

Summary of Results

Joint networking session: "Stimulating innovation over next generation 5G network infrastructures"

ICT 2018 – Vienna, 6 December 2018

Organised by Eurescom on behalf of 5G EVE, 5G-VINNI, and 5GINFIRE

On 6th December 2018, Horizon 2020 projects 5G EVE, 5G-VINNI, and 5GINFIRE organised an interactive networking session at ICT 2018 in Vienna, which was dedicated to stimulating innovation over next generation 5G network infrastructures. The session aimed for an interdisciplinary discussion on the requirements for a 5G end-to-end facility from the industry customers' perspective.

More than 30 participants contributed to this interactive session, which was chaired by Anastasius Gavras from Eurescom. Below, the categories and requirements collected in the session are summarised.

Performance

- Type of traffic
- QoS requirements
- Mapping E2E QoS into network slices
- Data rates/Speed
- Latency/ Latency variation
- Millions of devices per cell
- Throughput and delay
- Priority during massive access
- Interoperability
- Device uptime
- Energy saving
- Holograms (5G killer application?)
- Flash crowds

Economic/ business requirements

- Why 5G?/ Validation of necessity of 5G
- Clear usefulness
- Costs/ Deployment costs/ Cost-benefit ratio
- Return on investment
- Energy consumption/ Long battery life
- Scalability
- Productivity
- Validation of necessity of 5G
- 5G in Factories of the Future
- New business models

Regulatory requirements

- Availability of spectrum
- Flexible spectrum allocation
- Spectrum harmonisation
- Flexibility of regulatory framework
- Interoperability
- Cross-border operations
- Public-private network roaming
- Level of regulation
- Environmental compliance
- GDPR compliance

Security requirements

- Security for software-defined functionality
- Secure separation of special users, e.g. public safety, crisis management
- Security and privacy by design
- Data security
- Resilience
- Availability and redundancy
- Lightweight and seamless
- Levels of encryption
- End-to-end encryption

Application level interface

- Flexibility
- Well-defined open APIs
- Open to 3rd parties/ accessible for SMEs
- Developer-friendly
- User-friendly
- Intent-based
- Platform-agnostic
- P&P

Reliability

- Source authenticity
- Robust to change
- No touch systems
- Adaptiveness
- Reliable real-time systems and data channels
- SLAs
- Rationalised standardisation

Quality of Experience

- Clear usefulness
- Ease of use
- Fairness
- Additional value
- User feedback/ input on QoE
- Relationship between QoE, QoS, AI

Vertical applications

- Interfaces/ APIs
- Safety
- Privacy
- Resource allocation

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