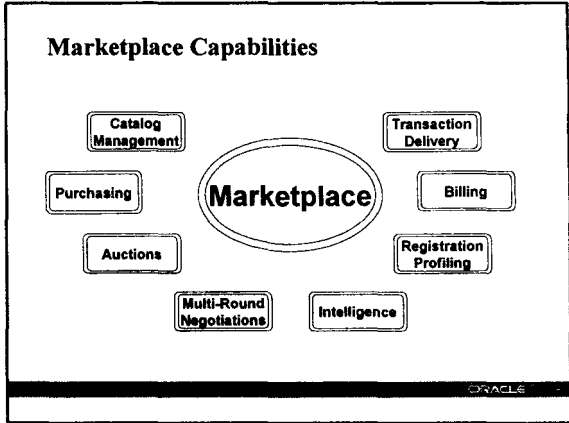
Private Exchange	
<i>auto-xchange</i>	
Customer Focus:	Automotive
Benefit:	Trading partner collaboration, streamline operations
Partner:	Ford Motor Company
Participants:	All tiers of Ford suppliers
Market Size:	Estimated over \$500 Billion



Collaborative Commerce via Exchange Solution Models



Marketplace Exchange



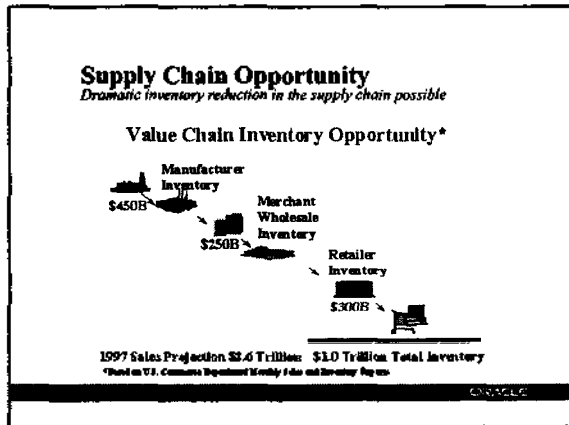
Marketplace Benefits

Operators <i>Create Efficient Markets</i>	<ul style="list-style-type: none"> Hosted offering Rapid time to market Self-service setup and maintenance
Buyers Save Money	<ul style="list-style-type: none"> Reduce supplier discovery costs Select suppliers for avail, quality, cost Reach market transparency
Suppliers Sell More	<ul style="list-style-type: none"> Decrease customer acquisition costs Access new sales channels Reduce cost of sales

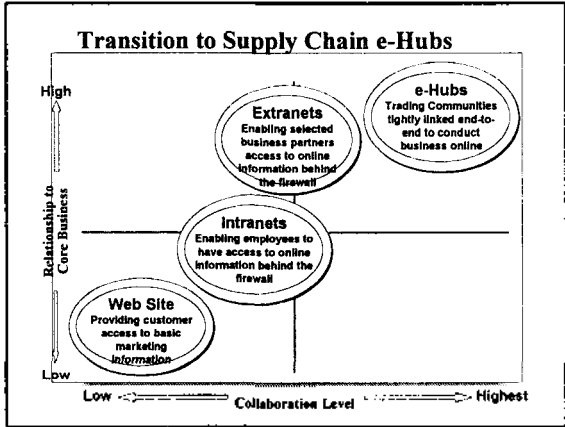
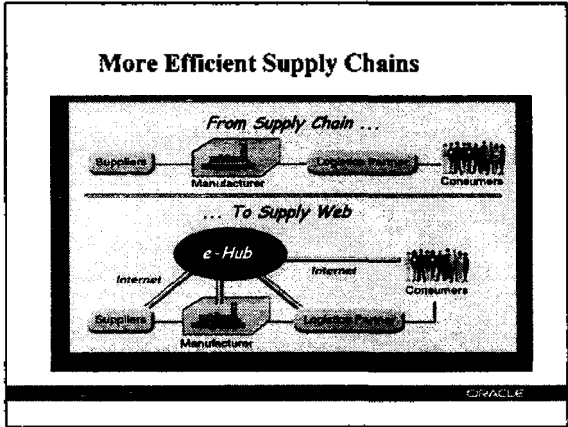
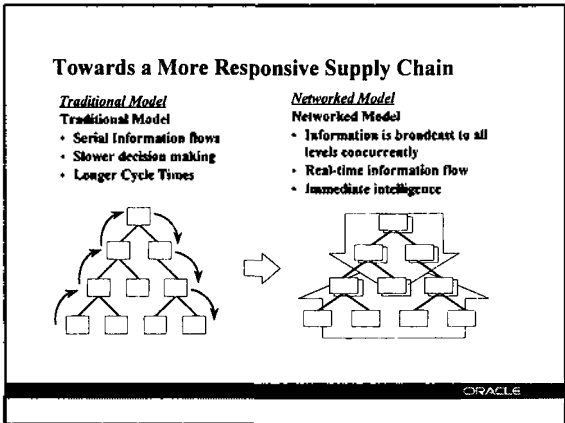
Supply Chain Exchange

