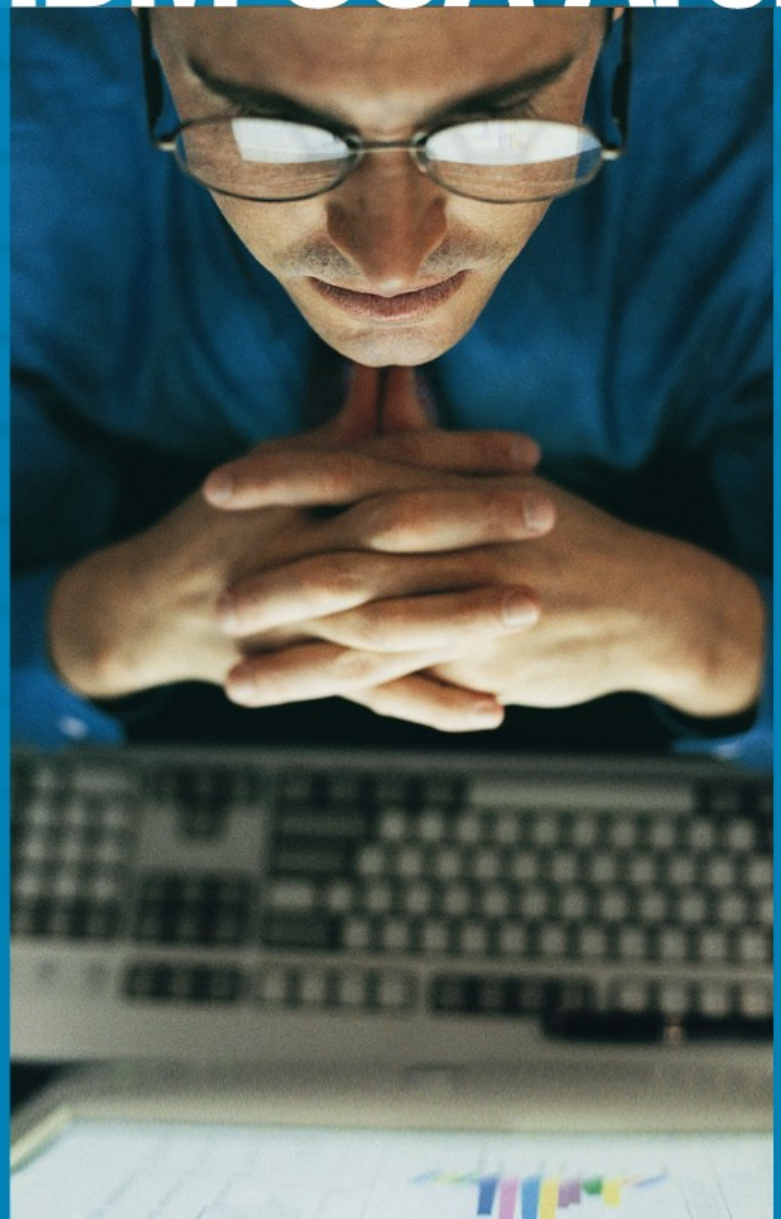
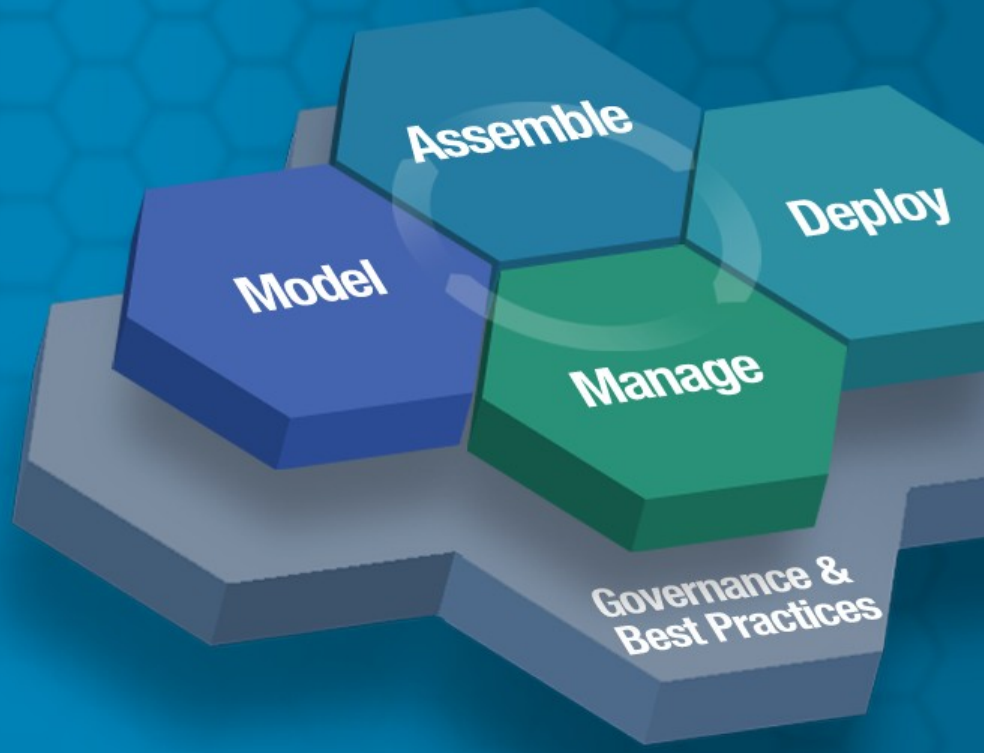
IBM SOA Architect Summit



