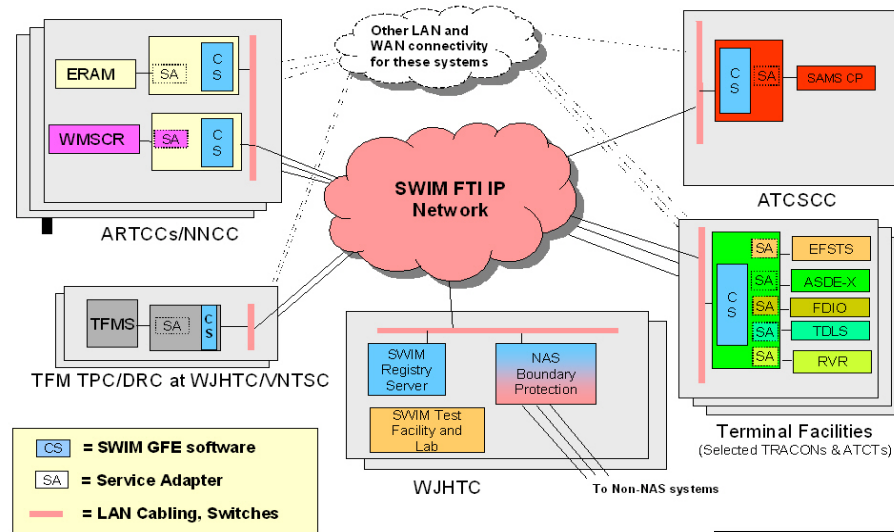


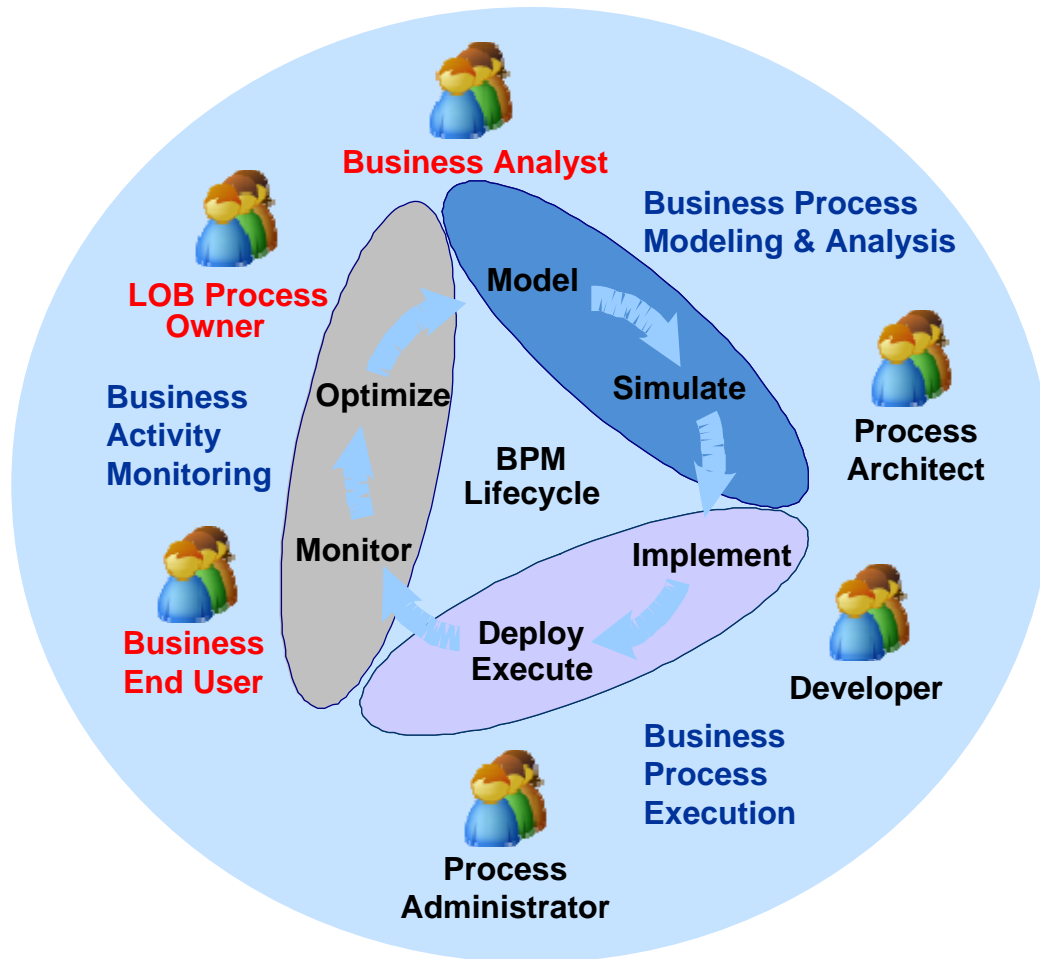
SOA Best Practices for FAA SWIM Industry Recommendations



