

ITU-T Focus Group on
Application of
Distributed Ledger Technology
(FG DLT)



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Established in May 2017 to:

identify and analyse DLT-based applications and services

to draw up best practices and guidance which support the implementation of those applications and services on a global scale; and

to propose a way forward for related standardization work in ITU-T Study Groups.

Meetings in Oct 17 (ITU), Feb 18 (Swisscom), May 18 (ITU)

Both meetings attracted **65+** participants from **20+** countries, on-site and remote

100+ documents reviewed

Key topics included:

Blockchain for telco

supply chain

fintech

IoT

Coordination and Use Cases

Telco use cases discussed included roaming, wholesale voice settlement, number portability, digital identity, 5G slicing, phone theft, fraud management

Coordination with other organizations, including ISO/TC 307, GSMA, UNECE



ITU-T Focus Group on Application of Distributed Ledger Technology (FG DLT)

Leadership

David Watrin (Swisscom)

Wei Kai (CAICT, China)

Structure

WG1: State of the Art:
Ecosystem, Terms, Definitions,
Concepts

WG2: Applications & Services

WG3: Technology Reference
Framework

WG4: Policy Reference
Framework

WG5: Standardization
Roadmap

Meeting plan

Lifetime from Oct 2017 to
Apr 2019

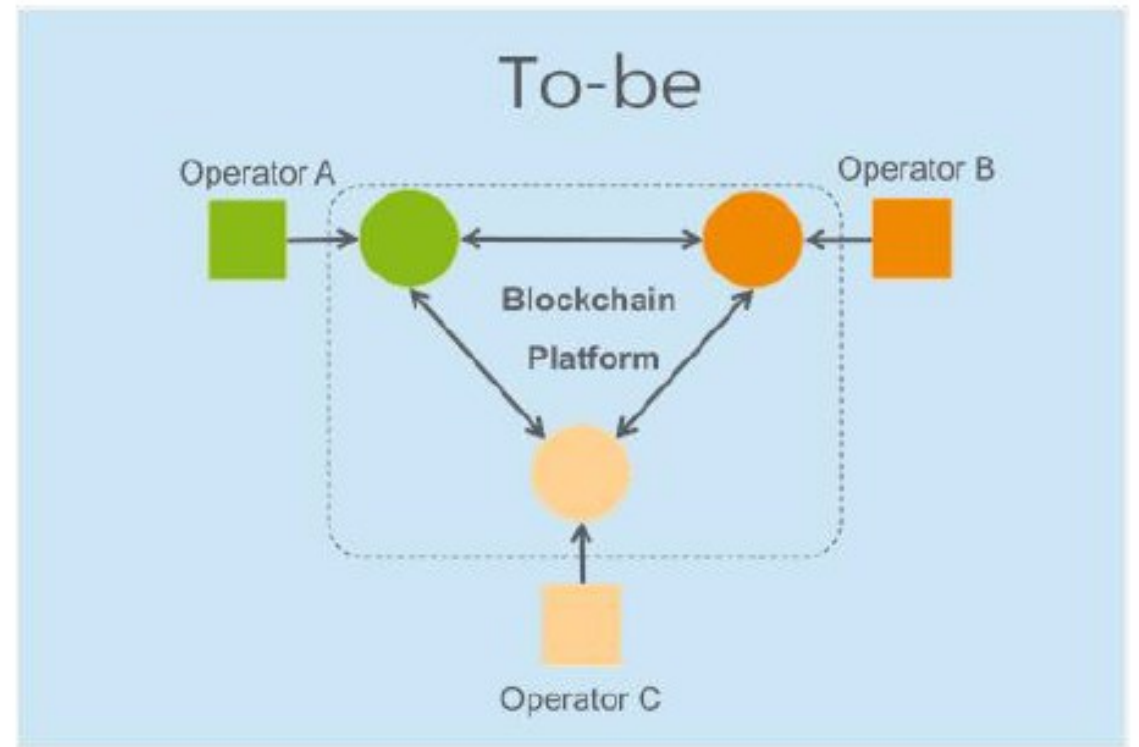
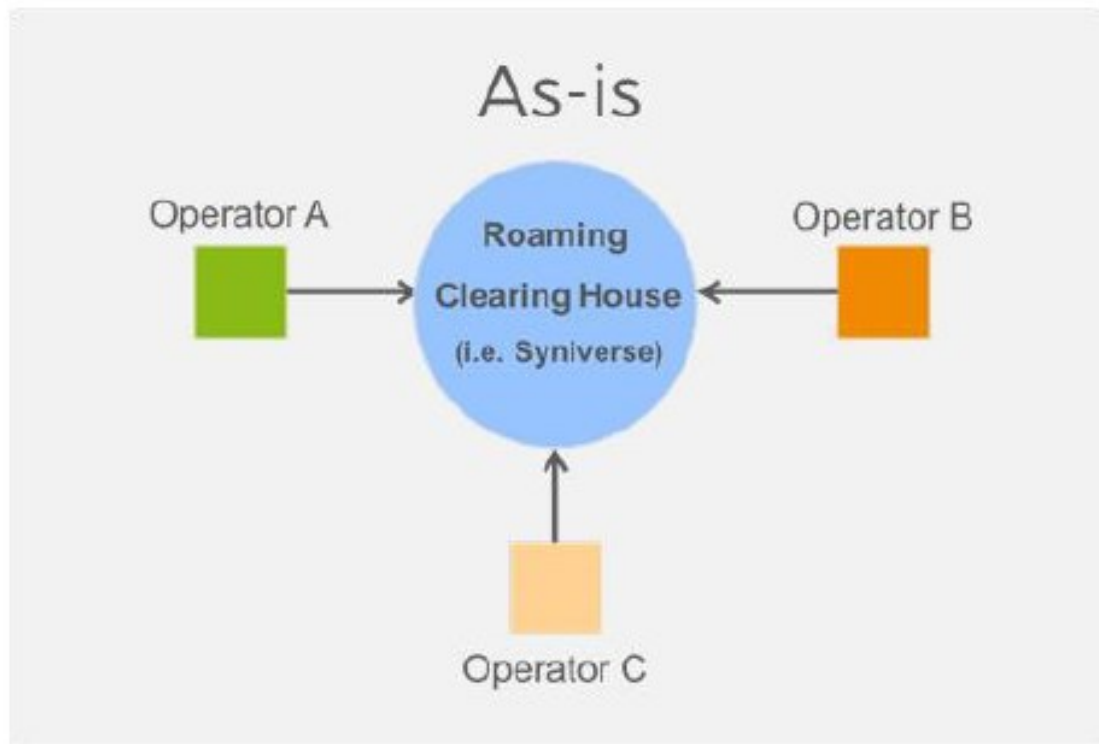
Beijing, 9-12 Oct 2018
(hosted by China, @
Trusted Blockchain
Summit)

