dr. ir. Roland M. van Rijswijk-Deij

University of Twente
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Design and Analysis of Communications Systems   ✉ r.m.vanrijswijk@utwente.nl
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EDUCATION

02/2014 − 06/2017   **Doctor of Philosophy** in Computer Science (*cum laude*)
University of Twente, Enschede, The Netherlands

09/1995 − 08/2001   **Master of Science** in Computer Science
University of Twente, Enschede, The Netherlands

PROFESSIONAL EXPERIENCE

09/2008 − present   **SURFnet**, Utrecht, The Netherlands
R&D Project Manager and Researcher
DNS, DNSSEC, Network Security, Network Measurements

11/2006 − 08/2008   **InTraffic**, Nieuwegein, The Netherlands
Lead Software Designer
Control Software for Railway and Public Transport Infrastructure

10/2002 − 11/2006   **AET Europe**, Arnhem, The Netherlands
Senior Software Engineer
Cryptographic Middleware and Embedded Software for Smart Cards

09/2001 − 10/2002   **Royal Philips Electronics**, Eindhoven, The Netherlands
Software and Test Engineer
Embedded Software for Digital Video Broadcasting and IP TV (a.o.)

01/2001 − 08/2001   **Royal Philips Electronics**, Eindhoven, The Netherlands
Master Thesis Work in Embedded Systems
In-Home Networks

09/2000 − 12/2000   **British Telecommunications (BT) R&D**, Ipswich, United Kingdom
Industrial Traineeship
Smart Cards and Hardware IPSec Implementation

ACADEMIC POSITIONS

11/2017 − present   **University of Twente**, Enschede, The Netherlands
Assistant Professor (part-time)
In the Design and Analysis of Communication Systems Group,
Faculty of Electrical Engineering, Maths and Computer Science

07/2017 − 10/2017   **University of Twente**, Enschede, The Netherlands
Guest Researcher

02/2014 − 06/2017   **University of Twente**, Enschede, The Netherlands
Ph.D. Candidate

02/2016 − 03/2016   **CAIDA, University of California at San Diego**, United States
Visiting Researcher

02/2013 − 02/2014   **Radboud University**, Nijmegen, The Netherlands
Ph.D. Candidate

Selected Publications (full list see https://rijswijk.github.io/)

[1] T. Chung, R. van Rijswijk-Deij, B. Chandrasekaran, D. Choffnes, D. Levin, B.M. Maggs, A. Mislove and C. Wilson. *A Longitudinal, End-to-End View of the DNSSEC Ecosystem.* In Proceedings of the 26th USENIX Security Symposium (USENIX Security '17). Vancouver, BC, Canada: USENIX Association. *(Acceptance Rate: 16.3%)*

[2] R. van Rijswijk-Deij, K. Hageman, A. Sperotto, and A. Pras. *The Performance Impact of Elliptic Curve Cryptography on DNSSEC Validation.* IEEE/ACM Transactions on Networking, vol. 25, no. 2, 2017. *(Impact Factor 2016/2017: 3.376)*

[3] R. van Rijswijk-Deij, M. Jonker, A. Sperotto, and A. Pras. *A High-Performance, Scalable Infrastructure for Large-Scale Active DNS Measurements.* IEEE Journal of Selected Areas in Communications, vol. 34, no. 7, pp. 1877–1888, 2016. *(Impact Factor 2016/2017: 8.085)*

[4] R. van Rijswijk-Deij, A. Sperotto, and A. Pras. *DNSSEC and Its Potential for DDoS Attacks.* In Proceedings of ACM IMC 2014, 2014. *(Acceptance Rate: 22.9%)*

[5] G. van den Broek, R. van Rijswijk-Deij, A. Sperotto, and A. Pras. *DNSSEC Meets Real World: Dealing with Unreachability Caused by Fragmentation.* IEEE Communications Magazine, vol. 52, no. April, pp. 154–160, 2014. *(Impact Factor 2014: 4.007)*

Awards

2017 USENIX Security Distinguished Paper Award
for the paper *"A Longitudinal, End-to-End View of the DNSSEC Ecosystem"* [1]
presented at the 26th USENIX Security Symposium, August 16-18, 2017, Vancouver, BC, Canada

IRTF Applied Networking Research Prize (ANRP)
for the paper *"The Performance Impact of Elliptic Curve Cryptography on DNSSEC Validation"* [2]
to be presented at IETF 100 in Singapore, November 2017

2015 IRTF Applied Networking Research Prize (ANRP)
for the paper *"DNSSEC and Its Potential for DDoS Attacks"* [4]
presented at IETF 94 in Yokohama, Japan, November 2015

2014 ACM SIGCOMM IMC Community Contribution Award
for the paper *"DNSSEC and Its Potential for DDoS Attacks"* [4]
presented at ACM SIGCOMM IMC 2014, Vancouver, BC, Canada, November 2014

Master Students

Boudewijn Ector (2009), Niels Monen (2011), Gijs van den Broek (2012), Sean Rijs (2014), Kaspar Hageman (2015), Romanos Dodopoulos (2015), Tho Le (2017), Olivier van der Toorn (2017)

Short Biography

Roland van Rijswijk-Deij was born in Arnhem, The Netherlands, on March 17th, 1977. He holds an M.Sc. degree in Computer Science from the University of Twente, Enschede, The Netherlands (2001). Roland received a *cum laude* Ph.D. degree from the University of Twente in June 2017, for his thesis entitled "Improving DNS Security: a Measurement-Based Approach". Roland has a background in embedded systems, applied cryptography and networking. He previously worked for British Telecom (2000, traineeship), Royal Philips Electronics (2001-2002), AET Europe (2002-2006) and InTraffic (2006-2008).

Since 2008, Roland works for SURFnet, the National Research and Education Network in The Netherlands. At SURFnet, Roland is responsible for SURFnet's DNS and DNSSEC infrastructure. He also initiates and leads innovation projects in the area of Internet security and stability. Past innovation projects initiated by Roland have focused on DNS, DNSSEC, detecting and mitigating DDoS attacks, IPv6 and many other topics. Roland regularly presents his work in international networking venues, such as TNC, Internet2 conferences, IETF meetings, ICANN meetings, RIPE meetings and NANOG.

Next to his work at SURFnet, Roland has a part-time position as assistant professor computer network security in the Design and Analysis of Communication Systems group at the University of Twente.