Michael Yeganeh
Technology Director
Oracle Corporation Public Sector
Representing:
GEIA Industry SOA Working Group

Organization	Participants
Oracle	Steve Prescott Mike Yeganeh Thani Sokka Jim Simmons
Lockheed Martin	Al Secen
Computer Sciences Corp.	Vic Church
Boeing	Sherry Yang
Harris	John Dockendorf Keith Bourke
IBM	Chris Hulett Mike Moomaw
Raytheon	Eric Rolfe Ed Stevens
SITA	Kathy Kearns Mansour Rezaei-Mazinani
Nortel	Steve McAllister

5.2 BPM Lifecycle



Collaboration of Business and IT

✓ **Business Process Owners**

Set objectives and policies

✓ **Business Analysts**

Modeling and analyze processes

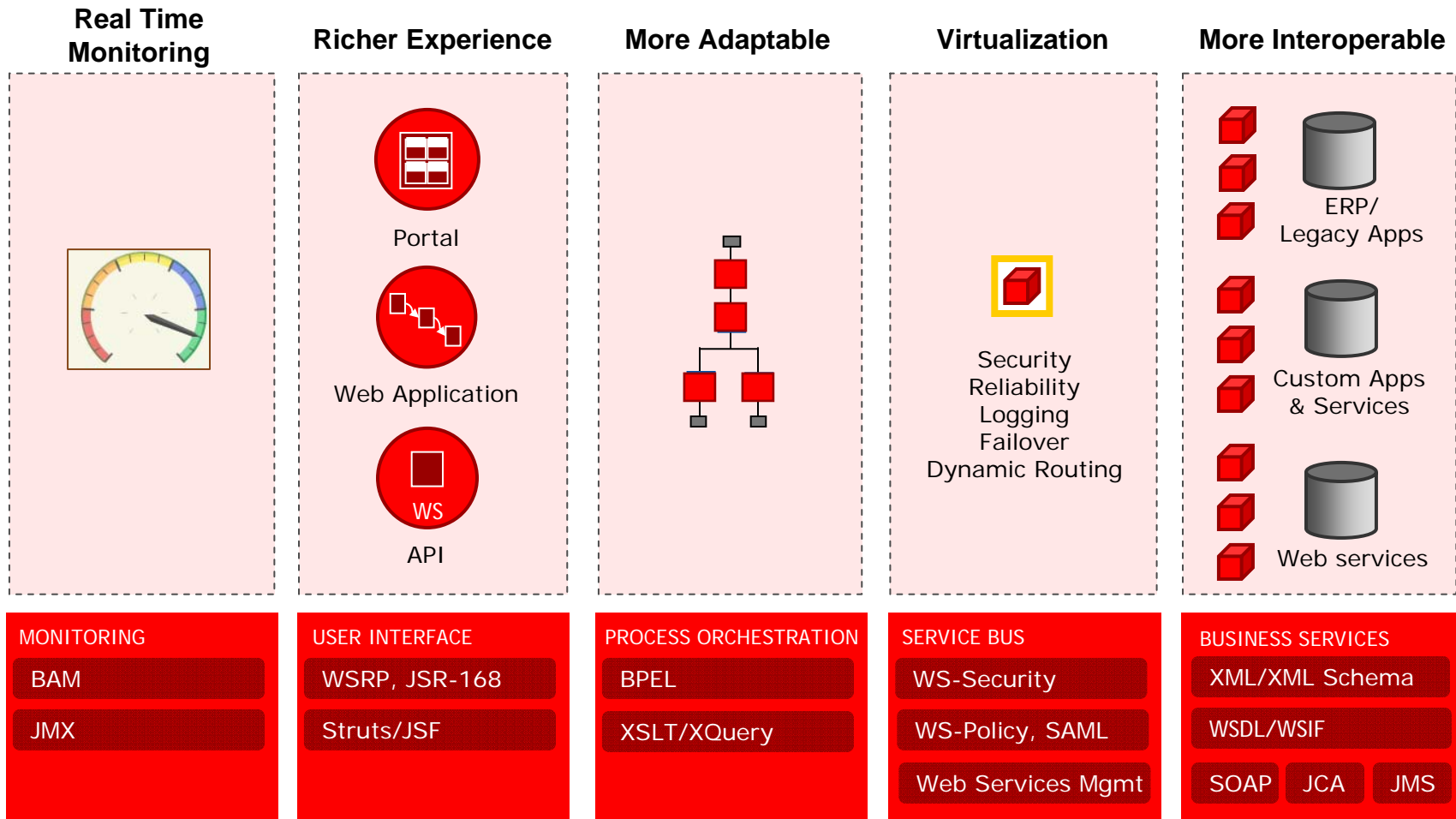
✓ **IT Architects and Developers**

Build, deploy and administer processes

✓ **Business Users**

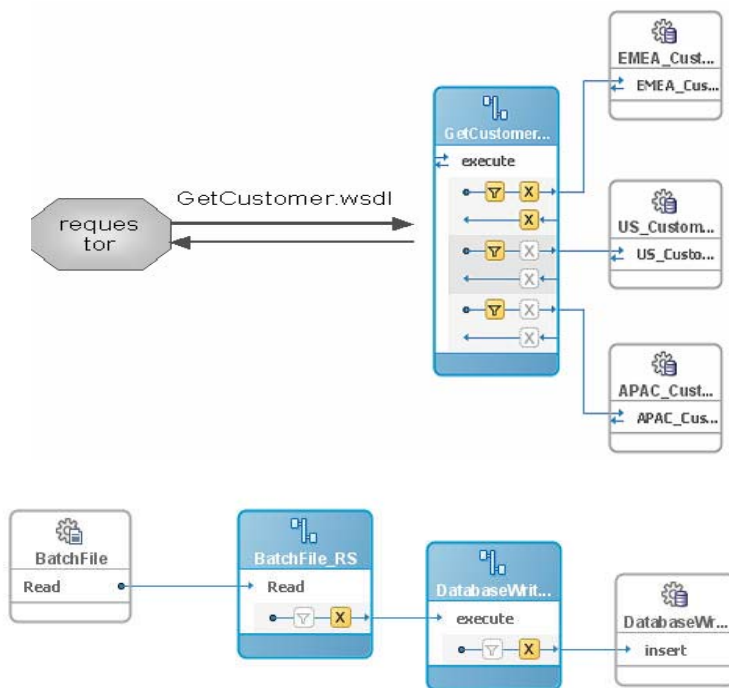
Operate and monitor processes – focusing on improving efficiency and identifying bottlenecks