**Rio de Janeiro, TBC Jan
2019** (hosted by Brazilian
Development Bank)

TBC: Barcelona, Apr 2019

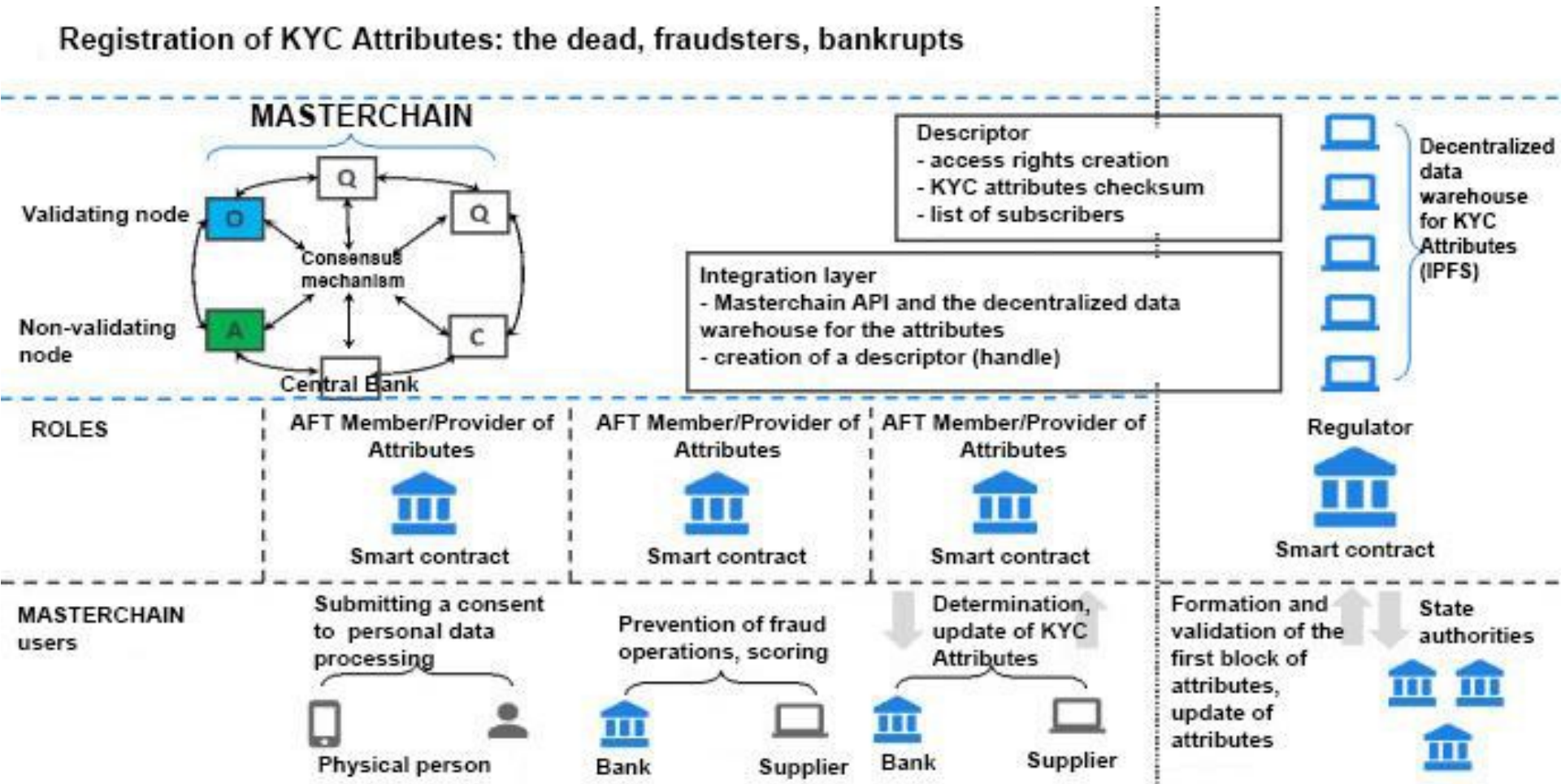


Use cases presented include roaming and wholesale voice settlement between operators



Source: Ericsson (DLT-I-029)

Use cases: Know your customer (KYC)



Source: Fintech Association Russia (DLT-I-019)

