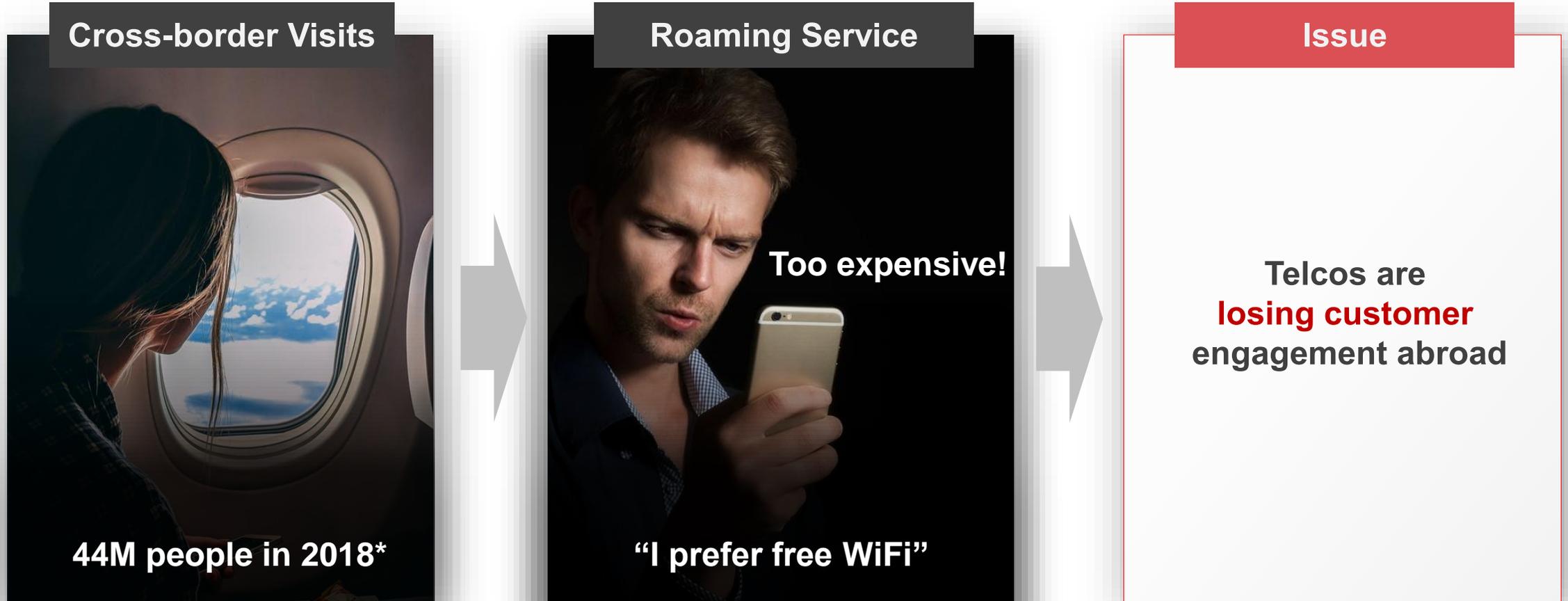


Telco-driven Decentralized Identity Network

Kang-Won Lee, Ph.D.

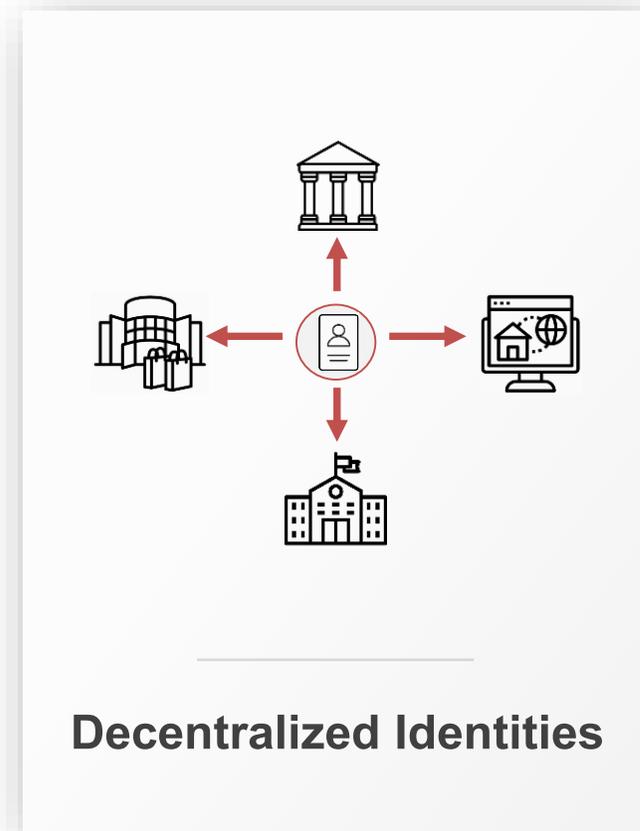
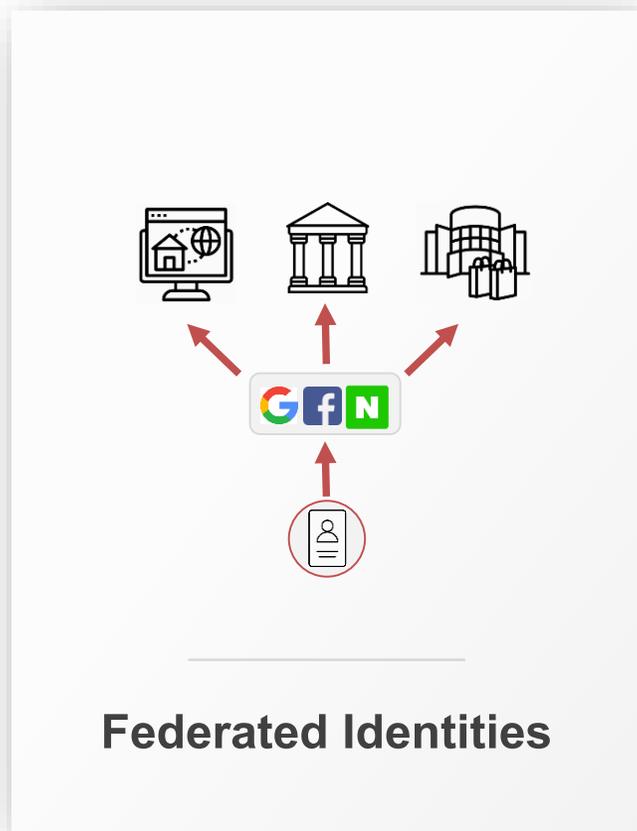
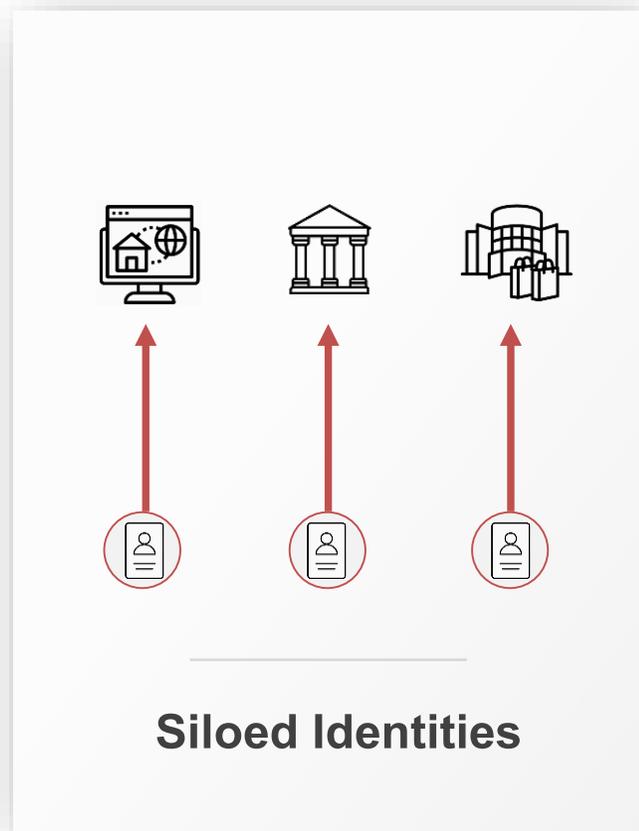
Head of Cloud Labs



