



Identity Management of digital objects in next-generation networks and IoT

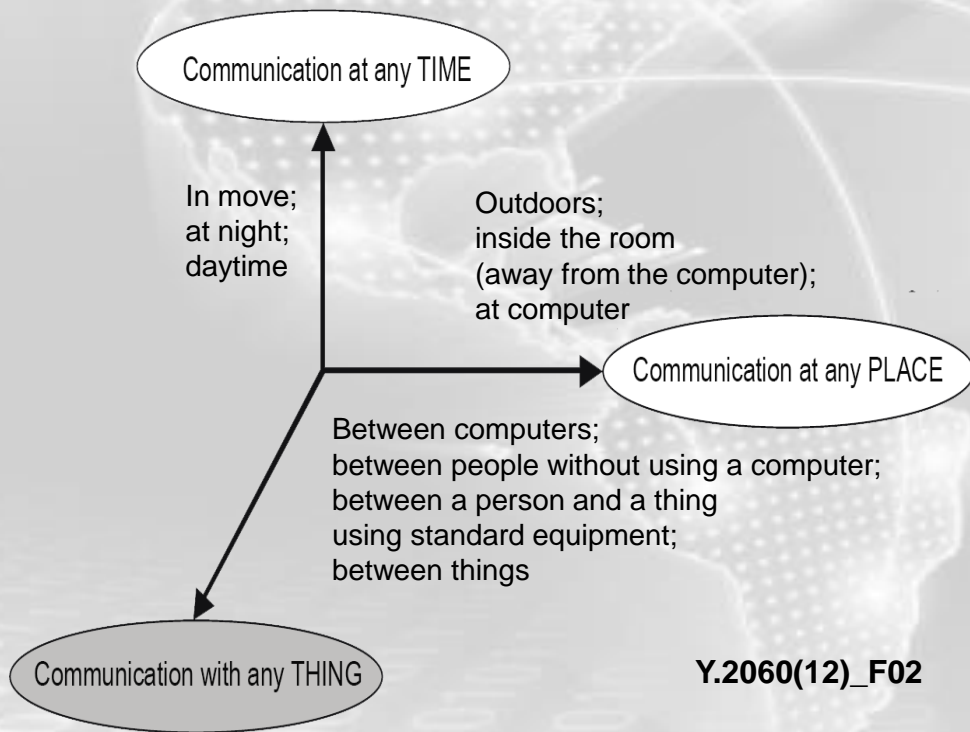
Internet – things IOT. Future market driver?
Discussion of practical cases. Representatives of
Cyberpolice, relevant associations and industry
experts are invited

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Next Generation == Convergence paradigm



