
QoS and Multicast



Overview

- Work done on DFN/G-WiN Mcast Service
- Work missing
- Workplan further work

What has been done (DFN/G-WiN)

- ❑ Improving best effort Multicast Service on DFN/G-WiN
 - fix of an IOS bug: multicast packet loss on GSRs when Async Interface enabled
 - Improved mcast forwarding path in GSR in IOS 12.0.21S

- ❑ Monitoring of Multicast QoS using beacon
 - Low traffic rate session (each sender ~10 kbit/s)
 - Long term measurement, of packet loss, one way delay, delay variation, packet duplicates.
 - Available statistics, between G-WiN core nodes, and some selected end user hosts. -> needs to be evaluated.
 - From time to time watching of beacon:
 - QoS problems only when we have mcast routing or other end-to-end mcast issues.

- ❑ Trials with high rate Multicast Traffic Streams (MPEG-2)
 - Using IP/TV, joining multiple sessions, watching/hearing
 - ~ 10 Mbit/s with good quality, “almost” no loss ins audio/sound quality seen.

What is missing

- ❑ Gathering QoS statistics on high rate traffic session (MPEG-x)
~ 5 Mbit/s per session source
- ❑ Evaluation of that numbers
- ❑ Answer to question:
Is Improvement of Mcast QoS required ?

Proposed Workplan, further work

❑ Continue

- Beacon: Long term measurements and QoS data gathering on existing multicast service using low rate traffic sessions
- Evaluation of QoS data on low rate traffic sessions

❑ New work items to be done on existing best effort mcast service

- Measurements using high rate traffic session in dedicated time frames
- Tools for high rate traffic measurement
 - artificial traffic profiles: iperf, mgen
 - MPEG-x traffic sources
- Evaluation of QoS

❑ Depending on above results:

- Priorisation of multicast traffic
- Comparison of mcast QoS

Best effort mcast service <-> Priorized mcast service