

Mining the Deep Value of Blockchain for Teleco Operators

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Global Telecoms are Exploring New Business Growth by Blockchain

The Output Value of Blockchain Technology in Telecommunications will increase to 993.8 million USD by the year of 2023.

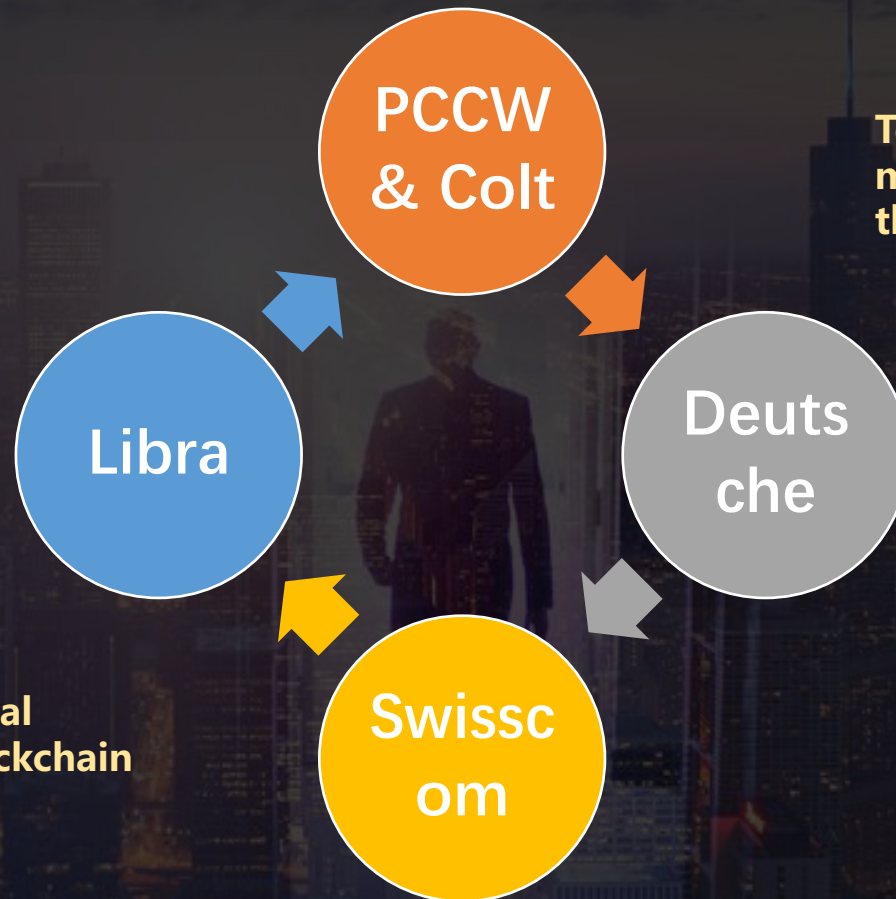
---Foresee from Research and Markets



Vodafone and Iliad joined Facebook Libra association as validator blockchain nodes, to promote, develop, expand the network, and to manage the reserve.



joining hands with the national postal service Swiss Post for a national blockchain infrastructure.



To settle voice transactions between multiple carriers in minutes rather than hours by blockchain



Building a global blockchain system which can block and erase personal data from the stolen phones.

Our collective work with international organizations

Communications Business Automation Network (CBAN) of ITW Global Leaders ' Forum (GLF)