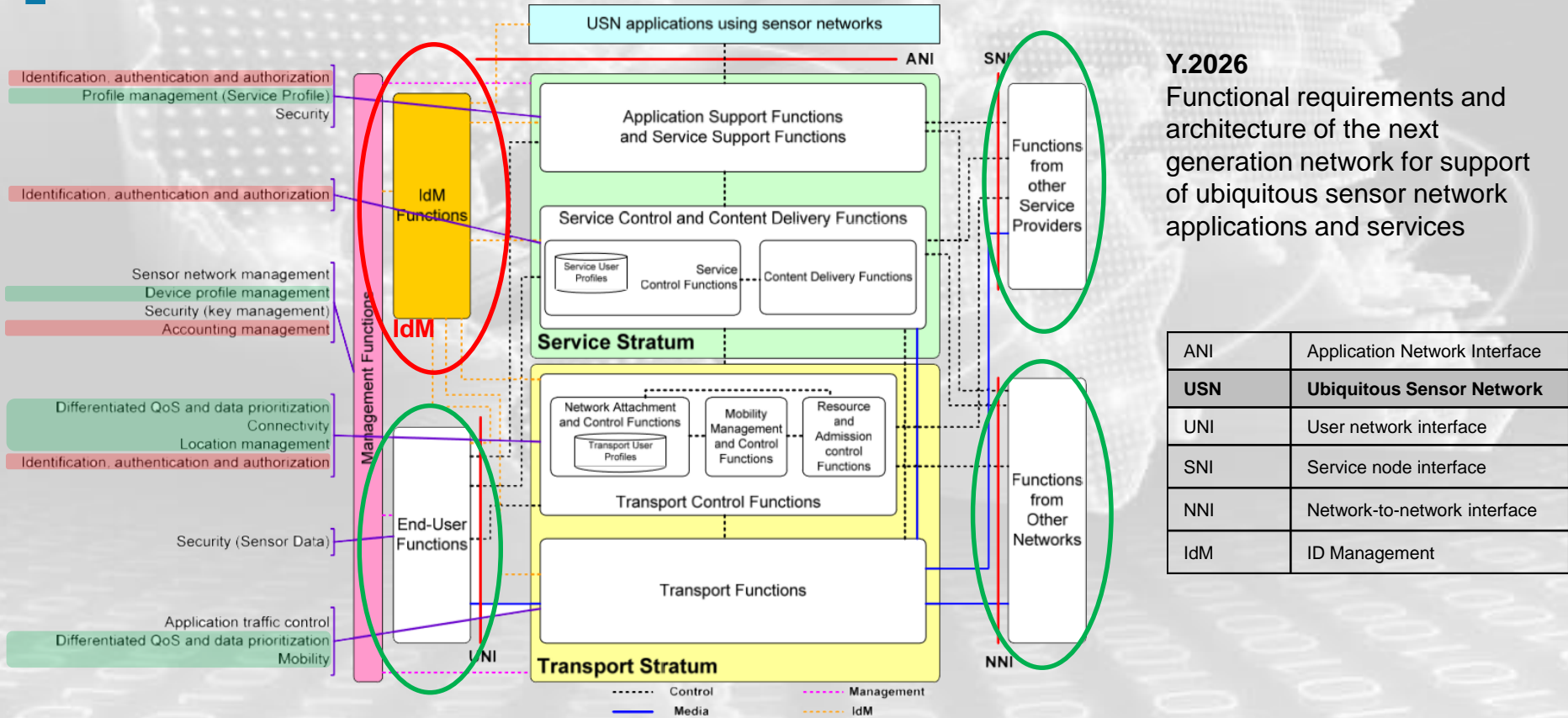
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5 aspects:

- 1) Access
- 2) Interaction & Interconnection
- 3) NNA
- 4) Services
- 5) Rates and Tariffs

Forming the basis of a convergent environment in which (1) **any user** in (2) **any time** and in (3) **any place**, using (4) **any own identifier** (s) and (5) **own device** (s), can receive from (6) **any chosen operator** the necessary (7) **service "here and now"**

