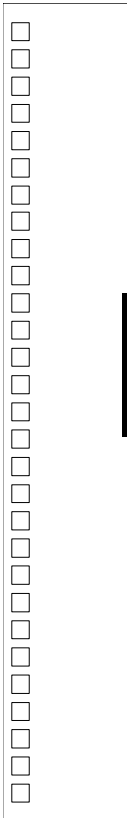


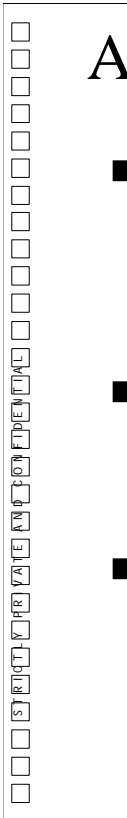
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BPOA - Introduction

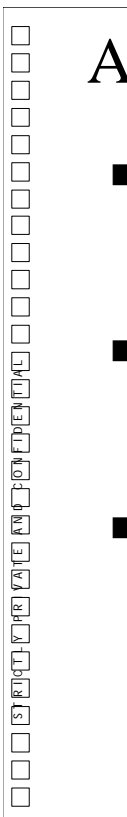


Areas of focus for SOA

- **Application Architectural Style**
 - ◆ Organizing /Utilizing distributed business capabilities
 - ◆ Principles and patterns related to service-aware enterprise-level distributed computing
- **Integration Approach**
 - ◆ Services Reusability & Inter-operability
 - ◆ Information access from heterogeneous systems
- **IT Strategy to streamline service delivery**
 - ◆ IT strategy to improve productivity via integration and inter-operability
 - ◆ Greater technical focus but lesser business focus

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Areas of focus for BPM

- **Business Performance Management**
 - ◆ Optimizing Corporate Performance Management
 - ◆ Facilitating Business Service Management
- **Business Process Monitoring**
 - ◆ Deep Visibility of Business Processes
 - ◆ Better/Quicker Results Monitoring
- **Strategy to streamline business delivery**
 - ◆ Greater business management focus without much alignment with service delivery

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Common Drivers / Common Goals

■ Profit Maximization

- ◆ Cost reduction
 - Leveraging past investments, Faster time to market
- ◆ Revenue growth
 - Business innovations and transformations

■ Better Quality

- ◆ Efficient business processes & IT infrastructure
- ◆ Regulations compliance & Risk reduction

■ Competitive Business Agility

- ◆ React to market change quickly to stay competitive

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BPM ~ SOA Symbiosis

■ SOA facilitates BPM

- ◆ Provides business process orchestration
- ◆ Facilitates BAM through services monitoring
- ◆ Improves business process integration (intra & inter)
- ◆ Thus providing an IT face to BPM

■ BPM strengthens SOA

- ◆ Associates business context to services
- ◆ Provides business process visibility
- ◆ Delivers agility to the business users of technology
- ◆ Thus providing a business face to SOA

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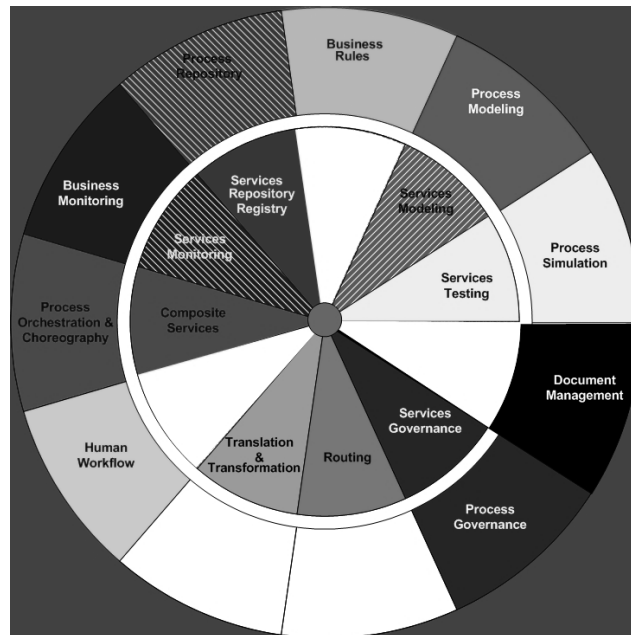
BPM & SOA Overlaps / Gaps

