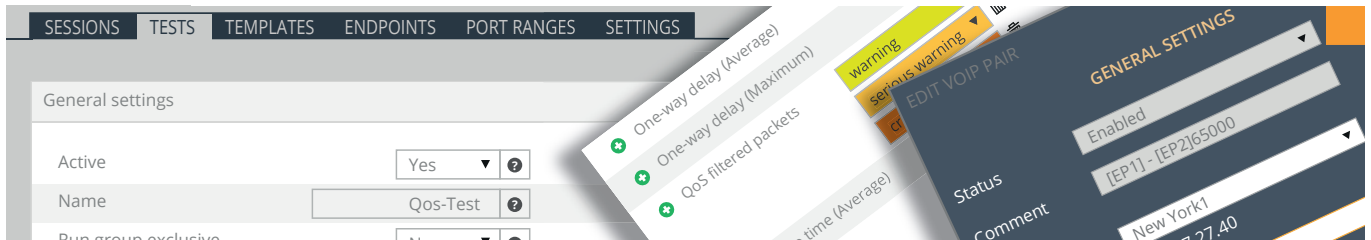


# GeNiEnd2End QoS

## End-to-end Quality of Service verification for Triple Play Services



Although Quality of Service (QoS) has already proven itself as the enabling technology for Next Generation Networks it is an ongoing challenge for network departments to achieve real end-to-end QoS in networks with different domain owners. GeNiEnd2End QoS enhances GeNiEnd2End Network with the capability to audit automatically the implemented QoS policies for the service delivery infrastructure. GeNiEnd2End QoS is a cost effective monitoring solution, which ensures the required end-to-end service visibility to meet the needs of the business and its users.

### Is your end-to-end QoS working correctly?

QoS is a set of standards and mechanisms that identify and handle application traffic according to defined service levels. In networks without QoS, all traffic is treated equally. Networks where QoS mechanisms are used to give priority to mission-critical traffic. QoS enabled networks ensure minimized data loss and consistent delivery of packets for delay sensitive applications like voice and video.

```

Frame 23 (214 bytes on wire, 214 bytes captured)
Ethernet II, Src: 00:26:b9:cb:c0:f7, Dst: 70:71:bc:dc:b5:8a
Internet Protocol, Src: 15.137.209.32, Dst: 15.137.209.54
  Version: 4
  Header length: 20 bytes
  Differentiated Services Field: 0xa0 (DSCP 0x28: Class Selector 5; ECN: 0x00)
    1010 00.. = Differentiated Services Codepoint: Class Selector 5 (0x28)
      .... ..0. = ECN-Capable Transport (ECT): 0
      .... ..0. = ECN-CE: 0
  Total Length: 200
  Identification: 0x7ab5 (31413)
  Flags: 0x00
  Fragment offset: 0
  Time to live: 128
  Protocol: UDP (0x11)
  Header checksum: 0xfd66 [correct]
  Source: 15.137.209.32 (15.137.209.32)
  Destination: 15.137.209.54. (15.137.209.54)

```

However it is a huge challenge for the network manager to assure that the QoS mechanisms works correctly end-to-end.

With GeNiEnd2End QoS effective troubleshooting of QoS related configuration or design errors is automated.

It will not only detect service quality degradations before users do but also finds the root cause. GeNiEnd2End QoS delivers techniques for taking a proactive role in ensuring end-to-end Quality of Service in Next Generation Networks.

### Validate QoS over heterogeneous networks

GeNiEnd2End QoS automates the end-to-end QoS monitoring by using test points, which are installed at demarcation points across the network. These test points exchange end-to-end network transactions on layer 4 using the implemented QoS mechanisms. With the integrated QoS-Editor Layer 2 (Microsoft GQoS, Class of Service) and/or Layer 3 QoS (IP TOS, DiffServ, Microsoft qWave, Microsoft GQoS) templates are configured and applied to the test configuration of the test points.

These test points simulate in definable time intervals end-to-end traffic for voice, video and data services. Subsequently the QoS fields are analysed by the receiving test points and compared with the predefined QoS templates. In case these don't match, the network manager is automatically informed that the network does not transfer the QoS policy transparently.

GeNiEnd2End provides intelligent end-to-end visibility across single and multi-domain networks and identifies automatically if a QoS issue in the network is causing performance degradations.

GeNiEnd2End QoS is an integral part of NETCOR's end-to-end product suite GeNiEnd2End, a service-level-monitoring solution for Triple Play networks.

#### Benefits of GeNiEnd2End QoS

- Cost-effective technique to identify QoS misconfigurations
- Early detection of service degradations with root cause analysis
- Automated fast error correlation without elaborate packet analysis
- Networking vendor neutral does not depend on any specific networking equipment