The April 2018 Issue

This issue starts with two technical articles that provide artefacts. The first one, *Scanning the Internet for Liveness*, written by a team of eight researchers led by S. Bano uses the ZMap software to probe the IPv4 addressing space for Internet hosts that respond to different types of probes. They propose different liveness probes that use ICMP, TCP and UDP. Their scans of the IPv4 Internet revealed that different protocols (or ports for TCP/UDP) provide different results as different types of hosts respond or not to different types of probes. Furthermore, collecting ICMP error messages for the TCP and UDP probes is important to increase the coverage. The authors release their modification to ZMap that includes the proposed probes and data collected during their measurement campaigns.

The second technical paper that provides artefacts is *A First Look at Certification Authority Authorization (CAA)* was co-authored by eleven researchers led by Q. Scheitle. This is also a measurement paper that tries to understand how the Certification Authority Authorization (CAA) DNS record is actually used by Certification Authorities (CA), domain holders and DNS operators. This is a timely paper since RFC6844 mandates that CAs validate CAA records as of September 8, 2017. Their study reveals some anomalies for already-issued certificates and they provide some guidelines to improve the security impact of CAA. Their study continues and you can follow the updated results on `https://caastudy.github.io`. The authors release both the collected data and their analysis tools.

In our third technical paper, *Towards Slack-Aware Networking*, Fahad Dogar proposes a new architecture targeted at machine-to-machine communications where hosts could indicate some slack when transmitting packets to let the network optimise their delivery to reduce the consumption of network ressources. This new idea still needs to be implemented and validated but it could open new directions of research.

In addition to the technical papers, this issue also contains three editorial notes. In *VANETs' research over the past decade: overview, credibility, and trends*, E. Cavalcanti *et al.* provide a detailed survey of the research in Vehicular Ad hoc Networks (VANETs) during the last decade and analyse 283 papers according to different criterias. They release the collected data as paper artefacts. In *Failures from the Environment, a Report on the First FAILSAFE workshop*, M. Breza *et al.* summarise the FAILSAFE 2017 workshop held at the SenSys 2017 conference. Finally, I. Baldin *et al.* summarise in *The Future of Distributed Network Research Infrastructure* the lessons that they learned from the Global Environment for Network Innovations (GENI) infrastructure and provide several directions for future research projects.

I hope that you will enjoy reading this new issue and welcome comments and suggestions on CCR Online or by email at `ccr-editor` *at* `sigcomm.org`.

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