How Can We Maintain Customer Engagement Abroad?

* Korea Tourism Organization

The Rising Tide Of Decentralized Identity

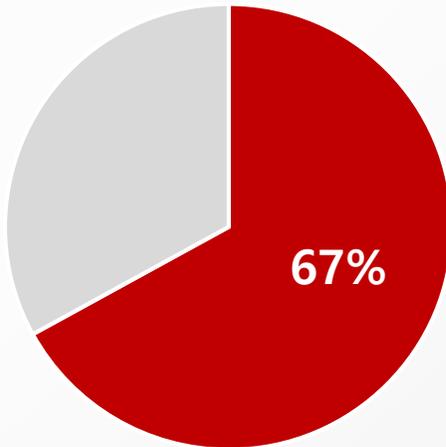


New Business Opportunities For Telcos

\$7 billion opportunity for operators to become ID brokers in 2024*

Mobile Device Users

67% of global population**



5.13 billion**

Mobile Connect



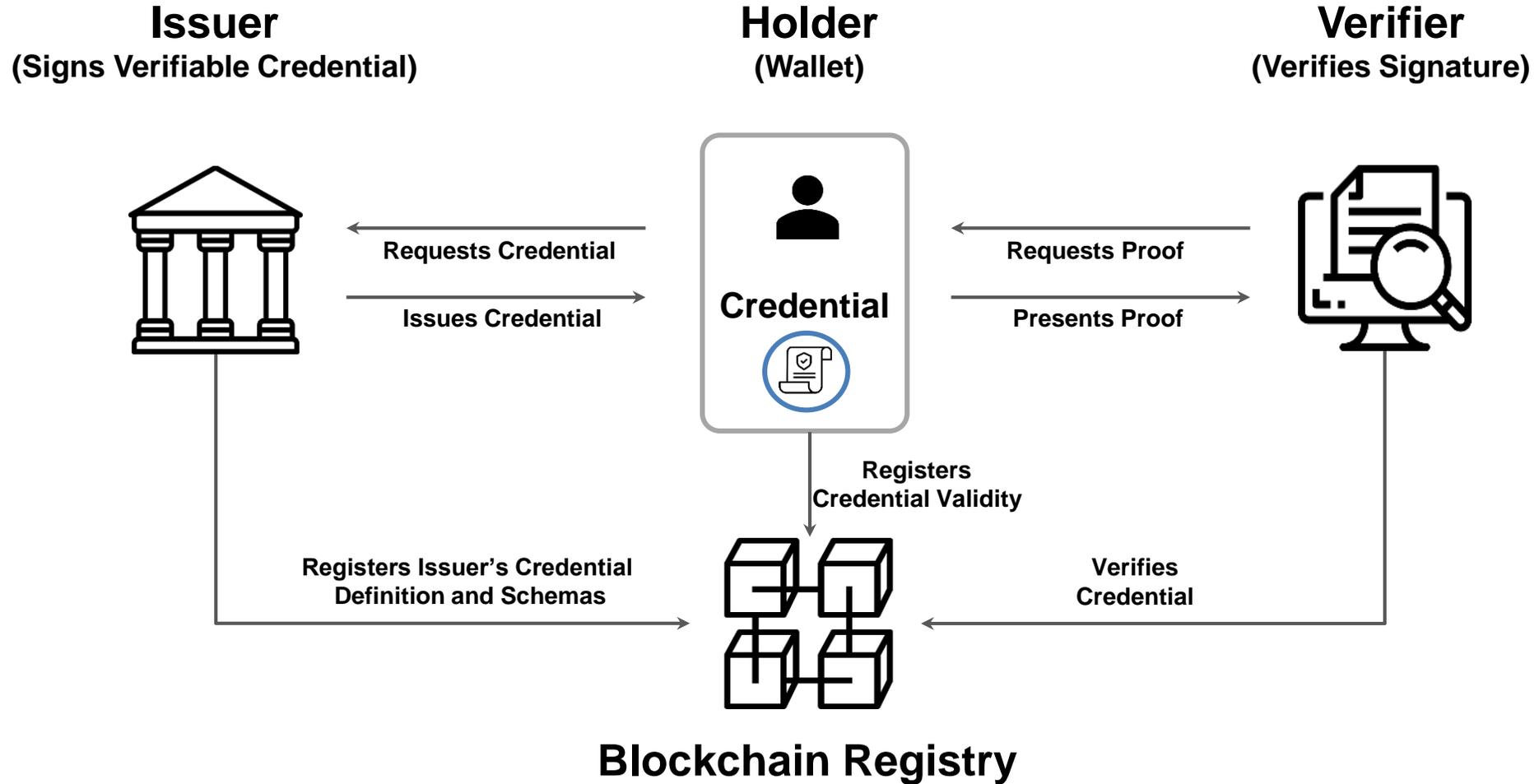
MNOs have a right to authenticate users.

