## The UI innovation practice of ZT Browser

The launch of ZT Browser has caused a great sensation and success in the world, and its market share has been rising steadily. Users from more than 100 countries and regions have downloaded and used ZT Browser, especially the recent fail of the membership application of CA/Browser Forum, this case has made global users realize the true face of existing browsers suppressing new upstart. ZT Browser can only repay the love of users around the world if it continues to innovate.

Today, ZT Browser released an updated version. This update mainly listens to the opinions of experts from the international organization - PKI Consortium and continues to innovate on the browser UI.

One of the UI innovations is that the padlock is no longer displayed for DV SSL certificates with a validity period of less than 100 days. These free SSL certificates deployed with zero threshold and zero cost have become the standard configuration of fraudulent and counterfeit websites. These websites are no longer secure. Of course, there are also some trusted websites that deploy this type of SSL certificate. However, ZT Browser has been unable to identify which of these websites are fraudulent websites and which are trustworthy websites, so it has no choice but not to display the padlock of these websites and does not display the "secure lock" displayed as "secure" by Google Chrome. Hopefully, this innovation of not displaying the padlock will draw the attention of users to be highly cautious about the websites they are visiting. In addition, we have retained the T1 certification icon, which is also to strengthen the notice to users that this website "only validated the domain control, website identity is not validated". As shown in the left figure below. However, if the website has passed trusted identity certification, even if the free DV SSL certificate with a validity period of less than 100 days is deployed, the padlock and trusted level icon will still be displayed, highlighting the importance of website trusted identity validation, as shown in the right figure below.
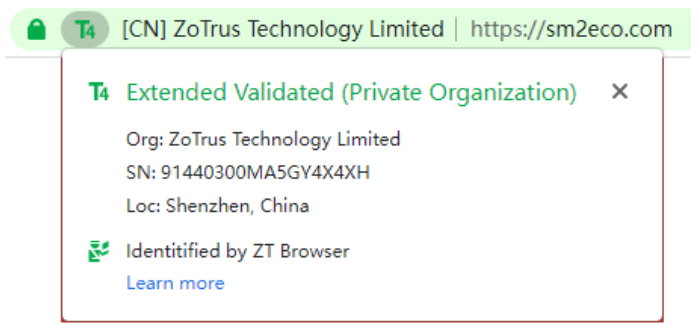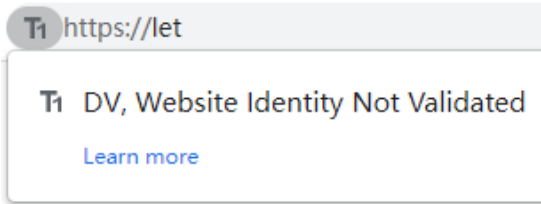
The second UI innovation is to not display any icon on the website deployed with the SSL certificate issued by the ZT Browser untrusted CA, and only display the https URL. The reason why the https URL is still displayed normally instead of being displayed as "Not secure" is because the root certificate of this CA is trusted by default in the Chromium and in OS. That is to say, starting from this version, ZT Browser has already started to do subtraction, and started to delete the default trusted root certificate in the Chromium or keep this root certificate but no longer display the padlock and trusted level icon, so that the adjustment is very friendly to websites that have deployed SSL certificates issued by the ZT Browser untrusted CAs, and will not affect users' normal access to these websites.
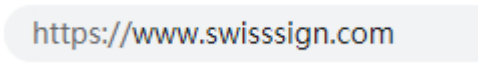
The UI innovation of today's updated version focuses on how to particularly prominently display websites that have not passed trusted identity validation, reminding users to browse these websites carefully. Prior to this, the focus of UI innovation was how to specifically and prominently display websites that have passed trusted identity validation and have security protection, helping these websites stand out and win users' online trust. Although these features have been written in other blog posts, they will be discussed in this article again today.

ZT Browser is positioned as a CA-friendly browser, because the Chief Architecture of the browser has 18 years of experience in CA system development and CA business operations. ZT Browser has four major UI innovations, which are represented by 4 different icons in the address bar.
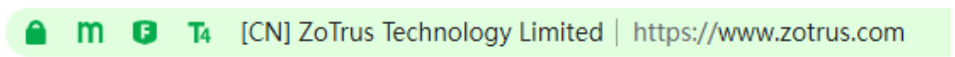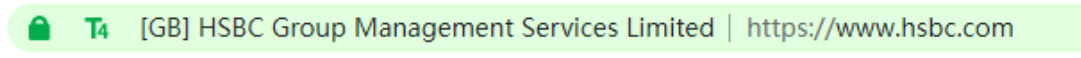
The first UI innovation of ZT Browser is to make the green address bar that has disappeared for more than three years return to the user's sight strongly, so that websites deployed with EV SSL certificates can display the green address bar and display the trusted identity information of the website. This UI innovation adheres to the original intention of the green address bar when it was invented - to help Internet users quickly identify whether a website is trustworthy, which can greatly reduce the risk of users encountering fake bank websites. Of course, it is very popular among users. At the same time, you can imagine how important this innovation is to CAs! When the green address bar existed, the sales of EV SSL certificates accounted for more than 25% of all SSL certificates, but now it has dropped to 0.07%. You can estimate the economic loss of CAs! Therefore, returning to the green address bar of EV certification is a very welcome thing for Internet users and CAs. Everyone should understand why ZT Browser is so popular now.

The second UI innovation of ZT Browser is to display the SM2 encryption icon **m**, so that users can know at a glance that this website uses the SM2 algorithm to realize https encryption, which is in compliance with the Cryptography Law. This innovation not only allows Internet users to know the cryptography algorithm used by the website at a glance, but also enables the administrative authority in charge of cryptography to easily know whether the website to be checked is a website that complies with the Cryptography Law, which can greatly promote the popularization and deployment of SM2 SSL certificate application, to ensure that China websites can calmly deal with the catastrophic impact on website security due to sudden changes in the international situation, and to avoid security incidents in which RSA algorithm SSL certificates are illegally revoked and supply-broken due to similar Russian-Ukrainian conflicts.

The third UI innovation of ZT Browser is the cloud WAF protection icon **F**, so that users can know at a glance that this website has adopted a trusted cloud WAF protection service, which is compliant with the Cybersecurity Law, and can effectively protect the security of the website. Users are assured of submitting personal data and engaging in online transactions on this website.

The fourth UI innovation of ZT Browser is to display the trusted validation level T4 of the website. The larger the number, the higher the trusted level and the stricter the identity validation. The next is to display the real identity information of the validated website, so that users can identify the website

owner at a glance, so that the users can efficiently identify fake websites, even if the fake website is designed to be exactly the same as the real website.

ZT Browser UI design has been constantly innovating. If you have unique insights on browser UI design, welcome to tell us your opinions, and we will definitely value your opinions.

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In Shenzhen, China