The Internet Changes the Supply Chain

- Changing landscape**
 - Opens new markets
 - Eliminates barriers
- Competition mandates greater efficiency**
 - Shorter cycle times and lower costs
 - Move toward mass customization
- Focus on core competency**
 - Emergence of the "virtual corporation"
- Requires visibility and collaboration across the virtual supply chain**



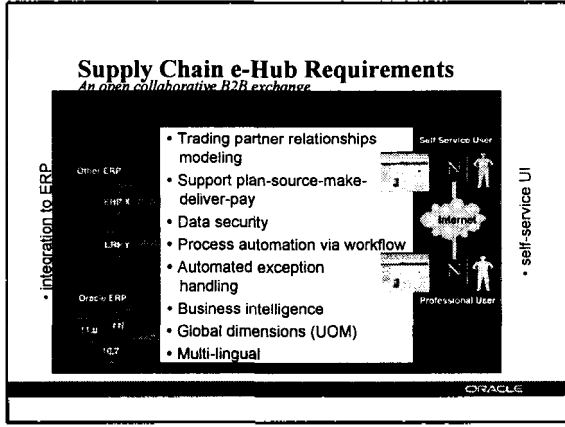
"The battle for market supremacy will not be between enterprises but between supply chains"
 - Prof. Hau Lee, Stanford



Benefits of Supply Chain e-Hubs

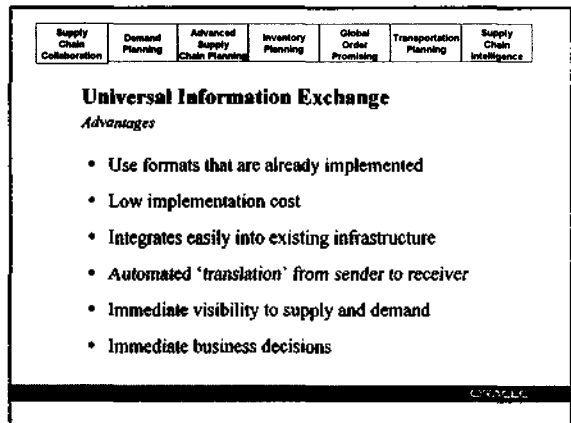
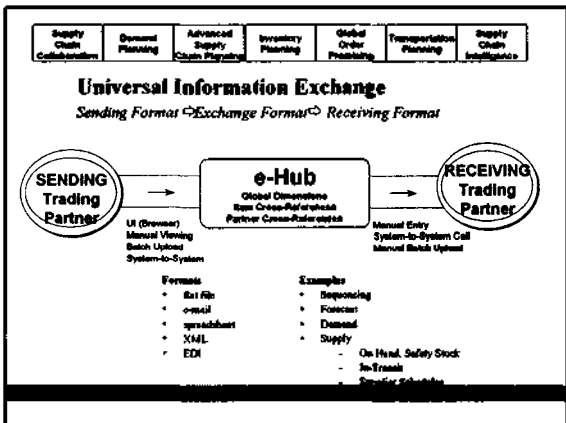
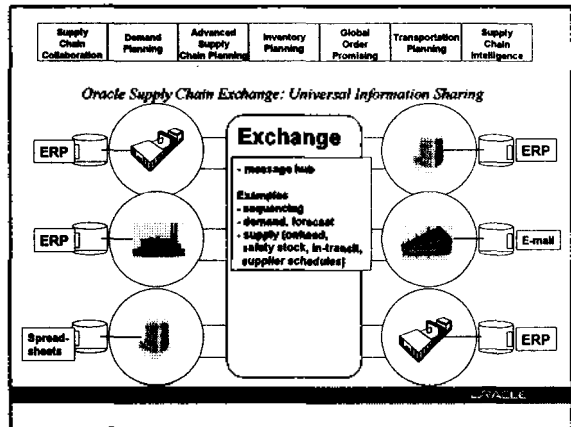
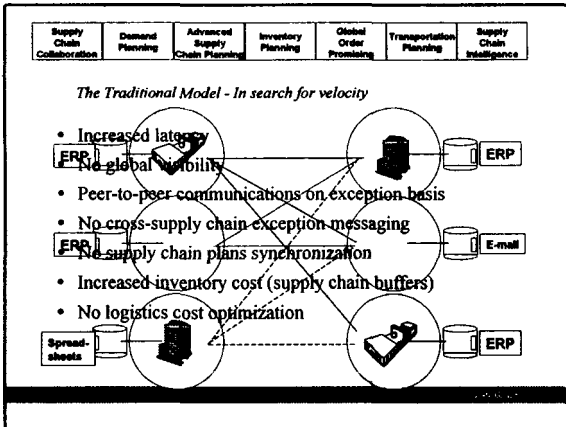
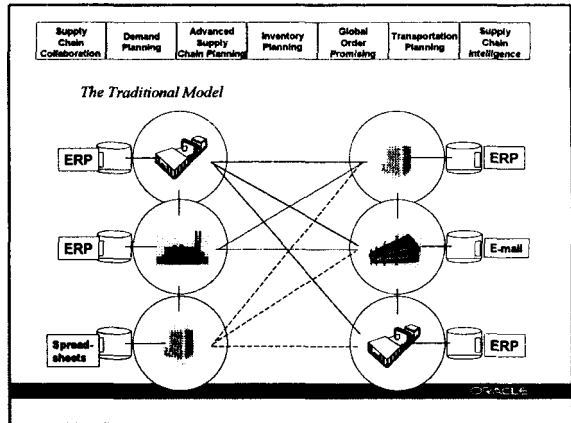
Benefit	How to Achieve	e-Hub Enabler
Reduce costs	Lower inventory levels	Share supply, demand, capacity, quality information
	Lower plant over-time	Share product data
Improve customer satisfaction	Enable mass customization	Faster visibility across all docs
	Enable faster fulfillment	Automatically identify and fix exceptions
	Reduce manufacturing and design lead time	Measure and improve supply chain performance

