

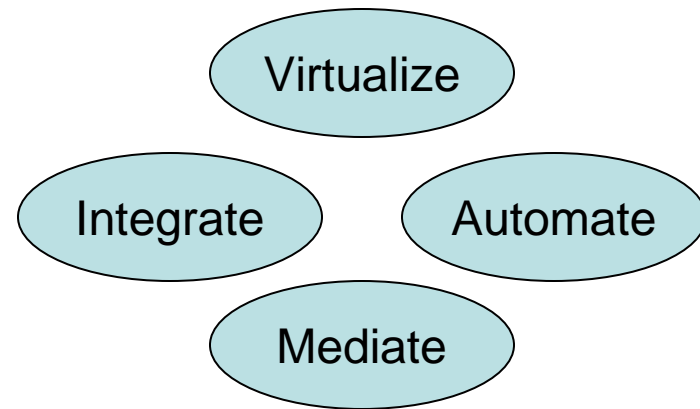
Service Oriented Architecture - SOA

Definition

An **architecture** that enables **discovery**, **integration** and **consolidation** of business processes within various enterprise systems

Key Features

- Abstraction at Functional Level
- Autonomous, Loosely Coupled
- Distributable
- Interoperable
- Reusable



Key Components

- Service –Business Function, Server, Storage, Network
- Interaction – Protocol, Command, Information Structure
- Awareness - Service Description and Discovery
- Infrastructure – Messaging, Events, Governance

Service Oriented Architecture - SOA

Key Steps for SOA Architecture Implementation

- Analyze current architecture and technology
- Define the service model (from business perspective)
- Define the architecture
- Re-factor the applications
- Migrate to new application

Key factors to consider for successful SOA implementation

- Understand the requirement for service
- Design for change
- Design for multiple transport technologies
- Ensure that it is autonomous – ownership boundaries
- Define Service Contract

Web Services

Definition

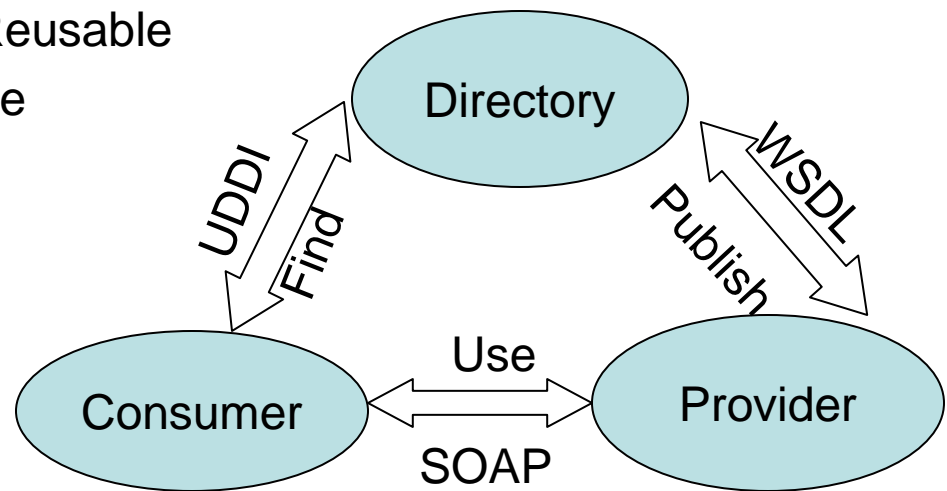
An **implementation** of SOA that uses messages to communicate across application over the **web** based network

Key Features

- Open Standards – TCP/IP, HTTP, XML
- Self Describing
- Discoverable
- Messaging / Interoperable / Reusable
- Supports Document Exchange

Key Components

- Service Provider
- Service Directory
- Service Requester



Web Services / SOA Key Benefits

- ✓ Location Independence
- ✓ System and Network Independence
- ✓ Leverage Existing Assets
- ✓ Better IT Utilization – Assembly and Integration
- ✓ Realize Inherent Value of Services
- ✓ Simple and Manageable
- ✓ Reusability at Service Level vs. Object Level
- ✓ Reusability at Deployment time vs. Design time
- ✓ Evolutionary Approach to Minimize Risk
- ✓ Agile and Adaptable
- ✓ Ability to Evolve and Scale
- ✓ Reduces Pair-wise Interfaces