— Collaboration



— CEO

Technology Committee

— Current projects

Architecture

Data-on-demand

International voice

Mobile roaming

— Technology vendors



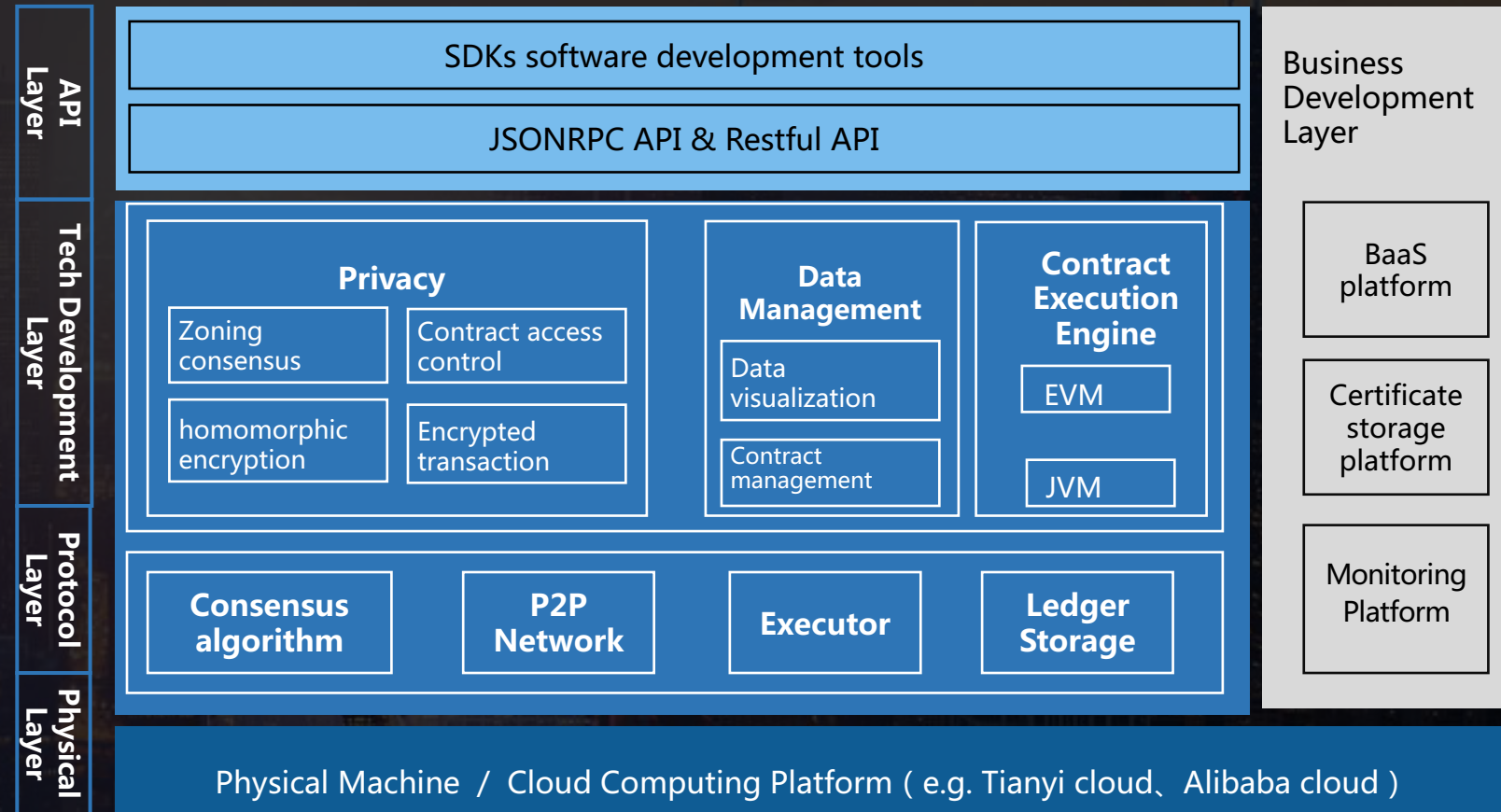
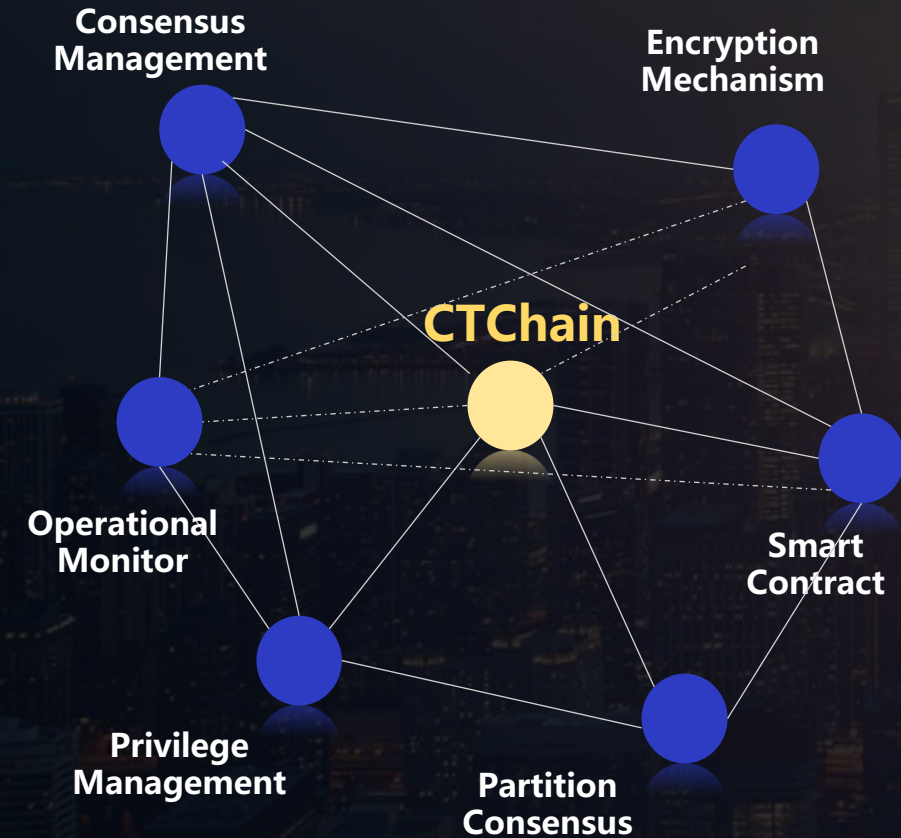
China Telecom Blockchain R&D Overview