- Discipline overlaps / gaps
 - ◆ BPM requires an efficient application architecture
 - ◆ Services needs business context
 - ◆ Information needing business and services context is often ignored in SOA and BPM
- Product overlaps
 - ◆ Integration and Process Orchestration (BPMS, ESB)
 - ◆ Process & Services Registries and Repositories
- Product alignment gaps
 - ◆ Process and Services Modeling
 - ◆ Process, Services Monitoring and ITSM

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BPOA Wheel of Fortune



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Emergence of BPOA

- IT Architectural framework
 - ◆ BPM meets SOA
 - ◆ IT assets are re-organized considering business processes
 - ◆ MDA, EII, EDA, ESB, BAM, BRE are key enablers
- Bus.Optimization framework
 - ◆ Business processes optimized using services context
 - ◆ Methodology for business transformation
- IT-Business Collaboration Framework
 - ◆ Functionality in terms of processes and services
 - ◆ Process are services-enabled,
 - ◆ Services are process-oriented
 - ◆ Strategy for delivering business capability

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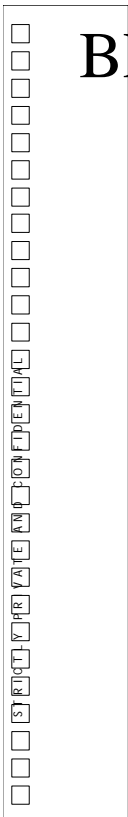
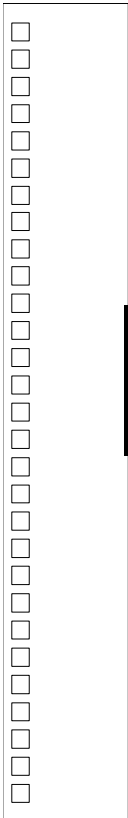
BPOA Benefits

- Business vitality enhanced
 - ◆ Efficient, policy compliant and measurable business
- Business innovations and transformations
 - ◆ Agile business processes with changing environ.
 - ◆ New bus. value from change in service orchestration
- Business value associations
 - ◆ Business value visibility for each service
 - ◆ Business ownership for services

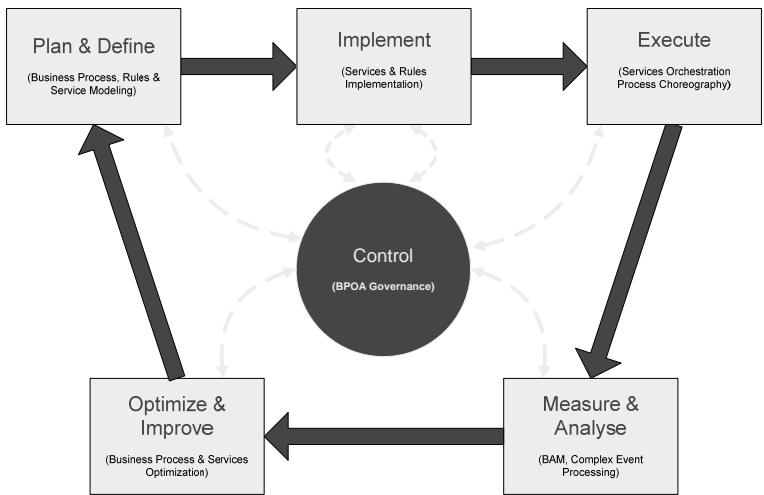
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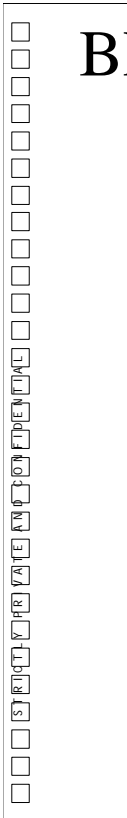
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BPOA Lifecycle



