Palestras da ComSoc

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End-to-End QoS in Mobile Networks

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RESUMO

Quality of Service handling in mobile networks has to follow an end-to-end approach, and the only way to achieve this is to consider the end user actual experience, depending on the device he uses, the network conditions he encounters and the service he triggers. Within a mobile network, this is only possible if the network architecture, system design and parameterisation is planned coherently, and deployed consistently across the main 4 network domains: Access, Transport, Core and User Database. Each of these domains has its own set of challenges, coming from 'lose' or less defined standardisation and from incomplete implementations driven by cost-benefit analyses done by vendors and operators. If it is true on one side that 3G implementations have only recently achieved what could be said as advanced e2e QoS handling functionality, it should also be noted that 4G, starting with an All-IP framework from the start, has already proved to have sufficient functionality to make the network roll-out slightly more complex but much more flexible and powerful. This talk presents the main QoS handling assets (HLR/HSS parameters, IP DSCP tags, PCRF/DPI policy triggers, (e)nodeB scheduler tuning, etc.) in each of the mobile network domains. In addition, how these assets are connected and aligned in an end to end perspective and can be used in real-live implementations will be addressed, with the ultimate goal of benefiting the user and increasing network efficiency. The talk will cover engineering aspects and how the end to end experience is managed, if this is done consistently across the entire network.

BIOS

Paulino Corrêa is an Electrotechnical and Telecommunications graduate from IST in 1998. He started his professional activity in INESC as a communications R&D engineer and has 15 years of experience in mobile communications, focusing in particular core and transport areas. He has been involved in network development and evolution projects, among them the 3G and 4G launch, and is presently responsible for the Core & Edge Engineering Team in Vodafone Portugal.
António Carlos Fernandes is an Electrotechnical and Telecommunications graduate from FEUP in 1999. He started his professional activity in INESC Porto as a communications R&D engineer and has 13 years of experience in mobile communications, ranging from access, core and transport areas. Starting in the Operations and Maintenance department, he then move along to Network Design and later on to the Network Planning team, being responsible for the implementation of many NW strategic projects, in particular with end-2-end and multidisciplinary teams, and is presently working in the Core & Edge Engineering Team in Vodafone Portugal.