

8. 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.

Simple Object Access Protocol, SOAP, and Representational State Transfer, REST, are both essential to how the internet works. Both SOAP and REST facilitate communication across different systems, programming languages and devices. This allows developers to use different programming languages to build their websites and REST and SOAP bridge the gap so they can communicate. They both also help with integration of services by again allowing information to pass through different devices and work cohesively. The internet would not be what it is today without the use of these two web services.

While SOAP and REST accomplish the same task, they are different. SOAP is a message-based protocol that works on how marked up language passes from one device to another. REST is an architectural style that helps identify and locate sites and elements that make up the web pages. Another difference is that of their formats. While both work with XML, REST is available in other formats like JSON and HTML. Another contrasting fact is what they are typically used for. SOAP does well when security and reliability are of the utmost importance. While REST is best for more modern applications and is considered more simplistic, lightweight and easier to work with.

Resources:

Schneider , G. P. (2017). *Electronic commerce* (17th ed.). Cengage Learning.

[https://blog.postman.com/soap-vs-rest/#:~:text=Simple%20Object%20Access%20Protocol%20\(SOAP\)%20is%20a%20protocol%20for%20exchanging,the%20functionalities%20of%20an%20API.](https://blog.postman.com/soap-vs-rest/#:~:text=Simple%20Object%20Access%20Protocol%20(SOAP)%20is%20a%20protocol%20for%20exchanging,the%20functionalities%20of%20an%20API.)

[https://raygun.com/blog/soap-vs-rest-vs-json/#:~:text=The%20SOAP%20specifications%20are%20official,page%20load%20time%20and%20revenue\).](https://raygun.com/blog/soap-vs-rest-vs-json/#:~:text=The%20SOAP%20specifications%20are%20official,page%20load%20time%20and%20revenue).)

<https://www.akana.com/blog/soap-vs-rest-api/#:~:text=Back%20to%20top-.What's%20the%20Difference%20Between%20SOAP%20and%20REST%20APIs?,mobile%20apps%20can%20be%20challenging.>

<https://aws.amazon.com/compare/the-difference-between-soap-rest/>