CT-Chain: China Telecom Blockchain Infrastructure Platform

- Support of Partition Consensus to improve Scalability
- Robust Consensus Algorithm RBFT to achieve TPS over 3K
- Native Smart Contract Engine supporting both Solidity and Java

- Multilevel Encryption Mechanism to achieve Admission Control and Data Privacy
- Visual Deployment of Smart Contract and Operation of blockchain Nodes



CTG IDD Business

CTG carry over 10 billion international voice minutes on our network annually.

Billing for IDD Services is error-prone, slow and carries billions of dollars in opportunity costs.

China Telecom & QLC are planning to launch an DLT MVP on IDD

typical issues in billing for IDD business

Network Structure



ITEM	TIMING or NOTE
Billing cycle	Monthly
Bill generation and distribution	5th day of the month
Bill reconciliation	2 or 3 days
Dispute identification and confirmation	15 to 45 days
CDR reconciliation process	90 to 180 days
Added delay for fraud disputes	The operator does not discover any fraudulent transactions until the reconciliation process.
Dispute analysis and resolution by partner	Months to years
Results of disputes	During dispute: receivables blocked If unresolved: receivables written off

International Voice Business & DLT

Our proposal of IDD&DLT POC



Instant access to reliable call data on the blockchain. A single source of truth that eliminates siloed processes.



Smart contracts that automate agreements.



