

Mobile Korea Demo Fest

VQML for Concurrent Video Quality Measurement

Innowireless

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Rising Video Traffic and OTT Demand



75% of total mobile data usage is video services, and this ratio is expected to be higher in the future



Network traffic surge and OTT, video conferencing demand growth necessitating enhanced quality management



Emergence of AI/deep learning based No-Reference video quality measurement technology



Expanding demand for automated measurement solutions for real-time user Quality of Experience (QoE)



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Advanced NTN Test Solutions

Field XCAL-Ranger



- Real-world NTN performance validation
- Automated 24/7 field monitoring

Lab XCAT-SPACE



- LEO/GEO satellite environment simulation
- Controlled Doppler, delay, and beam dynamics

AI based Video Quality Assessment

XCAL-VQM performs video quality assessment of OTT, IPTV, Video call services

YouTube, Zoom, Google Meet, MS Teams, Facebook Messenger, Skype, WeChat, What's App, OTT Services (Netflix, Disney, Apple, etc.)

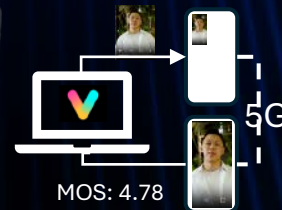


XCAL-VQM

VQML Box and virtual camera add-on minimizes the impact of external factors such as sunlight, device positioning, etc.



VQML Box



Virtual Camera

Integrates with XCAL, video issues can be synchronized with network quality and signaling messages



XCAL

Multi-UE Traffic Generator

Devices lack scalability, Emulators lack realism

Smartphone



- ✓ Realistic UX
- ✗ Slow frustrating setup
- ✗ No automation
- ✗ Poor scalability

UE Emulator



- ✓ Protocol-level depth
- ✗ Unreal traffic
- ✗ High cost
- ✗ Limited realism

XCAL-MUbox



- ✓ Realistic traffic
- ✓ Easy setup
- ✓ Automation
- ✓ Scalability
- ✓ Diversity per UE
- ✓ Cost Efficient

Scale

Precision

Flexibility