History Of Collaborative Planning

• Began in 1996
  – Wal-Mart, Warner Lambert, Manugistics, SAP
  – Focus on improving forecasting for sales volumes
  – Began the evolution of CPFR by adding replenishment

• How it progressed
  – Began a rollout to the CPG/Grocery retail space
  – Issues focused around “in-stock” and sales volume
  – Adopted by the VIICS council and ECR as a standard
  – Followed by Rosetta-Net for high tech sector

• CPFR goes mainstream in 1998
  – Multiple industry vertical adoption
  – Crosses the manufacturer-retailer model to also focus on suppliers, dealers, customers…regardless of vertical industry
The Collaborate Opportunity
Internal and External to the Enterprise

Buy
Suppliers
Back Office
Manufacturing
Finance
Engineering

Move/Add Value

Collaboration

Front Office
Sales
Support/Service
Marketing

Sell
Customer & Channels

Demand Chain
Supply Chain
Front/Back Office Integration

Source: The Yankee Group
Collaboration Must Focus On Business Processes

- Supply & Materials Planning & Supplier Management
- Business Master Planning & Enterprise Operations
- Customer Expectation & Demand Management
- Strategic Planning
- Distribution & Transportation Management
- Visibility and Monitoring
- Integration Tool Kit
- Deployment Architecture
- Transactions & Information
Across Multi-Dimensional Planning and Operating Horizons
Delivering Continuous Improvement Through Business Planning, Management, Real Time Monitoring and Adaptive Planning

**Business Planning**
- Procurement Modeling
- Transportation Rate Management
- Manufacturing Modeling
- Network Modeling
- Supply Classification
- Demand Classification
- MRM

**Business Operations Management**
- Supplier Management
- SCM Supply
- SCM Demand
- Budget Optimization
- Global Logistics Management

**Business Execution Management**
- Electronic HUB
- Dynamic Proration
- ATP/CTP
- Catalog Admin
- Logistics Execution Management

- EDI
- RFID
- UUNet
- MES
- WMS
- RFID
- Cust Svc
- Consumption

Transaction Data (ERP), Maintenance Historical Data
Cost Accounting Data

- Supplier Management
- SCM Supply
- SCM Demand
- Budget Optimization
- Global Logistics Management

**Business Analytics**
- Collaboration
  - Supplier Management
  - SCM Supply
  - SCM Demand
  - Budget Optimization
  - Global Logistics Management

**Logistics Execution Management**
- Electronic HUB
- Dynamic Proration
- ATP/CTP
- Catalog Admin
- Logistics Execution Management

- EDI
- RFID
- UUNet
- MES
- WMS
- RFID
- Cust Svc
- Consumption

**Transaction Data (ERP), Maintenance Historical Data**
Cost Accounting Data
Examples Of Collaborative Planning

Commercial Sector

Aerospace & Department of Defense
Internet Dealer Collaboration

- Reduced vehicle inventory at the ports by over 90%
- Reduced operating costs associated with transporting vehicles to dealers by over $2 million
- Implemented a system that reduces order-to-delivery lead time by ~75%, while also allowing for vehicle customization up to 15 days prior to production
- Reduced age of vehicles from 164 to 37 days old
- Rolled out the system to dealers across the nation in less than 6 months
Canadian Tire Story-
Collaborative Commerce

- Implement a hosted web-enabled trading network in three weeks
- Improved partner relationship between retailer and suppliers through real-time collaboration process and shared information
- 20% increased in-stock positions with 15% reduced inventories
Case study: Compaq

- 100% Increase In Responsiveness, Improved On-Time Delivery
- Up to 50% Reductions In Raw Material Inventory
- Raw Material Inventory Reduced by $30M in 6 Months
- 50% Reduction in Forecast Change Response Time
- Improved Product End-of-Life Planning: Avoided $12M Obsolete Material Write-Down From A Single Product Line Phase-Out
Cisco’s eHub Changed The Model

Current Model

EM&A Hub

OEM
CM
Dist
OEM 1
OEM 2
OEM 3
OEM 4
Disti

OEM
CM
Dist
OEM
3PL
Carrier
For A&D It Means Enabling A New Operational Environment

- Access additional capabilities at each operating location to enhance planning, scheduling and operational capabilities
  - Integrate to legacy and MR&O installed solutions
  - Create a collaborative planning solution for connectivity and joint planning with suppliers, customers and business partners
  - Utilize constraint based time-phased planning for operational efficiency

- Connect “Enterprise” level planning to suppliers, depots and customers
  - Create collaborative planning environment
  - Utilize constraint based capabilities to increase service level improvements while optimally managing within budgetary constraints
  - Utilize collaborative weapon system life cycle management techniques to improve initial provisioning for retail and wholesale logistics execution
  - Reduce customer wait time and improve reliability
  - Use simulation and modeling for “what-if” analysis and situational awareness planning
Changing A Program Specific Supply Chain Environment

Boeing

SMART TRANS

Pratt & Whitney

Transportation Visibility and Control

Lockheed Martin

DLA

NAVSUP/ICP SMART ERP/APS

SAIC

• Enterprise Parts/Material Management
  - Predictive Forecasting
  - Distribution Planning
  - Allocation
  - Reverse logistics

Northrop Grumman

• Capacity Planning
• Buy vs Repair Analysis
• Logistics Management
• Supplier Relationship Mgmt
• Collaboration

Depot Maintenance

• Maintenance Planning & Preparation
• Asset & Configuration Management
• Resource planning & Scheduling
• Repair, Replace, Rebuild Management
• Maintenance Execution & Completion
• Financial Management
• Records Management

Line Maintenance

- OEM’s and Virtual Prime Vendors --
Into The Inter-Networked Enterprise Operating Environment

Maintenance, Repair, Overhaul and Recapitalization

- Collaborative planning & scheduling
  - Demand Management
  - Scheduling & Capacity Planning
  - Reporting and Analysis
  - Collaborative Planning
  - Integration Tool Kit
  - Simulation & Modeling

Operational Maintenance

- Demand Management
- Scheduling
- Reporting and Analysis
- Delivery Visibility

Enterprise Management

- Multi-site Planning and Scheduling
- Constraint Based Planning
- Multi-year Planning
  - Predictive Forecasting
  - Distribution Planning
  - Allocation
  - Reverse Logistics
- Surge & Sustainment
- Budget Planning

Distribution & Transportation Management

- OEM’s and Prime Vendor Supplier Community
- Collaborative Planning & Supplier Management

Forward Inventory Location
DLA’s BSM Program
Includes Customer And Supplier Focused Collaboration

Customer Segmentation & Collaboration
(Expectation Management)

Supplier and Inter Agency Collaboration

Customer Service
Demand Planning

Supply Planning
Supplier Mgt.

Aviation
Maritime
Land
Troop Support

Built on two premises...customer segment and planning via collaboration
NAVSUP’s STS Shipping Solution Creates Collaborative Visibility…
NDIA
Adapting Collaborative Commercial Techniques

Practices, Processes & Technology For The Aerospace and Defense Supply Chain

Jeff Holmes
SVP & President Government, Aerospace & Defense

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