



# Service Oriented Architecture (SOA) – A roadmap

Presented by

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Idhasoft Inc. (A thought leader in  
providing innovative solutions)**



# Introduction of Presenter

- BS with MBA (Finance, Systems) from Indian Institute of Management, Calcutta
- Worked as Manager, KPMG (now Bearing Point) in their Enterprise solutions practice in late 90s.
- Over 17 years of experience in Oracle and Technology.
- Worked in various technical, functional and management roles in more than 30 projects involving ERP and technology solutions (Extensive use of SOA and Oracle Fusion technologies).
- Currently heading Oracle ERP and Technologies practice at Idhasoft ([www.idhasoft.com](http://www.idhasoft.com)), a \$100 mil IT solutions provider

# Idhasoft's Service portfolio



- **Enterprise Applications**
  - Implementation
  - Upgrades etc.
- **Managed Support (On-site and Off-shore)**
  - Functional
  - Technical
  - DBA
  - Infrastructure
- **BI and Analytics**
  - Oracle/Siebel BI
  - Enterprise Data Warehouse
  - EPM
- **SOA and Middleware**
  - **SOA, Identity Mgmt, BPEL**
  - **Integration – Oracle Fusion, EDI, EAI, Web Services**
  - Java, J2EE, Oracle
- **Training**
- **Documentation**

# Objectives of today's presentation



- Why SOA?
- Understand SOA
- Understand Web Services
- SOA and Web Services correlation
- Common Implementation Strategies
- Idhasoft Roadmap to SOA adoption



# Why Service Oriented Architecture



# Service Oriented Architecture Benefits



- ❑ **Business Process Orchestration is simple:  
By the systematic reuse of each BPEL process.**
- ❑ **Quick and efficient IT reaction to changes in  
business processes**
- ❑ **Business process orchestration is entirely  
based on a canonical data model :**
  - ✓ **Unchanged user experience with a change in business  
process.**
  - ✓ **Adapt to any protocol for services: Platform / program  
environment changes do not effect business.**
- ❑ **Detail orchestration monitoring (using BAM &  
BPEL Console)**



# Service Oriented Architecture a Brief Introduction

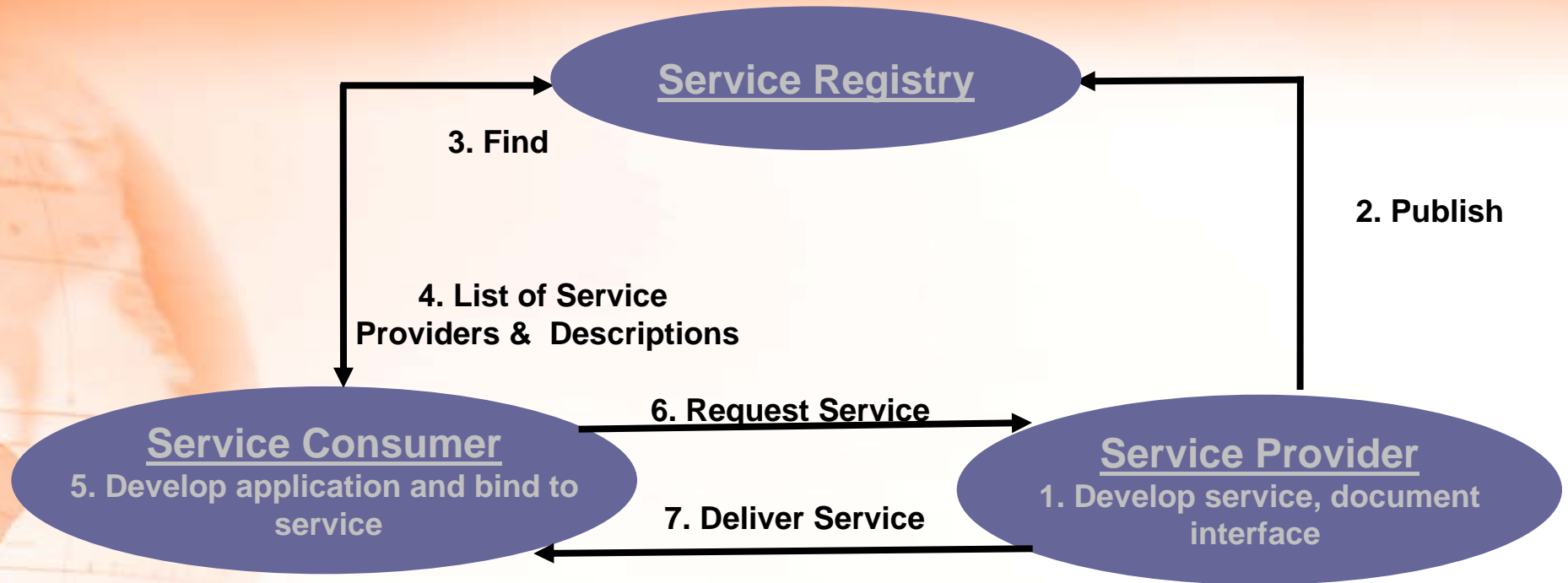


# Fundamentals of SOA



- **Services**
  - Business functions that are shared with others (Can be published and subscribed)
- **Processes**
  - Orchestrate services together
- **Organization**
  - All processes in a company put together