Mobile Connect already:

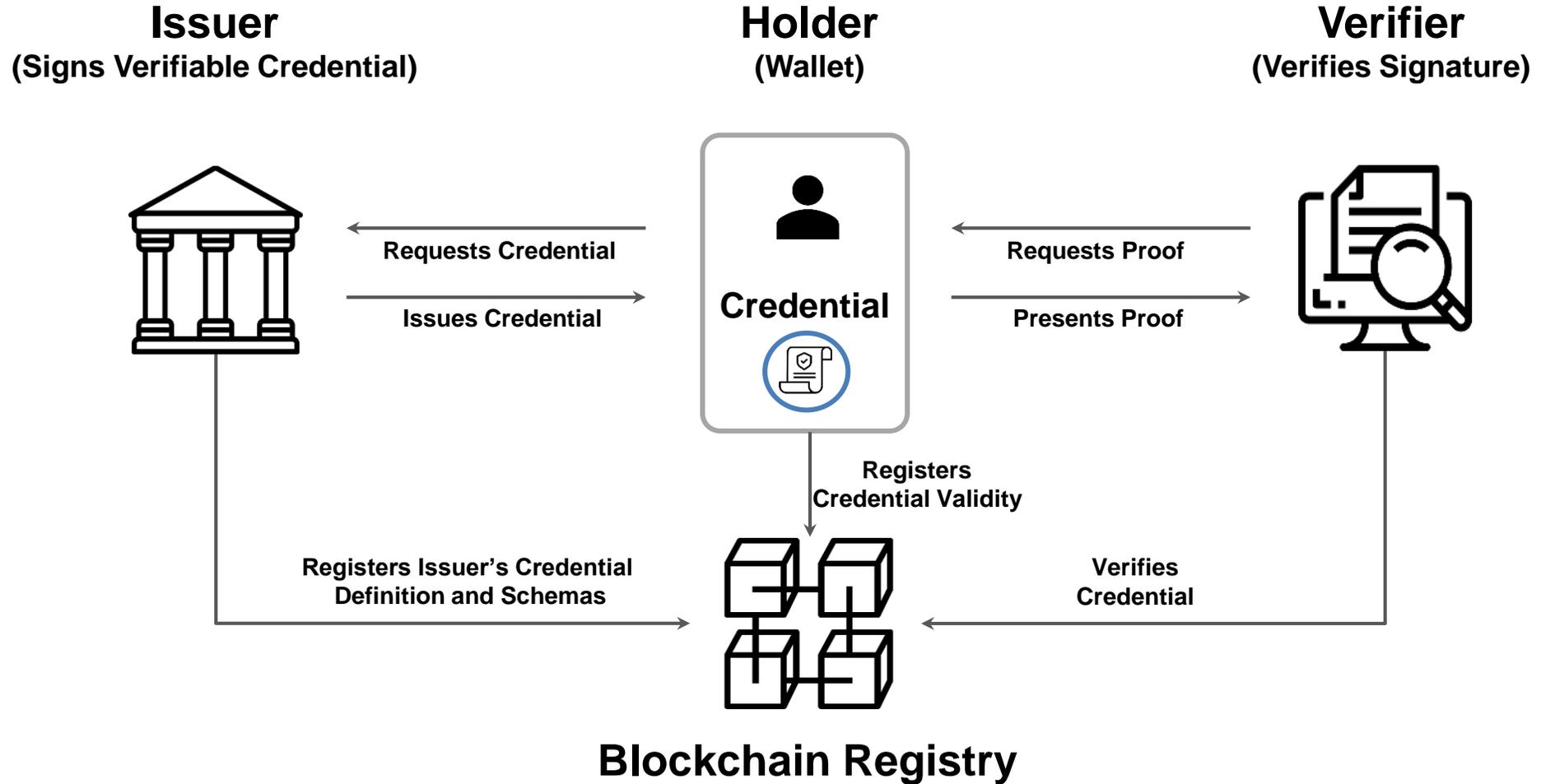
- **Authenticates** user online
- **Authorizes** transactions and payments
- **Verifies Identity**
- **Confirms** attributes about user and device

* Juniper Research, ** <https://www.bankmycell.com/blog/how-many-phones-are-in-the-world>

DID Verification Work Flow



DID Verification Work Flow



Telco's Role In the DID Network

Telcos can lead Global Decentralized Identity Ecosystem



As an Issuer

Telcos are regulated to know their customers, so can issue verified KYC information

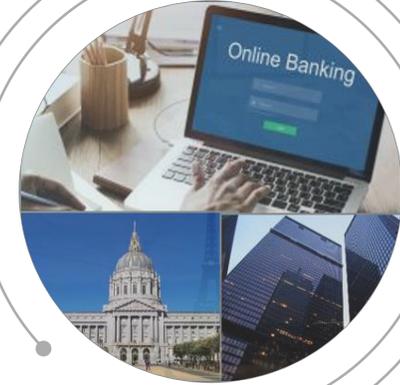
- Personal Identification
- Proof of Credential, Premium Customer, Credit Score, Location



For Holders

Telcos can help customers manage their identity information in a mobile wallet

- Custodian Service (Key + Credential)

