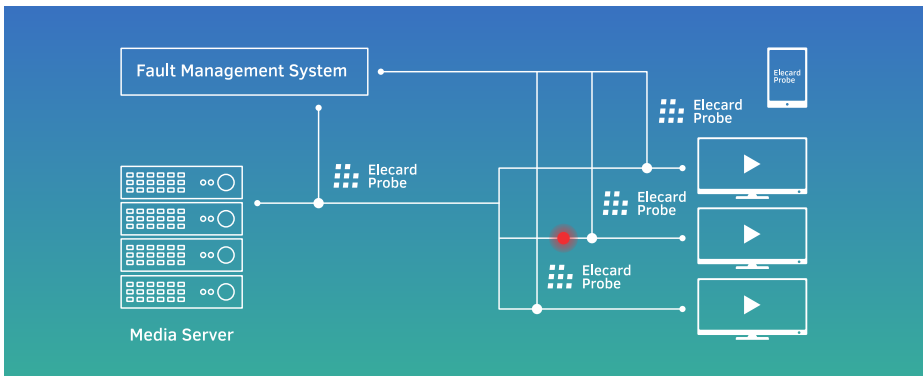


Elecard Boro & Probo SDK

Video
Monitoring
Technology

Elecard offers solution for UDP, RTP, HTTP и HLS streams monitoring and measurement of QoS и QoE parameters. It was designed to enable better video quality in all segments of the distributed networks providing easy access to analytics and generation of regular reports.

- Build a reliable Fault Management and SQM systems on your own
- Scale up your distributed monitoring system
- Embedd QoS or QoE module into encoder/transcoder/muxer
- Create portable probes for field technicians
- Add more monitoring parameters into your Fault Management System & SQM
- Stir in QoS and QoE technology into products where video quality is essential



Monitored parameters

QoS

- Signal loss
- Continuity Counter, Clock Continuity
- Inter-Packet Arrival Time (IAT)
- ETSI TR 101 290 (priority 1)
- Download/Multicast/Payload Rate
- Stream Headers validation
- In-depth HLS analysis

QoE

- Video freeze
- EPSNR
- SCTE-35 analysis
- Closed Captions extraction
- Video Thumbnails
- Frame capture by events
- Video recording by events

Elecard Boro & Probo SDK



Application

- OTT TV, IPTV, DVB and VoD
- Cable, IP, satellite networks and CDN
- Video surveillance systems
- Monitoring of transcoding systems
- Ad insertion control

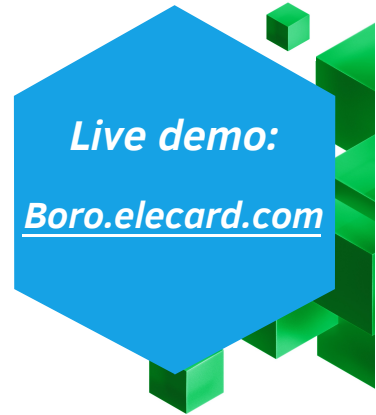
Solution Licensing

Choose the model meeting your business needs

- **Elecard Boro** Online service
- **Elecard Boro solution** License for software probes and server
- **Elecard Probo SDK** License for software probes and API

Features

- Network degradation alert
- Streaming integrity control
- Stream structure and headers display
- Bitrate overview
- Commercials detection, ad duration validation
- OTT warnings
- Offline record control
- Stream captioning



SPECIFICATION

Protocols
Video
Transport
System
requirements

UDP, RTP, HTTP, DVB, HLS; File (TS)
MPEG-2, AVC/H.264, HEVC/H.265
MPEG-2 TS (SPTS/MPTS)
Windows XP/2003-2012 Server/
Vista/7/8/8.1/10, Linux