5.4,5 SOA Standards and Design Patterns



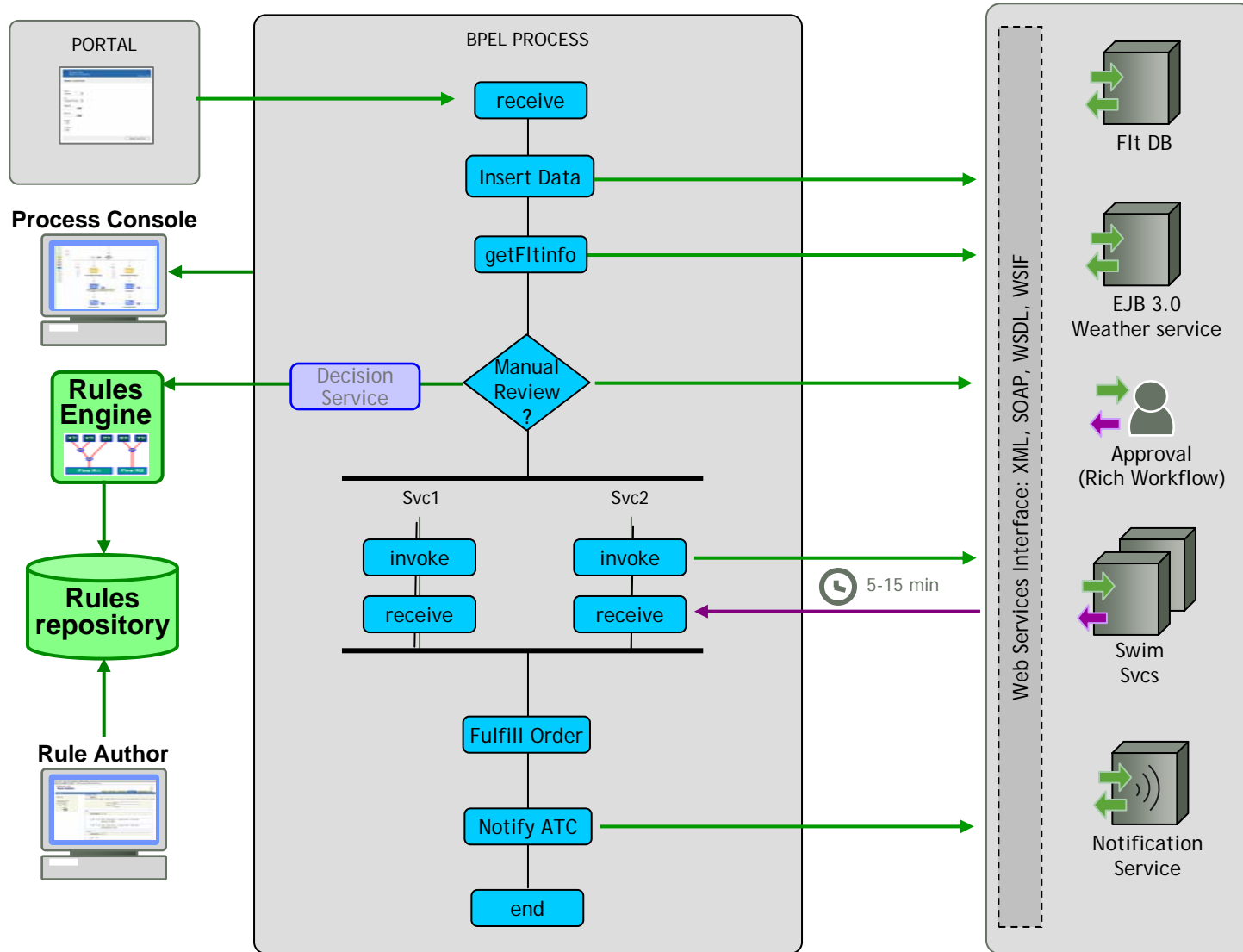
4.3.2 Enterprise Service Bus (ESB)

An ESB is a multi-protocol fabric to separate integration concerns from applications and business logic