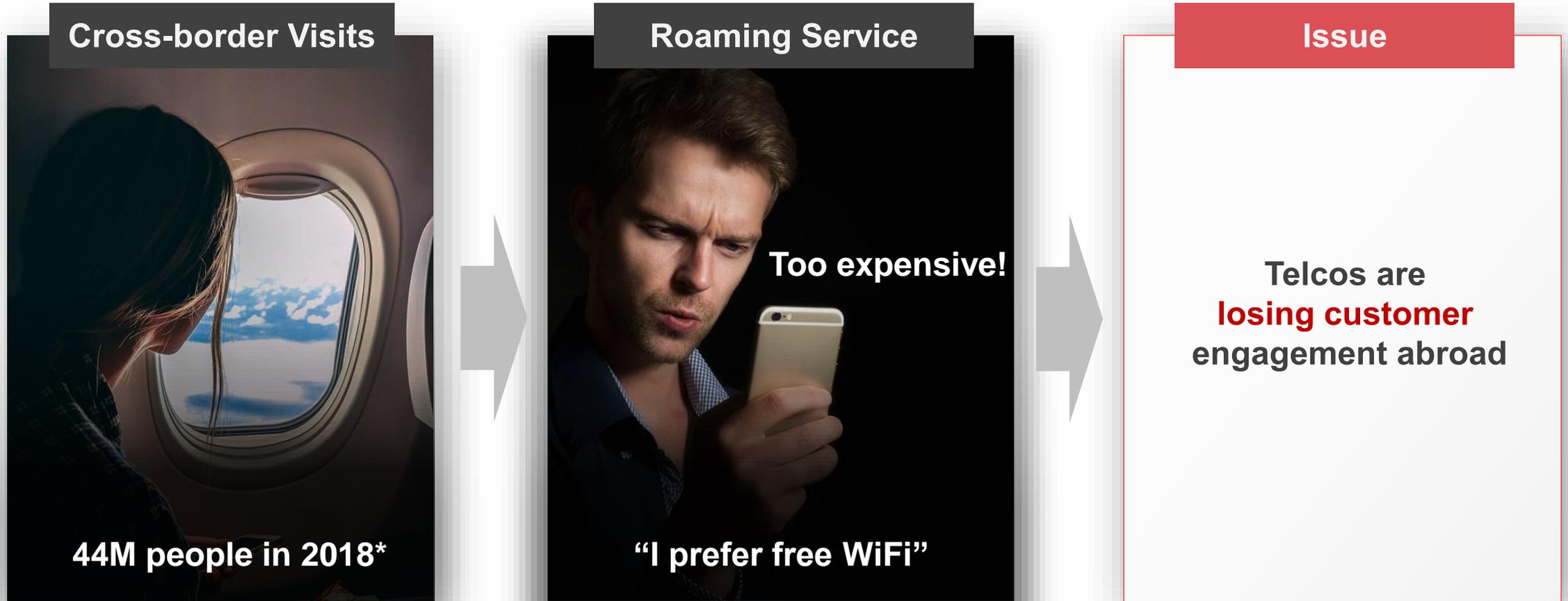


For Verifiers

Telcos can support verification through API offering for service providers

- Verification Service Provider

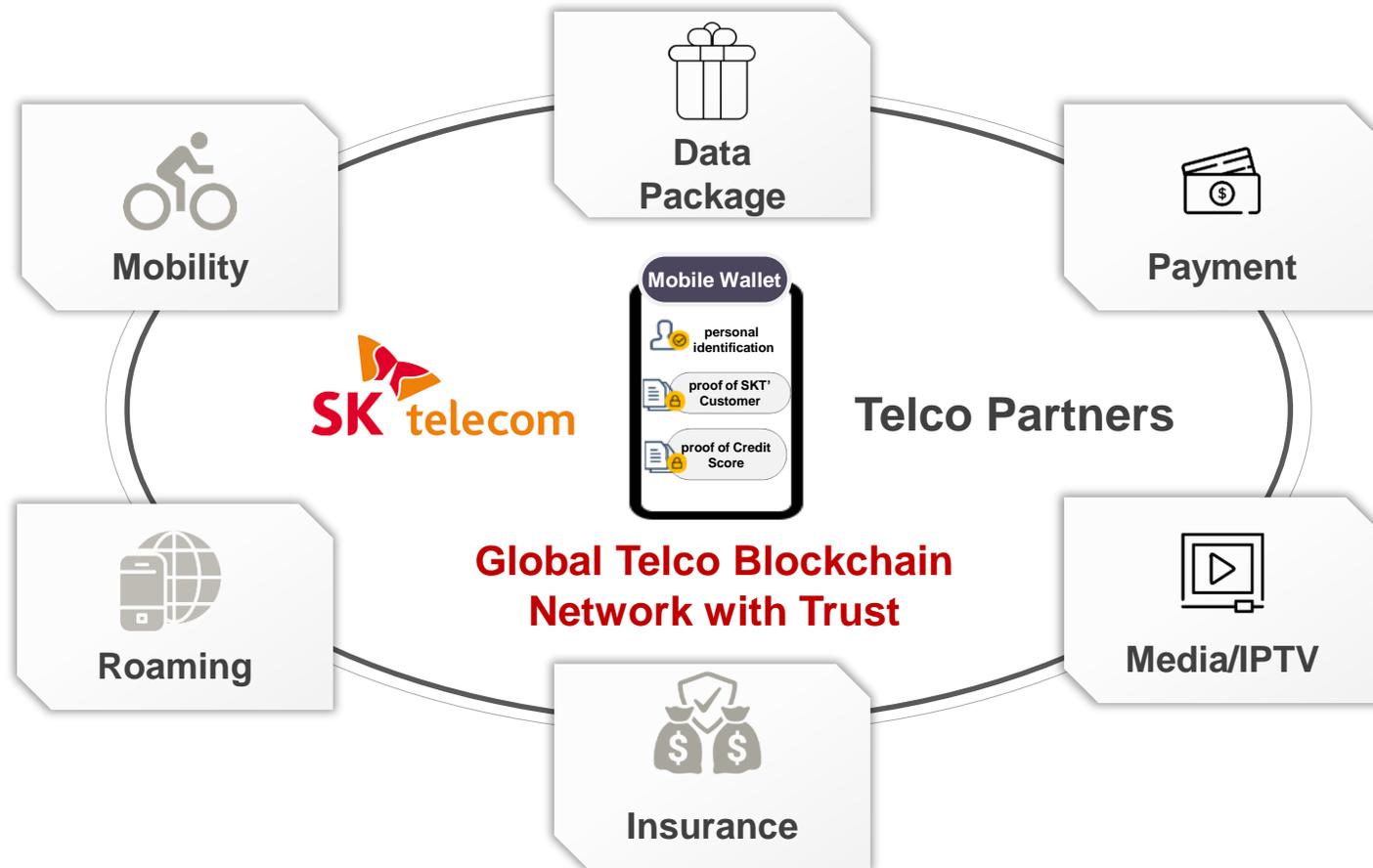
Telcos Are Losing Customer Engagement Abroad