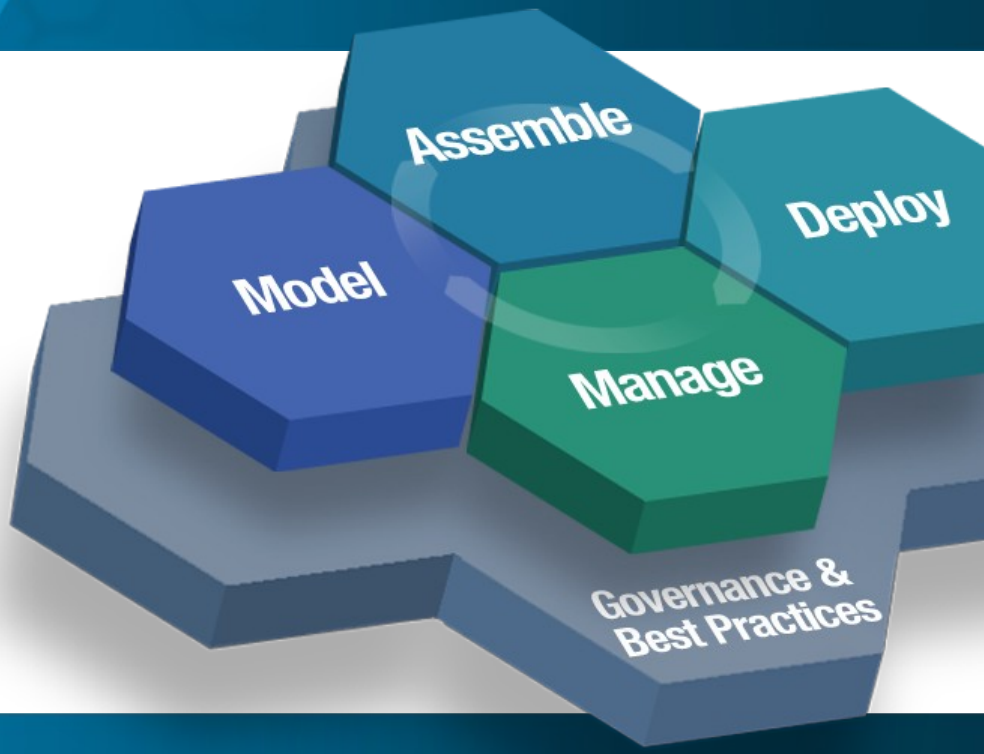


SOA on your terms and our expertise

IBM SOA Architect Summit

Getting Started with SOA

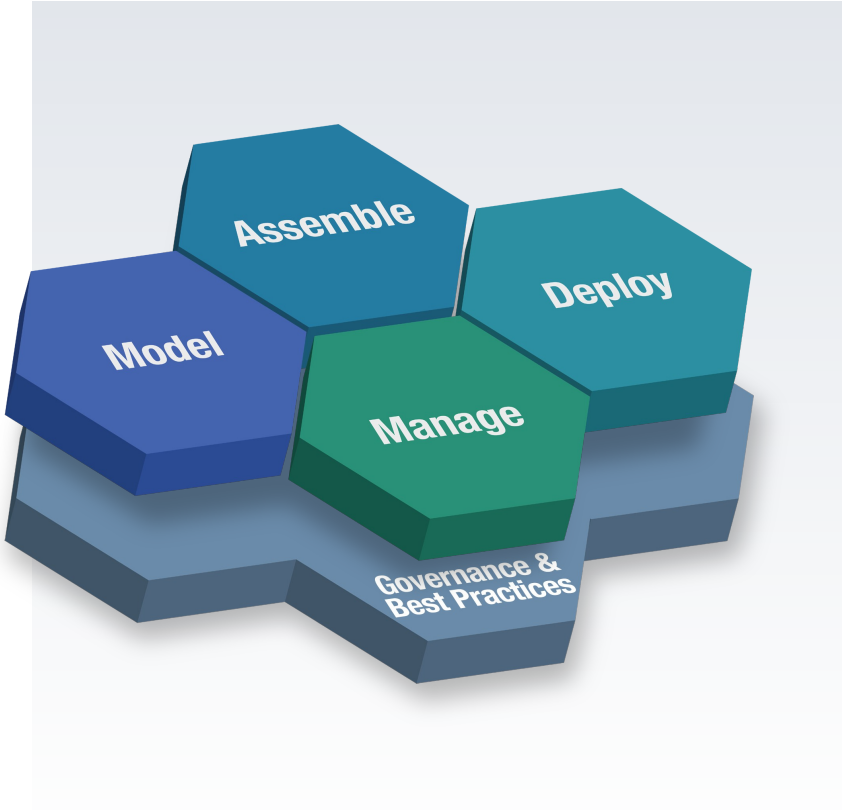
A Presentation for the Enterprise Architect



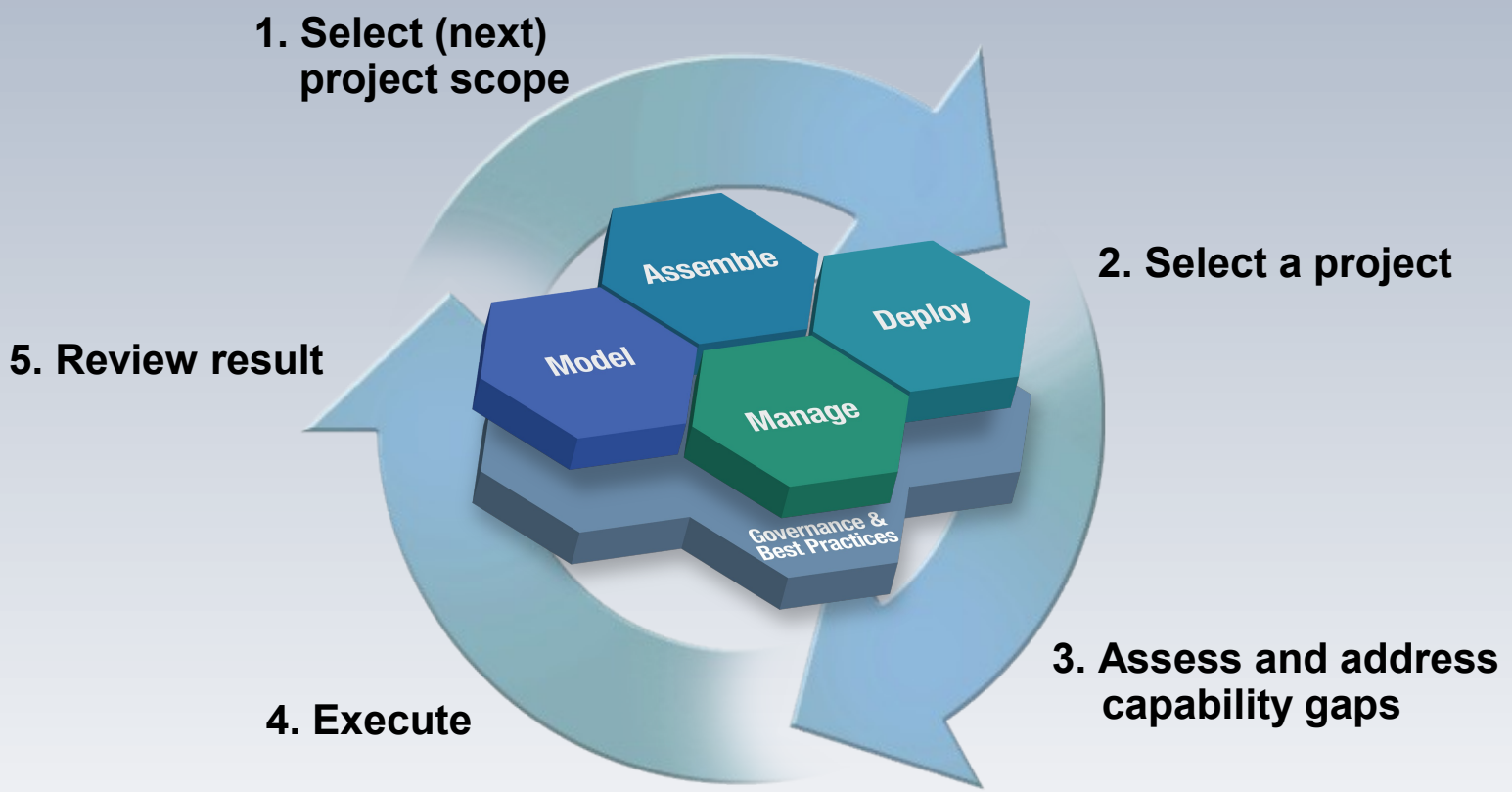
ON DEMAND BUSINESS™

Agenda

- The Adoption Process
- Establishing an SOA Vision
- Selecting Projects
- SOA Entry Points
- IBM Can Help