A private, permissioned blockchain that protects confidential data



Automation that streamlines a digital process

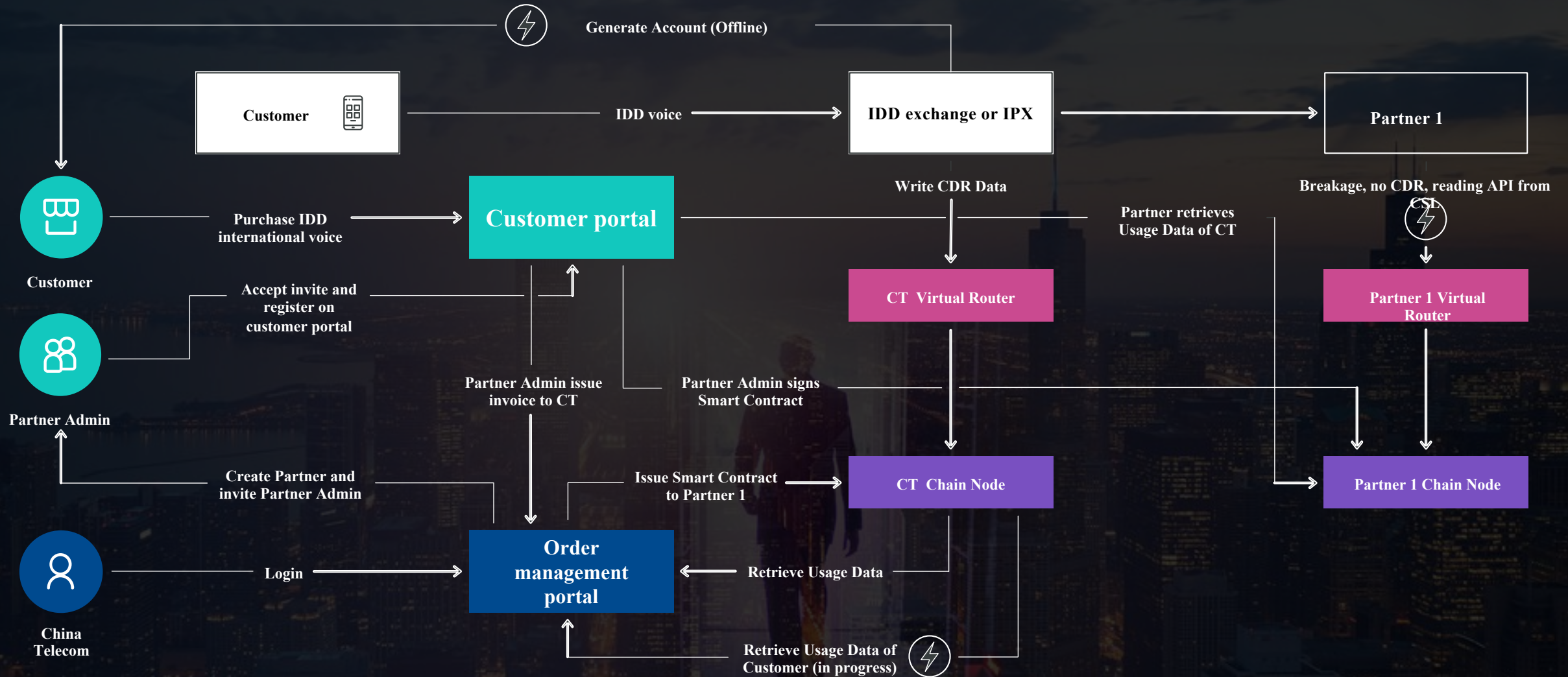
Option 1

DLT Augments current CDR APIs by enabling the synchronization of Books of Record between Operators

