

IETF LLC Senior SDE - JD & PS

Background

The Internet Engineering Task Force (IETF) is the original Internet standards body, bringing together a worldwide community to develop open standards through open processes, which are then published as the well known RFC Series. The IETF has tens of thousands of participants with at least seven thousand active each year.

The IETF Administration LLC (IETF LLC) is the not-for-profit organization responsible for administration and fundraising for the IETF. It is a small organization with an annual budget of ~US\$10m, two full time staff members and approximately 20 key contracted personnel. While the IETF LLC is headquartered in Wilmington, Delaware, it operates as a global virtual company with people working from home in multiple countries and timezones and travelling regularly.

A significant fraction of the tools used by the IETF for mission critical tasks have been custom written by a combination of volunteers, contractors and staff over many years. These include:

- **Datatracker.** This is the main ERM tools used by the community to manage documents, groups and key processes. It is written in Python/Django with the backend migrating to Postgres from MySQL.
- **xml2rfc.** This is the main document processing tool used in the production of RFCs and Internet Drafts (I-Ds). It is written in Python and primarily used as a command line tool, though a basic CGI web form is also available.
- **Postconfirm.** This is a mail processing tool that provides anti-spam and dmarc processing support for mailing lists. It is written primarily in Python with some C sections. It runs as a daemon.
- **Multiple smaller tools** primarily for document processing and primarily written in Python.

The IETF is slowly developing an overall architectural model for its tools and an increasing reliance on web APIs is to be expected as part of that.

In addition, a number of third-party applications are used, sometimes with customisations and or extensions. These include:

- Mailman
- Wagtail / Django
- GitHub

Tools development within the IETF is overseen by both the IETF LLC and two teams of community volunteers - the Tools Team and the Tools Architecture and Strategy Team. Tools development work is managed on a day-to-day basis by the full time Tools Team Project Manager, who also acts as a lead maintainer and software development engineer. All other tools development resources are provided by independent contractors and total approximately 1.5 FTE.

All software development uses the Agile methodology with 1-2 week sprints for each release, and this role will also use DevOps methodology to work closely with the outsourced systems administration team.

The postholder will be required to travel to three in-person week-long IETF meetings per year (when safe travel is once again possible) and may need to travel for two or three shorter retreats each year.

Job Description

Reporting

The role reports to the IETF Executive Director and is normally assigned specific tasks and priorities by the IETF Tools Team Project Manager.

Main Responsibilities

- Lead maintainer on specified projects. *Initially this will be for xml2rfc and is likely to grow or change.*
- Software development, code maintenance, code release. *This will primarily be in Python but is likely to include multiple other languages.*
- Software architecture and design including gathering requirements from users, writing reports and working as part of a design team.
- Database design, administration and optimisation. *This will include both MySQL and Postgres and may in future extend to different databases and database technologies.*
- Third-party software product assessment and integration.
- Working closely with systems administrators on installing, configuring and operating services.

- Real-time support and troubleshooting, as part of a multidisciplinary team, during IETF Meetings and other significant events.
- General engagement with the IETF community and contractors to support, promote and improve the use of IETF tools.

Person Specification

Experience

- Significant experience working in a Software Development Engineer role, being responsible for application services and systems on an end-to-end basis from development, through code release, and ongoing operational support / reliability engineering.
- Significant experience with Python.
- Good experience and strong commitment to using Agile and DevOps methodologies for software development.
- Unix/Linux systems administration experience.
- Experience using containers (e.g. Docker, Kubernetes, etc.).
- Experience using GitHub as a code repository, including managing issues and pull requests across a wide range of contributors and users.
- Experience working effectively on a cross-cultural basis with a diverse group of colleagues or contributors.

Skills and Knowledge

- Python development with a demonstrated aptitude to learn new development languages as and when required.
- Unix/Linux systems administration
- Agile methodology
- Strong written and verbal communications in English.
- Outstanding “human API” - able to communicate & collaborate effectively and facilitate solutions to disagreements

- Strongly self-motivated to be an outstanding team member while working remotely in a globally distributed organization.
- Works collaboratively with a range of colleagues and contributors from around the globe.

Applying / Bidding for this position

The IETF Administration LLC seeks the services of a Senior SDE to meet the requirements as set out above, as either an employee or on a 3-year contract basis, with no preference for either option. This recruitment/contract process will be similarly to an RFP though not following our standard RFP process

Timeline

19 February 2021	Recruitment notice issued
8 March 2021	Questions and inquiries deadline
15 March 2021	Answers to questions issued
22 March 2021	Applications or bids due
23 March 2021	Interviews begin
12 April 2021	Contract execution

Questions, applications or bids should be submitted to

ietf-rfps@ietf.org

The IETF Administration LLC is an equal opportunity employer and applications and bids are welcome from people of all genders, races and countries of residence. Applications from agencies or others seeking a commission will not be accepted.