Proceedings

2020

Network and Distributed System Security Symposium

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General Chair's Message

It is my pleasure to welcome you to the 2020 Network and Distributed System Security (NDSS) Symposium.

NDSS 2020 offers another stellar program of top computer security research: 88 research paper presentations, five workshops, two exciting keynotes, an emerging research poster session, and a Test-of-Time Award.

This year we have five full-day, co-located workshops: (1) QUIC Privacy and Security (QUIPS) Workshop; (2) Measurements, Attacks, and Defenses for the Web (MADWeb) Workshop; (3) Learning from Authoritative Security Experiment Results (LASER) Workshop; (4) Binary Analysis Research (BAR) Workshop; and (5) Decentralized IoT Systems and Security (DISS) Workshop. I'd like to thank Giulia Fanti and Bradley Reaves, the Workshops Co-Chairs, and the organizers and program chairs of the individual workshops for bringing together such an exciting set of workshops.

Building on recent successes, this year we're continuing the tradition of organizing a poster session to showcase both in-progress and exciting recent work in various aspects of computer security. Thanks are due to Gang Tan and Adwait Nadkarni, the Poster Co-Chairs, for making sure we have an excellent poster program.

But, the big news for NDSS 2020 is implementation of the revised submission model. For the first time, NDSS 2020 had two submission phases: first, the summer phase with a submission deadline of June 14, 2019 and then the fall phase with a submission deadline of September 13, 2019. In the NDSS 2020 interpretation, our goal was to enable authors to rebut reviewers after all the reviews were submitted and to provide authors with an opportunity to satisfy major revision requirements in time to publish the paper in this year's conference. With this approach, we were able to maintain the number of accepted papers and acceptance rate, while arguably improving the quality of the published papers. I'd like to thank Program Committee Co-Chairs Dongyan Xu and Ahmad-Reza Sadeghi for their efforts in developing and executing this new submission model.

Many individuals have contributed to making NDSS a success, including everyone on the Steering Group, Organizing Committee, Award Committees, and the Internet Society and Association Management Solutions staff. I'd like thank all of them for their tireless efforts in making NDSS a great event!

NDSS is possible in large part thanks to our generous sponsors. I'd like to thank (in alphabetical order) the following organizations for various sponsorships and grants: Afilias, Baidu, ByteDance, Calibri, Checkpoint, Cisco, Google, Intel, Internet Society, Microsoft Research, National Science Foundation, Palo Alto Networks, and Qualcomm. I'd also like to thank the Internet Society for hosting the symposium.

Finally, thank you for participating in the symposium and contributing to making NDSS a success. I wish you all an excellent NDSS 2020!

Trent Jaeger
General Chair, NDSS 2020

Program Co-Chairs' Message

It is our great pleasure to present to you the technical program of the 27th Annual Network and Distributed System Security Symposium (NDSS 2020), held at the Catamaran Resort Hotel and Spa in San Diego, CA, USA on February 23-26, 2020. For the past 27 years NDSS has established itself as one of the top conferences in systems and network security. Papers published at NDSS have made significant impact on research and practice, as exemplified by the awardees of the NDSS Test-of-Time Award. Our goal continues to be "impact", especially in the form of novel and practical solutions and techniques in cyber security. We hope that the papers in this year's program reflect the same strong potential in securing real-world networks and systems.

This year we received a total of 506 complete submissions (i.e., not counting papers that clearly violated the submission guidelines). Submissions were evaluated on the basis of their technical quality, novelty, and significance. Multiple rounds of reviewing culminated in a one-day in-person program committee meeting in Washington, DC on December 6, 2019. At the end of the review process, 88 papers (17.4% acceptance rate) were selected to appear in the program. We strove to make the review process a competitive but constructive one. Program Committee (PC) members were regularly reminded to identify positive points in a submission and provide concrete suggestions to improve each paper. For the first time we took the approach of having three reviews per paper in the first review round to guarantee higher assurance of early decisions. Later for each author rebuttal, which was solicited after all reviews were in, we required that the corresponding reviews be updated to respond to the rebuttal, to help improve the quality, timeliness, and responsiveness of the review process.

Organizing a conference as large as NDSS is a substantial endeavor, and we would like to extend our sincere thanks to everyone who contributed her or his time and effort. We would like to specifically thank a few individuals who made particular contributions to NDSS 2020. General Chair Trent Jaeger oversaw the entire conference and worked closely with us for Keynote Speaker invitation and Test-of-Time Award nomination (he chaired the Award Committee). Karen O'Donoghue served as a critical interface between the Program Co-Chairs, the Organizing Committee and ISOC. Publicity Chair Brendan Saltaformaggio worked seamlessly with us to solicit submissions and promote the conference. Publications Chair David Balenson took good care of the proceedings production matters. We continued our single day, dual-track PC meeting experiment this year with great success. Adam Aviv and his team hosted the PC meeting at The George Washington University, and were largely responsible for the very smooth and productive meeting. Our thanks also go to Tommaso Frassetto and Patrick Jauernig from TU Darmstadt and Yuhong Nan from Purdue University for their continuous effort in maintaining the submission system and supporting the PC Co-Chairs, which resulted in the most automated and informative dual-track PC meeting so far.

Last but not least, we would like to thank our PC members who have contributed significant time and effort to the creation of the technical program. It has been our privilege working with them. Finally, we thank all authors who submitted to NDSS 2020 and all attendees who are here at NDSS 2020, without whom NDSS would not be possible. Enjoy the conference!

Dongyan Xu and Ahmad-Reza Sadeghi
Program Co-Chairs, NDSS 2020

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