SOA Adoption is Iterative and Incremental …

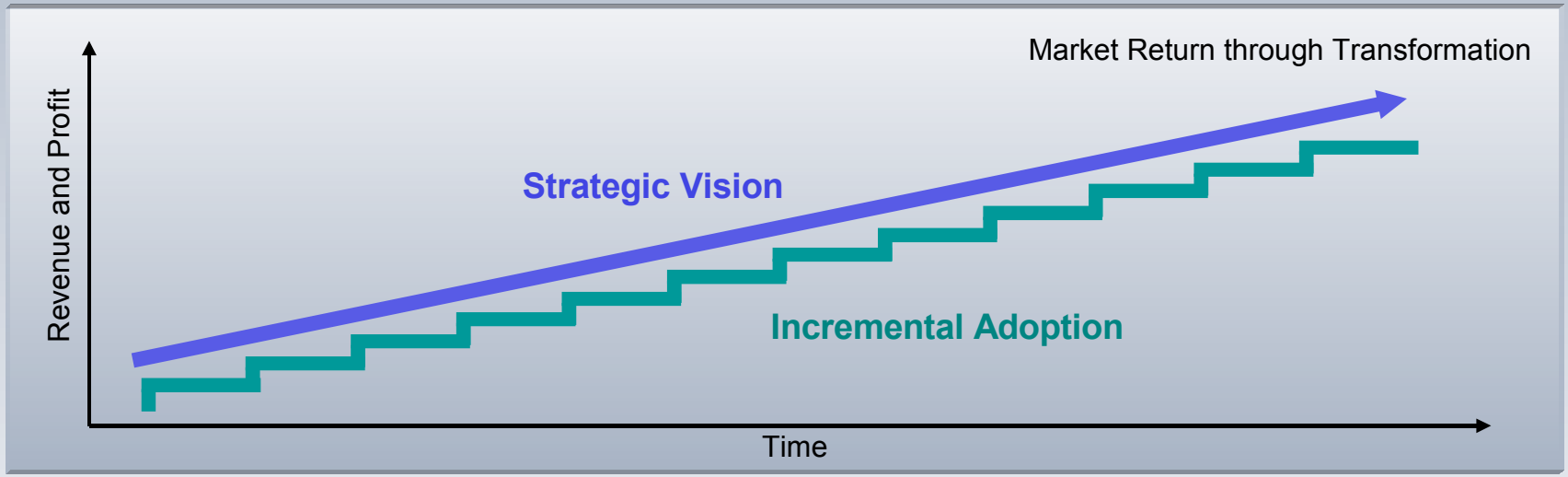


… with each project delivering immediate *and* long-term value

SOA Adoption: Tactical and Strategic Action Combined

SOA Goal

- Market return through transformation: quicker time to production, lower costs, competitive differentiation



Two Primary Roadmap Perspectives

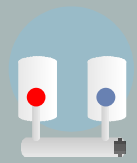
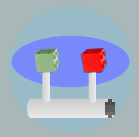
- **Strategic Vision**
  Business and IT statement of direction which can be used as a guideline for decision making, organizational buy-in, standards adoption
- **Project Plans**
  Implementation projects to meet immediate needs of the current business drivers

Getting Started Requires Vision

- Assess your current maturity, across multiple dimensions
  - Business
  - Methodology
  - Technical
- Establish targets for where you want to be
- Document important goals and metrics for transitions across the maturity dimensions
- Recognize that aspects of the Vision may shift with experiences gained
  - Adopt regular checkpoints for Vision re-assessment

IBM's Service Integration Maturity Model provides a guide for establishing a Vision

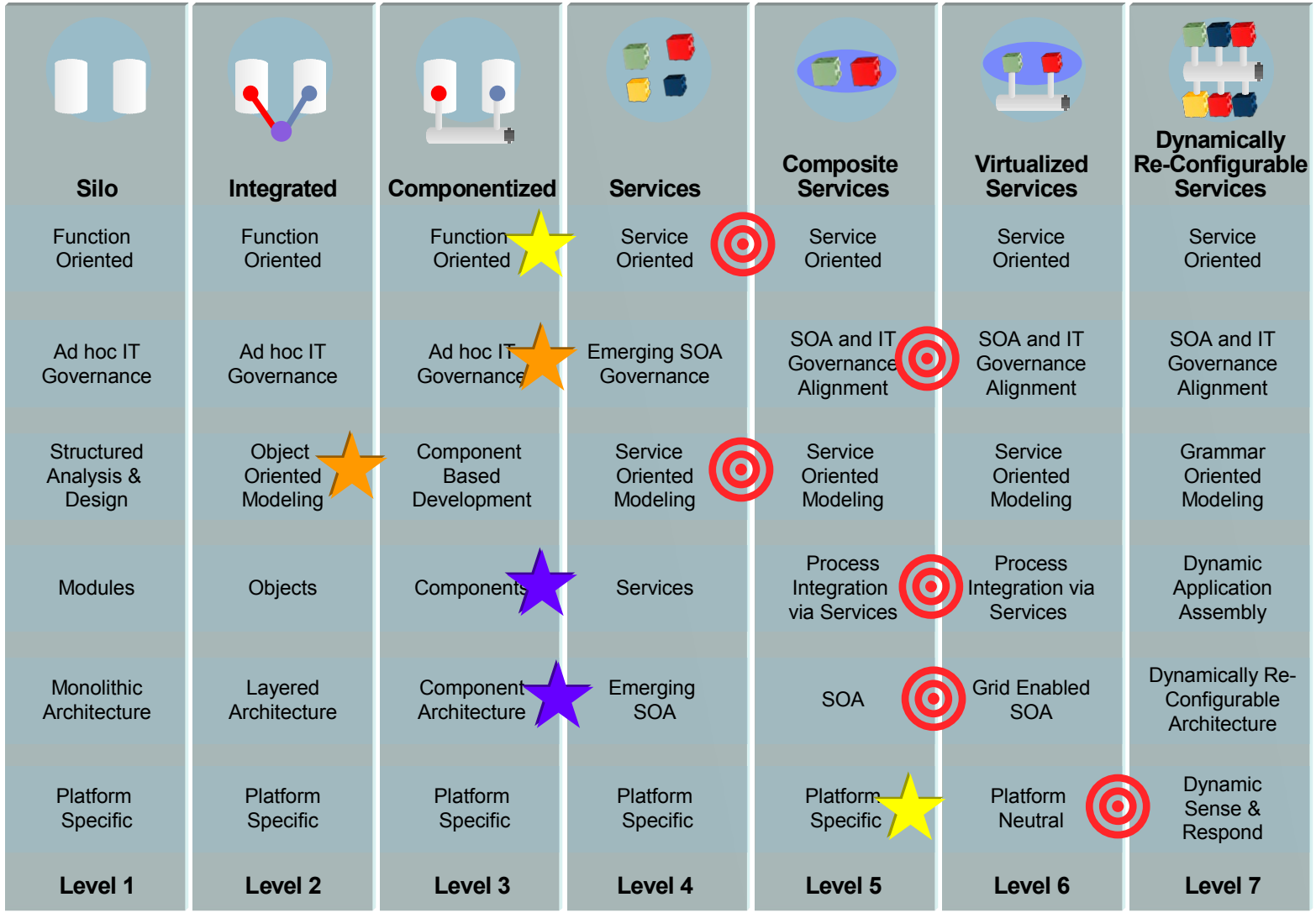
Service Integration Maturity Model (SIMM)

	 Silo	 Integrated	 Componentized	 Services	 Composite Services	 Virtualized Services	 Dynamically Re-Configurable Services
Business View	Function Oriented	Function Oriented	Function Oriented	Service Oriented	Service Oriented	Service Oriented	Service Oriented
Organization	Ad hoc IT Governance	Ad hoc IT Governance	Ad hoc IT Governance	Emerging SOA Governance	SOA and IT Governance Alignment	SOA and IT Governance Alignment	SOA and IT Governance Alignment
Methods	Structured Analysis & Design	Object Oriented Modeling	Component Based Development	Service Oriented Modeling	Service Oriented Modeling	Service Oriented Modeling	Grammar Oriented Modeling
Applications	Modules	Objects	Components	Services	Process Integration via Services	Process Integration via Services	Dynamic Application Assembly
Architecture	Monolithic Architecture	Layered Architecture	Component Architecture	Emerging SOA	SOA	Grid Enabled SOA	Dynamically Re-Configurable Architecture
Infrastructure	Platform Specific	Platform Specific	Platform Specific	Platform Specific	Platform Specific	Platform Neutral	Dynamic Sense & Respond
	Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	**Level 7**

