History and Background

• An IEEE ComSoc event organized by the Technical Committee on Communications Quality & Reliability (CQR)
• Established in 2014; the first ETR-RT was held in Tucson, Arizona; this is the 6th year of the event
• ETR-RT Scope: Reliability; added Serviceability & Security this year under the Resilience “umbrella” topic
• For more information, please see http://cqr.committees.comsoc.org/etr-rt-2019/
2019 Participating Companies, Universities & Organizations
(In Alphabetical Order)

1) AT&T (USA) 9) Orange (France)
2) BaseN (Finland) 10) Swisscom (Switzerland)
3) CQUPT Univ. (China) 11) Telefonica (Spain)
4) Cosmote (Greece) 12) VTT (Finland)
5) EETT (Greece)
2019 ETR-RT Speakers - 1
(In Alphabetical Order)

• Marcus Brunner, Head of Standardization, Open Source, and Eco-System Development, Swisscom, Switzerland
• Yubao He, Technical Director of Serviceability Domain, Huawei Technologies, China
• Pasi Hurri, Chief Executive Officer, BaseN Corporation, Finland
• Chidung Lac, Senior Researcher, Orange Labs, France
• Diego Lopez, Senior Technology Expert at Telefonica I+D, Chair of ETSI NFV and PDL ISGs, Spain
• David Lu, Vice President, D2 Platform and Systems Development, AT&T Labs, USA

ETR-RT Chair: Spilios Makris, Director, Palindrome Technologies, USA
ETR-RT Advisor: Chi-Ming Chen, AT&T Labs (Retiree), USA
2019 ETR-RT Speakers - 2
(In Alphabetical Order)

- **Kathy Meier-Hellstern**, Assistant Vice President, Inventive Science, and AT&T Fellow, AT&T Labs, USA
- **Nikolaos Papakonstantinou**, Senior Scientist, VTT Tech Research Centre, Finland
- **Joachim Sachs**, Principal Researcher, Ericsson Research, Sweden
- **Olli Salmela**, Reliability Engineering Manager, Nokia Bell Labs, Finland
- **Kostas Vlachodimitropoulos**, Deputy Director, Service Quality & Customer Network Experience, Cosmote, Greece
- **Guangxia Xu**, Professor, Chongqing University of Posts & Telecommunications China

ETR-RT Chair: Spilios Makris, Director, Palindrome Technologies, USA
ETR-RT Advisor: Chi-Ming Chen, AT&T Labs (Retired), USA
2019 ETR-RT Agenda
Day 1

8:30 am – 9:00 am  Welcome / Introduction by Chair and Advisor
9:00 am – 10:30 am  Resilience: Talks and Q&A
  ➢ David Lu, Pasi Hurri, Chidung Lac
10:30 am – 10:45 am  Coffee Break
10:45 am – 12:30 pm  Reliability: Talks and Q&A
  ➢ Kathy Meier-Hellstern, Joachim Sachs, Olli Salmela
12:30 pm – 1:30 pm  Lunch
1:30 pm – 3:00 pm  Reliability: Talks & Discussion
  ➢ Marcus Brenner, Diego Lopez
3:00 pm – 3:15 pm  Coffee Break
3:15 pm – 4:15 pm  Security: Talks and Q&A
  ➢ Nikolaos Papakonstantinou, Guangxia Xu
4:15 pm – 4:30 pm  Wrap-up (Chair)

EVENING EVENT
5:00 pm – 10:30 pm  Tour of Helsinki & Dinner Cruise
2019 ETR-RT Agenda
Day 2

8:30 am – 10:30 am  Serviceability: Talks and Q&A
   ➢ David Lu, Yubao He, Kostas Vlachodimitropoulos,

10:30 am – 10:45 am  Coffee Break

10:45 am – 12:30 pm  Roundtable Discussion:
   Identify potential directions for resolving identified issues and propose possible solutions (All)

12:30 pm – 1:30 pm   Lunch (End of ETR Roundtable)
Day 1
Topics – Session 1 (Morning)
(In Presentation Order)

• David Lu – Intelligent Resiliency for A Converged World

• Pasi Hurri – Spime Containers – Internetworked Digital Twins

• Chidung Lac – NFV Resiliency and 5G Network Slicing
Day 1
Topics – Session 2 (Morning)
(In Presentation Order)

• Kathy Meier-Hellstern – Achieving High Performance, Reliability and Security with Zero Touch 5G

• Joachim Sachs – End-to-end Reliability in Industrial 5G Networks

• Olli Salmela – Impact of Virtualization on Telecom Network Reliability
Day 1
Topics – Session 3 (Afternoon)
(In Presentation Order)

• Marcus Brenner – Service Provider Thoughts, Use Cases and Requirements for Reliability

• Diego Lopez – Automation in the Days of the Software Network
Day 1
Topics – Session 4 (Afternoon)
(In Presentation Order )

• Nikolaos Papakonstantinou – A Holistic Safety Security Approach for Complex Systems

• Guangxia Xu – Innovative Application Analysis of Blockchain + 5G
Day 2
Topics – Session 1 (Morning)
(In Presentation Order)

• David Lu – Serviceability Considerations for Reliability Engineers
• Yubao He – AIOps Practice in Telecom Network Operation and Maintenance
• Kostas Vlachodimitropoulos – Establishing Customer Experience Aspects in Mobile Network Serviceability
ETR-RT 2016 (Stevenson, WA)
ETR-RT 2017 (Bologna, Italy)
ETR-RT 2019 (Masala, Finland)