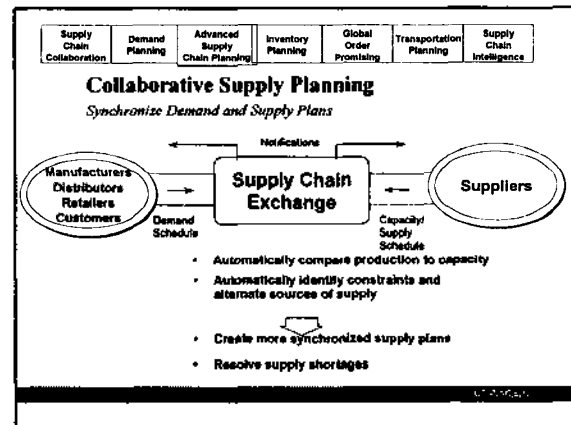
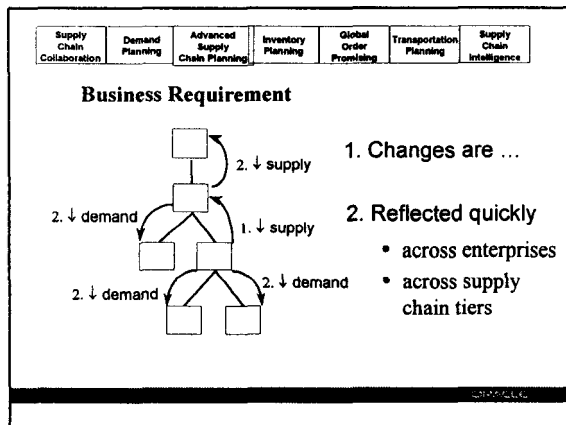
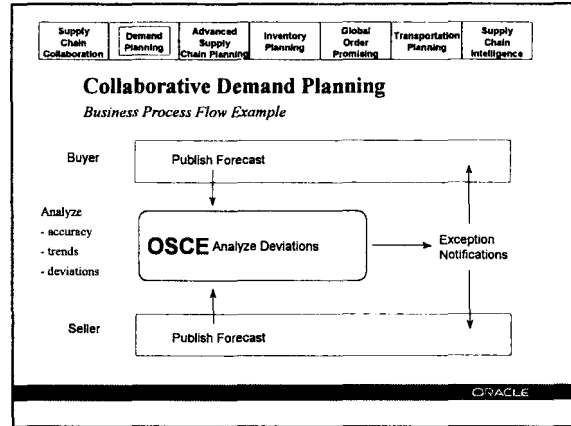
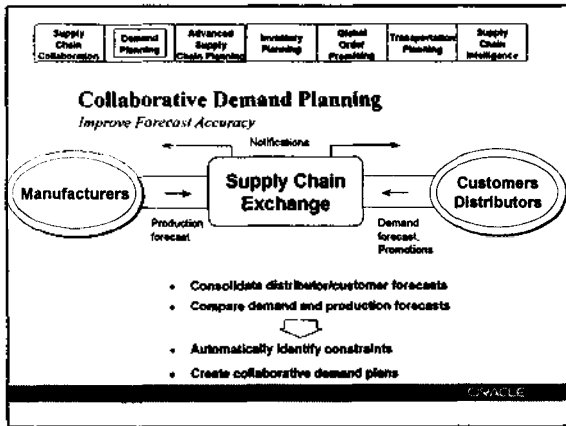
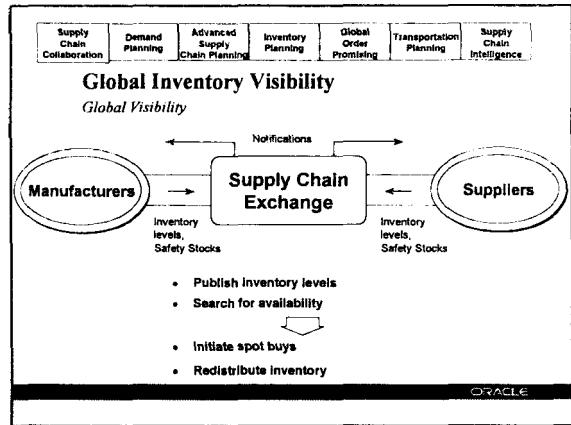
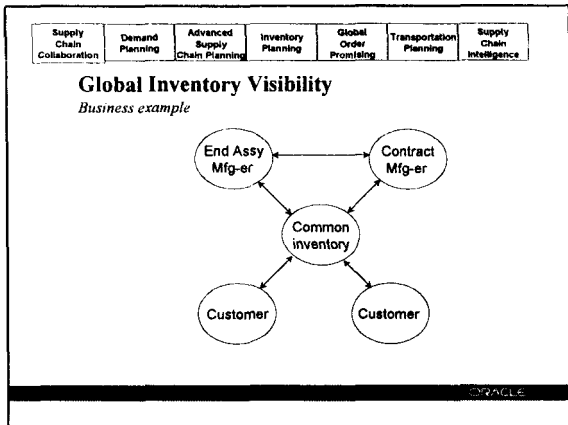
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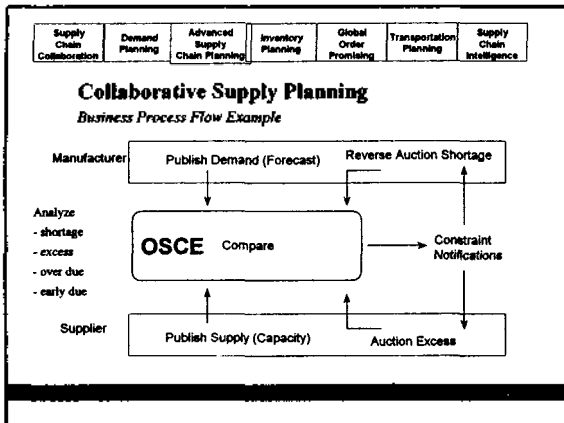