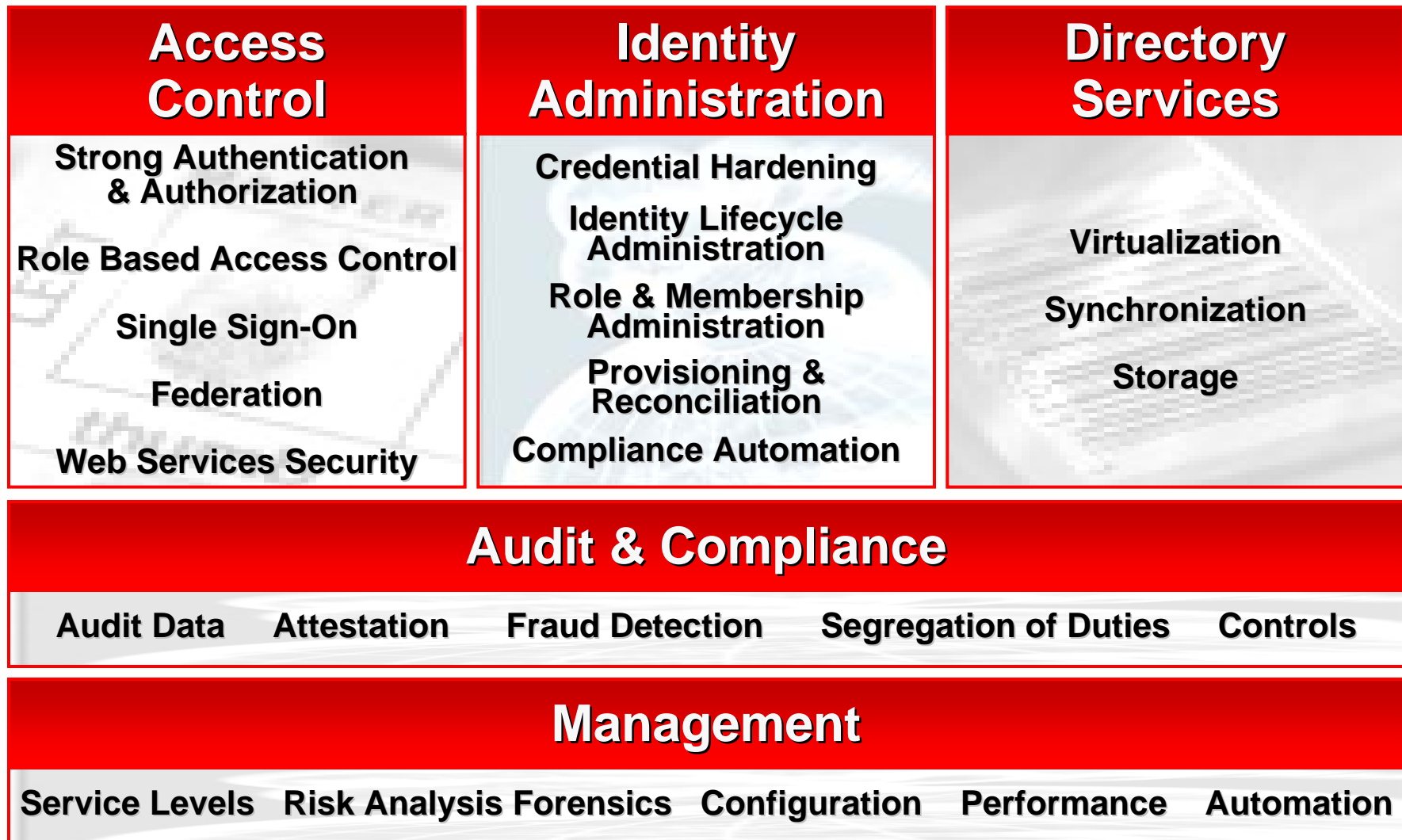


- **Virtualized Endpoints:** From resources to services
- **Transform:** Convert data to target formats.
- **Messaging:** Reliable, multi-protocol
- **Route:** Content based
- **Standards Based:** XSLT, SOAP, XPATH, JMS, JCA, ...
- **Metadata Repository**
- **Usage Patterns:** Point to Point, Canonical Modeling, Store and Forward, Request/Response, Externalized Services

4.3.5 Orchestration



4.3.4 Security – Identity and Access



Security Standards

Security Area	Standards for FAA Consideration
Content Security	<ul style="list-style-type: none">• XML Encryption• XML Signature
Message-Level Security	<ul style="list-style-type: none">• WS-Security
Metadata	<ul style="list-style-type: none">• WS-Policy• WS-PolicyAssertions• WS-PolicyAttachment• WS-SecurityPolicy
Trust Management	<ul style="list-style-type: none">• SAML• WS-Trust• WS-SecureConversation• WSFederation
Public Key Infrastructure	<ul style="list-style-type: none">• PKCS• PKIX• XKMS