Use cases: Digital identity

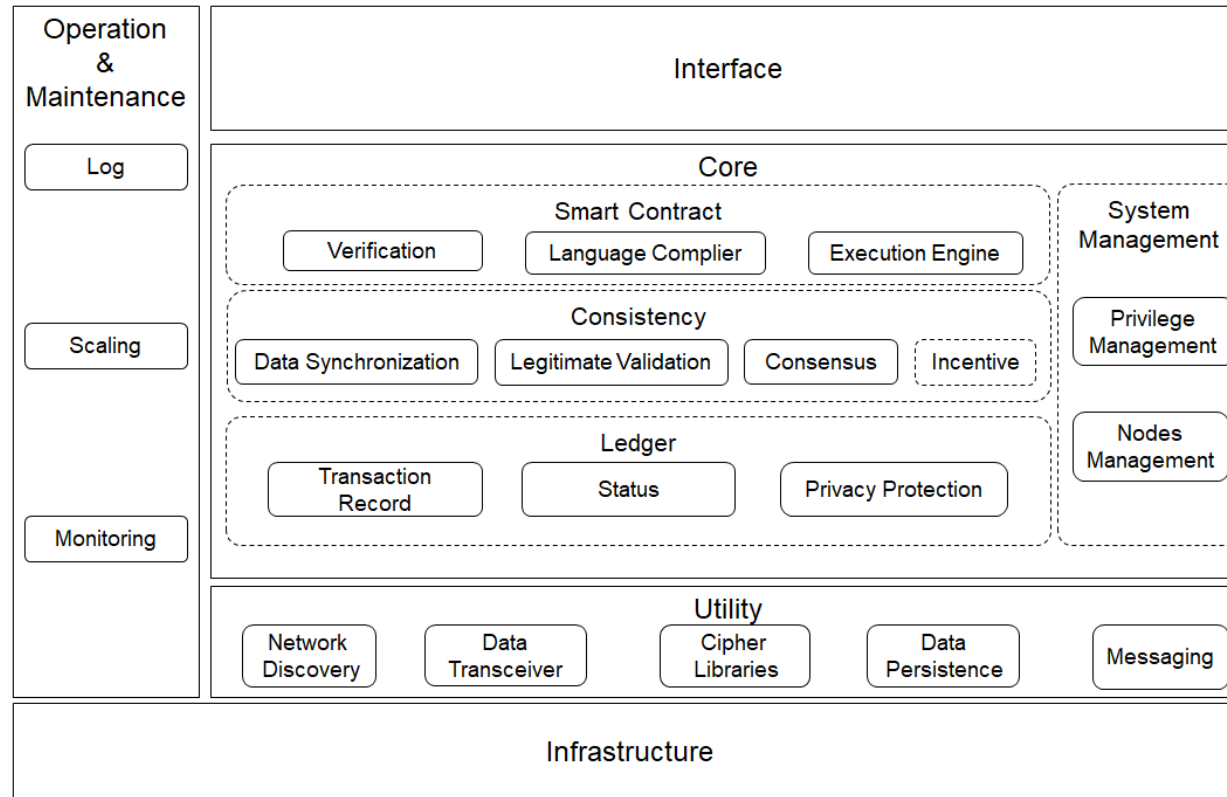


Why Blockchain??

- Solves the Honest but Curious Broker - No Data visible to network operator
- No central database or honeypots
- No central point of failure
- Triple Blind – PRIVACY
- Cannot track user across relying parties
- Scalable
- Resiliency to DDOS
- Immutable Audit Trails (Tx, User Consent)

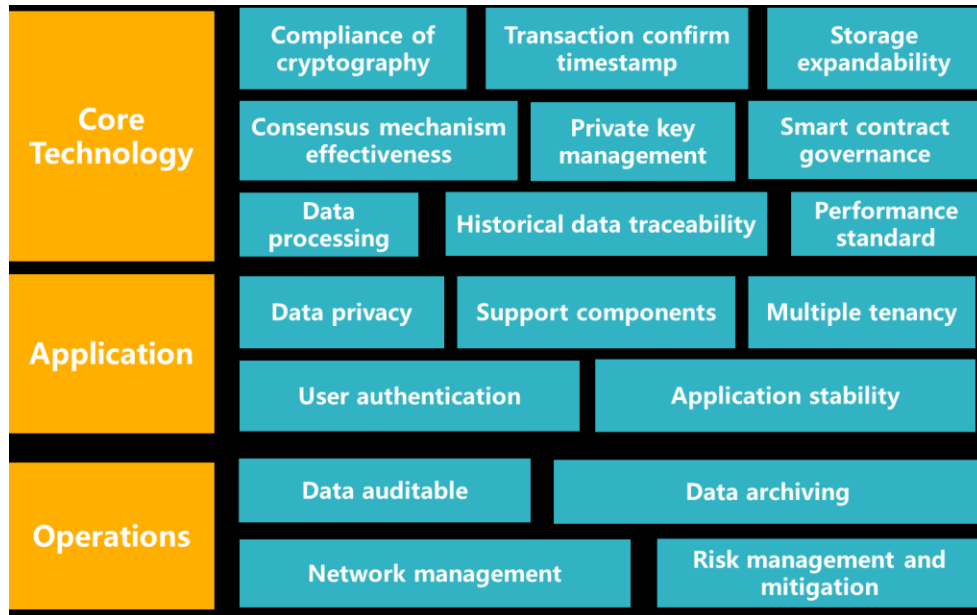
Source: SecureKey (DLT-I-027)