Service Integration Maturity Model (SIMM)

= current level

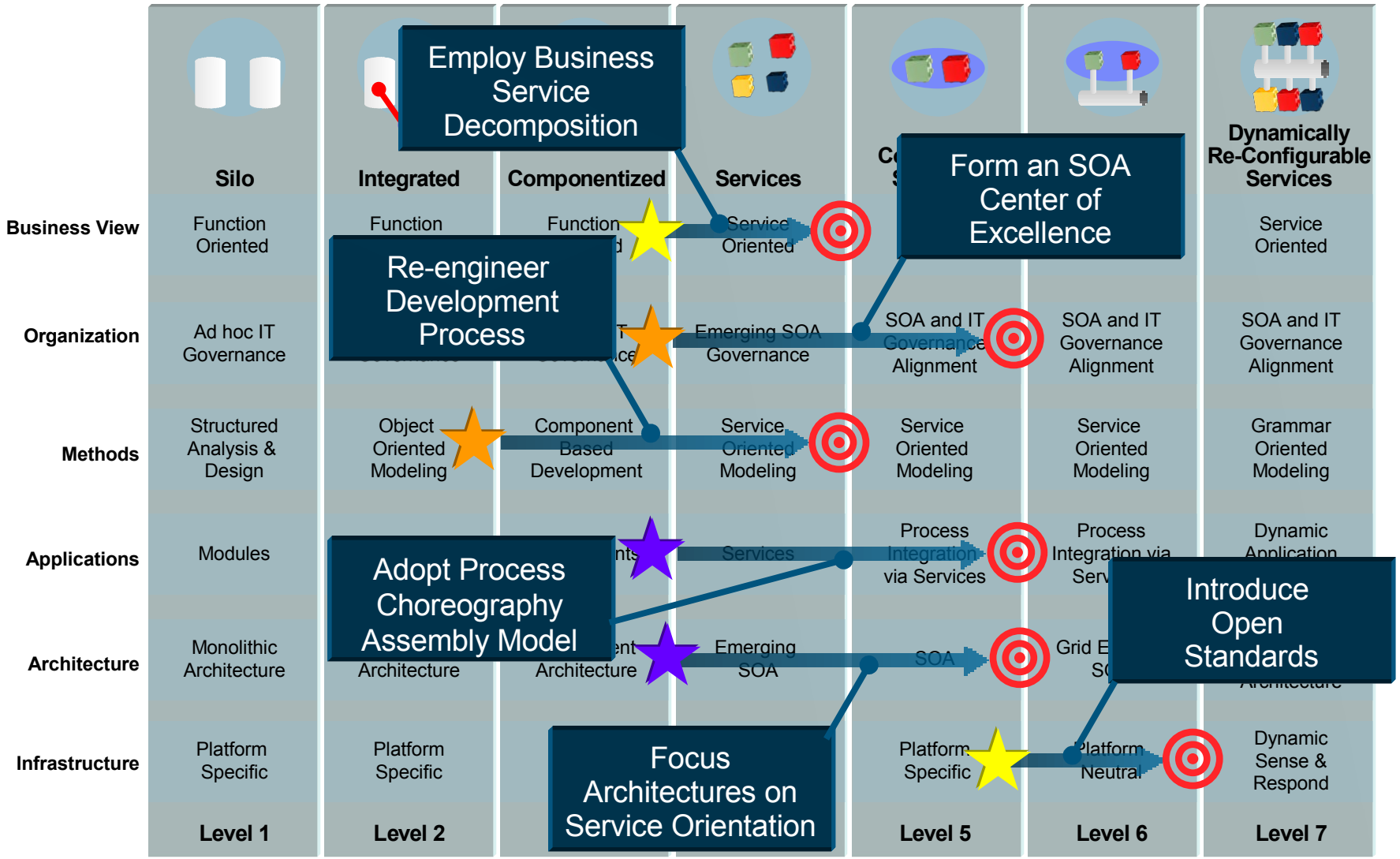
= target level



Service Integration Maturity Model (SIMM)

= current level

= target level



Selecting Projects

Moving Incrementally Toward the Vision

A pilot project for SOA should …

2. **Address a well understood Business problem**
3. **Incorporate aspects of governance**
4. **Include Line-of-business objectives and IT objectives**
5. **Leverage SOA entry point patterns**
6. **Require an achievable stretch beyond current capabilities to address gaps (skills, processes etc.)**
7. **Be something you will put into production**

Some Project Examples

A service in front of my Loyalty System lets my customers consume points through partners

I outsourced a non-critical business service

I enabled multi-channel access to a key business service

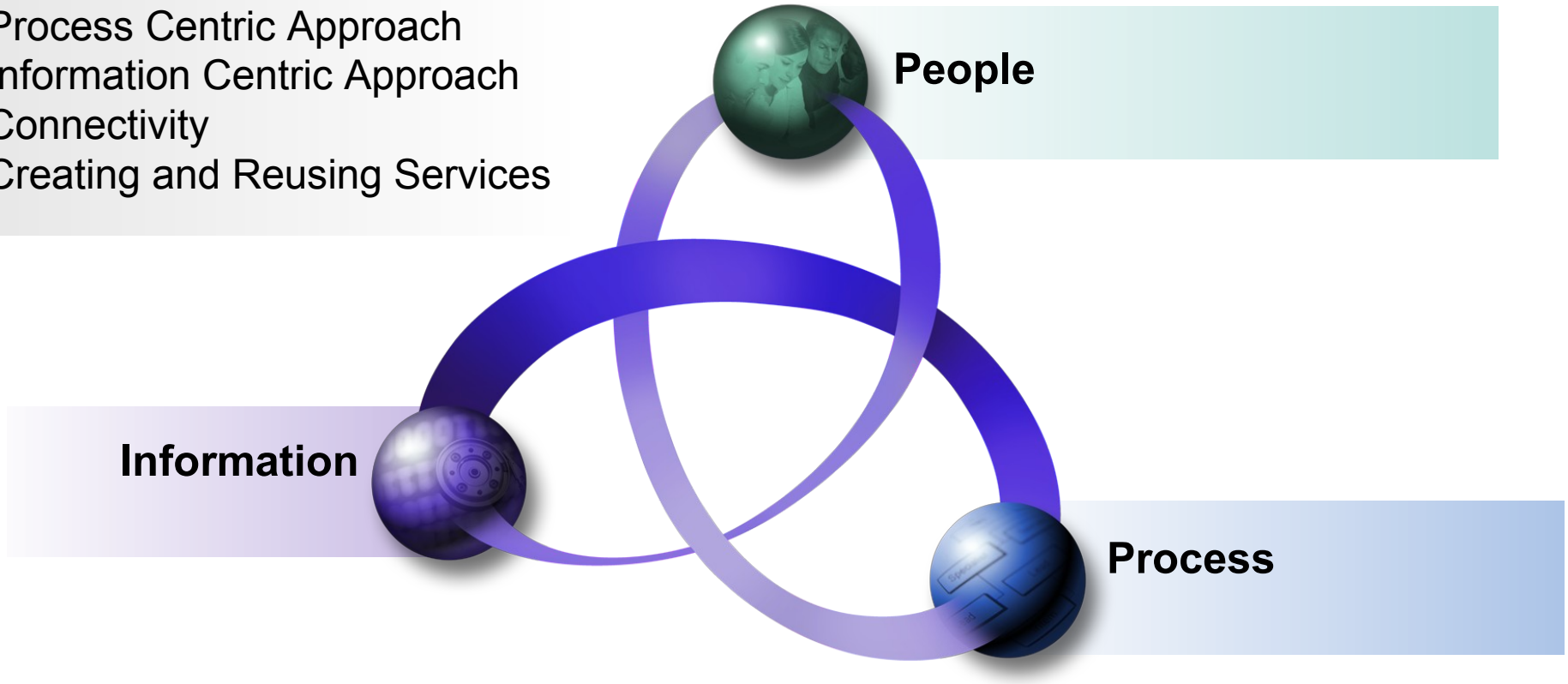
I expanded my market by putting an industry standard interface on my proprietary application

