

Rapid Enterprise Architecture Delivery Workshop

INTRODUCTION TO ENTERPRISE ARCHITECTURE, FOR MANAGERS AND IT

1-DAY OVERVIEW SEMINAR FOR BUSINESS MANAGERS AND IT STAFF ON ENTERPRISE ARCHITECTURE

RAPID DELIVERY METHODS FOR ENTERPRISE ARCHITECTURE

3-DAY WORKSHOP WITH INTERACTIVE TEAM SESSIONS TO FAST-TRACK TO ENTERPRISE ARCHITECTURE MATURITY

RAPID DELIVERY TECHNOLOGIES FOR ENTERPRISE ARCHITECTURE

1-DAY SEMINAR ON TECHNOLOGIES FOR RAPID DELIVERY INTO PRODUCTION

Developed by Clive Finkelstein

The MIT Sloan Center for Information Systems Research (CISR) in the USA conducted a survey of 456 enterprises between 1995 and 2006 on Enterprise Architecture. This identified four distinct architectural stages to Enterprise Architecture maturity:

- Stage 1: Business Silos
- Stage 2: Standardized Technology
- Stage 3: Standardized Processes
- Stage 4: Business Modularity

Business units and IT must pass through all four stages before the benefits of Enterprise Architecture and SOA can be fully realized. The MIT Sloan CISR says that: *“None of these stages can be skipped, but they can be speeded up. As most organizations are in the first or second stages, it will be years, perhaps decades before SOA is adopted in a truly effective way.”*

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- Learn how to evolve rapidly through the lower stages to achieve Stage 3 and Stage 4 ROI and benefits, with priority-standardized processes delivered into production for business modularity.
 - Learn how to achieve Enterprise Architecture maturity with rapid delivery of standardized, reusable processes in 3-month increments
 - Learn Rapid Delivery Methods for Enterprise Architecture successfully used world-wide by many Government and Corporate organizations
 - Learn Rapid Delivery Technologies using XML, Enterprise Application Integration (EAI), Web Services and Service Oriented Architecture (SOA)

AUDIENCE

Day 1 Audience

Day 1 is designed as a management introduction for attendance by CEOs, COOs, CFOs, CIOs, CTOs, Government Program Managers, Business Managers, Corporate Planners, Governance and Audit, Business Experts, IT Managers, Project Managers, Enterprise Architects.

Days 1 - 5 Audience

Days 1-5 are designed for attendance by CIOs, CTOs, Business Managers, Corporate Planners, Governance and Audit, Business Experts, IT Managers, Project Managers, Enterprise Architects, Systems Analysts

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DAY 1

INTRODUCTION TO ENTERPRISE ARCHITECTURE, FOR MANAGERS AND IT

Overview on Transforming Business Plans into Strategic Models for Rapid Delivery into Production of Priority, Reusable, Standardized Processes

1. STRATEGIC MODELING AND ENTERPRISE ARCHITECTURE MATURITY

This session introduces the concepts of Enterprise Architecture, the critical role of senior management participation and their vital strategic direction for achieving success

- Enterprise Architecture as Strategy: aligning the business and IT for successful implementation
- What are the implications and benefits of the four stages of Enterprise Architecture maturity?
- What are strategic models and how do you establish them for rapid EA delivery?
- How can Strategic Models be used to support Balanced Scorecard and Enterprise-Wide Transformation?

2. STRATEGY ANALYSIS INPUT TO STRATEGIC MODELING

This session covers the Strategy Analysis method for rapid definition and refinement of strategic and tactical business plans and program plans, and their incorporation in position descriptions for managers throughout an enterprise

- Gathering and interpreting existing plans and directions for implementation accountability at all management levels
- Analyzing the Perspectives of Planners and Owners to provide the basis for business transformation and implementation of Enterprise Architecture
- Enterprise Architecture as Strategy: aligning the business and IT for successful implementation

3. FACILITATED EXAMPLE – STRATEGIC MODELING FOR RAPID DELIVERY

This interactive session illustrates how to transform business plans into a strategic model used to identify reusable standardized processes and for development of a tailored Enterprise Architecture Portfolio Plan, for rapid delivery of priority processes into production as databases and systems in 3-month increments

- How to define an initial strategic model from business plans, as a "picture of the business"
- Transforming business plans into integrated databases and reusable standardized processes
- Analyzing and identifying priority standardized business processes from the strategic model
- Deriving project plans from strategic models for rapid delivery of priority standardized processes into production

4. IN-DEPTH CASE STUDIES – RAPID DELIVERY PROJECTS

Real-world examples of projects from Australia, Canada, South Korea and Kuwait are reviewed with emphasis on delivery of priority databases and standardized processes into production in 3-month increments

- Review of projects that applied these methods for rapid delivery of Enterprise Architecture Portfolio Plans over 15 – 20 days
- Overview of rapid development of Enterprise Architecture Portfolio Plans to achieve success of each project
- Review of Criteria for Success in each of these projects
- Review of potential failure issues to avoid in each of these projects
- Cost justification for long-term strategic planning and obtaining funding approval for Enterprise Architecture.

