

Session 4: Panel discussion – future topics

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This session will share future work items from Study Group 17's point of view.

Members for the panel



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DLT security, identity management and privacy

Two aspects:

1. Security and privacy of DLT

- Threats and risks
- Vulnerabilities and mitigation methods
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2. To improve security and privacy by DLT

- Identity management
- Smart contracts
- Cross-border payments
- Original content creation
- Supply chain management
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Work items in SG17

A) Security of DLT:

1. X.1400: Terms and definitions for distributed ledger technology
2. X.1401: Security threats of distributed ledger technology
3. X.1402: Security framework for distributed ledger technology
4. X.1404: Security assurance for distributed ledger technology
5. TR.qs-dlt: Technical Report: Guidelines for quantum-safe DLT system
6. X.sc-dlt: Security controls for distributed ledger technology

B) To improve security by DLT:

1. X.1403: **Security guidelines for using DLT for decentralized identity management**
2. X.1405: Security threats and requirements for digital payment services based on distributed ledger technology
3. X.1406: Security threats to online voting system using distributed ledger technology
4. X.1407: Security requirements for digital integrity proofing service based on distributed ledger technology
5. X.1408: Security threats and requirements for data access and sharing based on the distributed ledger technology
6. X.1409: Security services based on distributed ledger technology
7. X.1410: Security architecture of data sharing management based on the distributed ledger technology
8. X.srscm-dlt: Security Requirements for Smart Contract Management based on the distributed ledger technology

Work items in ISO TC 307/JWG 4

Published:

1. ISO/TR 23244:2020 **Privacy and personally identifiable information protection considerations**
2. ISO/TR 23249:2022 **Overview of existing DLT systems for identity management**
3. ISO/TR 23576:2020 **Security management** of digital asset custodians [from WG2]

On-going:

1. ISO/WD TR 23642 Overview of **smart contract security** good practice and issues
2. ISO/DTR 23644 Overview of trust anchors for **DLT-based identity management**
3. ISO/WD 7603 **Decentralized Identity standard** for the identification of subjects and objects
4. PWI 12833 - **Re-identification and privacy vulnerabilities and mitigation methods** in blockchain and distributed ledger technologies

Questions for the panelists

Security and privacy of DLT:

- Some studies on security and privacy of DLT have been done in ISO TC 307/JWG 4 and ITU-T SG17. Are there any other security and privacy issues not covered by these studies but very important? For example, is it necessary to consider quantum resistant signature schemes for long-term ledgers, or security issues of DLT interoperability?

To improve security and privacy for identity management based on DLT:

- What issues/aspects are essential to build DLT-based identity management system?
- What kind of issues/aspects should be standardized in SG17 for identity management based on DLT?