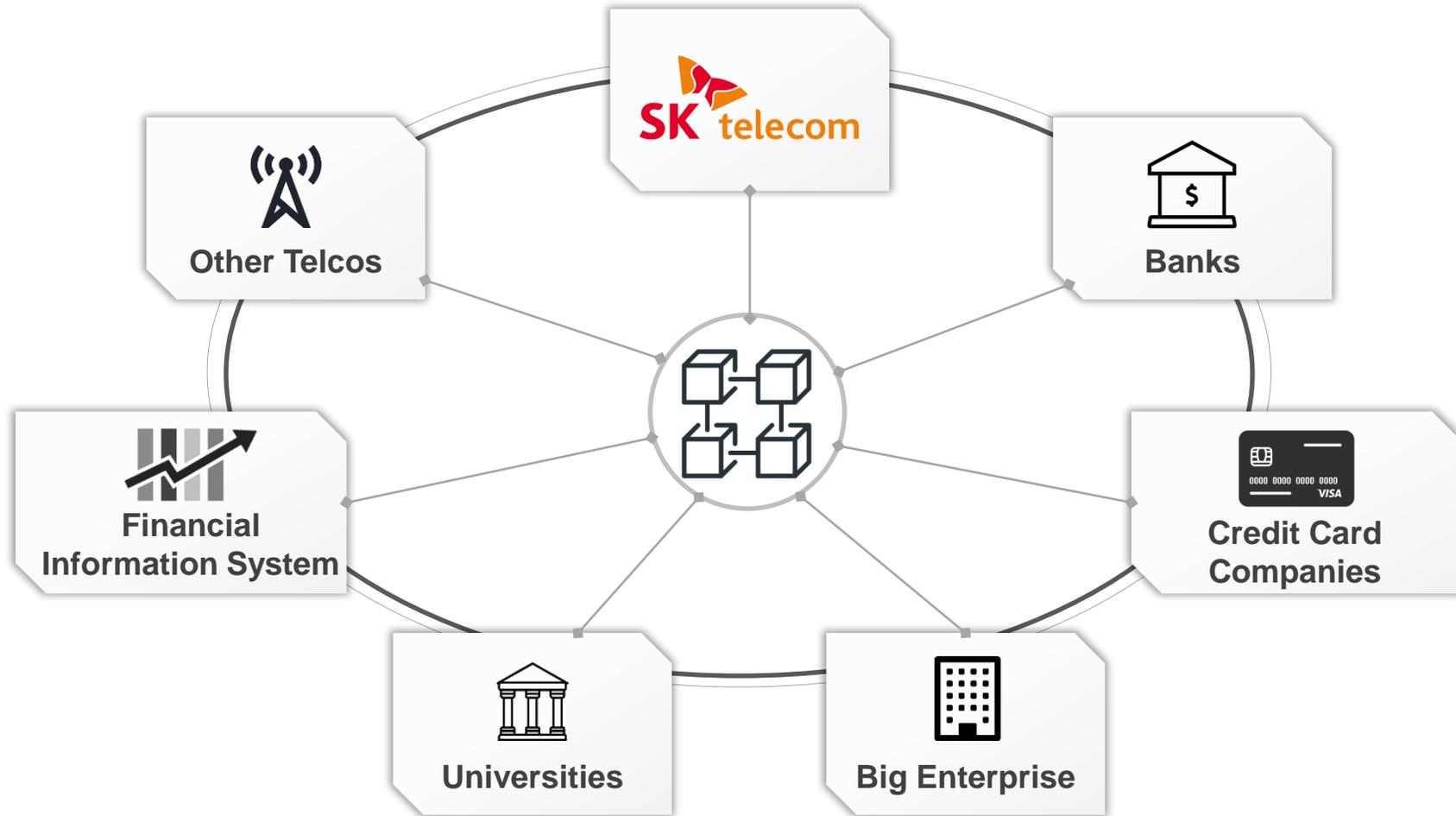
* Korea Tourism Organization

Collaboration Scenario Between Telcos

- **Cross-offering: Data package, Payment, Mobility, Media and Insurance**
- **Better experience to customers and new business opportunities**



DID Consortium In Korea (10 Companies Onboard)