Supply Chain Exchange Foundation

Supply chain collaboration	Global visibility, workflow-based automation
Demand planning	Fast, collaborative forecasting
Supply chain planning	N-tier planning and optimization
Inventory planning	N-tier inventory planning and replenishment
Global order promising	Fast, accurate promise dates
Transportation planning	Cost-effective logistics planning
Supply chain intelligence	Measure performance of virtual chain








Supply Chain Collaboration	Demand Planning	Advanced Supply Chain Planning	Inventory Planning	Global Order Promising	Transportation Planning	Supply Chain Intelligence
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Holistic planning and optimization

- **All** supply chain locations
 - Including all enterprises in the extended value chain
- **All** materials and resources
- **All** time horizons
- **All** manufacturing methods
 - Discrete, Repetitive, Project, Flow, Process, A&D



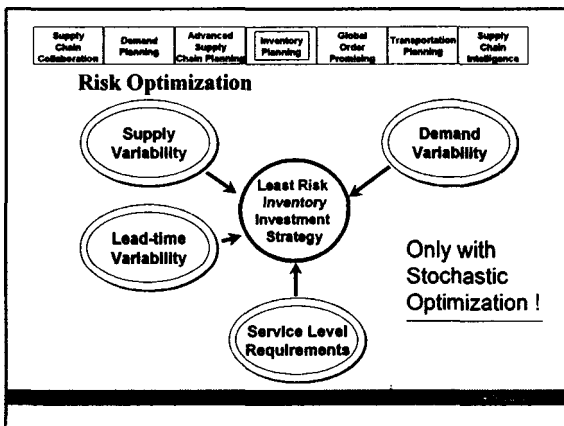
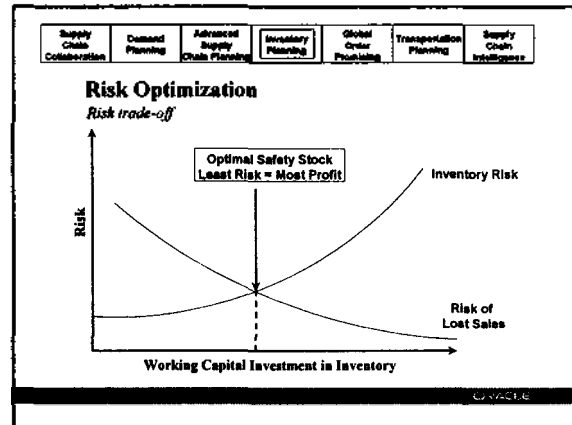
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Supply Chain Collaboration	Demand Planning	Advanced Supply Chain Planning	Inventory Planning	Global Order Promising	Transportation Planning	Supply Chain Intelligence
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Risk Optimization

Business Issues

- **Optimize inventory investment**
 - using stochastic optimization
- **Make inventory postponement decisions**
- **Make trade-offs between customer service levels and safety stock**
- **Determine long-term procurement budgets**
- **Identify strategic sources**