# SOA Entities

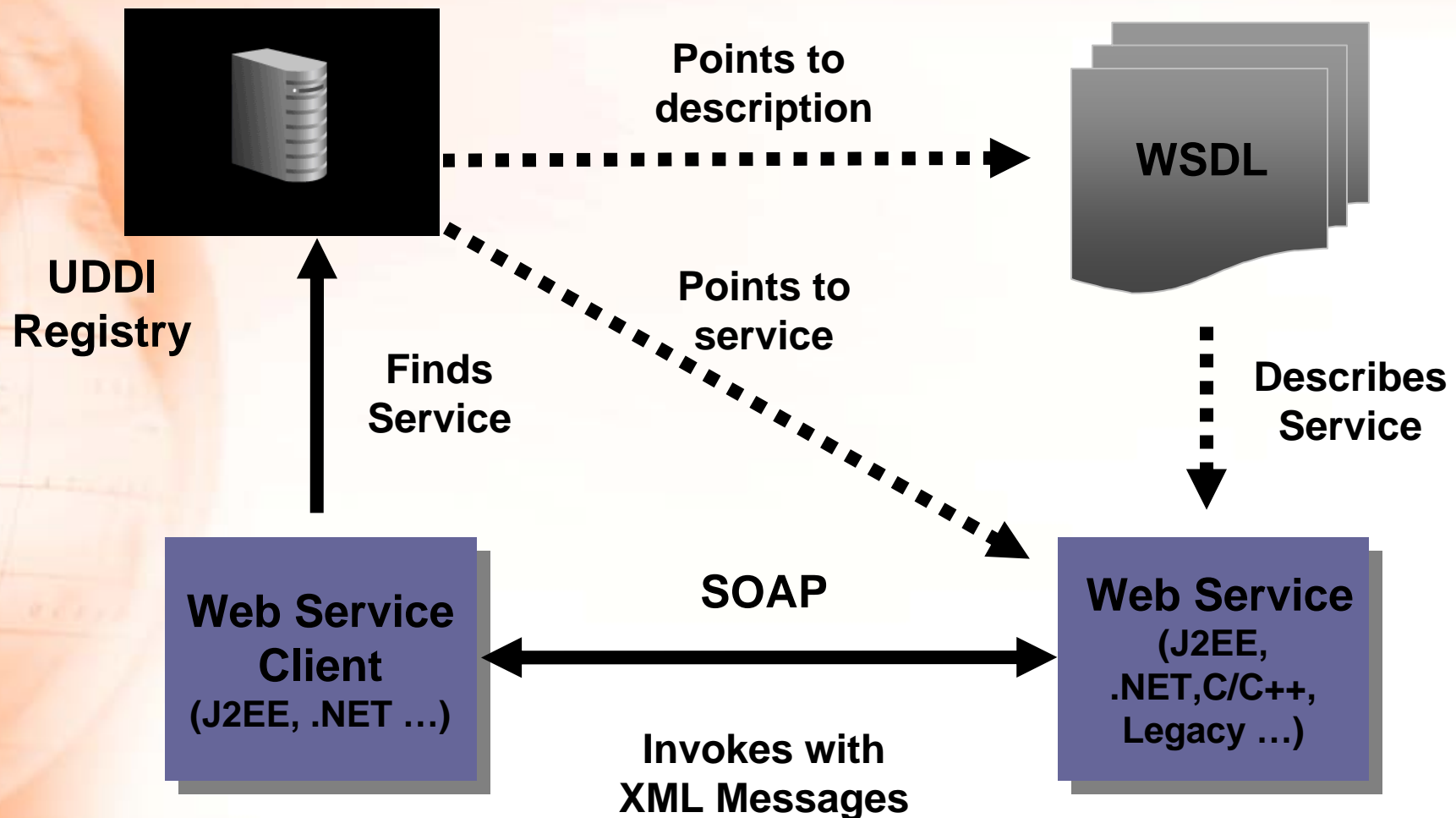


- Service providers deploy and publish services by registering them with the Service broker
- Service consumers find services by searching the Service broker's registry of published services
- Service consumers bind to the Service provider and consume the available services