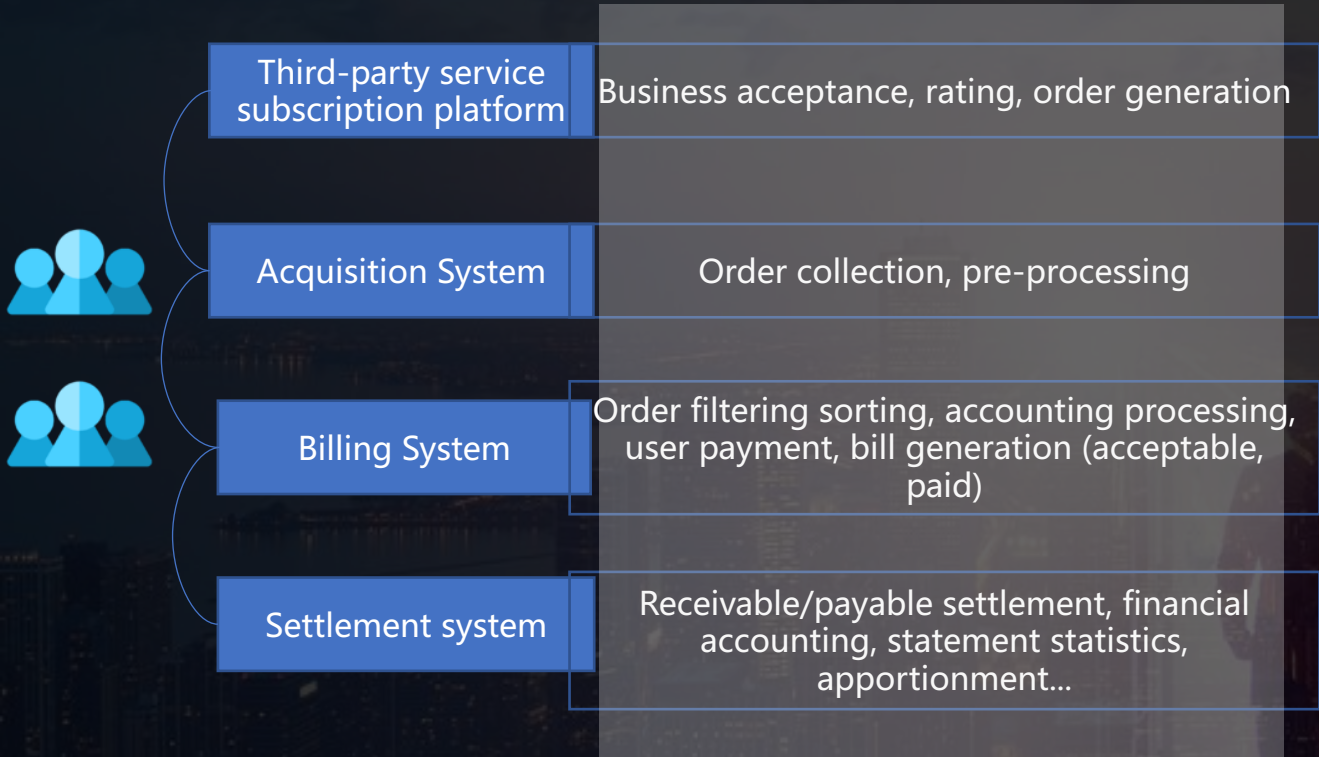
Option 2

DLT replaces current internal functionality such that for processes between Operators there is now a common Book of Record

