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 in 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
  - Comparision of mcast QoS
    Best effort mcast service <-> Priorized mcast service