SOAP Webservices

**1) Define Web Service?**

A web service is a kind of software that is accessible on the Internet. It makes use of the XML messaging system and offers an easy to understand, interface for the end users.

**4) How you define web service protocol stack?**

It is basically set of various protocols that can be used to explore and execute web services. The entire stack has four layers i.e. Service Transport, XML Messaging, Service Description and Service Discovery.

**5) Can you define each of these layers of protocol stack?**

The Service Transport layer transfer messages between different applications, such as HTTP, SMTP, FTP, and Blocks Extensible Exchange Protocol (BEEP). The XML Messaging layer encodes messages in XML format so that messages can be understood at each end, such as XML-RPC and SOAP. The Service Description layer describes the user interface to a web service, such as WSDL. The Service Discovery layer centralizes services to a common registry and offer simple publish functionality, such as UDDI.

**6) Define XML – RPC?**

It is a protocol that makes use of XML messages to do Remote Procedure Calls.

**7) Define SOAP?**

SOAP is an XML based protocol to transfer between computers.

**8) Define WSDL?**

It means Web Services Description Language. It is basically the service description layer in the web service protocol stock. The Service Description layer describes the user interface to a web service.

**9) What kind of security is needed for web services?**

The security level for web services should be more than that of what we say Secure Socket Layer (SSL). This level of security can be only achieved from Entrust Secure Transaction Platform. Web services need this level of security to ensure reliable transactions and secure confidential information .

**10) Do you have any idea about foundation security services?**

As implies from its name, these services are the foundation or basics of integration, authentication, authorization, digital signatures and encryption processes.

**11) Define Entrust Identification Service?**

Entrust Identification Service comes from the Entrust Security Transaction Platform. This platform allows companies to control the identities that are trusted to perform transactions for Web services transactions.

**12) What UDDI means?**

UDDI stands for Universal, Description, Discovery, and Integration. It is the discovery layer in the web services protocol stack.

**3) Define Entrust Entitlements Service?**

This service verifies entities that attempt to access a web service. For Example, the authentication service, the Entitlements Service ensures security in business operations.

**14) Define Entrust Privacy Service?**

As its name implies, it deals with security and confidentiality. This service encrypts data to ensure that only concerned parties can access the data.

**15) What do you mean by PKI?**

It means Public-Key Infrastructure.

**17) Differentiate between a SOA and a Web service?**

SOA is a design and architecture to implement other services. SOA can be easily implemented using various protocols such as HTTP, HTTPS, JMS, SMTP, RMI, IIOP, RPC etc. While Web service, itself is an implemented technology. In fact one can implement SOA using the web service.

**18) Discuss various approaches to develop SOAP based web service?**

We can develop SOAP based web service with two different types of approaches such as contract-first and contract-last. In the first approach, the contract is defined first and then the classes are derived from the contract while in the later one, the classes are defined first and then the contract is derived from these classes.

**26) How can you document web service?**

Web services are contemplated as self-documenting because they provide entire information regarding the available methods and parameters used for XML based standard, known as WSDL. One can also provide more information to explain web services via their own WebService and WebMethod attributes.

**46) How can one access the web service class method via internet?**

To access web service class method via internet, one should qualify a method with the WebMethod attribute.

**47) How a SOAP message is structured?**

A SOAP message is consists of SOAP Envelope, SOAP Headers, and SOAP Body.