BPOA – Lifecycle



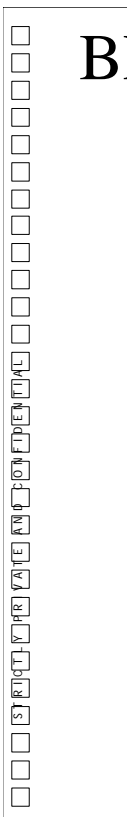


BPOA - Lifecycle

- Enterprise Planning (Macro-View)
 - ◆ Business Vision & Strategy Planning
 - ◆ Business Service and Product Roadmap
 - ◆ Enterprise SOA Vision & Strategy linked to business goals
 - ◆ Enterprise SOA Reference Model and Roadmap
- Business Planning (Micro-view)
 - ◆ Reuse opportunity identification
- Definition & Design Phase
 - ◆ MDA driven Business Process and Service analysis
 - ◆ Including business rule definition
 - ◆ Process / Services Registry / Repository usage
 - ◆ Performance indicator and success factor definition

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BPOA – Lifecycle (cntd.)

- Implementation and Execution Phase
 - ◆ EDA, ESB, BP Orchestration
 - ◆ Business Rules Processing
- Monitoring & Analysis Phase
 - ◆ BAM comprising of BEM and CEP
 - ◆ BI and BSM embodied in Business Monitoring
- Optimization Phase
 - ◆ Inefficiencies addressed
 - ◆ Processes evolve independent of services
 - ◆ Services evolve independent of processes
- Control
 - ◆ Needed at every step in the lifecycle
 - ◆ Define and enforce policies via governance

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Business Process

- Business Process is a complete and dynamically coordinated set of collaborative and transactional activities that deliver value to customer.*
- Activity sequence to achieve a specific business goal.
- Activity can be a business process in itself (iterative and hierarchical nature)
- Each BP is unique but activity can be used by a separate BP (uniqueness)
- BP should be linked to strategic objectives
- BP are independent of formal organizational structure

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* Definition from Peter Finegar

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Services

- Services in generic sense are
 - ◆ Autonomous unit of processing logic
 - ◆ Has potential of being Reused
 - ◆ Accessed via standard interface
- Infrastructure utility centric services
 - ◆ Logging, Alerts, Transformations
- Business centric services
 - ◆ Task-Oriented- Money Transfer, Credit Checking
 - ◆ Entity-Oriented - Customer, Accounts

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Processes & Services – in BPOA

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Business Process Modeling

- Represents business processes graphically
 - ◆ BPMN, UML(Business Activity)
 - ◆ Business and IT common representation
- Identifies core operational business processes
 - ◆ Differentiating processes providing competitive advantage
 - ◆ Non-core processes can be outsourced and/or streamlined
- Guides Execution
 - ◆ Process meta-model translated to execution code
- Facilitates Monitoring and Optimization
 - ◆ Traceability of services implementation back to processes
 - ◆ KPIs tied to the process model
 - ◆ Identified inefficient Processes are optimized

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Services Modeling Steps

- Business Processes are decomposed
 - ◆ Granular business activities sequences
 - ◆ Modeled in BPMN notation with BPDM metadata
- Candidate Business Services are identified
 - ◆ Business Activities involving IT assets
 - ◆ Service as business activity, business task within an activity or an entire process
- Business Services are refined
 - ◆ Focus on business task-centric services
 - ◆ Focus on autonomous, reusable, stateless services
- Business Services are categorized

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Services Modeling Steps (cntd.)