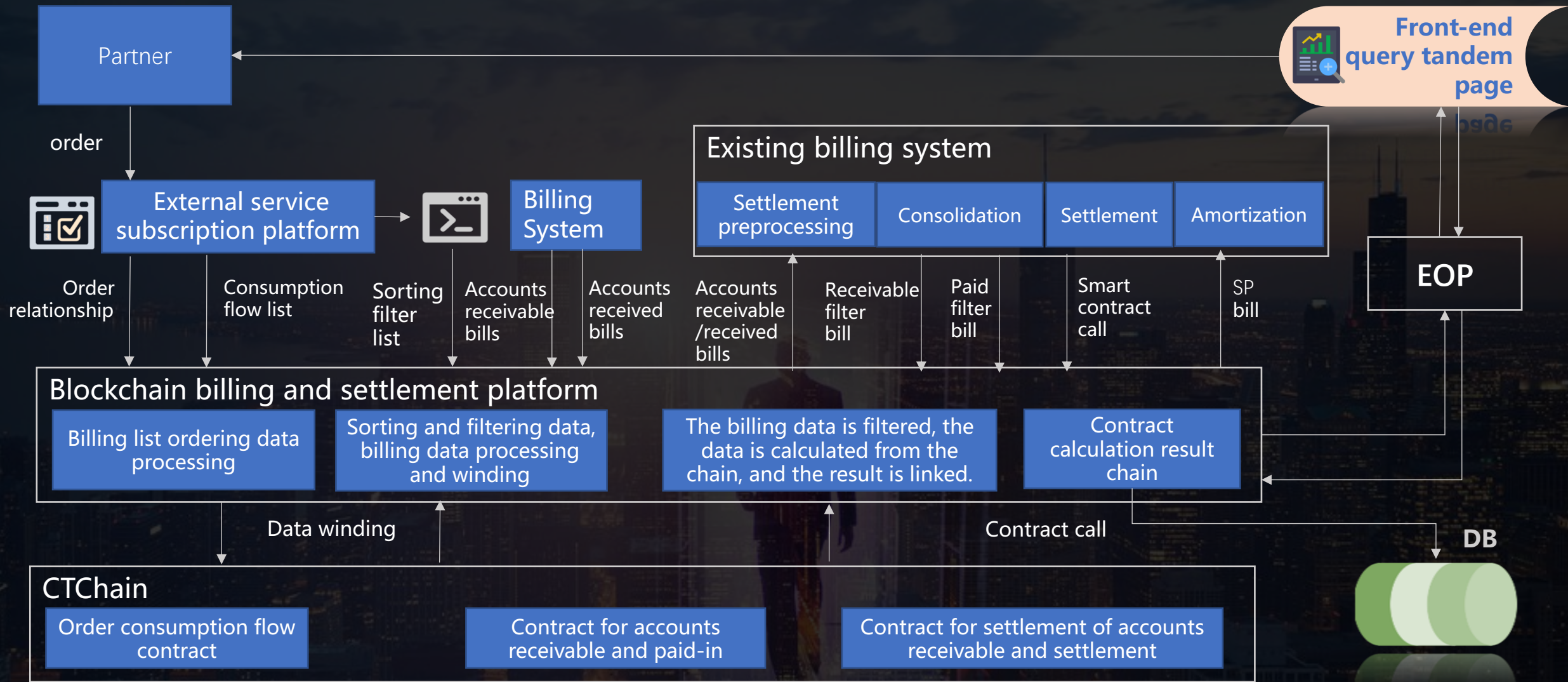
IDD Deployed Use Case - Welcome to join us !



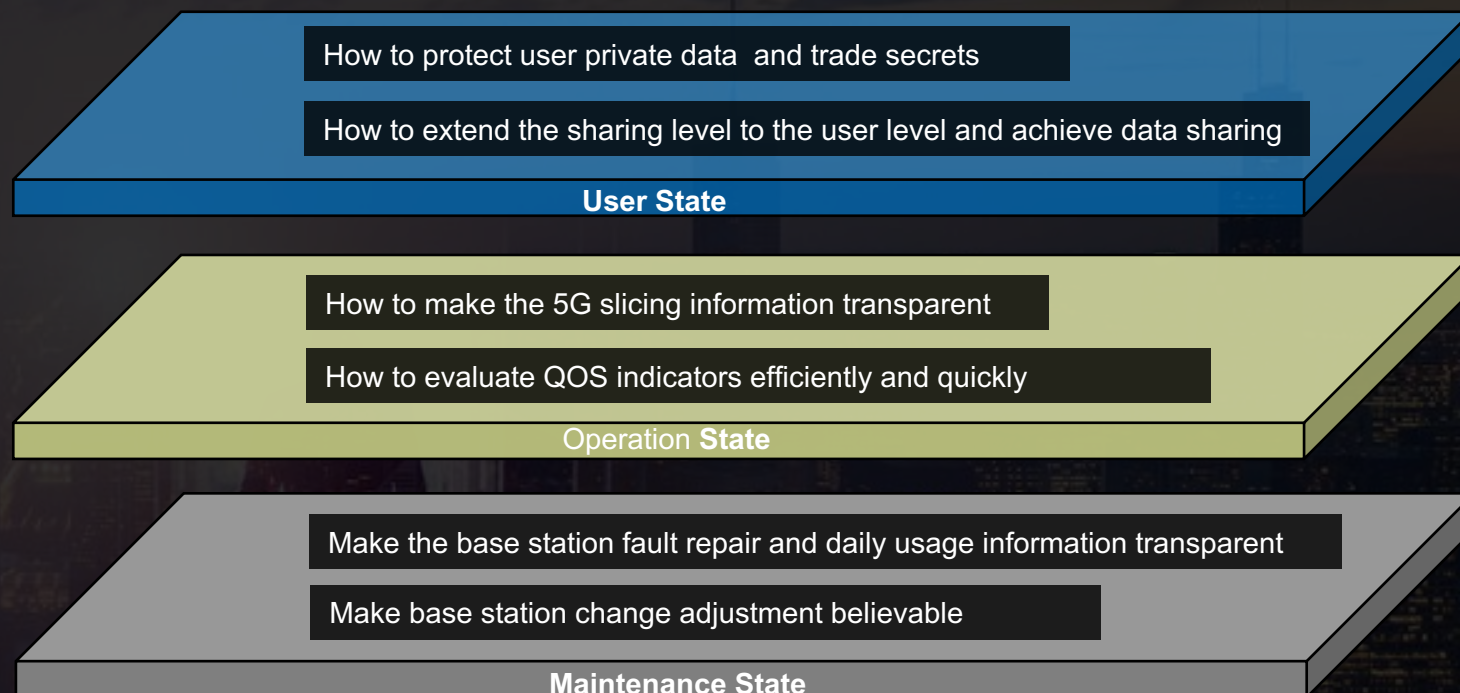
bC&S: China Telecom Blockchain based Clearing and Settlement system



