


Why ZT Browser provides SSL security test rating service for free?

All browsers have said "Not secure" to http websites, this is because http cleartext transmission is very easy to be illegally stolen and illegally tampered with, and this is zero trust to cleartext transmission. The author has not only continued to promote the popularization of SSL certificates, but also emphasizes the correct deployment of the SSL certificate. Do not think that the website deployment of the SSL certificate is really secure. The unsecured SSL certificate deployment will bring more security risks.

Let's draw an analogy for website as house, if an SSL certificate is not deployed, the web server only needs to open one door (port 80), while if an SSL certificate is deployed, another door (port 443) needs to be opened. But we cannot close the door 80, since someone will enter the house from door 80, then should be led to door 443. In other words, in order to build an encrypted passage, the house has to open another door. However, if the security of the door 443 is irresponsible, it means that a new unsafe passage has been added, which may be worse than only open door 80. This must not be the result that the user wants. The user deploys an SSL certificate on the server is for adding an encrypted channel for transmitting confidential information and close the cleartext transmission channel. If someone wants to come in through the cleartext channel, he/she will be guided to the encrypted channel. Therefore, the security measures of this encrypted channel are very important.

As early as December 6, 2010, the author published the article "[There are security vulnerability in the deployment of SSL certificate in Internet banking](#)" as a special writer for "China Computer World", pointing out six major security problems in the deployment of SSL certificates in Internet banking of major banks at that time. Today, 12 years later, not only the Internet banking system, but also the SSL certificate deployment of ecommerce websites, payment websites, and e-government websites still have many deployment security problems. Therefore, the author believes that it is necessary to find a solution that can help website visitors to keep abreast of the security status of the SSL certificate deployed on the website.

This solution is coming soon! ZT Browser integrates SSL security test rating service exclusively and innovatively in the world. When users use ZT Browser to access any https website, they only need to click the security padlock to display the result of the SSL server test rating, as shown in the following figure. There are six grades of SSL server test: A, B, C, D, E, and F, corresponding to 80 or above, 65 or above, 50 or above, 35 or above, 20 or above, and below 20 points. Some rules will increase to A+ or deduce to A-, which is equivalent to 95 or 90 points. There are also two special levels, one is M grade (certificate name mismatch) and T grade (certificate is not trusted), which is equivalent to the ZT Browser's  icon.



Users can click on "SSL Rating" to learn more about the server test service details, which will show the SSL certificate chain, supported SSL/TLS protocol versions, cipher suites, and detailed information on SSL protocols (such as: whether to support Secure Renegotiation, whether to support Downgrade Attack Protection, whether to support Forward Secrecy, whether to support HTTP Strict Transport Security (HSTS), whether there are some known vulnerabilities, etc.), and display the handshake simulation of all versions of browsers, etc. You can learn more about each test indicator situation, understand why the points are deducted for each item, and how to improve the configuration of the SSL certificate to improve the test score, so that you can fix the SSL security vulnerability in time, and allow the SSL certificate to be deployed correctly to truly protect the website security, do not increase the security risk of the website because another encrypted channel is opened.



This SSL security test service is provided by QUALYS' SSL Labs: <https://www.ssllabs.com/ssltest/> ,

which test the website from 4 dimensions including SSL certificate, protocol support, key exchange, and cipher strength. ZoTrus SSL Security Test and Rating Service calls the API and get the test results, and ZT Browser display it directly on the browser UI. It is very convenient for users to check the security status of the SSL certificate deployment of the website they visited, and to let the website owner can find the problems in time and fix it in time.

ZoTrus SSL Security Test and Rating Service also reflect the zero trust principals. It does not trust users to correctly deploy SSL certificates, but provides users with tools for self-checking, so that users can discover security vulnerability in time and fix it in time. ZoTrus SSL Security Test and Rating Service is a free service for ZT Browser users, makes the website more secure, all for the user's sake.

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In Shenzhen, China