

**Title: Why operations support systems (OSS) are not the answer to all?**

**Enhanced network performance evaluation with mobile probes.**

**Abstract:**

The knowledge of network performance is essential for many Internet applications and systems, from core networks and integrated 5G satellite networks to cloud computing services and over-the-top media services.

Network operators integrate OSS solutions, also designed to determine network performance KPIs, which appear to be not the most accurate and transparent ones for network performance evaluation, since they neither take into account the real user's behavior, nor provide parallel long-term monitoring for the analysis of network bottlenecks.

There is a need for a soft- and hardware system that is equipped with the correct KPI computational tool, ensuring that all measurements are accurate, repeatable, reproducible, and non-intrusive within the network. There is the possibility of using complementary set of mobile probes for enhanced KPI evaluation and deep analysis from throughput to signaling flow on Layer 3 and IP/SIP.