Federated Cross-Layer Access draft-wei-abfab-fcla-00
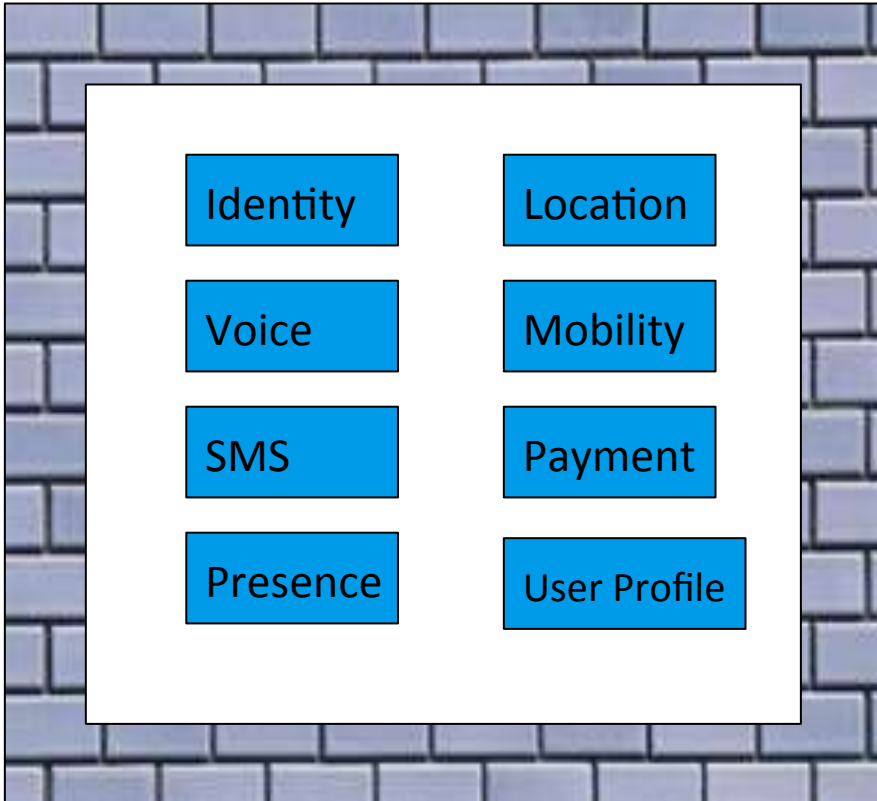
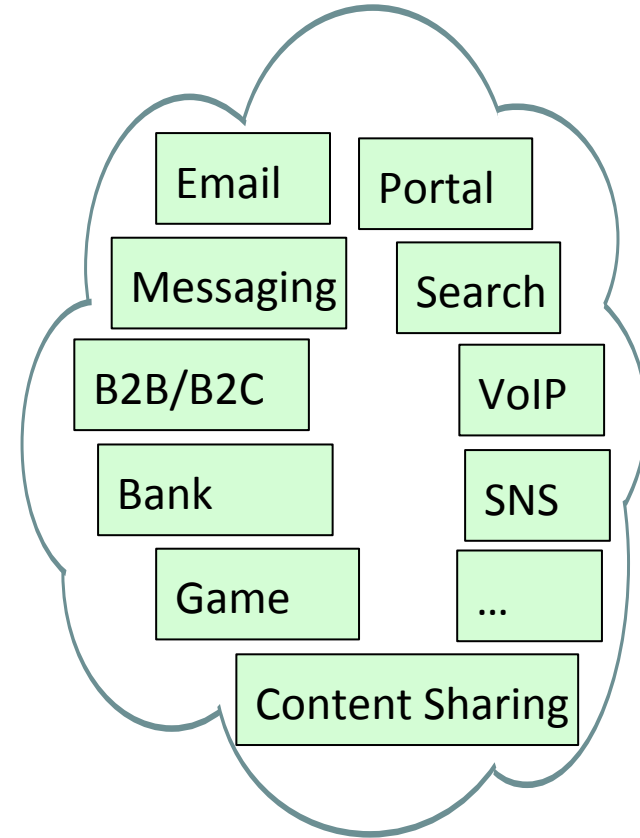IETF#81 Quebec, Canada