DID Wallet Service



**Issues
Credential**



**Manages
Credential**



**Submits
Credential**



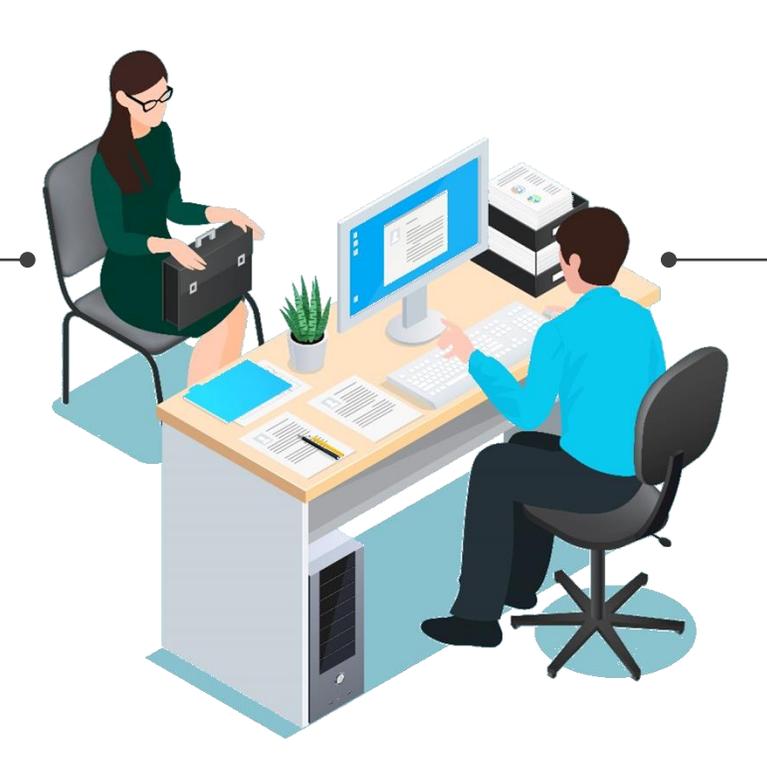
**Secures
Credential**

Use Case 1: Academic Certificate

Applicant



Job Interview

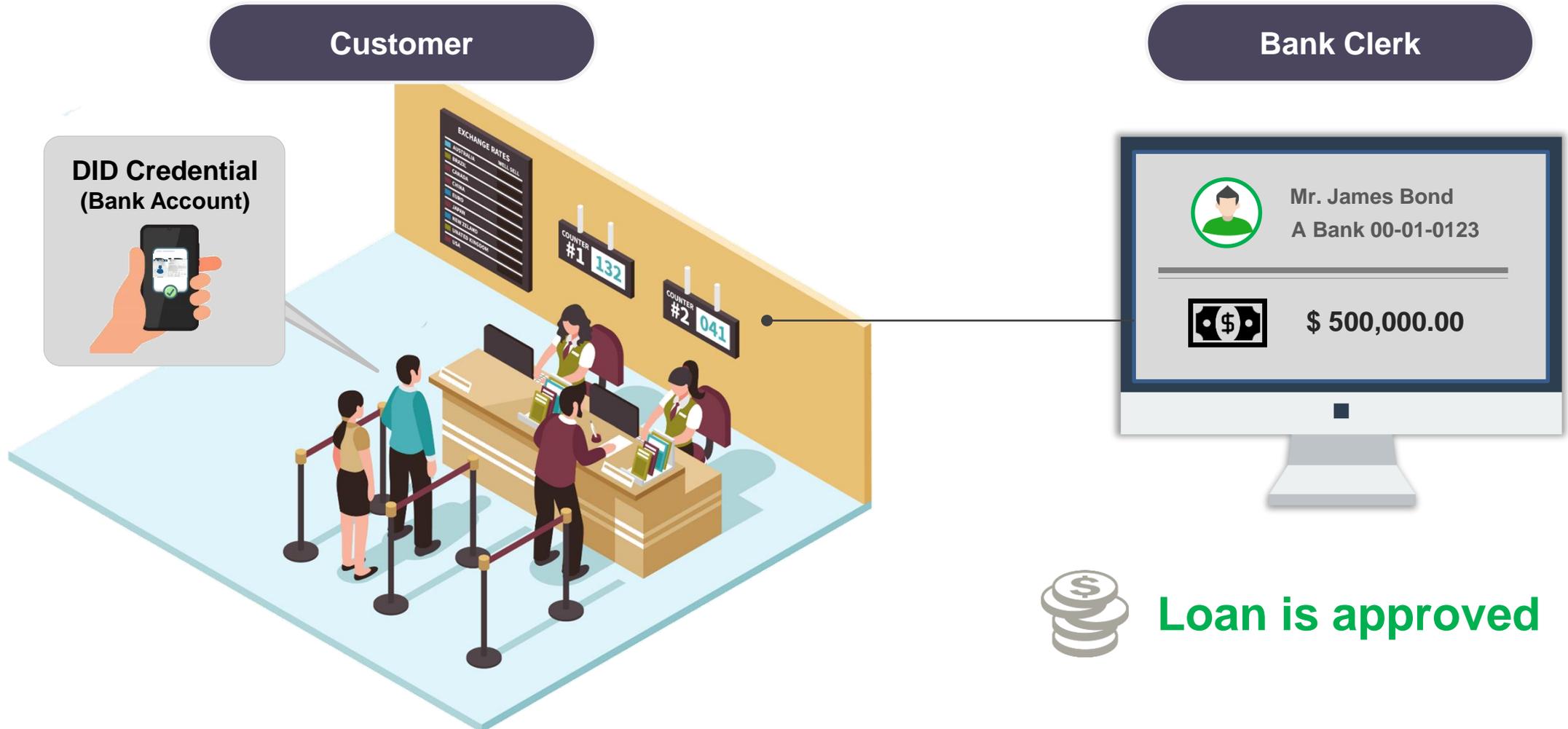


Recruitment Manager

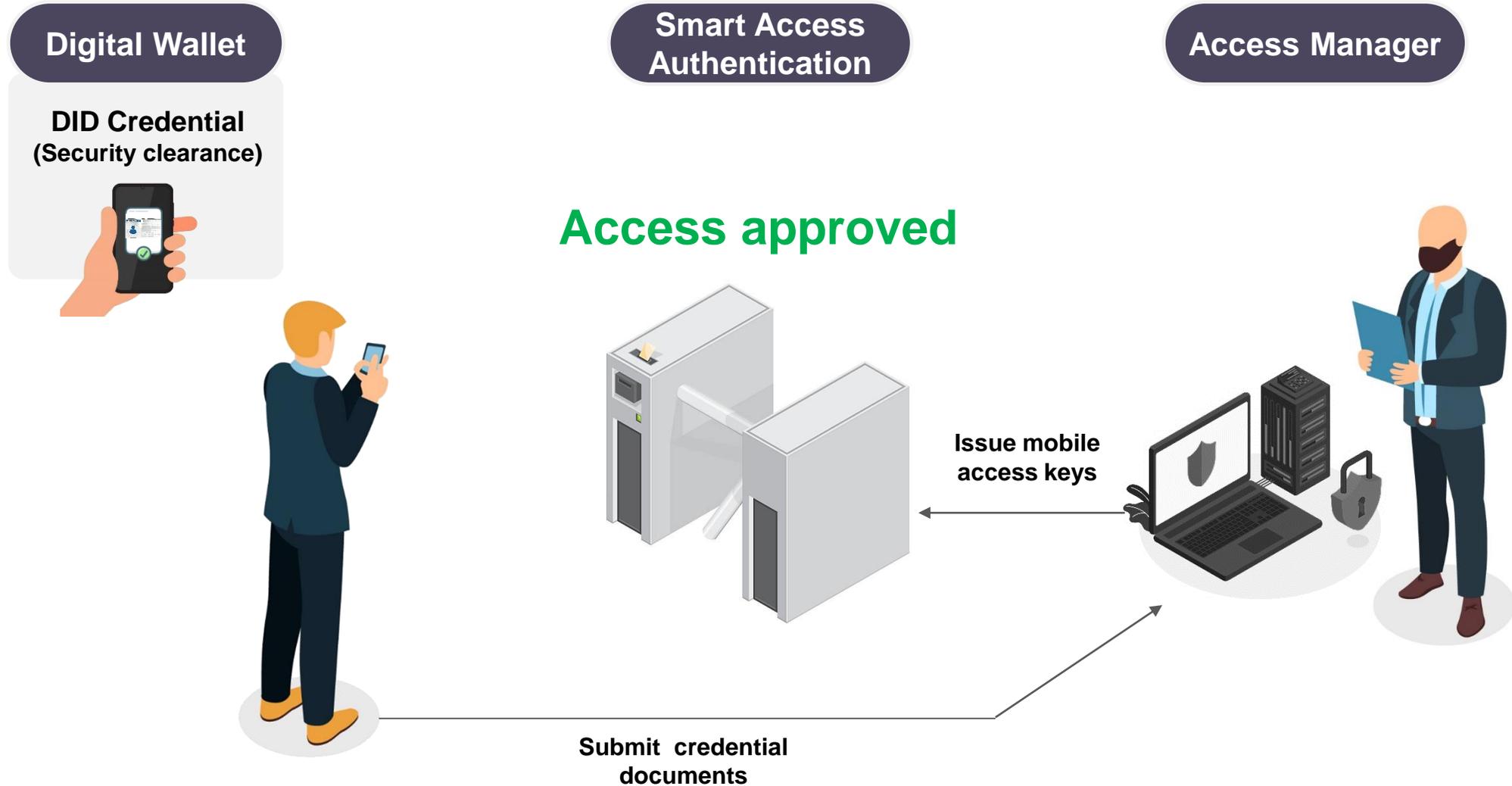


Check

Use Case 2: Bank Account Certificate



Use Case 3: Blockchain-based Access Control Service



Use Case 4: One ID = Digital Credential

Current

 kwlee@microsoft.com
 Pass123!@!
  Kangwonlee
 password1

 Kangwon123@sk.com
 Pass123!

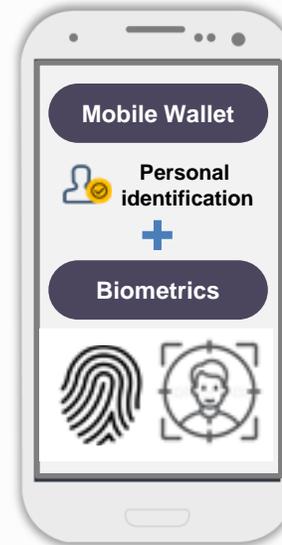
 Kangwon123@gmail.com
 Password23!@

 kangwon123
 Password23!



