

IETF 119

A week packed with working group meetings & sessions, a 2-day hackathon and various side events

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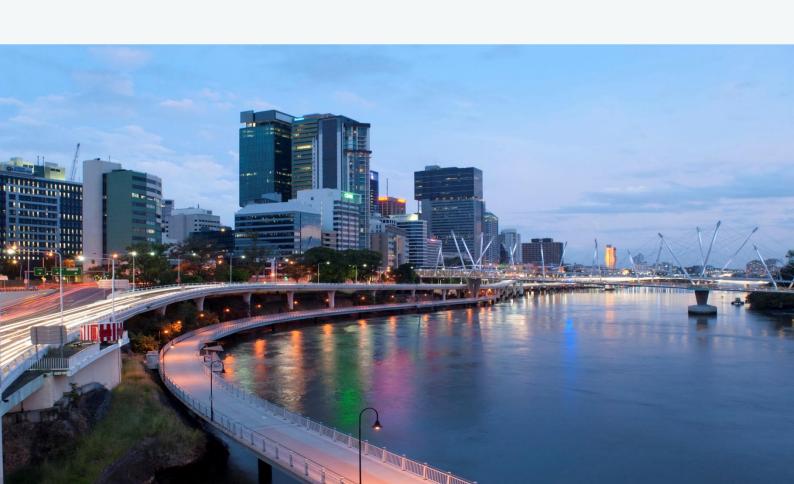


Table of contents

INTRODUCTION	3
INFORMAL ACTIVITIES	3
Hackathon	3
IEPG	3
HotRFC Lightning Talks	4
FORMAL PROCEEDINGS	4
IETF-wide dispatch BoF session	4
DNSOP WG	4
DELEG Bof	4
REGEXT WG	4
IRTF	5
FPILOGUE	5

Introduction

The mission of the <u>Internet Engineering Taskforce (IETF)</u> is to make the internet better. Most of the IETF's work is done online, but the organisation also holds 3 <u>meetings</u> a year. The 119th IETF meeting was held in Brisbane, Australia, from 16 to 22 March — the organisation's first visit to the region for <u>more than 20 years</u>.

With <u>1,406 registered participants</u>, the meeting was less well attended than the previous one. The difference in attendance was almost entirely due to a drop in the number of onsite participants, presumably because Australia is remote from many stakeholders' home countries. Of the 1,406 participants, 689 (about 47 per cent) attended in person, well down on the 1,065 who were at the <u>previous meeting</u> in Prague. The remaining 771 followed the meeting remotely.

The <u>IETF Hackathon</u> in the weekend prior to the meeting had 347 participants (<u>286</u> on site, 61 remote). There was also a '<u>code sprint</u>', at which a <u>small group</u> of volunteers worked at improving the tools made available by the IETF, such as the well-known <u>Datatracker</u>.

Every IETF meeting has a <u>packed programme</u>. The latest week-long gathering featured numerous working group sessions, a HotRFC, a plenary session and a wide variety of <u>side</u> <u>meetings</u>, before concluding with an informal drink. There was no social event this time around.

Informal activities

During the weekend prior to the main proceedings, there were various informal activities: a hackathon, the IEPG and the HotRFC Lightning Talks.

Hackathon

The now traditional hackathon got under way on the Saturday prior to the main proceedings. At the hackathon, the applicability and interoperability of new concepts are tested by groups that get together spontaneously to carry out experiments. The event had about 347 participants, 286 on site and 61 remote. The hackathon concluded with result presentations at the Hackdemo Happy Hour. The many topics addressed included the DNS (multiple projects) and post-quantum cryptography (PQC).

IFPG

The Sunday morning of an IETF meeting traditionally begins with the <u>IEPG</u>, where attention focuses on topics with some form of operational significance.

Geoff Huston (APNIC) made a presentation entitled "Is the DNS ready for IPv6?" His talk was prompted by a proposal (3901bis) that IPv6 should be taken more seriously and given greater prominence in DNS configurations. In his presentation, Geoff questioned how realistic such a recommendation would be, reasoning that his measurements indicated that many things would not work properly, due to IPv6 lacking sufficient maturity. His observations naturally prompted considerable debate.

Sofía Silva Berenguer (NRO) made a presentation explaining the objectives of NRO's new RPKI programme, and how they are to be realised. The purpose of the programme is "to provide a more consistent and uniformly secure, resilient and reliable RPKI service." Sofía described what the programme team and the RPKI steering group are currently doing to achieve that aim.