NOTE: Day 1 is a Prerequisite for Days 2-4 and Day 5

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DAYS 2 – 4

RAPID DELIVERY METHODS FOR ENTERPRISE ARCHITECTURE

3-day Masterclass skills-transfer Workshop on Rapid Delivery Methods for Integrated Data Models, Business Activities and Reusable, Standardized Business Processes

1. ENTERPRISE ARCHITECTURE FRAMEWORKS

Discusses the various Enterprise Architecture Frameworks: Federal Enterprise Architecture Framework (FEAF), Department of Defense Architecture Framework (DoDAF) and The Open Group Architecture Framework (TOGAF)

- How can the FEAF Reference Models, the DoD Architecture Framework and TOGAF use the rapid delivery EA methods in this workshop?
- What are Zachman Framework V2.0 (released 2008) and the Zachman Framework Standards?
- Discussion of Zachman Framework V3.0 (released 2011) and the Zachman Framework Standards? (in Reference ebook)

2. DRIVING INTEGRATION: BUSINESS-DRIVEN DATA MAPPING FOR EA

Covers the business -driven method to transform strategic and tactical business plans and program plans into business models for use as a rapid-delivery implementation roadmap

- Applying Enterprise Engineering disciplines and proven methodologies to develop a "picture of the business"
- Identifying standardized processes from data models
- Resolution of semantic issues and definition of agreed metadata for later rapid XML and SOA implementation.

3. BUSINESS NORMALIZATION TO IDENTIFY FUTURE NEEDS

Covers the method of Business Normalization that is used by business experts and IT staff in a joint design partnership, to identify future business needs

- Expand the strategic data model into tactical data models with required data attributes
- Learn how to identify further business data needs and standardized business processes that indicate business opportunities
- Learn methods and rules for business-model to systems-model transformations
- Identifying expert rules for dynamic management of expert systems and knowledge bases

4. STRATEGIC MODELING: INTERACTIVE WORKSHOP

In this Interactive workshop session, the initial Strategic Model developed in the Facilitated Example in Session 3 of Day 1 is expanded to greater strategic detail, as directed by the delegates acting as business experts

- Identifying additional data entities from strategic business plans and expert business knowledge
- Cross-checking and refining the strategic model based on expert business knowledge
- Identifying reusable business activities and standardized processes in the expanded strategic data model

5. DERIVING ENTERPRISE ARCHITECTURE PORTFOLIO PLANS FOR RAPID DELIVERY

This interactive workshop session shows how to derive the Enterprise Architecture Project Plan (EAPP) and prioritize implementation efforts based on data models, business plans and business rules

- Learn how to apply the Entity Dependency rules to derive project plans from data models
- Learn how to refine project scope and deliverables for rapid sub-project deliveries in 3-month increments
- Through hands-on workshop problems:
 - Learn how to derive and use project plans and project maps to achieve rapid portfolio alignment and integration, with rapid implementation delivery
 - Learn how to use project maps and project plans to identify weak business rules in the strategic model
 - Learn how to refine these weak rules for operational business success

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6. STANDARDIZED PROCESS OPPORTUNITIES, ROI AND COST ANALYSIS METHODS

Covers Activity Modeling and Activity Based Costing methods to analyze opportunities for standardized process improvement, cost effectiveness and Return on Investment

- Evaluating implementation alternatives for activities and reusable, standardized processes, presenting Enterprise Integration opportunities for dramatic ROI improvement
- Cost justification of Enterprise Architecture based on business activities and reusable, standardized processes, through rapid evolution to high-ROI stage of Enterprise Architecture Maturity – Stage 4: Business Modularity
- Review of Enterprise Architecture as Strategy: aligning the business and IT for successful implementation

7. DEFINE WORKFLOWS AND INTERFACE DESIGN

Covers Methods to implement reusable activities as standardized business processes

- Developing Workflow Models and interfaces from data models for priority standardized processes