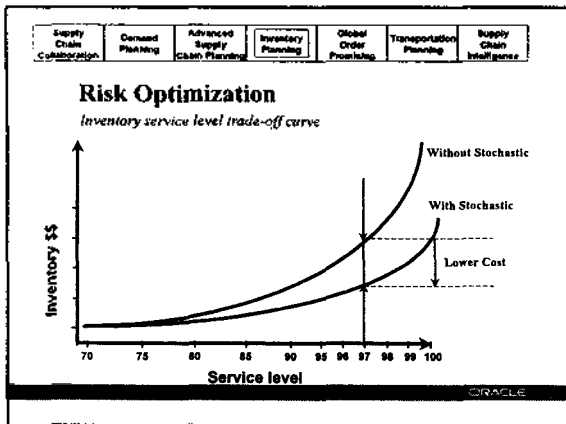
Supply Chain Collaboration	Demand Planning	Advanced Supply Chain Planning	Inventory Planning	Global Order Promising	Transportation Planning	Supply Chain Intelligence
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Risk Optimization

Strategic Inventory Planning using Stochastic Optimization

- Model supply, demand, lead time uncertainty
 - Fully integrated with Demand Planning and Business Intelligence
- Stochastic Optimization from Prof. Infanger, Stanford
- Calculate optimal time-phased safety stock
- Use strong simulation capabilities to:
 - Trade-off customer service and inventory levels
 - Calculate inventory investment to attain service levels
- Recommend inventory postponement strategies

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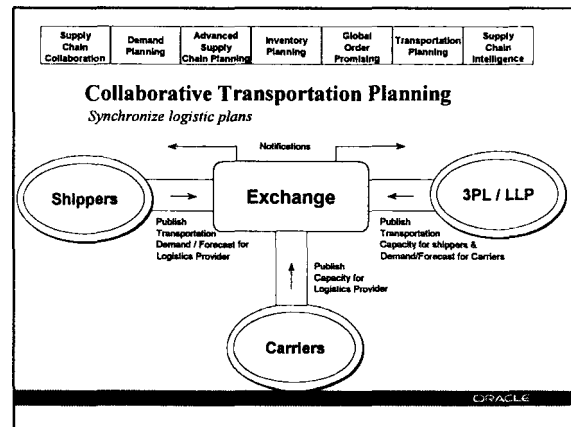
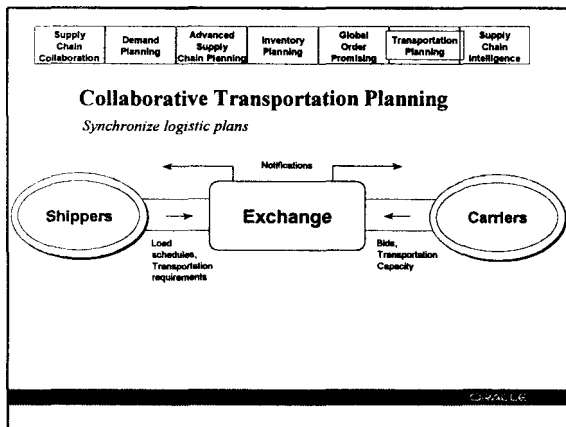
Supply Chain Collaboration	Demand Planning	Advanced Supply Chain Planning	Inventory Planning	Global Order Promising	Transportation Planning	Supply Chain Intelligence
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Global ATP Server Engine on Exchange

Benefits

- **Advanced global order promising**
 - Multi-level supply chain check for material, resource, and transportation (ATP, CTP, CTD)
 - Supplier capacity constraints
 - Customer/sales channel allocations
- **Global access**
 - Consolidated supply and demand
 - Access from multiple order entry systems, web stores
- **Speed**
 - Database centric architecture for scalability
 - Parallel processing

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Supply Chain Collaboration	Demand Planning	Advanced Supply Chain Planning	Inventory Planning	Global Order Promising	Transportation Planning	Supply Chain Intelligence
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Transportation Optimization

Business benefits

- Improve delivery performance
- Reduce profit margin percentage that is consumed with delivery of product
- Optimal utilization of transportation resources (load, time)
- Visibility to long-term transportation resource needs (vehicle fleet, people, bulk buying, contract negotiation)
- Consolidation opportunities (in-transit merge, lay-over, early delivery, continuous move)
- Decide transportation outsourcing

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Supply Chain Collaboration	Demand Planning	Advanced Supply Chain Planning	Inventory Planning	Global Order Promising	Transportation Planning	Supply Chain Intelligence
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Supply Chain Intelligence

Real-Time Collaboration Monitoring

- Feedback to drive effectiveness of supply chain collaboration
- Measure degree of agreement
 - number of exceptions
- Measure time to reach agreement
 - resolution latency


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Supply Chain Collaboration | Demand Planning | **Advanced Supply Chain Planning** | Inventory Planning | Global Order Promising | Transportation Planning | Supply Chain Intelligence

