SOA: The Next Generation

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BUSINESS DRIVERS
Agility & Resiliency in the Face of Frenetic Change

STATE OF THE MARKET

- **Dominated By Departmental Integration**

- **Sluggish Growth, But Improving**
  - J2EE ADOPTION
  - LOW-COST ALTERNATIVES
  - REGULATORY DRIVERS

- **Early Consolidation / Shake-out**
  - LOW REVENUE (< $100M) VENDORS WILL DISAPPEAR

- **Pent-up Demand**
  - J2EE CONVERSIONS
  - WEB SERVICES AND BPM
  - MARKET IMMATURITY

MARKET CONCERNS

- **66% Web Services**

- **56% Data and Semantic Integration**

- **55% BPM**

- **47% Enterprise Application Servers/Platform Suites**

- **41% BI/Performance Management**

- **41% Legacy Integration**

- **+ EII, EEM, ESB, BAM, BRM, BPO, RFID**

SOA HISTORY

- **CLIENT/SERVER ERA**
  - 2 TIER
  - CONFUSED MESSAGE
  - DATA ABSTRACTION

- **APPLICATION SERVER ERA**
  - 3 TIER
  - SCALABILITY KEY DRIVER
  - EARLY JAVA

- **SOA ERA**
  - GRANULARITY
  - SERVICES ABSTRACTION
  - WEB SERVICES

CURRENT STATE OF SOA

- **SOME MARKET CONFUSION**
  - DOES SOA = WEB SERVICES?
  - DOES ESB = SOA?

- **STANDARDS**
  - JAVA
  - XML
  - WEB SERVICES

- **CONVERTING APPLICATIONS TO SERVICES**
  - EXPOSE BUSINESS FUNCTIONS
  - MAKE LOOSELY COUPLED, DISTRIBUTED
  - *BUT* MAINTAIN INTEGRITY

CURRENT STATE OF SOA

- **MESSAGE and SERVICE RELIABILITY**

- **SERVICE PERFORMANCE**

- **SERVICE MANAGEMENT**

- **SECURITY**

- **SEMANTICS and META-DATA**

- **MULTI-SERVICE TRANSACTION SUPPORT**

- **BUSINESS TRANSACTION SUPPORT**

- **EVENT MANAGEMENT**

- **"PROCESS" SUPPORT**

THE SOA LESSON

Integration *Is* Development

AND

Development *Is* Integration

- **SOA Vision:**

  "INTEGRATED DEVELOPMENT AND INTEGRATION"

- **Benefits**
  - **DESIGN/ANALYSIS (25%)**
  - **DEVELOPMENT (83%)**
  - **TEST/DEBUG (50%)**
  - **DEPLOYMENT (33%)**
  - **MAINTENANCE (36%)**

THE SOA LESSON

Business _IS NOT_ I.T.

- **Next Generation SOA Vision:**

    "INTEGRATED BUSINESS AND I.T."

- **The Business / I.T. Communications Gap**
    - BUSINESS ACTIVITY?
    - BUSINESS SERVICE?
    - BUSINESS TRANSACTION?
    - BUSINESS PROCESS?

- **Reduce Costs and Time, Improve Alignment**

- **The Goal? Business Model Driven I.T.!**
    - BEYOND I.T. MODEL-DRIVEN DEVELOPMENT.

THE NEXT GENERATION

- **Business Rules**

- **Event Streams**

- **Business Transactions**

  - MULTI-ENTITY, RELIABLE, RECOVERABLE

  - COLLABORATIVE

- **Business Process**

  - NOT CHOREOGRAPHY OR WEB SERVICES ORCHESTRATION

  - NOT COORDINATION

- **An "Enterprise Services Fabric"**

(Business)

Services Orchestration Architecture

Questions?

Background

- **Dow Chemical, NASA, SRI International**
- **Founded Alternative Technologies, 1976**
  - FOCUS ON DISTRIBUTED, MISSION CRITICAL APPLICATIONS AND TOOLS
  - CONSULTING AND EDUCATION: END USERS & VENDORS
  - INDUSTRY ANALYST ACTIVITIES
  - PRODUCT POSITIONING AND CATEGORY CREATION
  - CTO SERVICES FOR START-UPS
- **1981 - First commercial relational packaged application:**
  - PROCESS AUTOMATION AND INTEGRATION
  - RULES BASED EVENT DRIVEN FACTORY SCHEDULING
  - 3-TIER CLIENT/SERVER ARCHITECTURE

Background

- **Highlights**
  - 1987: 1ST OO/RELATIONAL WALL STREET TRADING SYSTEM
  - 1988: 1ST DIGITAL TELEPHONY PROVISIONING DATABASE
  - 1988: 1ST SCHEMA-INDEPENDENT DATABASE API
  - 1990: CO-FOUNDED DATABASE ASSOCIATES (WITH COLIN WHITE)
  - 1990 – 1997: DATABASE PRODUCT EVALUATION REPORTS
  - 1992: 1ST MIDDLEWARE ANALYST REPORT
  - 1994: VIEW UPDATING AND DB DESIGN RULES
  - 1997– 1998: INTRODUCED BPM/BPMS (HP CHANGENGINE)
  - 1998 – 1999: eAI JOURNAL, EIC, 1ST INDEPENDENT EAI CONFERENCE

- **Key Subject Areas**
  - DATABASE, CLIENT/SERVER, MIDDLEWARE, DATA INTEGRATION & PUB/SUB REPLICATION, BUSINESS INTELLIGENCE, DATA WAREHOUSE
  - APPLICATION INTEGRATION, PROCESS INTEGRATION, BUSINESS PROCESS MANAGEMENT

BACKGROUND

- ## REPRESENTATIVE CLIENTS
  - DEC, IBM, CA, HP, SYBASE, ORACLE, MICROSOFT, CANDLE
  - USWEST, SBC, ATT, BLUE CROSS, JOHN HANCOCK, LEHMAN BROTHERS, GOLDMAN SACHS, US SSA, TCI, PMSC

- ## IBM RELATIONSHIP HIGHLIGHTS
  - 1984 – PRESENT: INDEPENDENT ANALYST BRIEFINGS
  - 1988 – PRESENT: DB2 PRODUCT CONSULTING, VARIOUS WHITE PAPERS
  - 1997: ETI RELATIONSHIP
  - 1997: GOLD CONSULTANT (BOTH DB2 AND WEBSPHERE)
  - 1999 – 2000: BPM STRATEGY / WEBSPHERE B2B INTEGRATOR / HOLOSOFX ACQUISITION