HotRFC Lightning Talks

The Sunday ended with the <u>HotRFC Lightning Talks</u>, a fast-moving gathering where speakers talk on <u>a wide variety of topics</u> and pitch ideas. In this context, 'RFC' doesn't stand for 'Request for Comments' (an important category of documents produced by the IETF), but for 'Request for Conversation'. The <u>HotRFC</u> session is a high-paced affair. Each presenter gets just 4 minutes, and no questions are allowed during the session. Any feedback has to be given later.

The session featured a total of 12 talks on a <u>wide range of subjects</u>, such as <u>DDoS trends and defence issues</u>. Naturally, the trending subject of <u>large language models</u> (LLMs) came up as well. Later in the week, Nick Sullivan made a <u>very good presentation</u> on that same subject, explaining in lay terms what LLMs are and how they could be used within the IETF, for example. Nick's presentation formed part of the proceedings of the <u>Research and Analysis of Standard-Setting Processes Proposed Research Group</u> (rasprg).

Formal proceedings

As usual, this IETF meeting involved numerous sessions. A few of the sessions that may be of interest to CENTR members are outlined below.

IETF-wide dispatch BoF session

Within the IETF, ideas are sometimes floated, which don't clearly fall within the remit of any particular working group. In such cases, the procedure has previously been to consider which area is the best fit for the topic, which has then been discussed by the corresponding dispatch working group. So, for example, if the SEC(urity) area is the best fit, the topic is considered by the Security Dispatch (secdispatch) group. Over time, various dispatch working groups have been formed for the corresponding areas. The purpose of this BoF session was to consider whether the various separate groups should be merged to form a single All Dispatch group. Such a move was seen as having both pros and cons, which the session debated. The session was itself something of a trial for the idea, since it involved all the area-specific dispatch groups, taking part in their first ever joint meeting. The session provided scope for the presentation of ideas that illustrated how difficult it sometimes is to decide where a particular topic belongs, such as the SSH over HTTP/3 proposal.

DNSOP WG

The DNSOP Working Group, which is concerned with the evolution of (the operational aspects of) the DNS protocol, is very active, and therefore held 2 sessions during the week.

Since APNIC's Geoff Houston has already provided an excellent summary of proceedings in his blog, a link to the blog will suffice in the context of this report.

DELEG BoF

Having been merely an item on the agenda of the DNSOP WG at the previous IETF meeting, the DELEG proposal was the subject of a separate BoF session in Brisbane. The idea — which implies a fundamental change to the DNS protocol — requires considerable further consideration, addressing both the <u>details of the proposal</u> itself, and the <u>scope and charter</u> of any working group created to deal with it. There is certainly no shortage of <u>enthusiasm</u>

for the idea, and a <u>mailing list</u> of people interested in this topic has been established. We will doubtless be hearing more about this proposal, therefore.

REGEXT WG

Despite being a niche group, the Registration Extensions Working Group is responsible for two protocols that are crucial for domain name registers: EPP and RDAP.

Maarten Wullink (SIDN Labs) gave an update on the progress of his team's <u>Restful EPP draft</u>. The draft will set out a proposal regarding a version of the EPP protocol, based on RESTful API principles and possibly JSON data representation. Some people at the session questioned whether the proposal was actually covered by the working group's current charter.

Notably, 2 other presentations were made on the theme of transport, looking at the possibility of <u>EPP over HTTP</u> and of <u>EPP over QUIC</u>.

There were also various RDAP-related discussions, such as the idea of an RDAP extension to enable influence to be exerted over the TTL of DNS records,

IRTF

IRTF groups are concerned with general research, rather than with producing internet standards, as IETF working groups do. The IRTF's discussions provide a useful picture of how the internet is developing. For example, there was a presentation entitled Anycast Polarization in the Wild, about the challenges of running an anycast infrastructure and the 'scenic routing' that sometimes occurs.

Epilogue

Like previous IETF meetings, <u>IETF 119</u> was a jam-packed and <u>extremely varied</u> week, involving everything from hardcore protocol design sessions to broad-brush conceptual discussions on topics such as the future (quantum) internet, human rights, the challenges presented by the IoT and centralisation, and the environmental impact of the huge edifice that we call the internet. Not to mention an entire weekend devoted to the hackathon for the production of <u>running code</u>, and ample opportunity for mixing and chatting informally with colleagues.



About CENTR

CENTR is the association of European country code top-level domain (ccTLD) registries, such as .de for Germany or .si for Slovenia. CENTR currently counts 52 full and 8 associate members – together, they are responsible for over 80% of all registered domain names worldwide.

The objectives of CENTR are to promote and participate in the development of high standards and best practices among ccTLD registries.

Full membership is open to organisations, corporate bodies or individuals that operate a country code top level domain registry.

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