The January 2018 Issue

Computer Communication Review (CCR) continues to promote reproducible research by encouraging the submission of papers providing artifacts (software, datasets, ...). The editorial board also evolves. Katherina Argyraki, Athina Markopoulos and Fabian Bustamante have stepped down after several years of service to our community. Thanks again for all your effort in handling papers submitted to CCR. I'm happy to announce that four new editors have agreed to serve the community : KC Claffy (CAIDA), Phillipa Gill (UMass), Anna Sperotto (University of Twente) and Hamed Haddadi (Imperial College).

The first three technical papers provide artefacts to enable other researchers to reproduce and expand their work. In *Relaxing state-access constraints in stateful programmable data planes*, C. Cascone and his colleagues propose a new model for pipelined stateful packet processing in hardware and evaluate this design with trace-driven simulations. They release their trace-driven simulator. In *Towards a Rigorous Methodology for Measuring Adoption of RPKI Route Validation and Filtering*, A. Reuter and his colleagues study interdomain routing security. After many discussions, the ISP community has agreed to deploy Route Origin Authorization (ROA) to improve the security of interdomain routing. As we are currently at the beginning of this deployment, little is known about how those ROAs are actually used by network operators. One question is whether network operators use ROAs to validate interdomain routes before accepting them. A. Reuter *et al.* first tried to reproduce a measurement methodology proposed in a recent paper that unfortunately did not release software or datasets. They explain why they could not succeed to reproduce those results and propose a more accurate methodology that enables them to correctly identify which network operators validate ROAs. They release the source code for their methodology and have launched a companion website that tracks this deployment at `https://rov.rpki.net`.

In *Open Connect Everywhere: A Glimpse at the Internet Ecosystem through the Lens of the Netflix CDN*, T. Bottger and his colleagues analyse the role that Internet eXchange Points (IXPs) play in the deployment of a large content provider such as Netflix. K. Foerster et al. propose in *Local Fast Failover Routing With Low Stretch* new algorithms to reroute flows in case of failures. In *Charting the Algorithmic Complexity of Waypoint Routing* S. Amiri *et al.* provide an overview of algorithmic techniques to route flows through specific waypoints, e.g. to support Network Function Virtualisation. Finally, M. Arashloo *et al.* propose and evaluate *A Scalable VPN Gateway for Multi-Tenant Cloud Services*.

In addition to the technical papers, this issue also contains four editorial notes. The first editorial note, *ex uno pluria: The Service-Infrastructure Cycle, Ossification, and the Fragmentation of the Internet*, was initially written as a conference keynote by M. Ammar. In this note, he takes a step back and look at some examples of successful deployments of network services. He identifies the Service-Infrastructure Cycle as one of the reasons to explain the success of some network services. P. Sermpezis reports in *A Survey among Network Operators on BGP Prefix Hijacking* the results of a recent survey that will be of interest for researchers working on interdomain routing or security.

The last two editorial notes discuss the reproducibility of networking research. In *Thoughts and Recommendations from the ACM SIGCOMM 2017 Reproducibility Workshop*, D. Saucez and L. Iannone summarise the main conclusions of a workshop organised during SIGCOMM 2017. Finally, M. Flittner *et al.* analyse in *A Survey on Ar-*

tifacts from CoNEXT, ICN, IMC, and SIGCOMM Conferences in 2017 the artifacts released by the authors of the papers published at CoNEXT, ICN, IMC and SIGCOMM last year. This survey shows that there is a growing interest in releasing artefacts within the broad SIGCOMM community.

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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CCR Editor