The Secure Socket Layer (SSL) certificate plays a significant role in Web applications as it keeps data secure on websites. Any Website that collects data from its users will have an SSL certificate in place to allow authentication between the Website server and the user's computer. SSL certificates that are hosted on the same server as the website can put a lot of pressure on the server and the website, which is why SSL offloading is a better option for many Website owners.

Features of SSL Offloading

SSL offloading works by moving the SSL processing from the main Web server to another SSL device that is optimized to process this data as quickly as possible. This device processes both the SSL encryption and decryption – two tasks that typically bog down the main Web Server. The encryption and decryption process faster than they would on your original Web server. Ultimately, this results in a smoother process for the end user as the Website loads and processes data considerably faster. Your Web server will also be less strained and will better support the many other functions it performs.

Benefits of SSL Offloading

SSL offloading has a couple different benefits that make it such an attractive option for Website developers and owners. One benefit is that the main Web server no longer has to process the SSL encryption and decryption itself, so it is free to reallocate these resources to fighting other common problems like phishing and hacking. Another benefit is that SSL offloading boosts the speed of the speed of the Website, which enables the Website to better handle the demands from its users without increasing the number of Web servers in use. SSL offloading is a huge cost saver in this regard, as additional servers can cost a lot of money.

Types of SSL Offloading

It's important to understand the two types of SSL offloading so you can pick the right one for your Web server. SSL termination is a form of SSL offloading that takes the encrypted data and then decrypts it on another device, before then passing this decrypted data to the Website. The data is secure because it goes through both a firewall and a secure detection system. These two measures keep the unencrypted data safe from any possible threats.

SSL bridging is the other type of SSL offloading. SSL bridging is different in that the data is decrypted and then checked thoroughly for any malicious code. The data is re-encrypted and passed through again before it is even allowed to reach the main Web server. SSL termination is preferred by those who want the fastest possible SSL offloading because SSL bridging's extra step makes the process go slower.

https://www.techwalla.com/articles/what-is-ssl-offloading