

Enterprise Application Integration



Integration means more today to a business than just linking applications together. EBI, EAI, EII, BLI and Content Integration are all terms we hear today when talking about integration.

They are a key set of integration strategies, concepts and approaches that form the foundation of new technology driven business opportunity such as e-commerce, grid computing and business intelligence.

Integration approaches appear that expose the enterprise to new opportunities not available before. Integration approaches that depend on web services, portals, leveraging legacy systems and data are emerging to focus on integrating business processes for improved performance and cost containment.

A key result of integrating mission critical applications is achieving a more flexible enterprise, one that is less expensive and easier to restructure than the existing enterprise.

This seminar presents the different integration approaches, architectures, methods and tools for achieving the degree of business and application integration to remain competitive.. Examples of each approach along with the type of tools now used for EAI are presented.

During this seminar, the relationship of various integration strategies is discussed and an Enterprise Application Integration methodology is defined with supporting methods for EAI major steps. Exercises performed at the end of key sections plus product demonstrations will give you a head start in framing an effective EAI solution or evaluating your current efforts.

The techniques presented in this seminar provide a staff the means to increase value by focusing effort on projects with realistic business yield and opportunity.

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Enterprise Application Integration

Course Outline

Section 1: Enterprise Application Integration Today

- Course Objectives and Structure
- The integration situation – Need, Opportunity and Value
- EAI Driving Forces
- The Integration Landscape
- Business and Technical Objectives
- About Enterprise Application Integration
- An Integration Methodology
- Where do you Start?

Exercise – The EAI Readiness Assessment

Section 2: The Enterprise Business Integration Approach (EBI)

- Business Integration
- Forces of Business Integration
- The Business Case for Business Integration
- Scope and Reach
- Logical versus Physical Integration
- Business Integration Strategies
- Integration Impacts

Exercise – Assessing Integration Posture

Section 3: The Enterprise Information Approach (EII)

- What is ‘Information Integration’?
- EII Architecture – what is different, the e-business view
- Intelligent Data and Information Retrieval
- Integration with Agents
- When to do EII – Outward Facing Business Strategies
- The Portal View

Demonstration – The Portal as Information Integration Tool

Section 4: The Enterprise Application Integration Approach

- The Architected Technique
- Enterprise and Model Driven Concepts
- Impact Assessment – Changes that bridge the gap
- EAI Focus – ERP, CRM, SCM, Legacy, Technology
- Disciplines - Warehousing, Operational Data Stores, Marts
- The Legacy Imperative

Exercise - Identify and Rank Integration Initiatives – The Plan

Section 5: EAI Approaches

- EAI Architecture: Components and Layers
- Data Level Integration
- Legacy Integration, Portals and XML
- Business Process and Logic Integration
- The Idea of Metadata
- Metadata and Integration
- Content, Documents and Knowledge Integration

Demonstration – An Integration Product

Section 6: EAI Requirements

- Identifying the Needs
- Data Requirements Analysis
- Process Requirements
- Data Delivery to Warehouses
- Content Integration Requirements
- Portal Requirements

Exercise – Developing Integration Requirements

Section 7: The EAI Project

- The Integration Project
- An EAI Methodology
- The Assessment Stage, Technical, Architecture, Functional
- Identifying Opportunities for Short term yield
- Deployment Issues (Sizing, Cost, Skills and Time)
- Infrastructure Planning and Architecture
- Best Practices for EAI and EAI Metrics

Exercise – The EAI Project Plan

Section 8: Data Integration Techniques

- The data archipelago
- Data Mapping - Sources and Targets
- Data Integration Issues...
- The ODS, Data Hub and Other Approaches
- A Data Integration Example
- Data and Metadata

Exercise – Source to Target Mapping

Section 9: The Service Oriented Architecture Approach

- The Service Oriented Architecture Concept
- Web Services
- Integration with Services
- The Impact of Services and a Services Example

Demonstration – A Metadata Product

Section 10: Legacy Systems and the XML Integration Technique

- XML Quick Overview
- The XML Architecture
- Application Integration with XML
- DBMS Concepts, Schemas, Metadata and XML
- Legacy to Web E-Business Approaches
- An XML Application Integration example

Demonstration – A Legacy - XML Integration Example

Section 11: Process and Logic Integration Technique

- Business, Process and Rule Integration Concepts
- Identifying Application Flow
- Creating Components
- Metadata for Business Logic
- Workflow and Integration Example

Exercise – Business Process Integration

Section 12: Portals and Integration

- Core Portal Concepts
- Portal Services for Integration
- Portals and Content Integration
- Portals and Process Integration
- A Portal Integration Example

Exercise – Content Integration Requirements

Section 13: Tool Selection and the Integration Approach

- A simple Selection Framework
- Architecture, Components and Purpose of Tool Types
- ETL, Middleware, Suites, Logic, Metadata tools
- Tool Environment Architecture and Methodology
- Tool Evaluation Checklists
- Standards - CORBA, SOAP, DCOM, XML JCA etc.

Exercise – Selecting a Tool to Fit Needs

Section 14: Types of Tools, Examples and Vendors

- Analysis tools
- ETL - Extraction, Transformation and Loading
- Metadata repositories
- Middleware tools
- Frontend Presentation
- Tool Suites
- Business Logic Tools
- Backend Data Management
- Tool Directions

Demonstration – Content Integration

Section 15: Issues, Trends and Wrap

- Integration Evolution
- What about Disintegration?
- Impact of Grid Computing and Components
- The Changing Role of Architecture
- The Role of Proliferating Integration Technology