Leveraging Entry Points to SOA

Consider Your Needs and Capabilities

SOA Entry Points

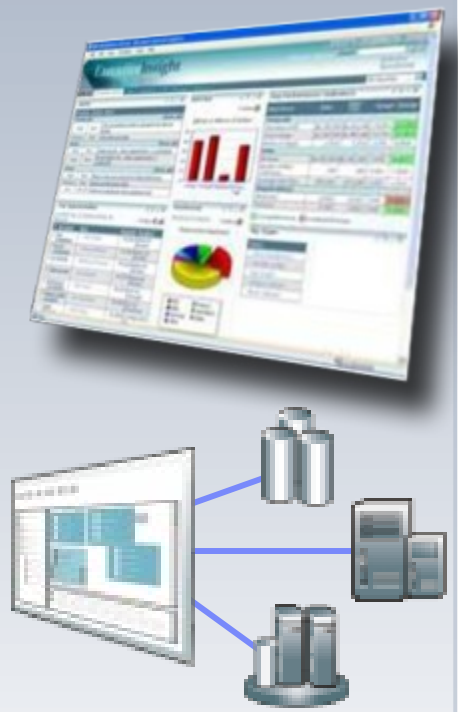
People Centric Collaboration
Process Centric Approach
Information Centric Approach
Connectivity
Creating and Reusing Services



Entry Point to People Centric Collaboration

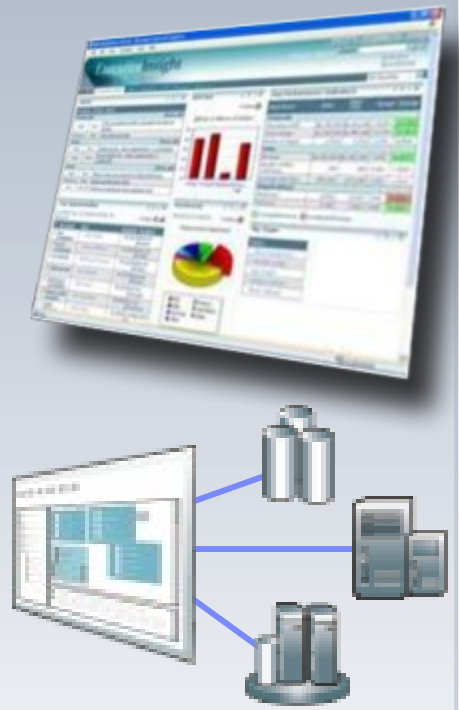
Intuitive & Adaptive User Experience

- How to recognize the entry point
  - Business needs/pain points
    - *Too many applications required to complete a process*
    - *Information gathering delays business processes*
    - *Multiple participants in business process need differing access*
  - IT needs/pain points
    - *Business processes span applications that don't integrate well*
    - *Supporting IT functions for business processes span organizations*
    - *No single sign-on, no role-based information/application delivery*
- Business and IT benefits
  - Business applications are consistent and tailored to a given task/role
  - Freedom to change IT resources without impact on the user experience
  - Freedom to incrementally adapt to changing business requirements



Project Considerations for People Centric Collaboration

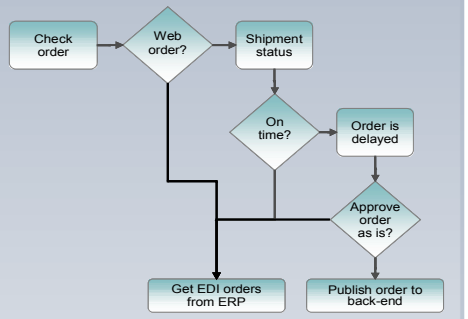
- Typical project outline
  - Identify key applications, roles and business processes and information sources
  - Acquire or build portlet base User interfaces to key applications
  - Configure task specific pages to deliver application, and information according to the needs of the process roles
  - Orchestrate the user experience by integrating with Process Server
- Common technical considerations
  - Access, authorization, and single sign-on to applications
  - User identity management – plan for governance
  - New use cases/ loads for applications and information sources
  - Plan for governance of portal applications across your organization



Entry Point to a Process Centric Approach

Business Process Management for Continuous Innovation

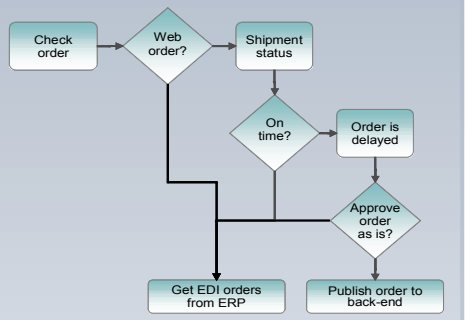
- How to recognize the entry point
  - Business needs/pain points
    - *Increasing need to tailor business processes on a per customer / per partner basis*
    - *Changing business processes takes too long*
  - IT needs/pain points
    - *Increasing maintenance costs as applications continuously evolve*
    - *Inflexible systems can't handle today's requirements*



- Business and IT benefits
  - Business processes are highly tailorable
  - Maintenance costs drop as changes in the business process can be effected in a process-managed environment, using standard technology like BPEL

Project Considerations for Process Centric Approach

- Typical project outline
  - Digitize Business Model and simulate various mainline scenarios
  - Identify Key Performance Indicators that will be automatically or manually collected to report on process and/or business efficiencies
  - Transform the business model into business processes through composition, assembly, and new or existing service implementation
  - Monitor the business process results and iterate to make process and implementation improvements

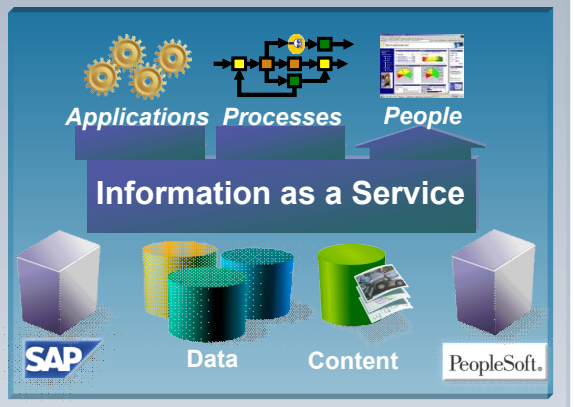


- Common technical considerations
  - Do you have already have a digitized version of your business model?
  - Are you interested in automatic generation of KPI data?
  - Does your process implementation require significant human interaction?