5.1 SOA Maturity Model

LEVEL 5 SOA

STRATEGIC GOALS

SOA Industrialized - Able to Support Business Initiatives in a Timely and Cost-Effective Manner

SOA Quantatively Managed
Monitoring Business Processes for Business Process Optimization

SOA Focused on Business Process Automation and Improvement

SOA Applied to Existing Projects Portfolio

SOA Focused on Simple Quick Win Projects

TACTICAL PLANS

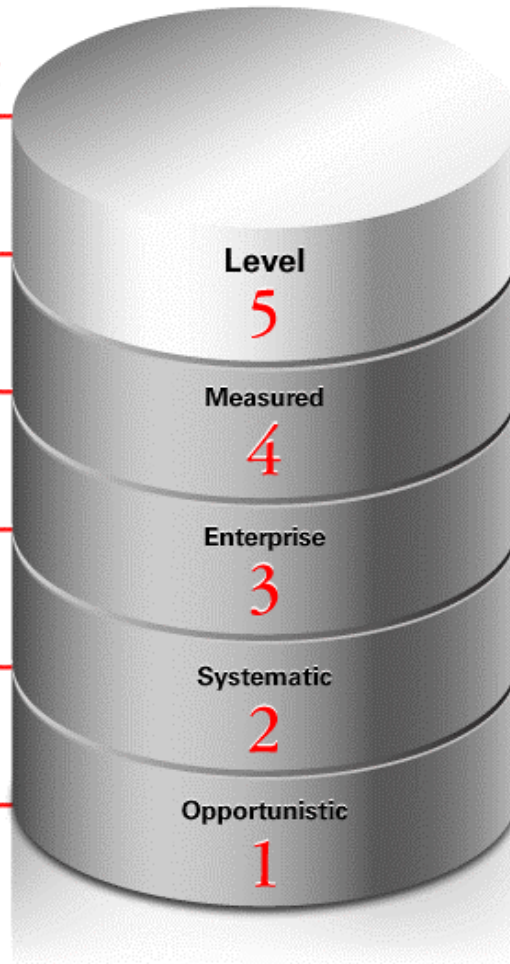
- Deploy Event-Driven Technologies, such as CEP, to Enable Automated Self-Optimizing Applications

- Deploy BAM, BPEL and BPM to Baseline, Improve, Measure and Report on Processes
- Process Owners Driving Business Process Optimization
- Measure and Improve Service Reuse



- Layer Orchestration and BPM onto Services
- Enterprise Architecture Group Starts Driving Enterprise SOA Adoption

- Apply SOA to Simple Integration Projects
- Deploy Service Management
- Focus on Standards
- Initial SOA Planning

- Get Experience Building, Deploying and Consuming Service



5.6 Federal SOA Guidelines

Federal Guideline	Description
 <p><u>SOA Predictive Metrics</u></p>	<p>On October 15, 2007, NIST published a framework called <u>SOA Predictive Metrics</u>. NIST intends this framework to provide a beneficial structure to Chief Architects and Program Managers across federal agencies that are building or evolving SOA and Enterprise Architecture (EA) systems. Reviews of this framework at a recent e-Government Conference indicated that <u>SOA Predictive Metrics</u> was particularly helpful in analyzing a program’s Technology Baseline and Development Plan.</p> <p>http://www.antd.nist.gov/%7Esalasin/SOAMetrics</p>
 <p><u>Practical Guide to Federal Service Oriented Architecture</u></p>	<p>On November 13, 2007, the Federal CIO Council published a pre-release (version 0.7) of a new document called <u>Practical Guide to Federal Service Oriented Architecture</u>. As noted in that document’s Introduction, “This Practical Guide to Federal Service Oriented Architecture has been written to help federal chief architects and chief information officers in their efforts to adopt SOA best practices to further their organizations’ mission outcomes, meet increasingly demanding compliance requirements, and optimize their IT architectures.”</p>