

# How to Load Your Secure Sites Faster with ZNetLive's SSL Certificates?

## INTRODUCTION

Whenever a visitor visits your website and connects to it, his browser first asks your website's server for the SSL certificate details and once it obtains the same, it contacts the Certificate Authority (CA) who issued the said SSL certificate to know if your SSL certificate is still valid. Once the Certification Authority gives a "thumbs up", the visitor's browser proceeds for loading your website.

This complete transaction translates to slower website loading time and more waiting time for your website visitors, which you surely want to avoid. Websites that take longer to load lose on potential customers as no visitor today wants to wait on the web.

ZNetLive's SSL certificates, provided in partnership with GlobalSign - the leading CA, and CloudFlare -the network performance specialist, ensure that this transaction takes place blazingly fast and the loading speed of your website is never adversely impacted.

## WHAT HAPPENS WHEN CONNECTION BETWEEN AN SSL SECURE SITE AND A BROWSER IS ESTABLISHED?

A short summary of what happens whenever a connection between secure site and browser is established is as follows:

- A visitor's browser asks the website's server for providing its SSL certificate for establishing secure connection.
- Server provides it to the browser.
- Browser recognizes the Certificate Authority (CA) who issues the SSL certificate and contacts it to know if the certificate is valid.
- CA checks it and confirms its validity in case it's not revoked.
- Following confirmation from CA, the browser then requests the server for the page content.

This process that takes place between the secure site and visitor's browser is called 'handshake' or an Online Certificate Status Protocol (OCSP) response.

## WHY IS SITE SPEED IMPORTANT?

The 'handshake' or OCSP response takes around 500ms and depends upon CA's infrastructure efficiency as well as the physical location of the user with respect to the CA. This may seem like a small amount, but in reality every millisecond counts. The more is the waiting time, the more is the possibility of someone losing interest and moving away from the webpage. Site speed is of utmost importance and especially in the case of SSL usage as the website content is not rendered and the page is left blank till the time of successful handshake completion.

## HOW DO ZNETLIVE'S SSL CERTIFICATES INCREASE THE LOADING SPEED?

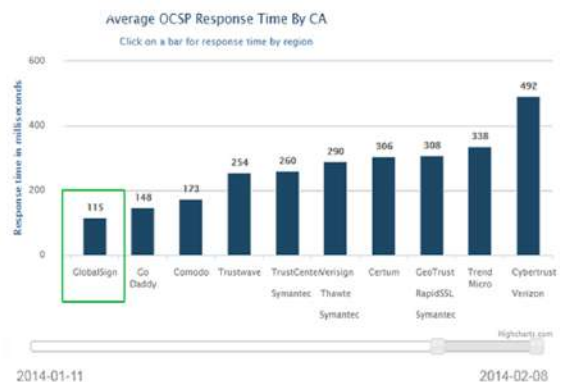
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Most Certificate Authorities have only few datacenters around the globe, and rely on a limited quantity and quality of infrastructure to respond to all 'handshake' requests, which is the primary reason for the OCSP response time being as high as 500ms.

In order to increase the SSL loading speed, ZNetLive's SSL certificates use CloudFlare and their infrastructure across the globe to provide certificate status requests speedily, thus accelerating OCSP responses to nearly 50ms (which is 1/20th of a second).

CloudFlare's expertise lies in network performance and speeding up website loading times. When a request for certificate validity is made, in place of depending on just one datacenter to deliver it, the request is directed to 23 datacenters around the globe, each having top notch infrastructure, and whichever datacenter happens to be nearest to the visitor's geographical location, delivers the certificate status and all other data that the visitor's browser asks for. This removes any geographic delays, and significantly reduces the website loading time, which is of paramount importance if you want to convert your website visitors into customers.

See the recent OCSP Response time report of different CA's to compare GlobalSign's (ZNetLive's CA) SSL certificate performance with other CA's.



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### CONCLUSION

The very reason that you invest money in an SSL certificate is because you want to gain your website visitor's trust and convert him into a potential customer. If your SSL certificate doesn't deploy the best-in-class technology to ensure fast loading time for your website, then the whole process becomes counter-productive and can instead cause you both customer and revenue loss.

ZNetLive, GlobalSign and CloudFlare have successfully achieved the faster SSL loading and are optimistic about enjoying the competitive advantage over others in the near-term.

### AboutGlobalSign

GlobalSign has been in the business of providing SSL Certificates since 1996. It is one of the world's first CA (Certificate Authority). It offers services in multiple languages and its technical support is present in places like London, Brussels, Boston, Tokyo and Shanghai.

GlobalSign is a leader in public trust services the market of SSL Certificates. Its Certificates include SSL, Code Signing, Adobe CDS Digital IDs, Email and Authentication, internal PKI and Microsoft Certificate Service etc. GlobalSign's root CA Certificates are trusted and recognized by all the major web browsers, operation systems, internet applications, email clients and all the mobile devices as well.

### About ZNetLive

ZNetLive is India's leading web hosting provider which has been providing its services since 2001. At ZNetLive, our goal is simple-our customers' online success. And we touch this goal every day, providing Domains Registration, Web Hosting, Business Email, Websites, Business Apps and more, to our diverse global customer base, who make us what we are.

Our state of the art infrastructure and datacenters in Washington, Seattle, Dallas, Mumbai and Bangalore are second to none, we are successful because we promise, and deliver 99.9% network uptime to every single customer of ours. We've been in the industry since 11 years and our experience shows in the finesse of our unparalleled products.