➤ It's hard to remember

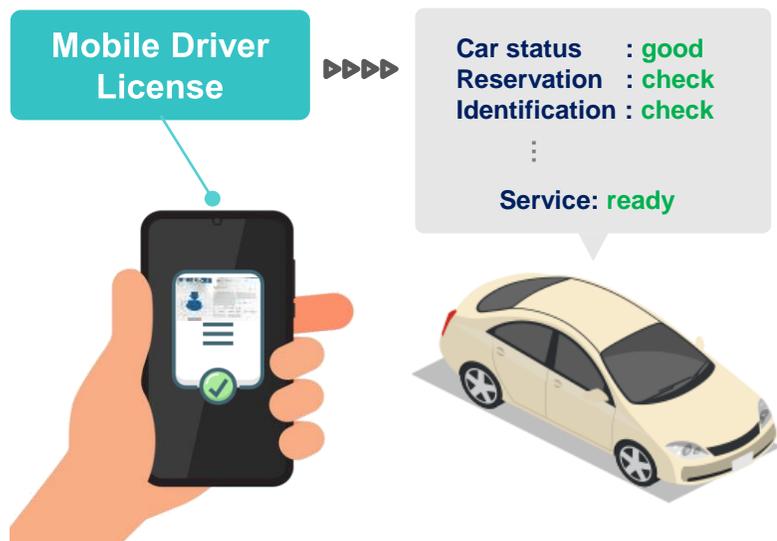
One ID



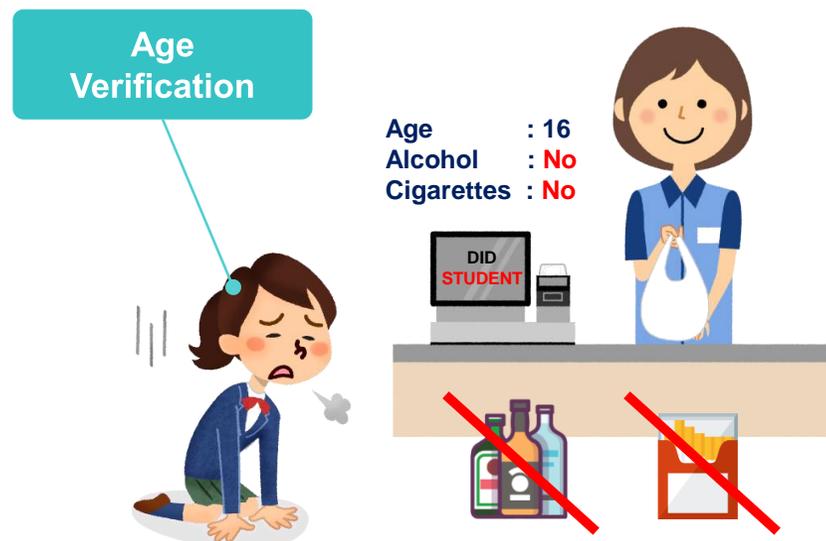
- **Easy to Access** (No more ID and Password)
- **Enhanced Privacy**
- **No Fraud**

