Wikimedia Foundation v. NSA
No. 15-cv-0062-TSE (D. Md.)

Plaintiff's Exhibit 40

Job descriptions/Traffic Security Engineer

< Job descriptions

Summary

We are looking for an Operations Engineer to join our Technical Operations team. Would you like to join the highly dynamic team that is responsible for the reliability and performance of a global top-10 website, Wikipedia?

The Technical Operations team has a very broad range of shared responsibilities. The team is globally distributed, working remotely with each other in a highly collaborative and consensus-oriented fashion. We only write and only use Open Source code wherever possible and we do the vast majority of our work in public view.

This Traffic Security position focuses more-specifically on the Security and Privacy responsibilities of our Traffic team within Operations. The Traffic team runs a private and privacy-protecting global CDN for Wikipedia and related sister projects. One of the key responsibilities of this position will be technical stewardship of our TLS termination for users at the edges of our network. We're passionate about protecting the privacy of our users against mass surveillance and manipulation, and we expect you to share that passion. If the word "ChaCha" doesn't make you think of dancing first, you might be the person we're looking for!

We'd like you to do these things:

- Protect our users' reading and editing habits from mass surveillance
- Keep our TLS infrastructure up to date in the face of evolving threats
- Keep track of the ever-changing landscape of browsers and other UAs
- Analyze and optimize our edge software infrastructure to enhance our users' experiences
- Assess and deploy newer protocols, technologies, and software as their time becomes ripe
- Deprecate older ones in a timely manner while balancing the needs of legacy clients
- Reactively respond to, and proactively engineer against, DDoS and other attacks
- Analyze and advise on application-layer security issues exposed over HTTPS
- Other related Traffic and Security/Privacy work as required

Experience we'd like you to bring to the table:

- A deep and current understanding of TLS, HTTP[S], TCP/IP, DNS, and other related protocols
- Hands-on experience working with TLS libraries and HTTP server software configuration
- A working knowledge of modern cryptography from a systems engineering point of view
- Experience working on general infrastructure and application-layer security issues
- Experience with Open Source operations tooling for configuration management, orchestration, and monitoring.
- Experience working on Open Source operations infrastructure in general
- Bachelor's degree or the equivalent in related work experience

And it would be even more awesome if you have any of these:

- Experience operating TLS-terminating reverse proxy servers at global scale
- Experience operating large web properties at a global scale
- Programmer experience writing and/or modifying network daemons and/or libraries in languages such as C, C++, Go, Python, and/or Rust

- Some knowledge of Linux IPVS load-balancing
- Some knowledge of global IP routing
- Some knowledge of HTTP caching and related CDN technologies

Some public links on the current state of our TLS termination you might be interested in:

https://grafana.wikimedia.org/dashboard/db/tls-ciphers   https://www.ssllabs.com/ssltest/analyze.html?
d=en.wikipedia.org https://wikitech.wikimedia.org/wiki/HTTPS

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