Capturing the Value of the Extended Manufacturing Model

May 14, 2004

Archstone Introduction

Our focus allows us to gain deep insights into our clients' most complex and pressing business issues

Our People

- Our Principals and senior staff have joined us from AT Kearney, Deloitte Consulting, and other top-tier consulting firms
- We have joined together pioneers and experts in the areas of:
  - Supply Chain Management
  - Strategic Sourcing
  - Collaborative Value Chain
  - IT Strategy and Effectiveness
- We serve our clients from 4 primary office locations across the United States: San Francisco, Chicago, Stamford, and New York
- We have 20 Principals working with over 120 strategy and operations professionals

Our Practice Areas

Strategy and Operations Management

- Supply Chain Strategy and Execution
- Strategic Sourcing and Procurement
- Supplier Relationship Management
- Collaborative Value Chain
- Business Strategy
- Sales and Operations Planning
- Working Capital Management and Inventory Optimization
- Outsourcing and Shared Services

Information Technology Effectiveness

- IT Strategy and Effectiveness
- Technology Evaluation and Selection
- Telecommunications Strategy and Sourcing

Customer and Product Excellence

- Return on Marketing Investment
- Trade Account and Category Management
- Spend Effectiveness & Promotion Mgmt
- Direct Consumer Relationship Marketing
- Innovation and Product Lifecycle Mgmt

Our Industry Segments

Manufacturing

- Aerospace & Defense
- High Tech
- Automotive
- Process
- General Mfg

Consumer Products

- Apparel and Footwear
- Food and Beverage
- Consumer Durables
- Consumer Electronics
- Personal Care
- Tobacco

Consumer Services

- Media and Entertainment
- Retail

Life Sciences

- Bio Tech
- Pharmaceuticals

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A Definition

“Extended Manufacturing”

The practice of utilizing a variety of trading partners to provide some or all of a product’s value chain elements, including design, manufacture, warehousing, transportation, and replenishment.

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Key Considerations for Executives Struggling with Extended Manufacturing:

- How can I gain cost improvement benefits without sacrificing flexibility?
- How can I most effectively utilize information technology to improve speed in my value chain?
- How do I deal with frequent and disruptive changes in market demand, customer expectations, and supply challenges?
- How can I drive more value from already extensive investments in IT to support my value chain processes?
- How do I effectively link IT initiatives with any overall business objectives?

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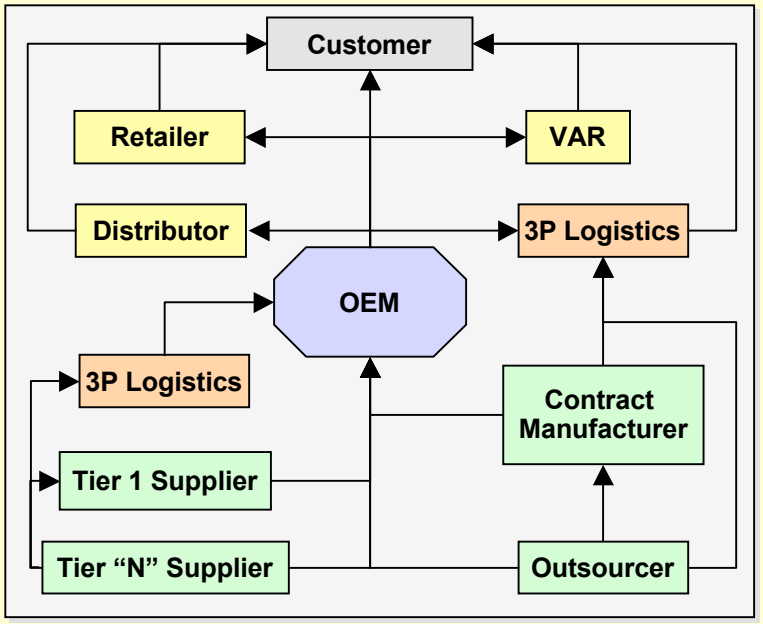
Using Information as the Differentiator: Extended Manufacturing Becomes: Extended Enterprise Management

Extended Enterprise Management



Merging of enterprise computing and information management with value chain performance management, driving business value wherever there are complex value chain interactions between trading partners or within a large organization. These complex interactions revolve around extended enterprise processes, where cooperation between trading partners or organizations within an enterprise is necessary to accomplish a business objective

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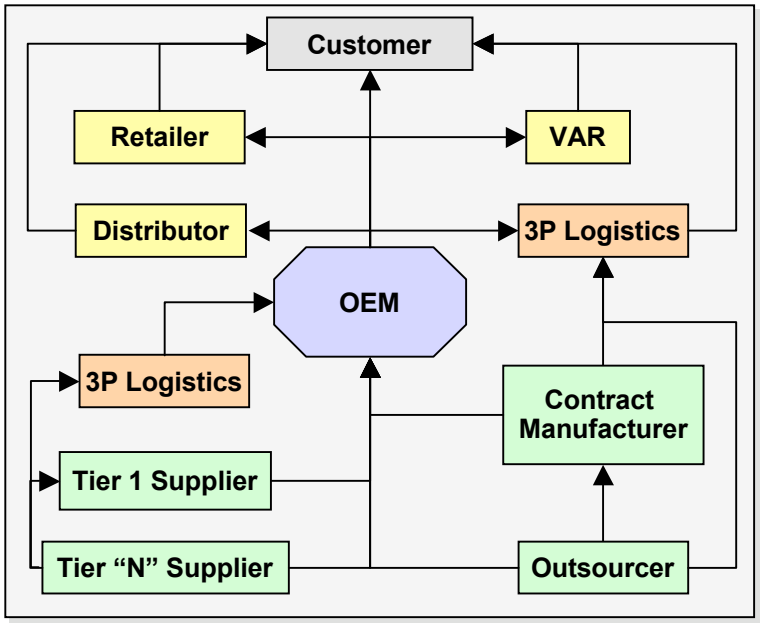
EEM Concerns:



- Lack of process discipline?
- Multiple, incompatible applications?
- Rapidly changing needs?
- Marketplace changing faster than technology deployments?
- Priorities unclear?

