QoSMeT – A passive tool for measuring Quality of Service (QoS) of networking applications

OVERVIEW
QoSMeT is a passive measurement tool for measuring one-way end-to-end network QoS (Quality of Service) performance from the application’s point of view. The tool is able to perform the measurement in real-time, while it can also record accurate per packet statistics for latter analysis.

BENEFITS SUMMARY
QoSMeT is at its best when measuring the QoS of real-time applications (e.g., VoIP, video conferencing), but other networking applications can be measured as well. Thus, one can use the tool to see what kind of service an individual networking application gets from the network. No special interfaces, etc. are required for the applications; the tool needs only IP support from the network. QoSMeT is typically run in the same device as the measured application but it also can be run at desired points within the network path. Moreover, what separates QoSMeT from other tools is its ability to measure QoS metrics to one direction while most of tools measure round-trip performance. This is convenient especially when downlink and uplink performance is desired to be measured separately.

Possible users for QoSMeT include operators, network administrators, service providers, service developers, network equipment manufacturers, and end-users. Operators and administrators can use QoSMeT e.g., to check the state of the network and troubleshoot malfunctions, while service providers and developers can test how their service actually performs in the network. End-users can make good use of QoSMeT for example by verifying if they actually receive the kind of service they pay for.
QOSMET ARCHITECTURE

The most important QoS metrics that can be measured with QoSMeT include the following:

- Delay
- Jitter (average and absolute)
- Packet loss
- The length of a connection break (for example during a vertical handover)
- Throughput and Offered load
- The volume of data sent/received
- Number of sent/received packets