Entry Point to an Information Centric Approach

Delivering Information As A Service to People and Processes

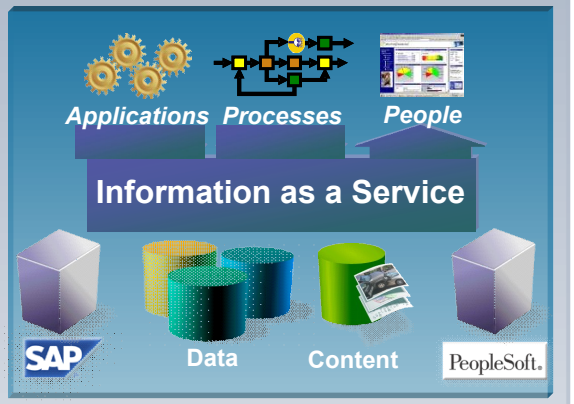
- How to recognize the entry point
  - Business needs/pain points
    - *Trusted information is not available in the right place, at the right time, in the right context*
    - *Existing business processes are not easily updated with new information*
  - IT needs/pain points
    - *Information semantics are coupled to applications; meaning does not accompany data*
    - *Creation of trusted information sources and resolution of cross-source data quality issues is complex and difficult to achieve*
    - *Difficult to control the cost of managing complex information infrastructure while providing flexibility; overly complex methods are required to integrate data*



- Business and IT benefits
  - Applications benefit from new information as it comes online
  - Information Integration complexity is contained in one place and handled once

Project Considerations for Information Centric Approach

- Typical project outline
  - Discover source data models & relationships through profiling
  - Map models to logical future state models; connect to a business context
  - Publish information services to return information required
  - Incorporate information services inline with business process

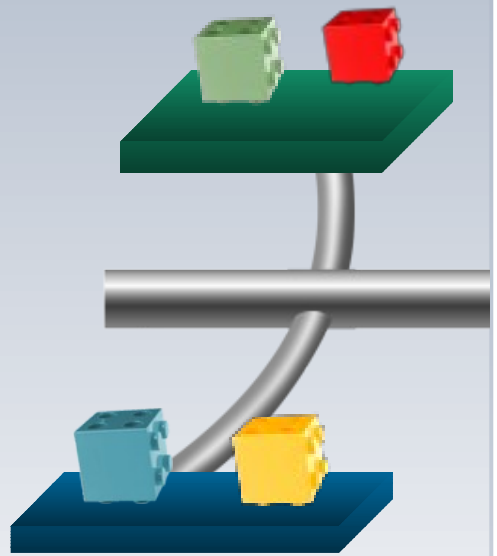


- Common technical considerations
  - Alignment with business context/objectives
  - All relevant data sources must be included
  - Data quality issues must be understood and resolved across sources
  - Transformation needs must be met in a scalable manner

Entry Point to Connectivity

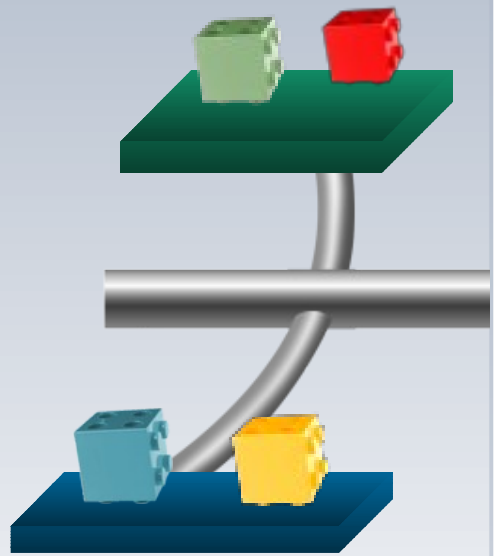
Underlying Connectivity to Support Business-centric SOA

- How to recognize the entry point
  - Business needs/pain points
    - *Modernization/conversion of backend systems needs to be isolated from applications*
    - *Speed up new application development and integration*
  - IT needs/pain points
    - *Manage all traffic to/from services consistently and with minimal redundancy*
    - *Flexibility to change service implementations and add service consumers*
    - *Strengthen governance of service*
- Business and IT benefits
  - Decoupling of service providers and consumers provides flexibility to implement applications more quickly
  - All service consumption is subject to consistent auditing, security, validation etc.
  - Speed availability of existing systems by leveraging existing messaging backbones



Project Considerations for Connectivity

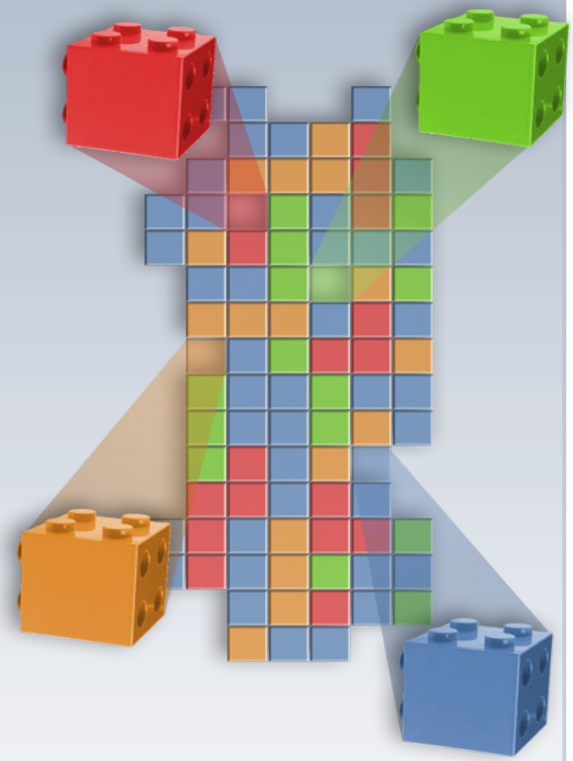
- Typical project outline
  - Service integration requirements and existing systems/middleware are used to drive a service integration architecture and product selection
  - A few new or existing services and new consumer application(s) are identified
  - Expose the new/existing services using ESB and develop ESB messaging flows and mediations
  - Deploy and manage the ESB solution
  - Iteratively add components and features to the service integration architecture
- Common technical considerations
  - Pilot projects are simplified, if the integration is internal and security is minimal
  - Services can be exposed to external organizations through extensions to your internal ESB implementation
  - Put basic monitoring in place from the beginning
  - Use ESB to mediate between non-standards based systems and new standards based systems



Entry Point to Creating and Reusing Services

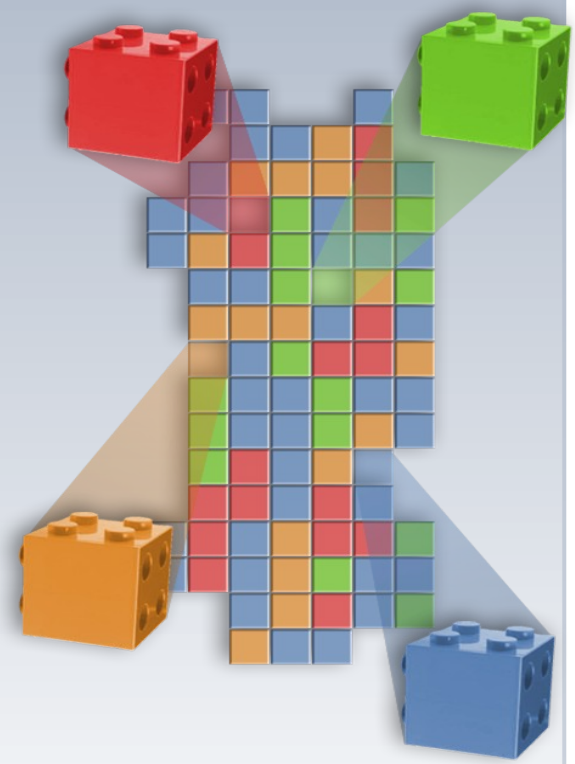
Create Flexible, Service-based Business Applications

