

Across TF8 Annual Report, October, 2015

Taskforce 8 (TF8) - "QoS / QoE Modelling" aims to address scientific challenges related to Quality-of-Service (QoS) and Quality-of-Experience (QoE) modelling.

Leader: Vojtech Cima (supported by Tobias Hossfeld and Thomas M. Bohnert)

Members:

- Sabina Baraković
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- Eirini Liotou
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- Barbara Pernici
- Peter Pocta
- Christian Schwarz
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- Christos Tsiaras
- Andrej Zgank

Following goals have been identified to provide more specific working framework within this taskforce:

- Identification of the scientific challenges and problems for QoS/QoE Modelling in Internet Service delivery.
- Understanding the parameters that influence QoE relating to service delivery (e.g., network conditions, cloud provider status, allocated resources).
- Development of the models mapping the above parameters to QoE for widely used services.
- Identification of possibilities of using these models in monitoring and management of service delivery (e.g., scaling).
- Identification of how exceptional events or conditions may impact QoE (e.g., load migration within the cloud).
- Identification of possibilities of broadening QoE scope to encompass issues such as context, energy consumption and green computing.

In line with the goals mentioned above several active interest groups have emerged focusing especially on QoE for (mobile) web browsing, QoE for cloud gaming and providing specific QoS / QoE models.

Following ACROSS TF8 members face-to-face meetings have been held:

- Wuerzburg, Germany, April, 2015.
- Lovran, Croatia, October, 2015.

Following work related to ACROSS TF8 has been published:

- Slivar, Ivan; Suznjevic, Mirko; Skorin-Kapov, Lea;: "The Impact of Video Encoding Parameters and Game Type on QoE for Cloud Gaming: a Case Study using the Steam Platform.", Proc. of QoMEX 2015, Costa Navarrino, Greece, May 2015
- Baraković, Sabina; Lea Skorin-Kapov;: "Multidimensional modelling of quality of experience for mobile Web browsing." Computers in Human Behavior 50 (2015): 314-332.
- Dionysis Athanasopoulos and Barbara Pernici: "Building Models of Computation of Service-Oriented Software via Monitoring Performance Indicators". SOCA 2015, Rome, October 2015 Hoßfeld, Tobias; Heegard, Poul; Varela, Martin: "QoE beyond the MOS: Added Value Using Quantiles and Distributions". QoMEX 2015, Costa Navarino, Greece 2015.
- Varela, Martín; Skorin-Kapov, Lea; Mäki, Toni; Hoßfeld, Tobias: "QoE in the Web: A Dance of Design and Performance". QoMEX 2015, Costa Navarino, Greece 2015.
- Hossfeld, Tobias; Skorin-Kapov, Lea; Haddad, Yoram; Pocta, Peter; Siris, Vasilios A.; Zgank, Andrej; Melvin, Hugh;: "Can context monitoring improve QoE? A case study of video flash crowds in the Internet of Services". In: QCMAN 2015 - Third IFIP/IEEE International Workshop on Quality of Experience Centric Management. Ottawa, Canada 2015.
- Hoßfeld, Tobias; Fiedler, Markus: The Unexpected QoE Killer: When the Network Emulator Misshapes Traffic and QoE. In: QoMEX 2015. Costa Navarino, Greece 2015.
- Reichl, Peter; Egger, Sebastian; Möller, Sebastian; Kilkki, Kalevi; Fiedler, Markus; Hossfeld, Tobias; Tsiaras, Christos; Asrese, Alemnew: Towards a comprehensive framework for QoE and user behavior modelling. In: QoMEX 2015. Costa Navarino, Greece 2015.
- Tobias Hoßfeld, Christian Moldovan, Christian Schwartz: To Each According to his Needs: Dimensioning Video Buffer for Specific User Profiles and Behavior. In: QCMAN 2015. Ottawa, Canada 2015
- Tobias Hoßfeld, Michael Seufert, Christian Sieber, Thomas Zinner, Phuoc Tran-Gia: Identifying QoE Optimal Adaptation of HTTP Adaptive Streaming Based on Subjective Studies. In: Elsevier Computer Networks (2015). doi:10.1016/j.comnet.2015.02.015

Following events related to ACROSS TF8 have been held:

- QcMAN 2015, Ottawa, Canada, 2015, <http://qcman.org/program2015>
- EuCNC Special Session "QoS/QoE Monitoring and Management with SDN", Paris, France, 2015, <http://across.cloudcomplab.ch/eucnc2015>

Following STSM related to ACROSS TF8 have been executed:

- Eirini Liotou: Context-Awareness in Mobile Networks.