



'SOAP'

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The Simple Object Access Protocol (SOAP) has been primarily designed to support the exchange of application data using HTTP in XML encoding, to provide intra-process communication across machines and platforms.

SOAP is a protocol created by Microsoft, DevelopMentor, and Userland Software and is backed by major computer companies like IBM, Lotus, Sun, Borland and Compaq to name a few.

1. Simple Object Access Protocol (SOAP)...

- ◆ Is a lightweight protocol for exchange of information in a decentralised, distributed environment, for invoking methods on servers, services, components and objects.
- ◆ Utilises the existing HTTP fabric of the Internet to carry method requests that are encoded as XML, both for ease of parsing as well as being platform and language independent.
- ◆ Mandates a small number of HTTP headers that facilitate firewall/proxy filtering.
- ◆ Mandates an XML vocabulary that is used for representing method parameters, return values, and exceptions.

2. Lets get under the hood ...

SOAP is a call-response mechanism, which operates in a client-server type scenario. An application makes a call to the server (somewhere on the internet), passing in parameters; and the server provides a response. Both call and response are transported using HTTP as a carrier, in the form of an XML based protocol.

3. System Administration

- ◆ SOAP can be easily implemented with existing technologies, providing diversity to applications and reducing possible future conflicts.

- ◆ The SOAP framework provides a more practical solution for remote cross-platform communication than that is presently available. With configuration being relatively straightforward.

- ◆ There are well-supported toolkits provided at present, and programmers experienced with remote procedure call APIs such as Java's RMI or Microsoft's COM+ will find the SOAP toolkits familiar.

4. Significant Applications

As SOAP provides an easier way of implementing remote cross-platform communication, it offers a significant step, towards further developing the integration, of the following models:

- ◆ Business to Business
- ◆ Business to Consumer
- ◆ Business to Employee
- ◆ Business & Consumer To Government.

5. Conclusion

SOAP is important for application development allowing Internet communication between programs. At the moment Soap appears to be a good option for this.

Many of today's existing technologies such as DCOM and IIOP (CORBA) use remote procedure calls (RPC) for communication between objects. RPC calls have compatibility and security problems, with firewalls and proxy servers normally blocking this kind of traffic.

SOAP provides a solution, for remote communication between applications running on different operating systems, with differing technologies and diverse programming languages.

REFERENCES

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