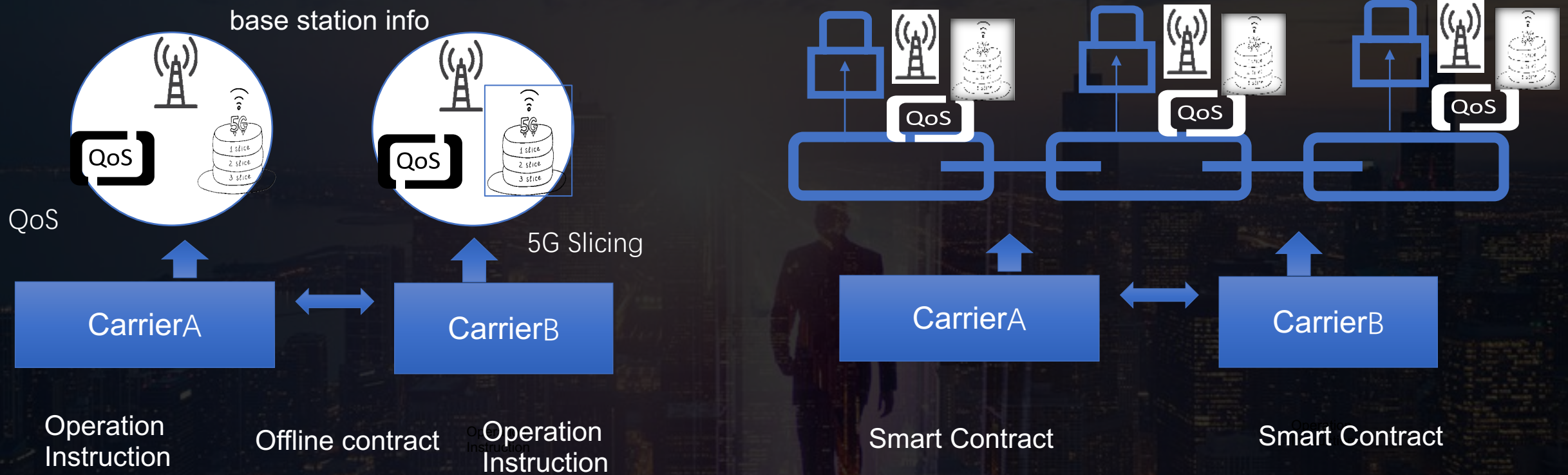
bC&S: China Telecom Blockchain based Clearing and Settlement system



Challenges in 5G Co-construction and Sharing



Blockchain-based 5G Co-construction and Sharing



Thanks !

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