8. IN-DEPTH WORKSHOP: TRANSFORMING FROM STRATEGIC DATA MODEL TO LOGICAL DATA MODEL

This interactive workshop session shows how to transform from tactical business plans for priority strategic data models to detailed logical data models for rapid design and delivery

- Identifying tactical data as a logical data model from tactical business plans
- Identifying tactical business processes from expert business knowledge
- Deriving project plans from the tactical data model for priority tactical business processes

9. IN-DEPTH WORKSHOP: VALIDATING STRATEGIC MODELING DELIVERABLES

A workshop session to review business transformation deliverables developed in earlier workshop sessions of the course for Enterprise Architecture completeness

- Determining Enterprise Architecture deliverables for governance alignment with standardized processes
- Documentation of Enterprise Architecture Portfolio Plan (EAPP) Report for rapid delivery of priority standardized processes and databases into production in 3-month increments

10. MANAGING & SUSTAINING ENTERPRISE ARCHITECTURE

Review session to assess Policies, Roles, Goals and Responsibilities and how Enterprise Architecture supports the management of Enterprise Change for the Future

- Establishing strategies for rapid implementation and evolution to Stage 3: Standardized Processes
- Sustaining executive involvement for evolution to Stage 4: Business Modularity
- Review of Governance Analysis Frameworks for Audit and Security Internal Control Reporting
- Review of how to use Enterprise Architecture to improve effectiveness; creating funding as a positive outcome
- Executive strategies to manage enterprise change and business-driven change on a large scale, with EA-led transformation

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DAY 5

RAPID DELIVERY TECHNOLOGIES FOR ENTERPRISE ARCHITECTURE

Using XML, Web Services, Enterprise Application Integration (EAI), Service Oriented Architecture (SOA) and Business Process Management (BPM) for Rapid Delivery into Production of Processes from Days 1-4

1. THE ROLE OF THE INTERNET AND XML IN ENTERPRISE INTEGRATION

Discusses Business-to-Business (B2B) issues of metadata in Enterprise Integration. Introduces the concepts of XML to communicate metadata and shows how some products achieve the transformation of metadata based on Extensible Style Language Transformation (XSLT). These concepts are used for integration by EAI, for Web Services and for Business Process Management (BPM) executable code for Service-Oriented Architecture (SOA) – all covered in later Sections.

2. EXTENSIBLE MARKUP LANGUAGE (XML) CONCEPTS

Data models defined using the methods of the previous four days represent metadata. This session covers the basic concepts of XML: the definition of XML Elements and Attributes; Document Type Declaration (DTD); and XML Schema Definition (XSD); which enable an enterprise to communicate its metadata to achieve enterprise integration. It introduces the concept of industry-standard XML languages for communication between businesses in the same industry.

3. EXTENSIBLE STYLE LANGUAGE (XSL) CONCEPTS

This session covers the detail of XSL as a programmable XML-based language for display formatting. Many examples are used to illustrate how an XSL Processor executes XSL elements (tags) that define processing logic. Business Process Execution Language (BPEL) – see Section 6 – uses this concept.

4. ENTERPRISE APPLICATION INTEGRATION (EAI) CONCEPTS

This session discusses Enterprise Application Integration (EAI) concepts, B2B Trading communities and XML messaging standards used also with SOA

- Reviews EAI approach used by ebXML for EDI
- Reviews EAI vendor strategies, products and associated technologies from webMethods, Microsoft, IBM and others.

5. WEB SERVICES CONCEPTS, PRODUCTS AND STRATEGIES

Introduces the concepts of Web Services, together with Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL) and Universal Description, Discovery and Integration (UDDI). Discusses different Web Services scenarios and market evolution of Web Services

- Examines the impact that Web Services have on existing EAI approaches
- Need for IT understanding of business issues

6. SERVICE-ORIENTED ARCHITECTURE (SOA) FOR WEB SERVICES

This session covers the concepts of SOA as a term that describes executable components – such as Web Services – that can be invoked by other programs that act as clients or consumers of those services. It discusses that Business Process Modeling Notation (BPMN) is used to generate executable SOA Languages as follows:

- Business Process Execution Language (BPEL)
- Business Process Modeling Language (BPML)
- Business Process Specification Schema (BPSS),
- Reviews Business Process Management (BPM) vendor strategies, products and associated technologies from Microsoft, IBM, Oracle, Software AG, and others

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COURSE DEVELOPER – CLIVE FINKELSTEIN