# SOA Entities Contd..



## Web Services Technologies



# Common Principles of SOA



- **Services**
  - are reusable
  - are loosely coupled
  - are composable
  - are Inter-Operable
  - abstract underlying implementation
  - are discoverable
  - are autonomous
  - are stateless



# Web Services

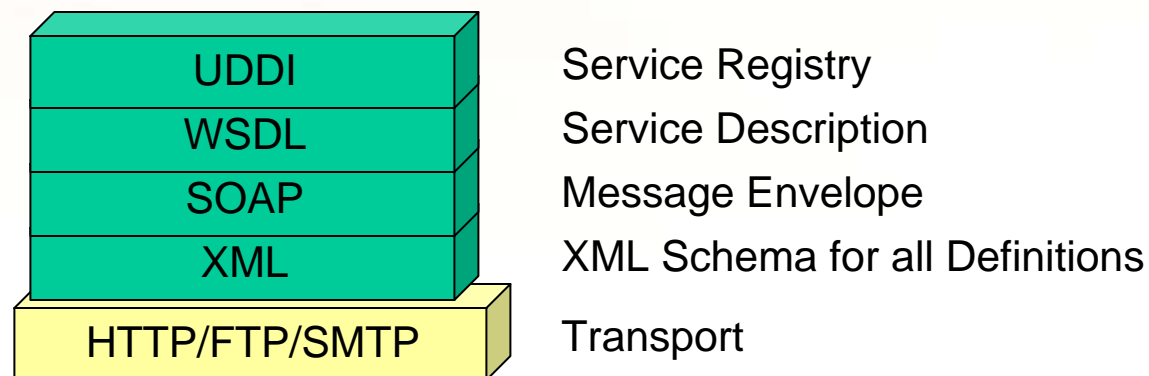
## A Brief Introduction



# What are Web Services?



- Web services:
  - are business functions as a form of web applications that can be published, located, and invoked across the web using any standard Internet protocols.
  - leverage existing HTTP infrastructure
  - leverage wide adoptability and flexibility of XML to define and package messages
  - Standards



# Web Services Framework



- Following are the basic characteristics of the Web Services framework:
  - An abstract (vendor-neutral) existence defined by standards organizations and implemented by (proprietary) technology platforms
  - Core building blocks that include Web services, service descriptions, and messages
  - A communications agreement centered around service descriptions based on WSDL
  - A messaging framework comprised of SOAP technology and concepts
  - A service description registration and discovery architecture realized through UDDI
  - A well-defined architecture that supports messaging patterns (Request-Response, Fire-and-Forget, Publish-Subscribe .. )
  - A messaging framework comprised of SOAP technology and concepts

# SOA and Web Services



- SOA
  - Services are reusable
  - Loosely coupled
  - Services abstract underlying implementation
  - Services are composable
  - Services are autonomous
  - Services are stateless
  - Services are discoverable
- Web Services
  - Not automatically reusable
  - Loosely coupled
  - Emulate blackbox model so abstract
  - Naturally composable
  - Not automomous
  - Supported by many WS\* standards
  - Discoverable using UDDI Directory



# SOA Implementation Methodologies



# Service Delivery Strategies



- **Top Down**
  - Start streamlining of processes
  - Break them down to functions / services
- **Bottom Up**
  - Identify functions / services
  - Orchestrate processes by utilizing services
- **Middle Rendezvous**
  - Identify Critical processes and work towards breaking them into functions / services
  - Identify critical functions / services and orchestrate them into processes