Advanced Supply Chain Intelligence

Enhance performance across virtual supply chain

- Performance management framework
 - Out of the box key performance indicators
 - Performance targets
 - Proactive exception notifications
- Pre-built intelligence reports
- Adhoc reporting capabilities



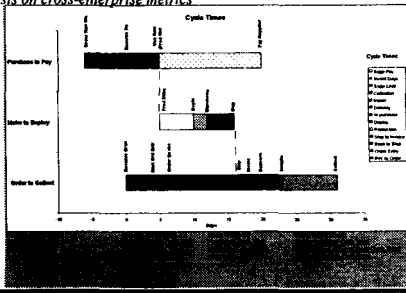
Supply Chain Collaboration | Demand Planning | **Advanced Supply Chain Planning** | Inventory Planning | Global Order Promising | Transportation Planning | Supply Chain Intelligence

Advanced Supply Chain Intelligence

Emphasis on cross-enterprise metrics

Ask Oracle:

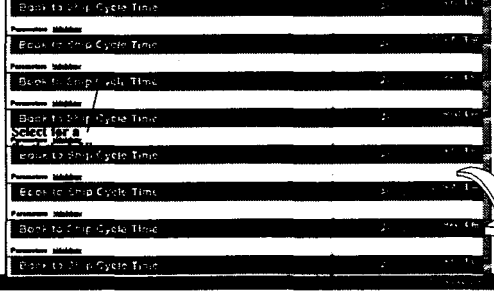
- What is the velocity of my entire supply chain?
- What are the areas of opportunity for speeding up my supply chain?



Supply Chain Collaboration | Demand Planning | **Advanced Supply Chain Planning** | Inventory Planning | Global Order Promising | Transportation Planning | Supply Chain Intelligence

Advanced Supply Chain Intelligence

Six-sigma enabled statistical intelligence (SsESI)



Six-sigma Enabled Statistical Intelligence Product (SsESI)

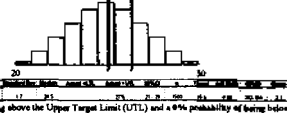
Set of Stock: Back to Ship Cycle Time Lower Target Limit: (Default will use F40)

Upper Target Limit: (Default will use F45)

Year: # of Days: (Blank will use Default value)

Area: Range From: To: (Blank will return values)

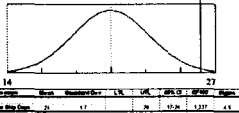
View By: Run



There is a 21% probability of being above the Upper Target Limit (UTL) and a 9% probability of being below the Lower Target Limit (LL). The overall risk of being outside of the Target Limits is 30%. (This is based on the assumption of Normal Data)

Statistics: Mean: Std Dev: (Estimation based on Mean and Standard Dev only)

What if the Mean was: Standard Deviation was: UTL was: LTL was:

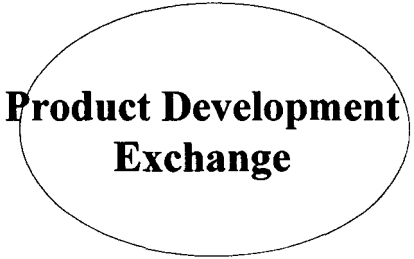


There is a 16% probability of being above the Upper Target Limit (UTL) and a 9% probability of being below the Lower Target Limit (LL). The overall risk of being outside of the Target Limits is 25%.

Conclusion

Supply Chain e-Hubs

- Complement existing infrastructure
- Enable unprecedented collaboration
 - Extend reach to all tiers
 - Enable closed loop collaboration processes
 - Synchronize multi-tiered supply chains
- Measure and improve supply chain performance



Product Development Landscape

- Demand for Better, Faster, Cheaper
- Project Oriented Environment
- Geographically Dispersed Development Teams
 - ASSP (Finland)
 - ASIC (SaaS Korea)
 - Memory (Japan)
 - Software (India)
- Cross Enterprise Development Teams
 - More Design Outsourced to Suppliers
 - More Design to Customer Order
- The Internet Changes Everything
 - Especially Cross Enterprise Project Management!

Yesterday, Product Development the old way - by phone, fax, email

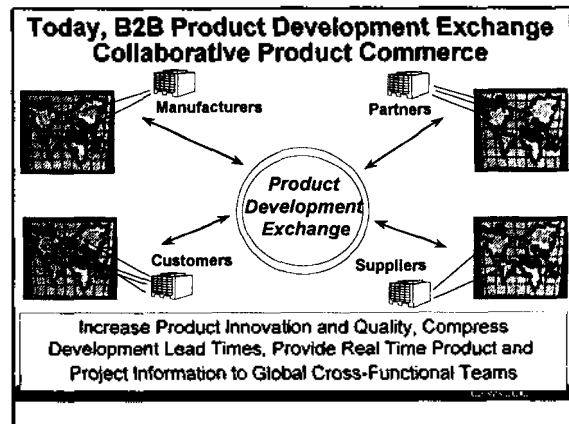
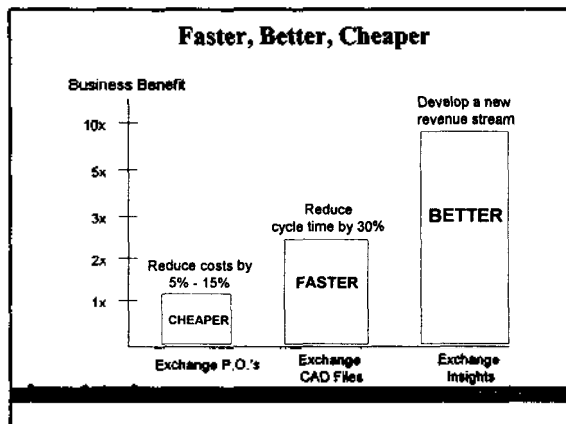
Closed Loop Internal Processes, Long Development Cycles, Poor Partner Coordination, Lack of Data Centralization

