

5G security standardization strategies in ITU-T

Security, privacy and trust

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Chairman of ITU-T SG17*

ITU-T SG17 mandate established by WTSA-16

Title: Security

Responsible for building confidence and security in the use of information and communication technologies (ICTs).

SG17 Lead Study Group roles

Security

Identity management

Languages and description techniques

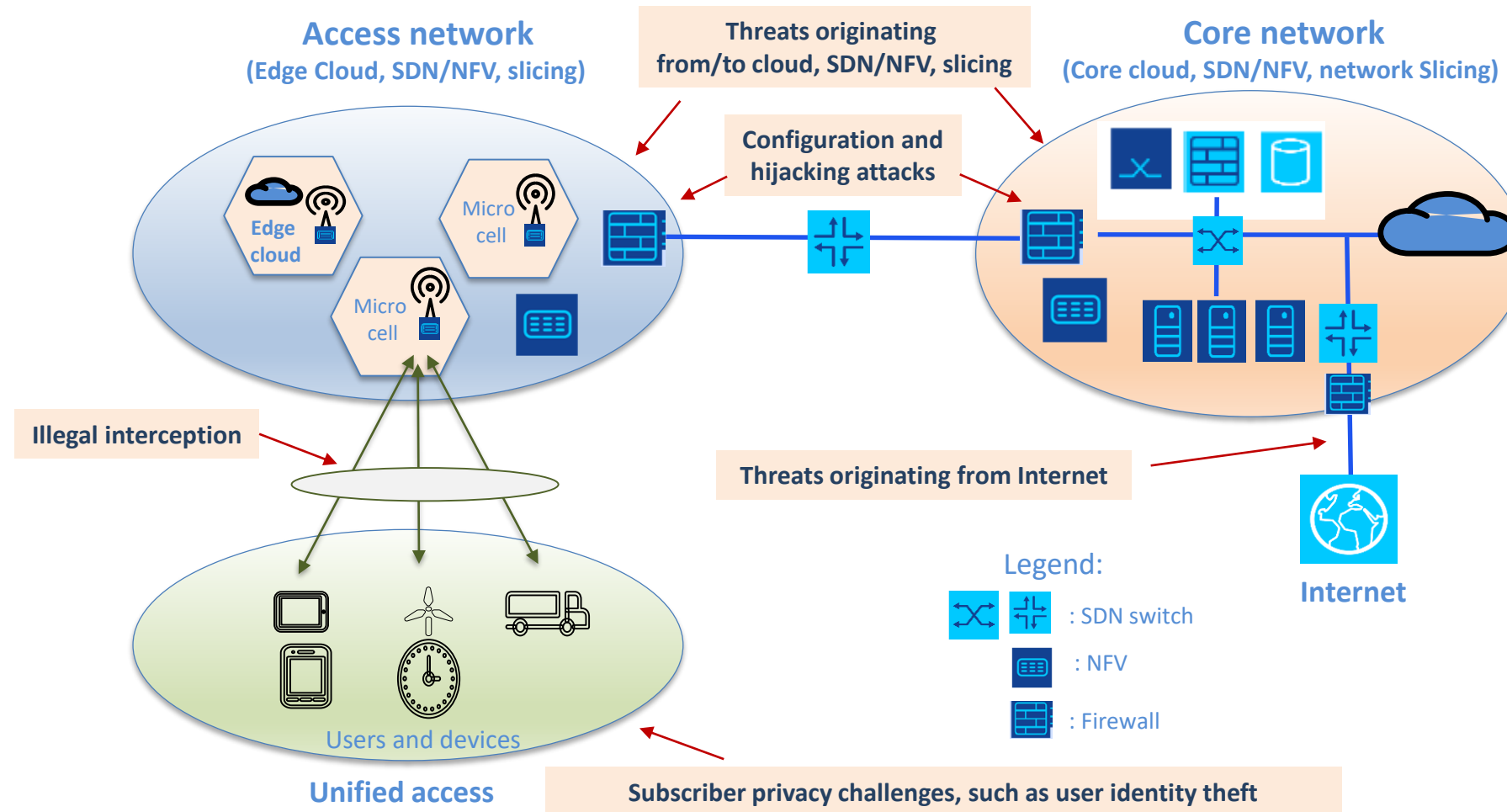
Q6/17

Responsible for security aspects of telecommunication services, networks and Internet of Things

ITU-T SG17, Security



5G security overview - A flexible and dependable 5G network and threats landscape



