**SOAP** (**Simple Object Access Protocol**) is a messaging [protocol](https://en.wikipedia.org/wiki/Protocol_(computing)) specification for exchanging structured information in the implementation of [web services](https://en.wikipedia.org/wiki/Web_service) in [computer networks](https://en.wikipedia.org/wiki/Computer_network).

It uses [XML Information Set](https://en.wikipedia.org/wiki/XML_Information_Set) for its [message format](https://en.wikipedia.org/wiki/Message_format), and relies on [application layer](https://en.wikipedia.org/wiki/Application_layer) protocols, most often [Hypertext Transfer Protocol](https://en.wikipedia.org/wiki/Hypertext_Transfer_Protocol) (HTTP), although some legacy systems communicate over [Simple Mail Transfer Protocol](https://en.wikipedia.org/wiki/Simple_Mail_Transfer_Protocol) (SMTP), for message negotiation and transmission.

SOAP allows developers to invoke processes running on disparate operating systems (such as [Windows](https://en.wikipedia.org/wiki/Microsoft_Windows), [macOS](https://en.wikipedia.org/wiki/MacOS), and [Linux](https://en.wikipedia.org/wiki/Linux)) to authenticate, authorize, and communicate using [Extensible Markup Language](https://en.wikipedia.org/wiki/XML) (XML). Since Web protocols like HTTP are installed and running on all operating systems, SOAP allows clients to invoke web services and receive responses independent of language and platforms.

**REST:** SET OF STANDARDS HOW TO COMMUNICATE ON THE WEB

**SOAP:** MESSAGING PROTOCOL TO EXCHANGE INFORMATION