

## SOA

SOA - Service Oriented Architecture

SOA is an architecture design which includes collection of services in N/w which communicate with each other.

The complication of each service is not noticeable to other services. The service is a kind of operation which is well defined, self contained that provides separate functionality such as checking customer account details, print bank statements etc. & does not depend on the state of other services.

Why we use SOA

- SOA is widely used in market which responds quickly & makes effective changes according to market situations.
- SOA keep secret the implementation details of subsystems.
- It allows interaction of new channels with customers, partners & suppliers.

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- it authorizes the companies to select s/w or h/w of their choice as it acts as platform independence.

### Features of SOA :

- SOA uses interfaces which solves the difficult integration problems in large system.
- SOA communicate customers, providers & suppliers with msg by using the XML Schema.
- It uses message monitoring to improve the performance measurements & detects the security attacks.
- As it reuses the services, there will be lower s/w development & mgnt cost.

### Advantages of SOA

- SOA allows reuse the services of an existing system alternately building the new system.



- it allows plugging in new services or upgrading existing services to place the new business requirements.
- It can enhance the performance, functionality of a service & easily makes the system upgrade.
- SOA has capability to adjust or modify the different external environments & large applications can be managed easily.
- The companies can develop appl<sup>n</sup>s without replacing the existing appl<sup>n</sup>.
- It provides reliable appl<sup>n</sup>s in which you can test & debug the independent services easily as compared to large no. of code.

### Disadvantages of SOA

— SOA required high investment cost.

- There is greater overhead when a service interacts with another service which increases the response time & machine load while validating the input parameters.
- SOA is not suitable for GUI appl<sup>n</sup> which will become more complex when the SOA required the heavy data exchange.