

In about 200 words, outline the difference between the Simple Object Access Protocol (SOAP) and the Representational State Transfer (REST) principle as they are used in the creation of Web services. In your answer, discuss the advantages and disadvantages of each.

The Simple Object Access Protocol (SOAP) is a standard communication protocol system that allows communication between applications running on different operating systems using XML technologies. Some advantages to SOAP are that it is standardized, has built-in error handling, and that it does not require use of HTTP like REST does because it is language, platform, and transport independent. SOAP would be great for enterprise solutions, since you can use SOAP APIs to create, update, delete, or retrieve records. Records including accounts, passwords, and custom objects from a server.

Representational State Transfer (REST) principle is not a protocol like SOAP but is rather an architectural style. It does not follow a standard, but does follow six constraints which include Uniform Interface, Client-Server, Stateless, Cacheable, Layered System, and Code on Demand. REST APIs return all relevant information about a resource in a format that is easily interpreted, after receiving requests for it. Some advantages to REST are that it is easier to learn, it is fast because there is no extensive processing required, and that it is efficient since it uses smaller message formats like JSON while SOAP only uses XML. REST is excellent when building mobile applications.

Sources:

[Difference between REST API and SOAP API - GeeksforGeeks](#)

[SOAP vs. REST APIs: The Key Differences Explained for Beginners \(hubspot.com\)](#)