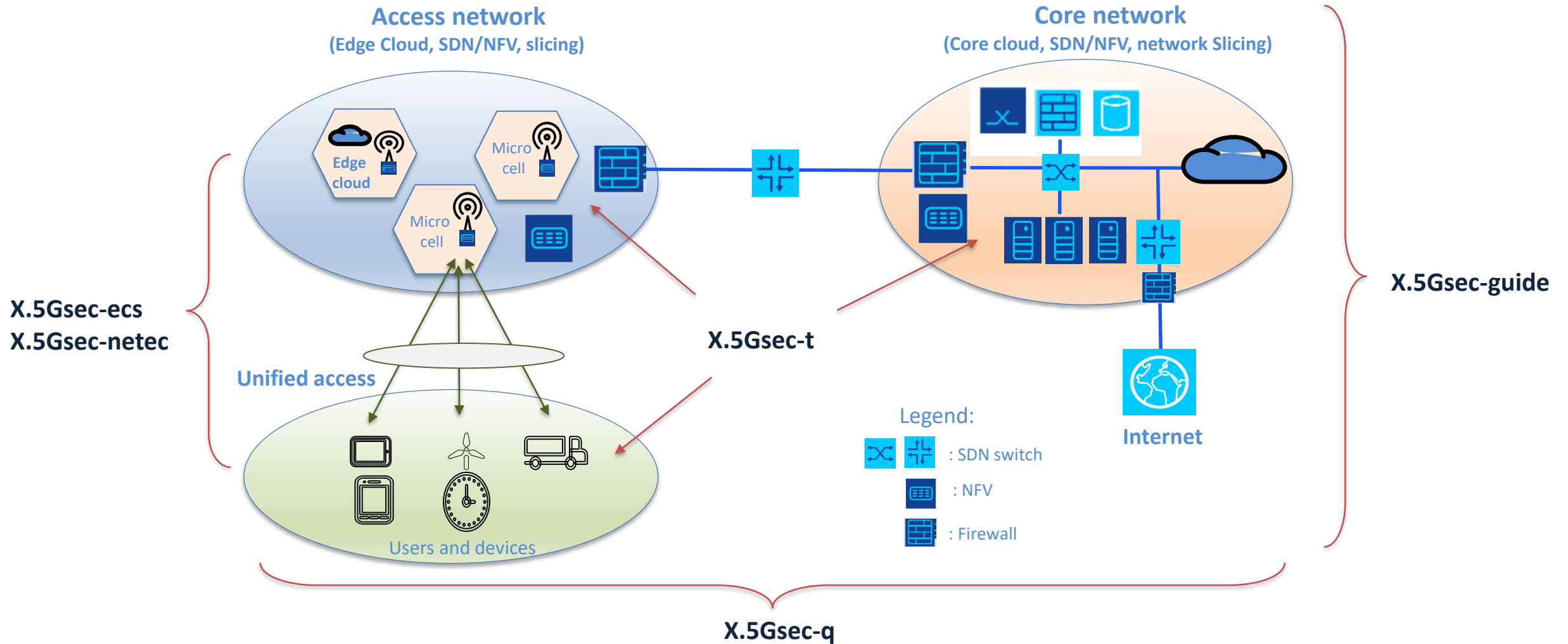
Outcome of ITU workshop on 5G security (19 March 2018)

- Collaborate and coordinate with relevant groups and participate in JCA on IMT2020 for 5G security standardization work.
- Coordinate with 3GPP SA3 on 5G security standardization.
- Consider Trust as an important item for 5G security standardization.
- Identify new security schemes for massive IoT devices in next phase 5G standard.
- Develop a standardization roadmap for 5G security and identify gaps for SG17 to study in the area of 5G security.

5 work items under development by Q.6 in SG17

- X.5Gsec-q, Security guidelines for applying quantum-safe algorithms in 5G systems, started from March 2018
- X.5Gsec-t, Security framework based on trust relationship in 5G ecosystem, started from September 2018
- X.5Gsec-ecs, Security Framework for 5G Edge Computing Services, started from January 2019
- X.5Gsec-guide, Security guideline for 5G communication system based on ITU-T X.805, started from January 2019
- X.5Gsec-netec, Security capabilities of network layer for 5G edge computing, established recently September 2019

Position of 5 work items in the big picture



Strategic direction to be taken by ITU-T

- Utilize ITU-T SG17 as a security competence centre.
- Consider establishment of JCA on 5G security inviting, especially 3GPP and ETSI experts, to avoid divergence or duplicated efforts for 5G security.
- Consider holding collocated meeting with other groups as maximum as possible.
- Consider development of roadmap and identify roles and responsibility of each group.

Questions for SGLA discussion

- How SG17 need to collaborate or coordinate with other group, for example, SG13 and other SDOs, for example 3GPP SA, in terms of security and privacy for 5G network infrastructure and applications/services based on 5G network infrastructure?
- How SG17 could adopt high quality Specifications developed by other SDOs, especially into ITU-T Recommendations?
- How we could prevent divergence of standards developed by various SDOs in terms of security and privacy for 5G?

Thank you for your attention.

SAFE (Security is Absolutely First Everywhere)