- Services are finalized
 - ◆ Emphasis on quality of services
 - ◆ Search repositories for existing service
- Process / Service integration is emphasized
 - ◆ Composite Services are aggregated
 - ◆ Inter-Service Integration - Orchestration
 - ◆ Inter-Process Integration - Choreography
- Service Compositions are designed
 - ◆ Identify granular business utility components
 - ◆ Generate entity-oriented services
 - ◆ Transition to component modeling

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BP Oriented Modeling (MDA)

- Business Process Model

- ◆ Common Information Model (BPMN, UML2)



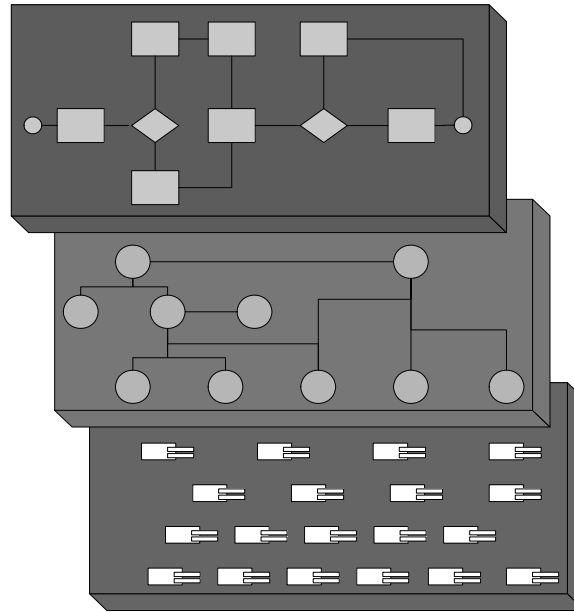
- Services Model

- ◆ Platform Independent Model



- Component Model

- ◆ Platform Dependent Model (UML)



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Services Platform

- Services Platform Implementation

- ◆ Services Broker (ESB), Services Container, Services Monitor
- ◆ Services Repository

- Services and Process Integration

- ◆ Business Process and Information Level Integration
- ◆ Internal Channel Access / External Partner Access
- ◆ LOB Data Access / Back-Office Integration

- Platform Qualities of Services

- ◆ Scalability & Performance (response time, through put)
- ◆ Inter-operability
- ◆ Reliability & Availability
- ◆ Maintainability

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Business Monitoring

- **Corporate Performance Management**
 - ◆ Measures actual corporate performance against planned
 - ◆ Supports organizational performance improvement and decision making
- **Business Activity Monitoring**
 - ◆ Monitors business processes against KPI in real time
 - ◆ Relates business services to business process performance
- **Business Services Management**
 - ◆ Monitors granular business services and applications
 - ◆ Facilitates decision making in incidents, change management
 - ◆ Relates applications / business services to ITSM
- **IT Service Management**
 - ◆ SLA Verification and Compliance
 - ◆ Monitors IT operational health

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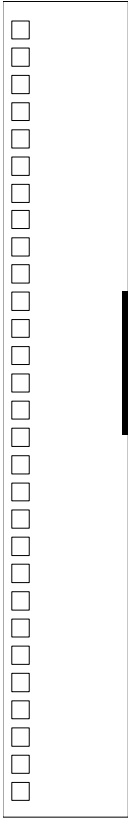
Governance -What, Who, How

- **Organization (Who)**
 - ◆ Structure and levels of governance
 - ◆ Relationship with existing governance models
 - ◆ Centralized / Federated decision
- **Policies (What)**
 - ◆ Business policies and regulations
 - ◆ Industry and organizational standards
 - ◆ SOA design and run-time policies
- **Processes (How)**
 - ◆ Methodologies and Tools
 - ◆ Financial Models (ROI, ROA, Funding)
 - ◆ Policies Enforcement