Use Case 5: Car Sharing and Age Verification

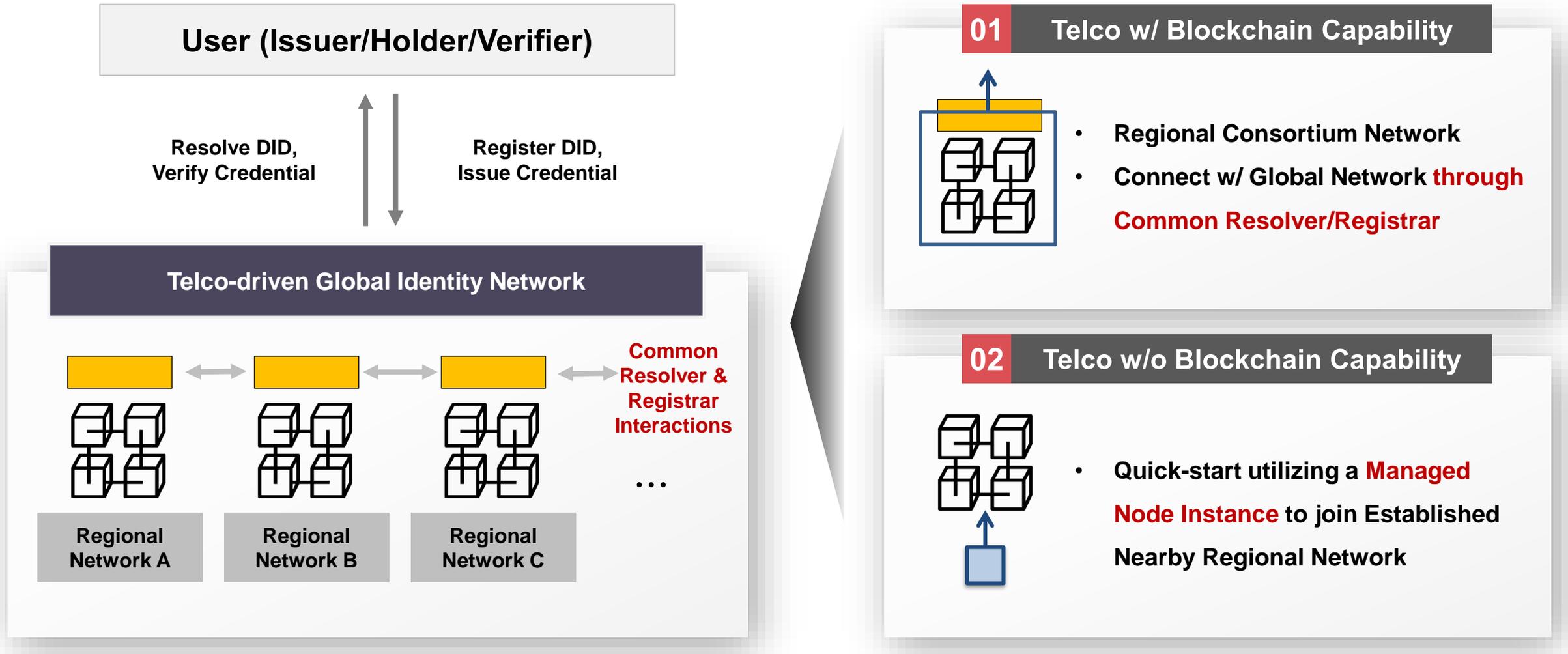
Car sharing service



Verification Service

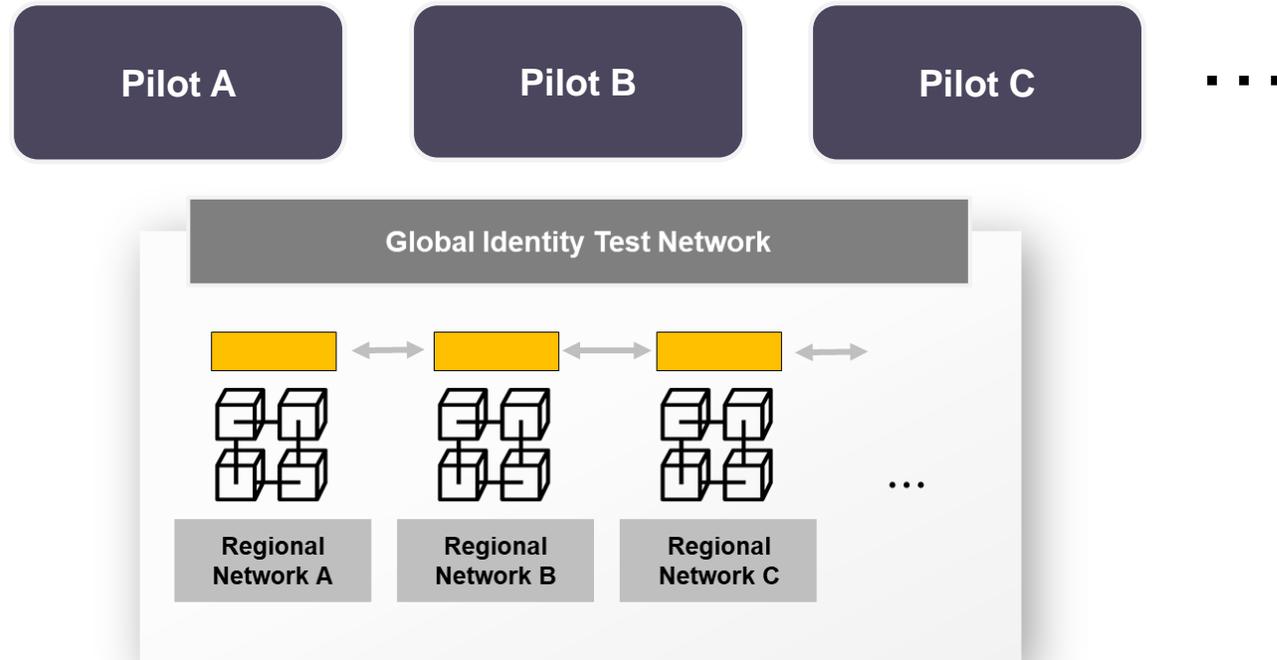


Global Network Architecture & Participation Options

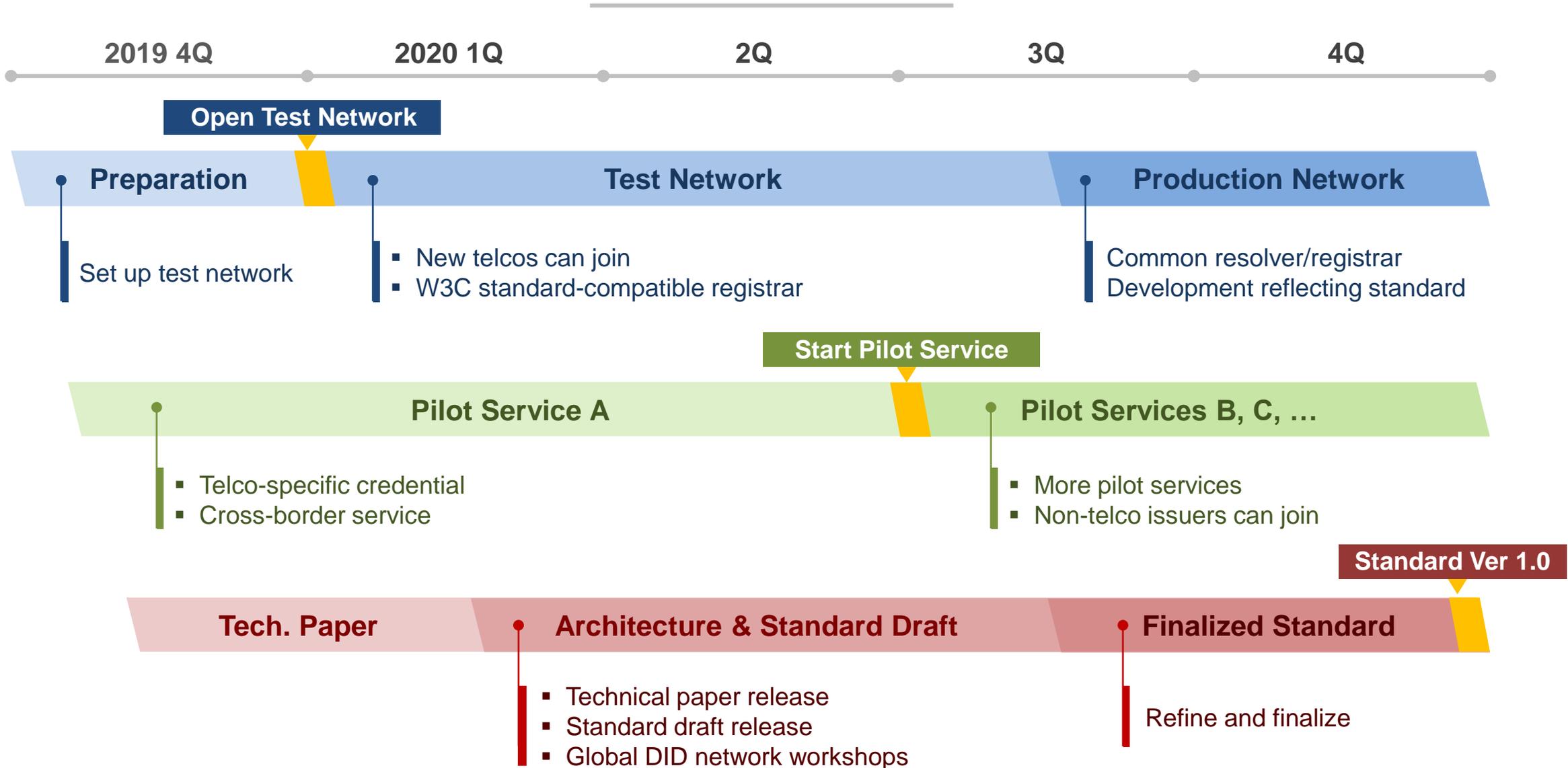


Test Network & Pilot Projects

- SKT is planning to operate Global DID Test Network with GSMA and several telcos
- SKT is developing telco-oriented pilot services for cross-border use cases
- We welcome interested telcos to participate



Global DID Network Pilot Milestones



Standardization & Collaborations

Short-term Goal (~ Q2 2020)

- **DID Method Name & ID Scheme Definition**
- **Telco-specific Credential Definitions**
- **Governance Model Definitions**
- **Common Resolver/Registrar Method & Protocol Definition**

Suggestions for Collaboration

- **Join Regular DID conference call by GSMA Identity group**
- **Create and Join DID Test Network together**
- **Jointly develop Pilot Use Cases**
- **Organize Telco Blockchain Session at MWC 2020 Barcelona**

Thank You!

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