DLT reference architecture (Draft)

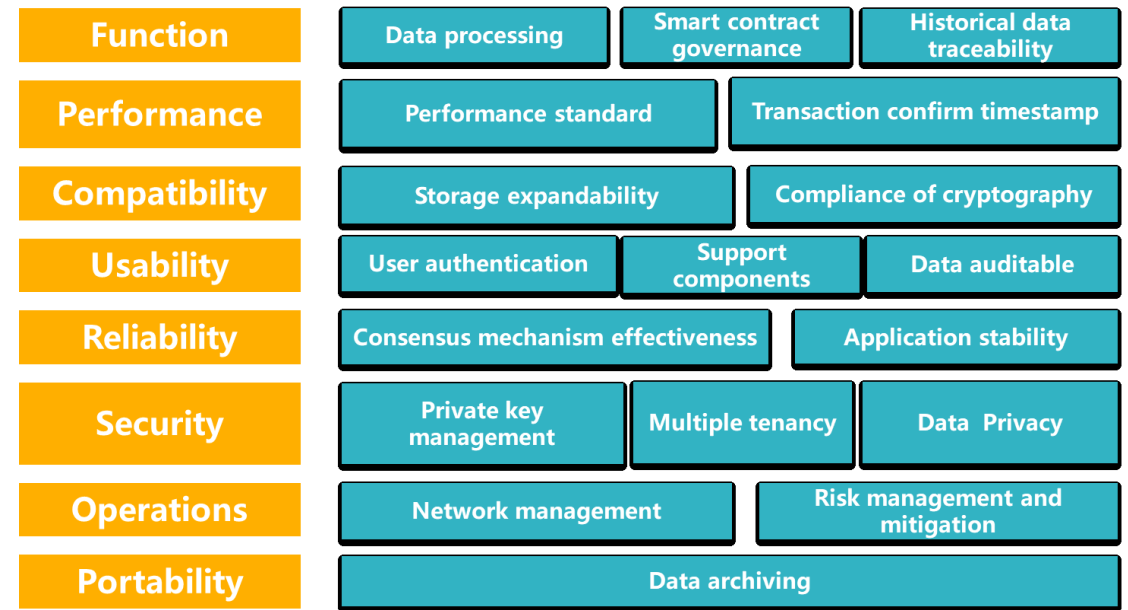


Components and functions of the DLT reference architecture.

DLT platform assessment framework (Draft)



Overview



Design view

Criteria to evaluate the function, performance and other indicators of blockchain products. (Source: DLT-O-030)

Join the focus group!

Join the group here: <https://itu.int/en/ITU-T/focusgroups/dlt/>

For more information contact:
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DLT related work in ITU-T Focus Groups (pre-standardization):

- (1) FG on Application of DLT (FG DLT, <https://itu.int/en/ITU-T/focusgroups/dlt/>) has identified a number of use cases (horizontal, e.g., identity management; and vertical/sector-specific), is working on a high-level architecture, an assessment framework, and regulatory aspects.
 - (2) FG on Data Processing and Management to support IoT and Smart Cities & Communities (FG DPM; <https://itu.int/en/ITU-T/focusgroups/dpm/>) is studying the use of blockchain in this context.
- FG on Digital Fiat Currency (FG DFC, <https://itu.int/en/ITU-T/focusgroups/dfc/>) explores blockchain as enabler for digital currencies

DLT related work in ITU-T Study Groups (formal standardization):

Study Group 13, cloud computing requirements for blockchain as a service (BaaS), https://www.itu.int/itu-t/workprog/wp_item.aspx?isn=14485, blockchain in NGN evolution, https://www.itu.int/itu-t/workprog/wp_item.aspx?isn=14282

Study Group 16, DLT and e-services, <https://www.itu.int/en/ITU-T/studygroups/2017-2020/16/Pages/results-1807.aspx#Annex%20B>

Study Group 17, various work items on security aspects for DLT, https://www.itu.int/itu-t/workprog/wp_search.aspx?isn_qu=6819

Study Group 20, “blockchain of things”, https://www.itu.int/itu-t/workprog/wp_search.aspx?isn_sp=3925&isn_sg=3937&isn_status=-1,1,3,7&title=blockchain