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Motivation

- Telecom operator
  - Have tens of millions of users
  - Provide trusted identity and higher security
  - Provide relative few services
- Service Provider
  - Have limited amount of users
  - Can not assure the security of user identity
  - Provide plenty of services
- User
  - prefer to register fewer accounts in case they remember too many passwords
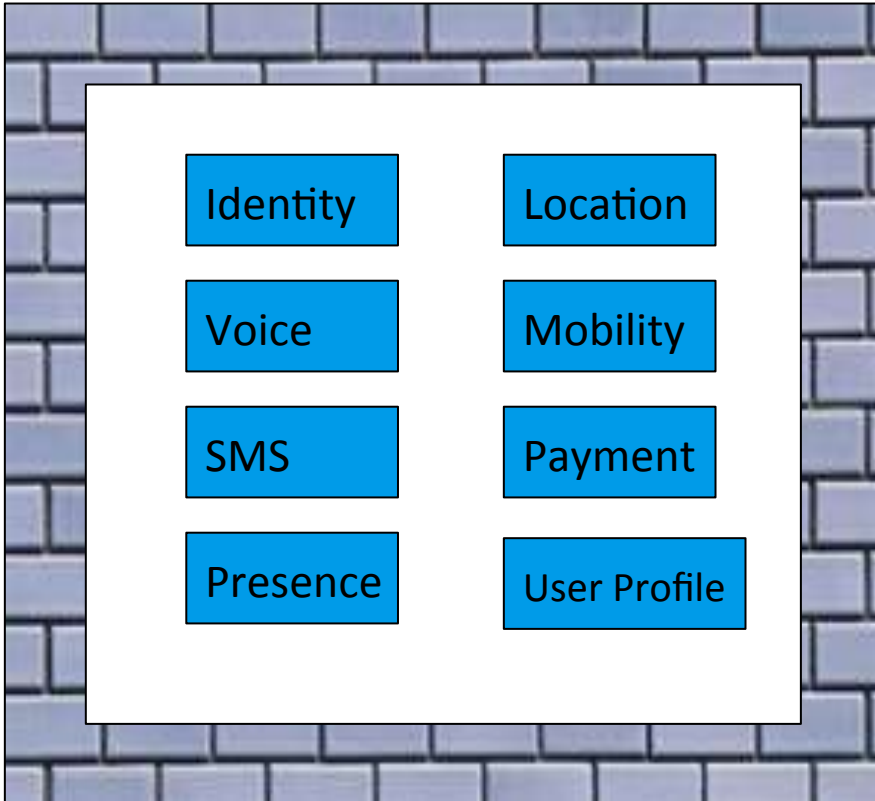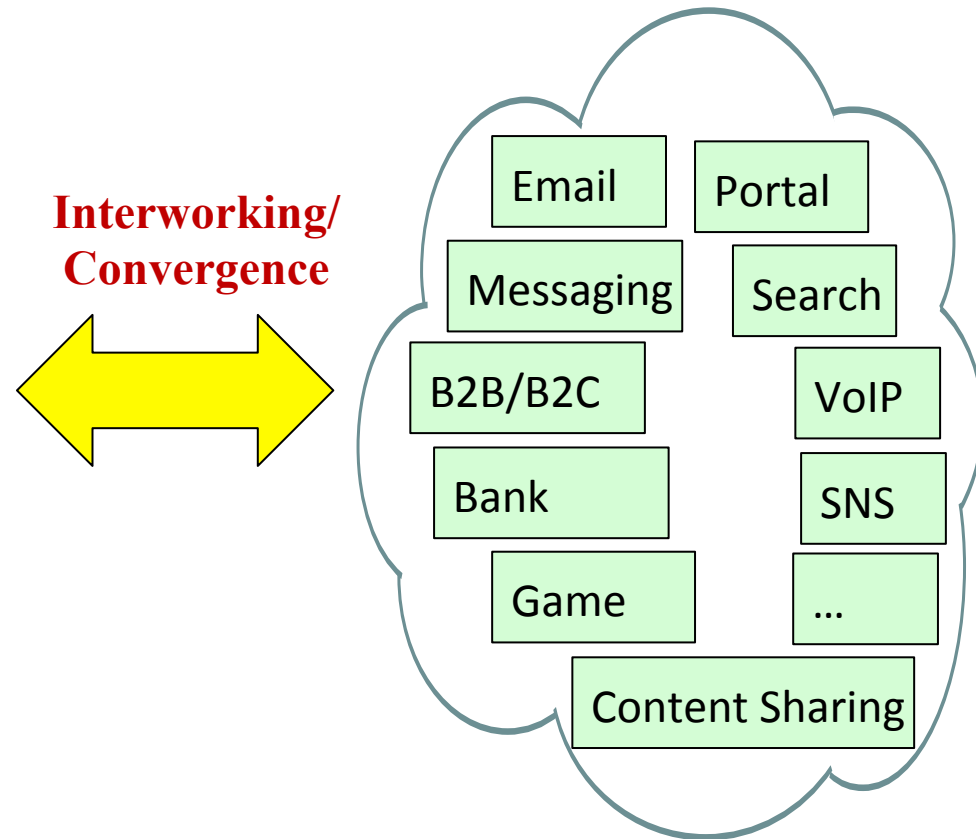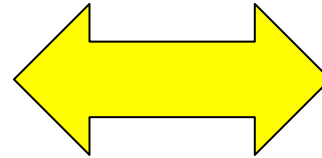
Telecom – "Wall Garden" /Trusted

