



ITU-T Focus Groups

FG-QIT4N: Focus Group on Quantum Information Technology for Networks

Info session on FG-QIT4N deliverables

06 December 2021

FG QIT4N D2.3 Quantum key distribution network (QKDN) protocols: Quantum layer

- **Scope & Summary:**

- Study and review protocols in the quantum layer of a QKDN

- Focuses on QKD protocols, the core technology in QKDN:

- ✓ General aspects: Workflow; Categories

- ✓ Security: Security notions, Epsilon security, Implementation security

- ✓ Introduction of discrete variable (DV) QKD protocols

- ✓ Introduction of continuous variable (CV) QKD protocols

- ✓ Standardization analysis and suggestions

- **Link to report:** <https://www.itu.int/en/ITU-T/focusgroups/qit4n/Documents/D2.3%20part%201.pdf>

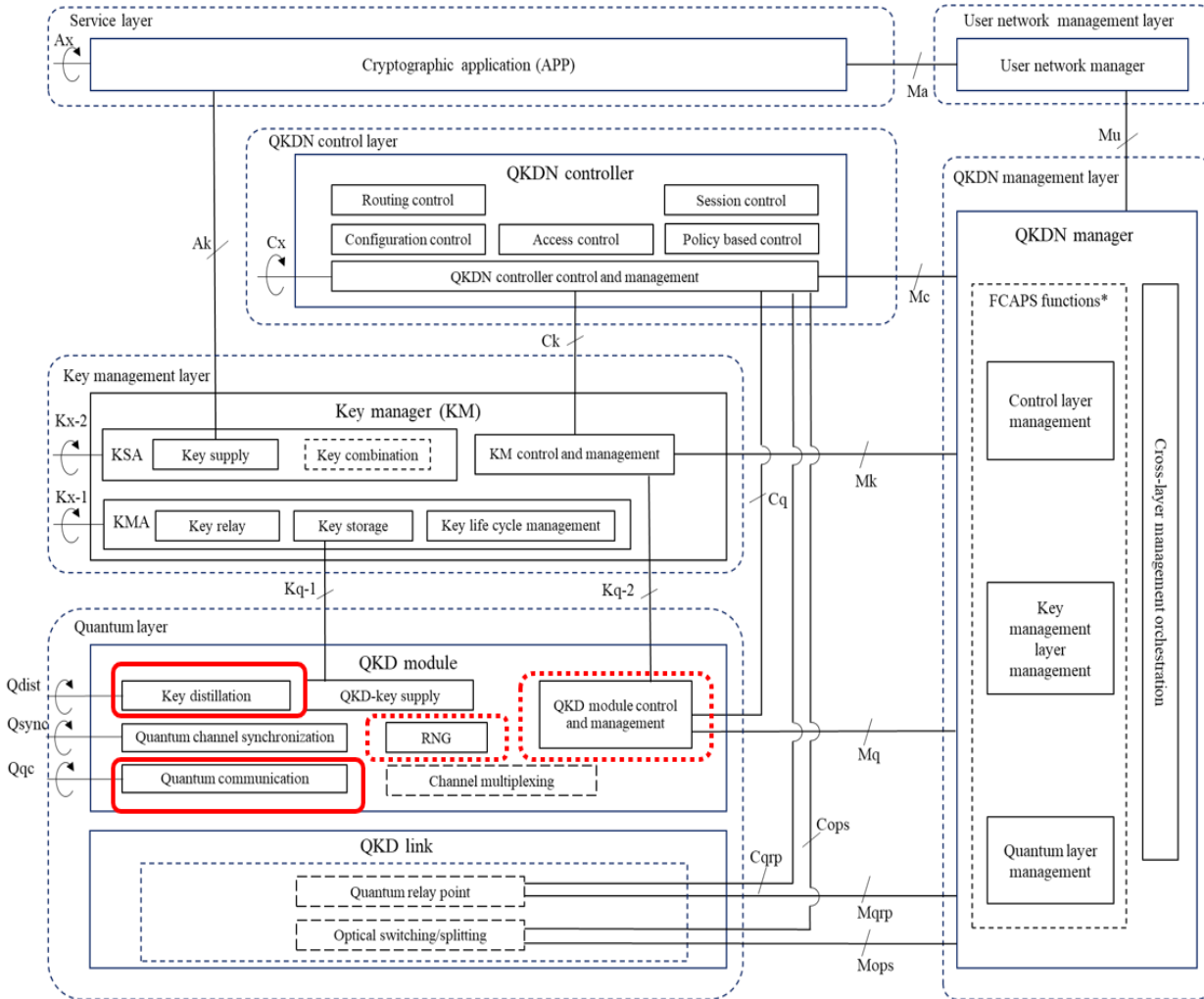
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FG QIT4N D2.3 Part 1 relation to SG11 and SG13



FGQIT4N D2.3 part1 relevance in the functional architecture model of QKDN [ITU-T Y.3802]

• SG 13 Network aspects

- ✓ QKD protocol parameters reported to other layers in QKDNs
- ✓ Status of quantum layer: QBER, key rate etc.
- ✓ Network control and management
- ✓ Quality of service

• SG 11 Protocol & test aspects

- Non-security related protocols in quantum layer and sub-protocols in QKD protocols
- Some post processing protocol & testing
- QKD protocol & testing ?

For more information:



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Visit the website:

<http://www.itu.int/go/fgqit4n>