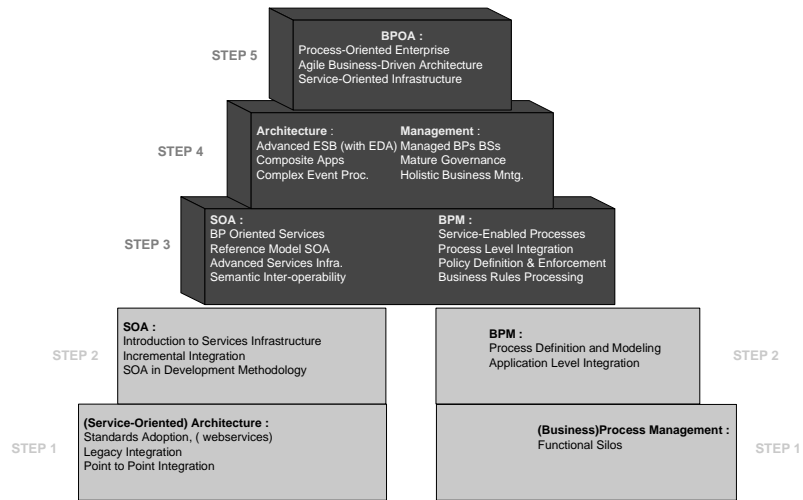
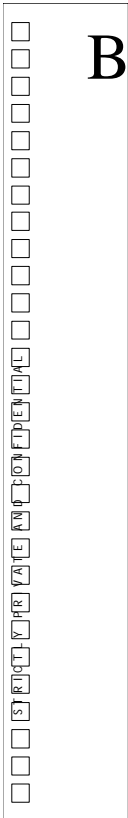
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BPOA Roadmap



BPOA Maturity Model





Various Entry Points to BPOA

■ Business Management

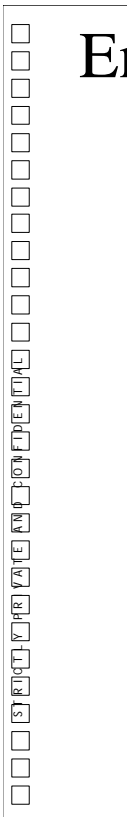
- ◆ Enterprise / LOB wide initiatives (macro-level)
 - ◆ Business Process Re-Engineering and Automation
 - ◆ Business Rules Centralization
 - ◆ Business Process /Activity Monitoring
- ◆ Project initiatives (micro-level)
 - ◆ Business process modeling
 - ◆ Business process monitoring

■ Application Architecture

- ◆ Enterprise / LOB wide initiatives (macro-level)
 - ◆ Application portfolio rationalization
 - ◆ Reusable IT assets identification and service-enabling

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Entry Points to BPOA (cntd.)

■ Application Architecture (cntd.)

- ◆ Project initiatives (micro- level)
 - ◆ Integration across and inter-operability with heterogeneous systems / applications
 - ◆ Reuse (business logic / software utility) identification

■ Information Management

- ◆ Enterprise / LOB wide initiatives (macro-level)
 - ◆ Information virtualization (EII)
 - ◆ Database consolidation
 - ◆ Data-warehousing and business intelligence
 - ◆ Information semantics standardization
- ◆ Project initiatives (micro-level)
 - ◆ Data access services to fulfill business requirement

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Entry Points to BPOA (cntd.)

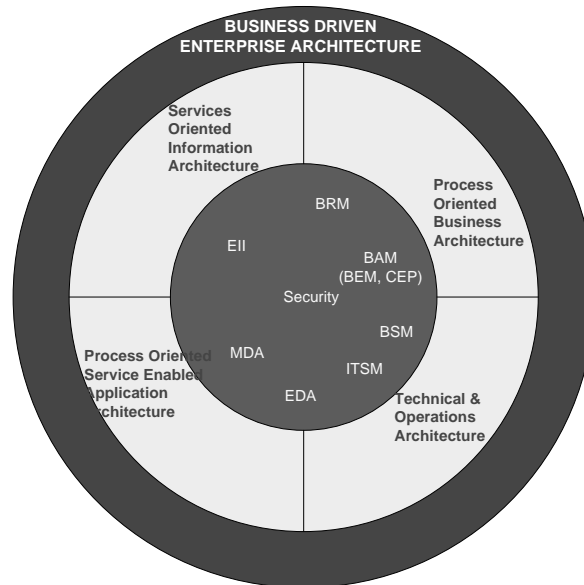
■ Technical Architecture

- ◆ Enterprise / LOB wide initiatives (macro-level)
 - ◆ Grid infrastructure to facilitate on-demand computing
 - ◆ Enterprise Service /Message Bus deployment