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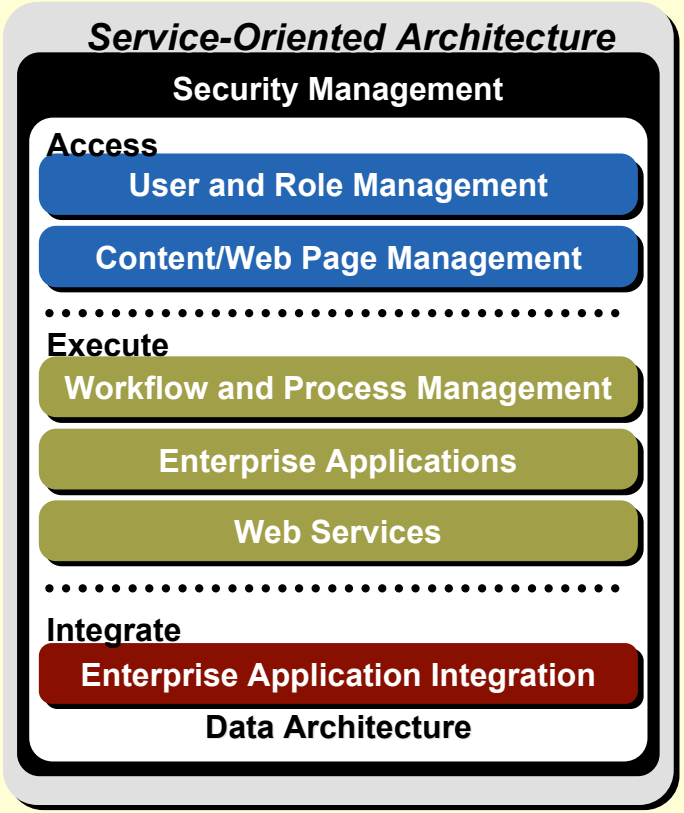
A Flexible, Fast Alternative



Service Oriented Architecture

- SOA provides the infrastructure for organization's systems to be agile in responding to changing business conditions, yet allows technical implementation details to remain transparent.
- From a business perspective, a Service Oriented Architecture affords an organization the flexibility to adapt as the business grows and as processes mature and evolve.
- At a technical level, an SOA provides a standard programming model that allows components to be published, discovered, and invoked over a network.

Utilizing a Service Oriented Architecture (SOA) structure to achieve EEM, companies will be to achieve the benefits of an integrated data model, with communication, decision making and information sharing between tools, without the cumbersome nature of an ERP, large platform-based infrastructure.

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Extended Enterprise Management Key Benefits: Delivering Business Capabilities supported by IT

- **EEM Functionality:**
  - Effectively connect with trading partners and manage complex value chain processes utilizing connectivity tools (middleware, portals, workflow, integration, etc.)
  - Create the ability to collect, manage and deliver information associated with specific value chain processes.
- **EEM Speed and Flexibility:**
  - Quick adaptation(30-90 day deployment cycles) to the changing business environment of tomorrow.
  - Once a process has been deployed via an SOA structure, changes can be quickly delivered.
  - EEM is a much more flexible view of how to access information, independent of any single enterprise software (or legacy software) tool.
- **EEM Cost:**
  - Drives IT costs down dramatically through the use of SOA to provide the basic information and connectivity bus.

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Requirements to create Strategic Value of a SOA to enable EEM

- **Several conditions must be met for a service-oriented architecture to be of strategic value:**
  - The architecture must enable the company's business model and respond to business priorities.
    - For example, a service-oriented architecture should look different if a business model is based on cost efficiency and standardization rather than flexibility and customer intimacy.
  - The architecture must enable IT's service delivery capabilities.
    - For example, a business requiring significant real-time decision-making capabilities must have an architecture capable of providing that service
  - The architecture must be adaptive, i.e., capable of anticipating and responding to changing business demands.
    - This is especially important in today's fast changing business environment.
  - The architecture must provide a marketplace advantage that can be capitalized upon, in terms of profitability, market share, flexibility, or any other parameter of strategic value to the enterprise.

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Conclusion

- **For many organizations, EEM represents an opportunity to gain control over their Extended Manufacturing Business Model.**
- **EEM has clear functionality, speed, flexibility, and cost savings advantages, however, requires significant change in how organizations think about and manages IT.**
- **Rethinking architecture, data management, security, even project management are all necessary if a company wants to reap the value associated with business connectivity.**
- **The characteristics for success are:**
  - Flexibility
  - Prioritization
  - True understanding of EEM processes
  - Strong commitment to success in a networked value chain

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