

David wysocki

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Module 9 - Chapter 9 Exercise

Representative state transfer (REST) and simple Object Access Protocol (SOAP) are the most widely used communication service methods. SOAP has been the longest standard approach to web service interfaces whereas REST has been dominating in the most recent years. These two methods may do the same job but differ significantly when applying to a website. REST is based more on design styles, which works over HTTP for communication, whereas SOAP is a protocol with strict standards and is helpful for complex system operations. REST generally sends data in the format of JSON but also supports multiple formats. It also uses HTTP methods like GET, POST, and DELETE which makes for easy usage. It also utilizes a uniform resource identifier which helps it identify everything as a resource on the web page. SOAP differs in that it allows the transfer of data from structured information without needing any platform. It uses XML data format for complex syntax, and it normally has strict standards ensuring security. SOAP is a very secure communication method relying on SSL and WS security. There are many advantages and disadvantages to each communication method soap and rest. Advantages of soap would be its secure communication, reliable messaging, and its built-in error handling, and some disadvantages would be its heavy toll on the XML only formatting and it's a lot harder to implement. REST also has its advantages by being lightweight and faster using JSON, but it also has its disadvantages like the lack of security and no standard for messaging format. In conclusion, both REST and SOAP offer a lot of versatility for web service communication. REST is often used on application that specifically need speed and flexibility they're perfect for a modern web page or mobile applications, whereas SOAPS overwhelming security and strict standards set the tone for enterprise communication or business-related applications.

Sources:

<https://www.geeksforgeeks.org/difference-between-rest-api-and-soap-api/>

<https://stackify.com/soap-vs-rest/>