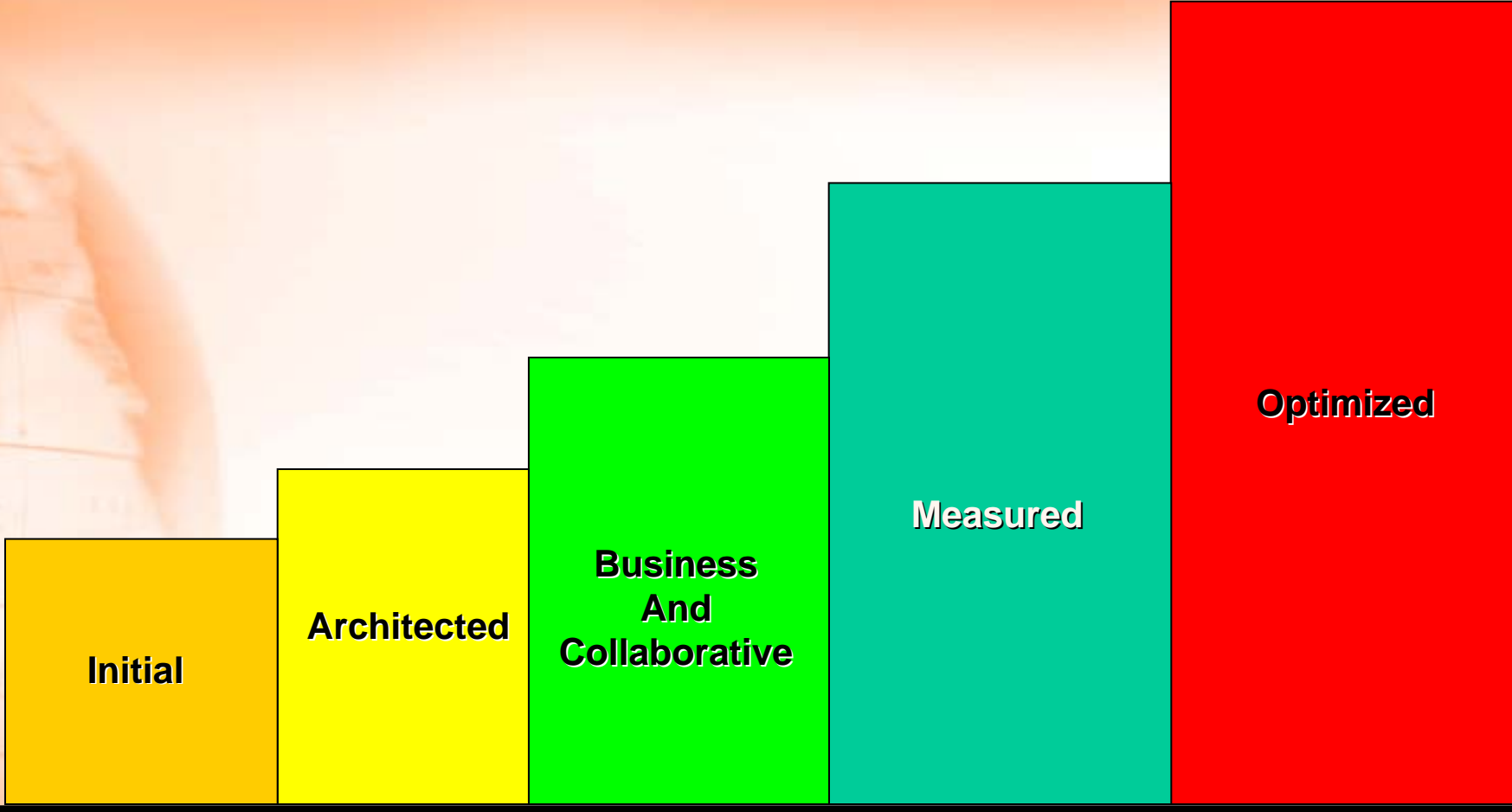
# Idhasoft's Roadmap to SOA Adoption

# Idhasoft SOA Consulting Portfolio



- **SOA Readiness Assessment, Strategy, Requirements Gathering, Analysis & Design, Integration using SOA & Web Services**
- **Our SOA Experts specialize in the following Oracle Fusion SOA technology components**
  - **Oracle 10g Application Server**
  - **Fusion BPEL based orchestration engine & Rules Engine**
  - **Business Activity Monitoring (BAM)**
  - **Enterprise Service Bus (ESB)**
  - **Business Integration (B2B)**
  - **Fusion Web Services Management for SOA Governance**
  - **Security & Identity Management**
  - **Portal Solution (Composite Applications)**
  - **Integrated Development Environment (JDeveloper & ADF)**
  - **Data Hubs (Master Data Management)**

# Idhasoft SOA Adoption Roadmap



**SOA From Tactical to Strategic**

# Idhasoft SOA Adoption Roadmap Continued...



## ■ Level 1: Initial

- Developers learn service development skills such as Web services standards, & Legacy Integration

## ■ Level 2: Architected

- Business Benefits: IT cost reduction and control
- Sponsorship: CIO sponsored, however still at the IT level

## ■ Level 3: Business & Collaborative

- Business Benefits: Business responsiveness, IT and business partnership
- Sponsorship: Business Unit sponsored

# Idhasoft SOA Adoption Roadmap Continued...



## ■ Level 4: Measured

- Scope: Business unit or enterprise, Cross-enterprise
- Business Benefits: Business transformation from reactive to real-time, Meet business performance metrics
- Sponsorship: CFO sponsored for maintaining business efficiency at the enterprise or cross-enterprise level

## ■ Level 5: Optimized

- Business Benefits: Business optimization — react and respond automatically
- Sponsorship: CEO sponsored for real time business model optimization in order to maintain competitive advantage



# Questions and Answers

Further information is available at:

[http://www.cavaya.com/services\\_oriented.php](http://www.cavaya.com/services_oriented.php)

Thanks for your time

With regards,

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