- How to recognize the entry point
  - Business needs/pain points
    - *Freedom to outsource without impact to existing applications*
    - *Turn proprietary systems into marketable business assets*
  - IT needs/pain points
    - *Leverage existing IT investment*
    - *Need to consolidate redundant systems*
- Business and IT benefits
  - Unlock the value of existing IT assets
  - Eliminate the costs associated with non-key functions

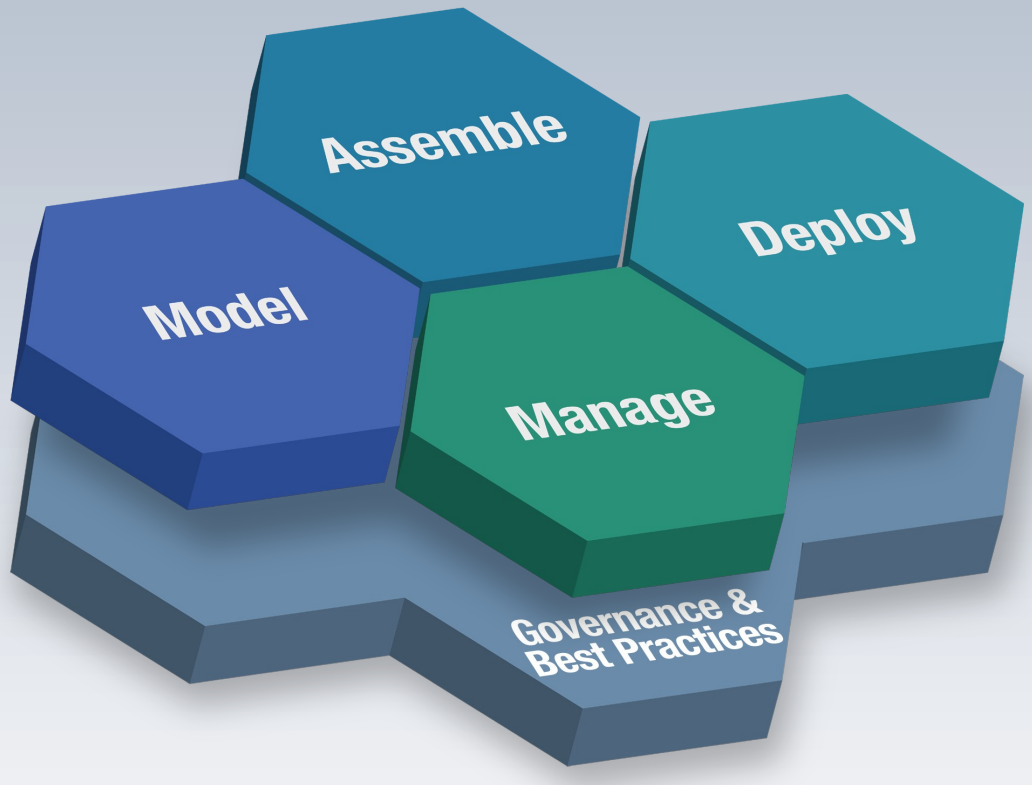


Project Considerations for Creating and Reusing Services

- Typical project outline
  - Refactor a CICS program, create services and expose them for individual consumption
  - Define the interface for a non-core function; work with a partner to implement that function as a service with the interface you've defined
- Common technical considerations
  - Define and expose services at the appropriate level of granularity to represent reusable business functions
  - Leverage adaptors, connecters and gateways where possible
  - Use a Service Component pattern to access legacy systems



IBM can help you get started ...

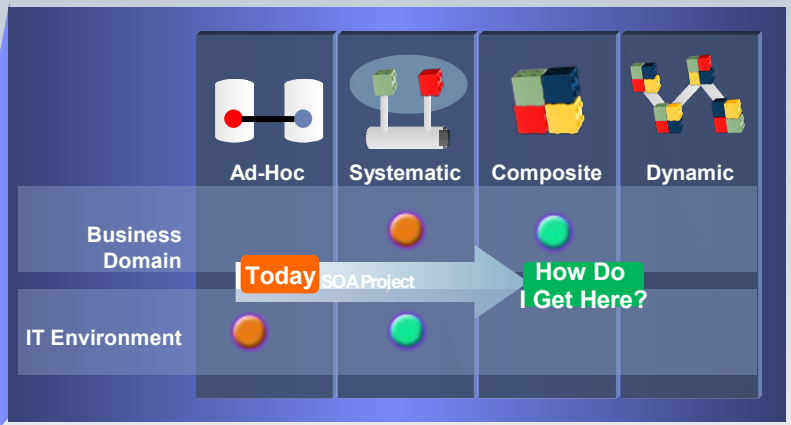


IBM SOA Offerings

Get Started Now!

SOA Assessment Tool Online or On-site

Receive actionable recommendations customized to your level of SOA maturity



*Find out at **ibm.com/soa** or contact soa@us.ibm.com*

Conduct an IBM SOA Workshop

IBM Architects & Subject Matter Experts to Help Your Project Selection

RIPLEY

Line-of-business led SOA Workshop

- Evaluate enterprise architectures SOA readiness
- Analyze governance maturity
- Provide SOA-based solution adoption roadmap

Travelex worldwide money

IT-led SOA Workshop

- Skill development and governance
- Integration architecture workshop
- Actionable next steps

SOA Skills Development – SOA Architect Role

SOA Architecture

Course: Introduction to the Value and Governance Model of Service-Oriented Architecture
Code: SW717
URL: http://www.ibm.com/developerworks/websphere/ education/e

Course: Design SOA Solutions and Apply Project, Technical, and Operational Governance
Code: SW718
URL: http://www.ibm.com/developerworks/websphere/ education/enablement/wbt/sw718.html

Course: Technologies and Standards for Service-Oriented Architecture Project Implementation
Code: SW719
URL: http://www.ibm.com/developerworks/websphere/ education/enablement/wbt/sw719.html

Enterprise Service Bus

Course: Implementing ESB Solutions using IBM WebSphere products
Code: SW340
Duration: 3 days

Legend

- Audio tape
- CD-ROM
- Certification
- Classroom
- Instructor Led Online
- Prerequisite
- Publication
- Teleconference
- Web-based

Why IBM for SOA?

