SOA is a software architecture style that uses server-side, consumer-independent business components, accessed in an interactive manner via documented remotely accessible programmatic interfaces. It's modular and distributable.

**SOA Maturity Model and Key Features**

- **Business Goal**: Specific Pain Point (e.g., portal) - Process Integration (e.g., B2B) - Process Flexibility (e.g., time-to-market) - Continuous Adaptation and Evolution
- **IT Goal**: Proof of Concept - Establish Technology Platform - Leverage Services - Scale Up
- **Scope**: Single Application - Multiple Applications (single BU) - Multiple Applications (across BU) - Virtual Enterprise
- **Level 1 - Introduction**
  - Less than 10% of Services
  - Less than 20% of Service Consumers
- **Level 2 - Spreading**
  - Less than 20% of Services
  - Less than 50% of Service Consumers
- **Level 3 - Exploitation**
  - Less than 50% of Services
  - Less than 50% of Service Consumers
- **Level 4 - Plateau**
  - More than 50% of Services
  - More than 50% of Service Consumers

**Benefits**

- Integration and management methodologies
- Planning, control and quality management
- Service-oriented development of applications (SODA)

**Implications**

- Adaptation and
- Cost allocation
- End-to-end management
- Transaction management
- Infrastructure (SOA backplane)

**SOA Adoption Strategies**

- **Minimalist**
  - Use services to ease integration of internal systems.
  - Identify the least common denominator for active adoption of SOA.
- **Integration-Focused**
  - Align external and internal capabilities.
  - Identify external system interfaces lacking business partners and customers and offer those as web services.
- **Externally-Focused**
  - Adapt systems to support internal business processes.
  - Adapt systems to support external business processes.
- **Radical**
  - Go it alone and outsource the technology.

**Service Oriented Business Applications**

- Service-oriented business applications (SODA) are business applications structured in whole or part using an SOA.
- SOBAs use Web service standards for Web-based messaging, application access and interlocking, and business process transactions.
- The majority of initial SOBAs are limited in scope.
- New SOBAs will be constructed purely within an SOA.

**Service Oriented Development of Applications**

- Application development within an SOA is known as SODA.
- Using services as the primary unit of modularity requires a new approach that involves composing applications from sets of loosely integrated processes.

**SOA Futures**

- The future of SOA is likely to be driven by emerging technologies such as cloud computing, service-oriented architecture, and software-defined networking.
- The key to the future of SOA is the ability to integrate and interoperate with other systems and technologies.

**Gartner’s Position**

- Service-oriented architecture will shift developer focus from software functions to business functions.
- They may transform software from an inhibitor to a facilitator of rapid business change.
- Realizing these benefits will, however, require increased investment in software, infrastructure, skills, and business process change.

**Implications**

- Service-oriented architecture (SOA) can be leveraged as a driver for business process reengineering (BPR) to optimize the delivery of core business services.
- The adoption of SOA in an enterprise can be measured by the extent to which business processes are decoupled and the degree to which the SOA is integrated with the existing IT infrastructure.

**Gartner’s Roadmap to SOA**

- The roadmap to SOA is divided into four levels: Introduction, Spreading, Exploitation, and Plateau.
- Each level is characterized by specific objectives and deliverables.
- The roadmap is designed to help organizations understand the benefits and challenges of adopting SOA and to guide them in planning their implementation strategy.