Oracle's Product Development Solution: OPDX

Product Development Exchange (OPDX)

OPDX provides a collaboration hub where global project teams can develop better products - faster and cheaper than the competition

- *Faster* - time to market
- *Better* - more competitive products
- *Cheaper* - overall development costs
- *Executive Visibility* - and participation
- *Secure* - intellectual property repository



Value Drivers

- Global Visibility of Product / Project Information
- Web Collaboration Tools
- Tools to Measure and Improve PD Performance
- Intellectual Capital Management

Oracle Differentiators

- E-Hub (Portal, EAI Tools, Web Platform)
- Integrated Marketplace and Supply Chain Mgt
- Internet File System (iFS)
- Integrated Project Collaboration
- Product Development Intelligence

Product Development Exchange (OPDX)

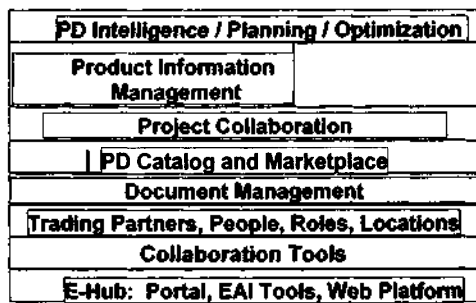
OPDX provides a collaboration hub where global project teams can develop better products - faster and cheaper than the competition

- Accelerate time to market
- Create better, more competitive products
- Provide executive visibility
- Preserve intellectual capital
- Reduce product development costs

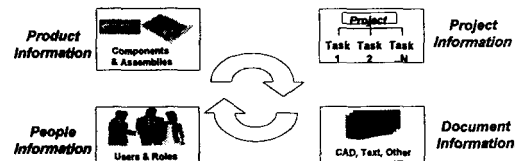
Oracle Product Development Exchange (OPDX) Solution

- E-Hub
 - Web Applications Platform
 - Oracle Portal and portal partners
 - EAI Tools
 - Role based security
 - Oracle Workflow
- Document Management
- Project Collaboration
- Product Information Management
- Oracle PD Intelligence / Planning / Optimization

OPDX Solution, cont.



Document Management



- Oracle 8i Database with IFS, Internet file system
- Structured/unstructured docs: MS Word, Excel, CAD,
- Parse, index, and store rich content
- Check in / out, revision control, categories, attributes
- Windows File Manager integration
- HTML user interface & .com web file system service

Project Collaboration

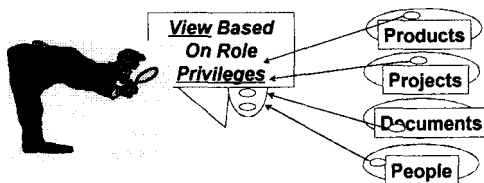


- Project information Management
 - People and roles, documents, item links
 - Unlimited WBS, change notification
- Project system upload / download
- Net Meetings
 - WebEx (Partial Oracle Ownership, Portal Partner)
- Collaborative View and Markup via web browser
 - Mechanical: ADRC, PTC, CATIA, etc...
 - Electrical: Cadencs, Menot, Synopsis, etc...

Project Collaboration

- Projects defined by Work Breakdown Structure (WBS)
 - WBS can be stored as "template" for reuse
 - Partnership with PRTM to implement "industry templates"
- Project Upload/Download from Microsoft Project
- Project tasks and status communicated over WEB
- Project Tasks Associated with Products, Documents, People

Role Based Security



- Complex searches, user specific views
- User defined roles with list of privileges
- Grant role to user for specific object instance
- Multiple roles per person, additive privilege list

Product Information Management

- Item Catalog with Role Based Security
- Text and Parametric Search
- Product Information
 - Attributes by Category
 - Issues/Requirements
 - Change Orders
 - Item Revisions
- Item & BOM Upload/Download to Popular CAD/PDM Applications
- Links to Projects, Documents, People

Product Information Management, cont.