Identity

Location

Voice

Mobility

SMS

Payment

Presence

User Profile

Internet – Open/Un-trusted

Email

Portal

Messaging

Search

B2B/B2C

VoIP

Bank

SNS

Game

...

Content Sharing

Telecom – "Wall Garden" /Trusted

Internet – Open/Un-trusted

Identity	Location
Voice	Mobility
SMS	Payment
Presence	User Profile

Interworking/ Convergence

Email   Portal

Messaging   Search

B2B/B2C   VoIP

Bank   SNS

Game   ...

Content Sharing

Related Work

- GSMA-IDM
  - Address operators' requirements for emerging mobile application (e.g. Single Sign-on, mobile payments)
- Liberty Alliance TelecoSig
  - Investigate digital identity grown in both telecom and Internet, propose some use cases and solutions
- IETF abfab
  - Develop Use cases, architecture and mechanisms for non-Web federated access

Idea

- Federated cross-layer access
  - Telecom operator acts as Identity provider (IdP) and Federated with non-Web applications
  - Combine network stratum access and application stratum access

Use Case
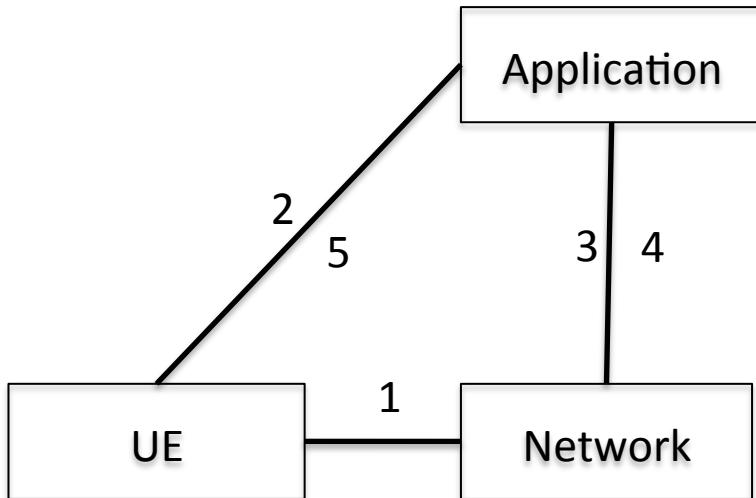
- 1. When UE attach the Network, mutual authentication is performed.

- 2. UE visits non-Web Application, e.g Messaging service, VoIP service, or Email service.

- 3. The Application contacts Network to validate the authentication result in the network stratum.

- 4. Network responds to Application with authentication result.

- 5. UE is authorized to access the Application.

Benefits

User ▷ Service Provider ▷ Telecom Operator

- Telecom Operator
  - not just providing pipeline for communication, but also providing trusted Identity, mobile payment, security, and sharing user profile.
  - become a part of service value chain.
- Service provider
  - focus on core business and reuse capabilities provided by telecom operators without worrying about sources of users.
- User
  - seamless service experiences and improve security and privacy.

Next Step

- Adopt this use case?
- Adopt it as WG draft ?