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A(rchitecture) in BPOA



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BPOA Reference Architecture ₁

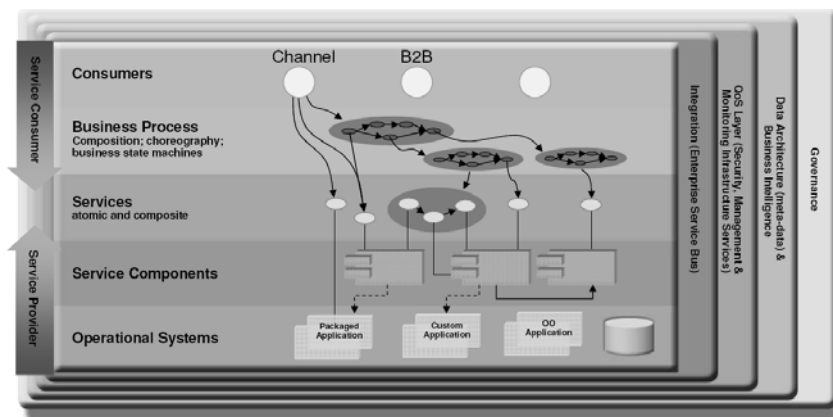
	Data (What)	Function (How)	Policy (How)	Network (Where)	People & Participants (Who)	Time (When)	Motivation (Why)
Service View	Business Ontology	Business Capability Model	Business Rule & Policies	Orchestration	Business Workflow Model	Business Event Response Model	Business Outcome Model
	Business Intelligence	Value Chain Model		Context			
	Business Type Model	Service Portfolio Plan	Service Policies	Business Collaboration Model	Ownership Model	Service Synchronization	ROI
	Domain Model	Service Description					
		Service Dependency Model					
	Business Component Model						Change Management Plan
Implementation View	Data Model	Service Specification	Service Provisioning Policies	Service Implementation Model			
	Service Information Model	Process Model	Service Implementation Policies			Service Synchronization	
		Component Model					
		Composite Application Model			Application Workflow Model		
Deployment View	Data Source	Operational Services	Service Deployment Policies	Service Deployment Model			QoS
		Service Mediation Model	Service Operation Policies				

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1 Adopted from CBDI Report

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BPOA Solution Architecture ₂



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2 Adopted from CBDI

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SOA - Next Steps

BPOA journey is not smooth

- Global issues
 - ◆ Economic, Geo-political
- Business issues
 - ◆ Growth, Competition
- Organizational issues
 - ◆ Work force, Infrastructure
- Technology issues
 - ◆ Tools, Standards, Products
- Confusions Galore !

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Baby steps to BPOA

- BPOA stands on three legs
 - ◆ BPM , SOA and ...
 - ◆ Don't forget Information Management
 - ◆ Information is the life-blood of BPOA
- Entry point choice is driven by
 - ◆ Enterprise need and pain points
 - ◆ Enterprise maturity level
- Component vs Suite approach
 - ◆ BPMS Suite addresses multiple areas of BPOA
 - ◆ Best of breed products are recommended

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Key Takeaways

- ◆ Think Business Processes not Functions
- ◆ Have Business and IT to collaborate
- ◆ Assign Business owners for each process domain
- ◆ Enable deep visibility into business
- ◆ Evolve to BPOA combining SOA and BPM
- ◆ Don't forget Information Management
- ◆ Constantly optimize BPOA model

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