- Product structure & "where used"
- "Stretch" viewer technology
- Change notifications
- Integrated CAD and document viewers

Notifications: Manage By Exception

- Subscribe to Notifications
 - Product Changes (specifications, etc.)
 - Project Changes (task status, slippage, etc.)
 - Document Changes (change, delete, etc.)
 - People Changes (PD team member changes)
- Automatically Alert Through:
 - Portal Page
 - E-Mail
 - Mobile Device (phone, pager, PDA)

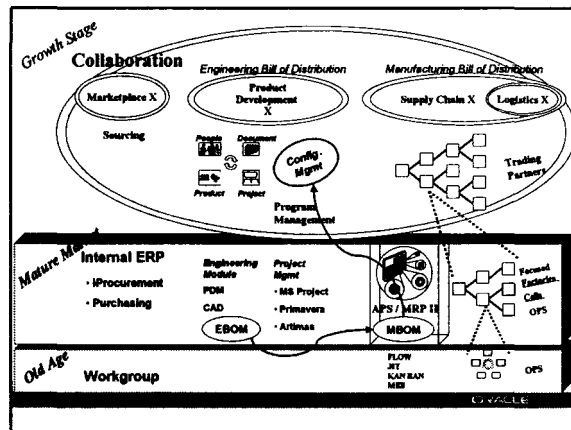
PD Intelligence / Planning / Optimization

- Performance Management Framework
 - Performance Targets and Tolerances
 - PDI Portlets and Home Page
 - Intelligence Reports and OLAP Views
 - Exception Notifications and Corrective Actions
- Pre-Built KPI's for:
 - Scheduling
 - Costs
 - ROI
 - Productivity
 - Quality assurance
 - Innovation
 - And More...
- Portfolio Planning and Optimization (future)

OPDX Benefits

- Manage all Product Information
- Manage all Project Information
- Manage all Document Information
- Manage all People Information (PD Teams)
- Associate:
 - Products/Projects/Documents/People
- Notifications: Manage by Exception
- Collaborative Meeting Space

**Clarification...
Delineation of Collaboration**



**Integration,
is key to collaboration...
NOT
Functionality**

The Expert's View


Regarding the Multi-Technology Vendor Approach:

"The key challenge is to overcome the integration complexities. The partnership is fragile. It's a pile of technology that won't easily be integrated by the vendors or users."
AMR, Sept 22, 2000

"80% chance the integration attempts will fail."

Gartner, Sept 27, 2000


Marketplace Integration



- Automatic auctions for sell-offs
- Automatic reverse auctions for shortages
- Shared sourcing - product catalogs
- Planning aggregated procurement
- Procurement available-to-promise

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Product Development Integration



- Shared parts catalog
- Phase-In/Phase-Outs
- Design schedules relate to demand and supply
- Timely forecast of new product introductions

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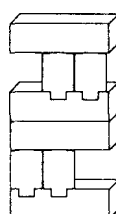
Logistics Integration



- Transportation capacity shortage and excess
- Share definition of routes and lanes
- Share definition of transportation capacity
- Share in-transit information

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Based On A Modular Architecture



- Open API Strategy
- Implement Based on Your Priorities
 - Product Development
 - Lead Management
 - Supply Chain Management
 - Procurement
 - Logistics
- Leverage Existing EAI Investment

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Based on XML Document Standards


- Support for OAG, RosettaNet
- Full Transaction Coverage

Procurement	Supply Chain	Accounting
Catalogs RFQ Orders (SO, PO) Acknowledgment Ship Notice Receipts Invoices Payments Customer ...	Forecasts Schedules Onhand Balances Shipments Capacity Engineering Changes Item Master Bills of Material Routing ...	Journals AP Invoices AR Invoices Payments Cash Applied ...

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Leverage Oracle Integration Technology

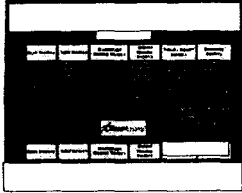
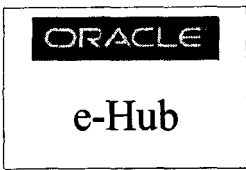
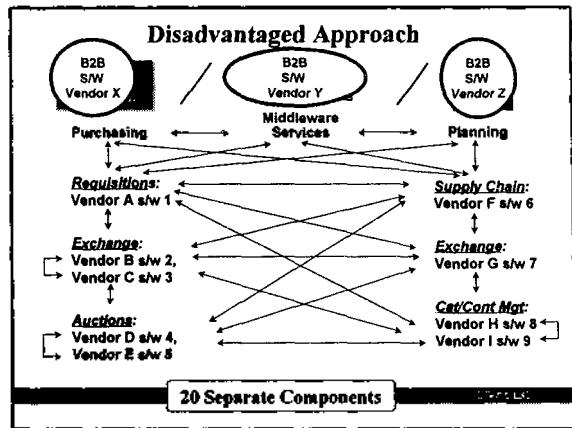
Complete Integration Solution



- Mappings
- Transforms
- Transport
- Queuing
- Workflow


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Why Oracle?
Single solution

The Future in Services?

- True mobility (anywhere, any time, any device)



Today:
Just Beginning to Explore New Mobility

SOFTWARE POWERS THE INTERNET™