Clive Finkelstein is acknowledged worldwide as the "Father" of Information Engineering, and is Managing Director of Information Engineering Services Pty Ltd in Perth, Western Australia. He has over 50 years' experience in the Computer Industry. He has been a Fellow of the Australian Computer Society since 1972. He was inducted into the Pearcey Australian IT Hall of Fame in 2008. He has published many books and papers, and contributed Chapters and Forewords to books published by McGraw-Hill and Springer-Verlag. Clive has authored the following books:

- *"Information Engineering"*, Clive Finkelstein, Computerworld (USA), Framingham, MA (May – June 1981). This was a series of 6 InDepth articles as the first publication on Information Engineering.
- *"Information Engineering"*, James Martin and Clive Finkelstein, Savant Institute, Carnforth: Lancs UK (1981). *This was the book that started the Information Engineering Revolution in the 1980's.*
- *"An Introduction to Information Engineering: From Strategic Plans to Information Systems"*, Clive Finkelstein, Addison-Wesley, Sydney: Australia (1989). *This book covers the history and evolution of Information Engineering.*
- *"Information Engineering: Strategic Systems Development"*, Clive Finkelstein, Addison-Wesley, Sydney: Australia (1992). *This is the "how-to" book on using Information Engineering.*
- *"Building Corporate Portals with XML"*, Clive Finkelstein and Peter Aiken, McGraw-Hill New York: NY (2000). *This book covers methodologies and technologies for Enterprise Portals.*
- *"Enterprise Architecture for Integration: Rapid Delivery Methods and Technologies"*, First Edition, Clive Finkelstein, Artech House, Norwood MA (March 2006). *This is a hardcover, "how-to" book, which covers the rapid delivery methods and technologies for Enterprise Architecture.*
- *"Enterprise Architecture for Integration: Rapid Delivery Methods and Technologies"*, Second Edition, Clive Finkelstein, (June 2011). *This is an ebook, which covers the rapid delivery methods and technologies for EA.*
- *"Enterprise Architecture for Integration: Rapid Delivery Methods and Technologies"*, Third Edition, Clive Finkelstein, (2015). **This is a 520-page ebook, which is the reference for the course: it covers the rapid delivery methods and technologies for Enterprise Architecture. Download this in PDF from the IES website at: www.ies.aust.com/.**

This course presents an enhanced version of Information Engineering, called *"Enterprise Engineering"*, which was developed from 1995 for the rapid development and the delivery of Enterprise Architecture into production as databases and systems, in 3-month increments of increasing functionality.

Clive Finkelstein is an internationally renowned consultant and instructor, and has completed projects for Defence, Government and Commercial organizations throughout the world and in most industries. The emphasis of these projects has been to bridge from strategic business plans to information systems, so aligning systems closely with corporate goals. Many projects have involved the *Zachman Framework for Enterprise Architecture*, using the latest methods and technologies for rapid delivery of priority processes into production. These methods use Enterprise Engineering for rapid definition of Enterprise Architecture. His technology focus addresses Enterprise Integration technologies using XML, Enterprise Application Integration (EAI), Enterprise Portals, Web Services and Service-Oriented Architecture (SOA) for Business Process Management (BPM) using XML-based BPM languages.

His application of these methods in large and medium Government, Defense and Commercial enterprises results in *Business Transformation Enablement*, so that business and IT managers and their staffs can plan for and achieve rapid business change. Enterprise Architecture provides a Governance Analysis Framework that supports Sarbanes-Oxley and other Governance Audit requirements. It provides direct support and linkage to Balanced Scorecard for Strategy-Focused Organizations, to ensure that IT systems and databases support defined scorecard strategies and governance requirements for Enterprise Architecture maturity.

He provides training and consulting in all aspects of the Zachman Framework for Enterprise Architecture, with rapid delivery of standardized business processes using Enterprise Engineering. During implementation he also moves organizations to rapid implementation using XML, Enterprise Portals, Web Services, BPM and SOA. These provide a central gateway to the information and knowledge resources of an enterprise on its Intranet and via the Internet. Enterprise Architecture, Enterprise Portals, Web Services, SOA and BPM will be key development methods and delivery technologies for most enterprises in the 21st century.

Clive published a free, quarterly technology newsletter via email: *"The Enterprise Newsletter (TEN)"*. Past issues of TEN are available from: http://www.ies.aust.com/ten/TEN_index.htm. His books, papers and projects are also summarized on the IES web site at <http://www.ies.aust.com/cbfindex.htm>. He can be contacted at <clive.finkelstein@ies.aust.com>. Many in-house skills-transfer workshops, seminars and online webcast courses presented by Clive Finkelstein are available at <http://www.ies.aust.com/>.

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