IBM understands service orientation and your business

Expertise in aligning business and IT processes
- SOA consultants, architects and IT specialists
- Dozens of SOA-enabled business solutions

Thriving ecosystem of partners (ISVs, SIs, Resellers)
- 1200+ partners in SOA community

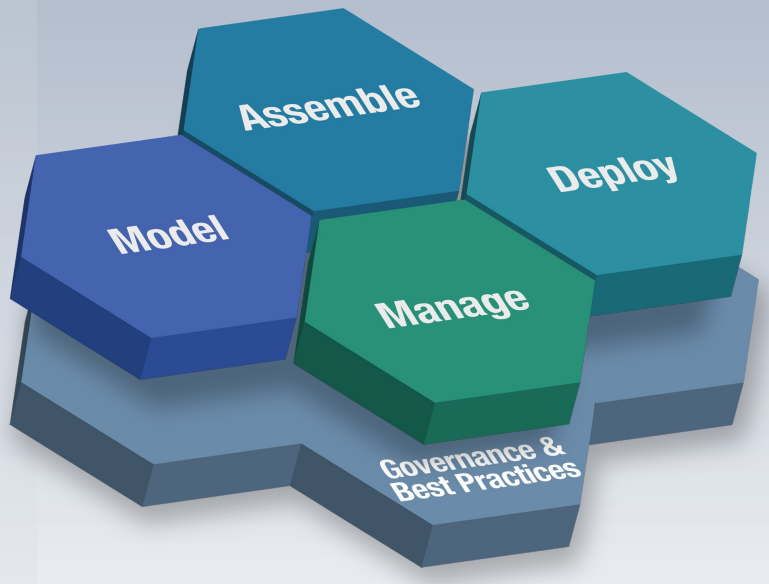
Extensive Industry experience and best practices
- Over 1800 customers worldwide
- SOA Entry Points

Unmatched breadth and depth of products
- Over $1B/yr invested in SOA
- Leadership in open standards & 300+ SOA-related patents

Proven Governance & best practices
- IBM SOA Governance & Management Method that spans services lifecycle

Summary

- Establish a Strategic Vision at the appropriate level
- Assess and address capability gaps:
  - Skills
  - Processes
  - Architecture
  - Infrastructure
  - Application
- Identify a pilot project
  - Extending Assets
  - Collaboration
  - Application Integration
  - Business Process Management
  - Information Integration
- Execute the project
- Approach adoption incrementally
  - Introduce infrastructure, processes *as needed* – SOA is not about infrastructure and processes, it's about enabling organizations to be agile in solving business problems
- IBM is here to help



Hindi

Traditional Chinese

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Russian

Spanish

Arabic

Thank You

Brazilian Portuguese

Italian

German

French

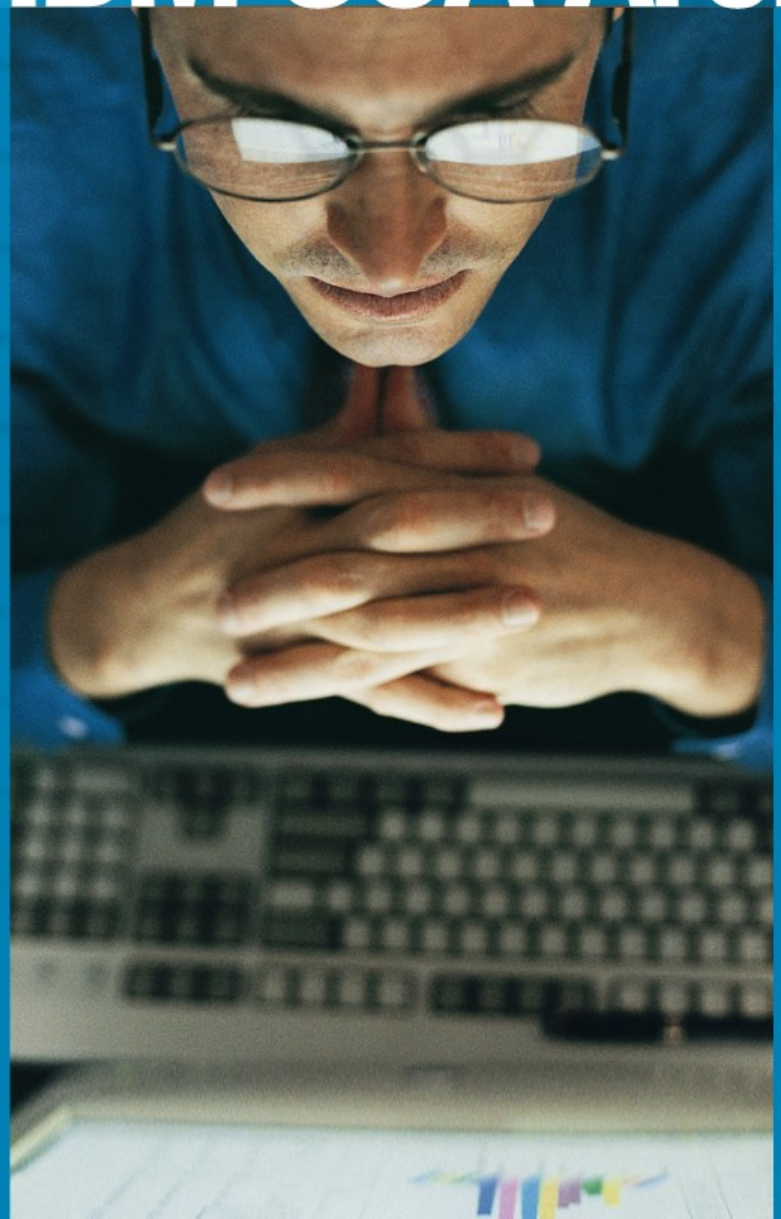
Tamil

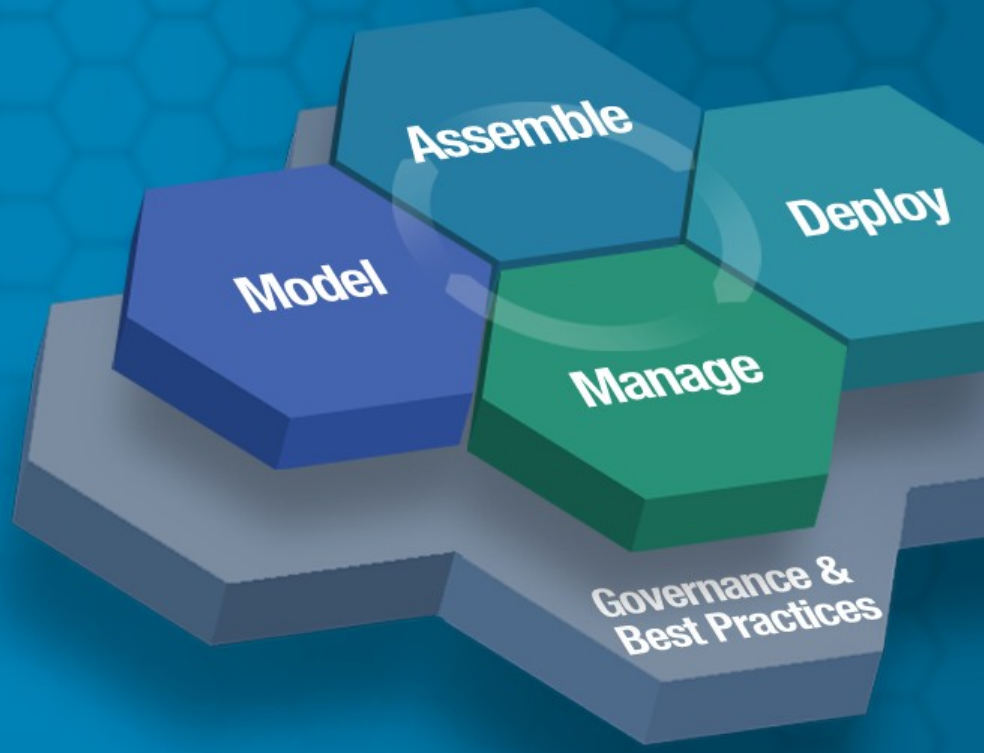
Simplified Chinese

Korean

Japanese

IBM SOA Architect Summit





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