

GlobalSign

Industry

- Technology

Solutions



Managed DNS



Pulsar Active Traffic Steering

Challenge

GlobalSign provides PKI (Public Key Infrastructure) and identity solutions for large enterprises and IoT organizations across the world. Sounds simple, but when put into context – GlobalSign’s infrastructure needs to scale from millions to billions of certificates, issued at a rate of thousands per second for everything from SSL, secure email, document signing, and code signing, to more recently IoT. Providing their customers the security they need—instantly.

As the marketplace changed, it exposed technology limitations for GlobalSign; Laurence Pawling, Director of Infrastructure at GlobalSign quickly realized it was time to evolve the infrastructure. SLAs quickly increased from 99.7% to 99.95% – a whole different world of uptime, and relying on a single CDN and DNS provider no longer met business needs. GlobalSign needed to find a scalable DNS solution to support future business initiatives. Some of which included: new market opportunities in Asia and other regions, automation and orchestration to keep pace with the growing number of certificates, and redundancy to eliminate single points of failure.

An Innovative Solution for Success

GlobalSign’s key growth opportunities depended on modernizing its global infrastructure specifically in remote regions where DNS and end-user experience was top priority. Business requirements drove robust technical criteria, and NS1 hit the mark with key differentiators such as:

- Speed and availability from a scalable vendor with support for new growth markets, specifically in China with POPs to support other users based in Asia
- Flexible APIs for automation and orchestration to eliminate human errors
- Ability to support active traffic steering and multi-CDN environments

Delivering Business Value Today, and Prepare for the Future

Ericsson predicts the number of cellular IoT devices to reach 3.5 Billion by 2023, up from 1 Billion in 2018, and Ericsson predicts the largest increase will happen in North Asia. With predictions like this, GlobalSign's operations investment in NS1 was critical to keep pace and provide positive business outcomes today and well into the future. With more IoT devices, GlobalSign customers now require more authentications. Pawling said, "With NS1 we saw three major positive outcomes for our business: business reliability and security, continued assurance of end user application experience, and improved efficiency to modernize our infrastructure."

Results

Business Reliability & Security

GlobalSign knew the growth they experienced meant automation was critical to ensure reliability, reduce the risk of human error, and scale in the future. "I don't think it would be an exaggeration to say pretty much every issue or problem I've experienced in my career has in some way been down to human error," Pawling says. With NS1, the team automated management of DNS zones, and provide high-availability to support growth in the number of users and certificates issued in order to help their customers and end users secure.

Assurance of End User Application Experience

GlobalSign knows the importance of a multi-CDN strategy to serve users no matter where they sit in the world. With Pulsar Active Traffic Steering, GlobalSign minimizes end user impact in markets with latency issues. Pawling says, "We've seen a decrease in the number of tickets related to our CDNs since using Pulsar." With NS1, GlobalSign is also able to automate processes and quickly scale to meet the requirements of IoT devices and smart city environments. GlobalSign's multi-CDN approach, leverages Pulsar Active Traffic Steering to ensure end users are not impacted by CDN outages.

Improve Efficiency & Modernize Infrastructure

In terms of efficiency, the team no longer manages DNS zones manually, and leverages geo-fencing to automate requests whether in China or elsewhere. GlobalSign uses NS1's robust APIs for what they call "a highly-available front end which has full visibility of what's going on where, managed in a safe and automated API-driven way." Additionally, more people within the infrastructure team confidently manage the DNS. NS1 enables them to distribute the load and respond faster when DNS changes are required. Pawling says, "With NS1, we are more responsive to business needs."

With NS1, GlobalSign's growth in number of queries and number of devices for providing real-time authentication and secure certificates no longer feels like a challenge but an opportunity. They said, "Now, we are confident in the DNS infrastructure we have to support the future growth of our business."

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Laurence Pawling
Director of Infrastructure

About NS1

NS1 optimizes delivery of the world's most critical internet and enterprise applications. Only NS1's platform is built on a modern API-first architecture that acts on real-time data and grows more powerful in complex environments, transforming DNS, DHCP, and IP Address Management (IPAM) into an intelligent, efficient, and automated system. NS1's technology drives dramatic gains in IT efficiency and application performance, reliability, and security for the largest global enterprises, including Salesforce, LinkedIn, Dropbox, Nielsen, Pitney Bowes, Squarespace, Pandora and The Guardian.