Overall functional architecture model



Y.2026

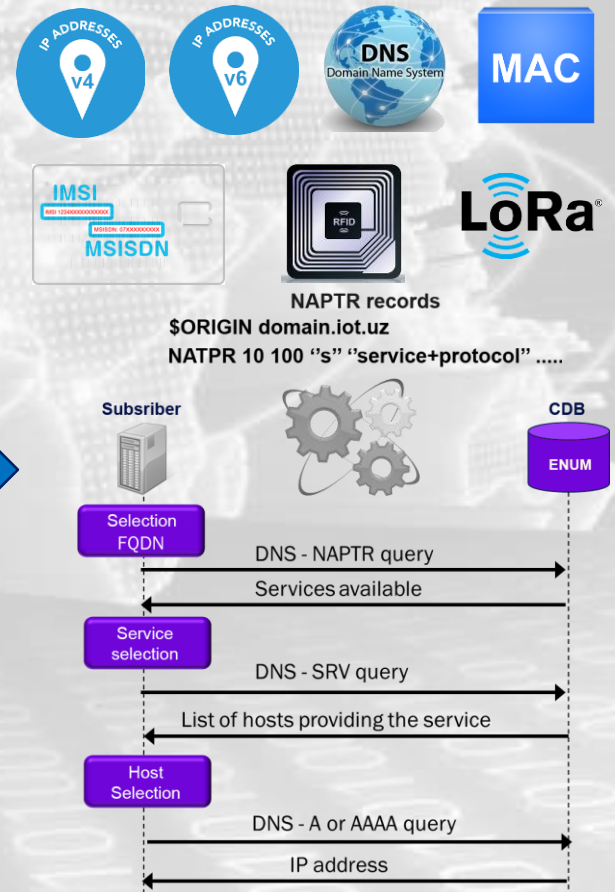
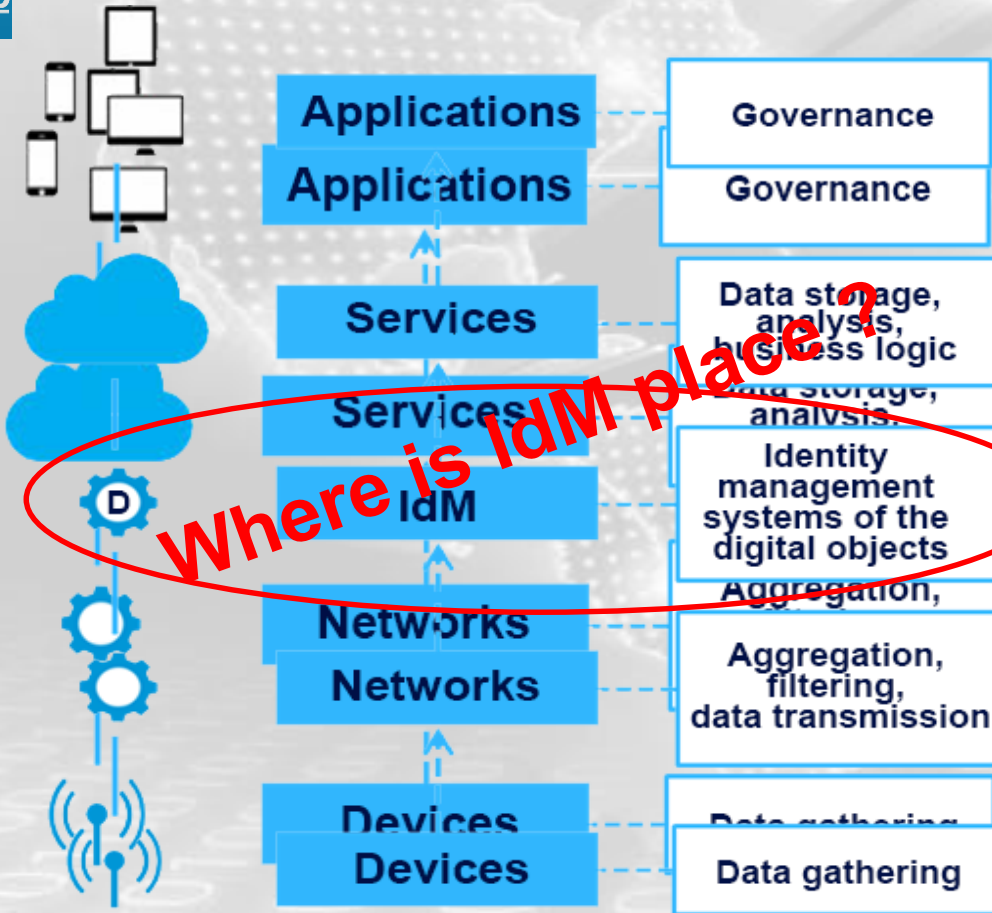
Functional requirements and architecture of the next generation network for support of ubiquitous sensor network applications and services

ANI	Application Network Interface
USN	Ubiquitous Sensor Network
UNI	User network interface
SNI	Service node interface
NNI	Network-to-network interface
IdM	ID Management

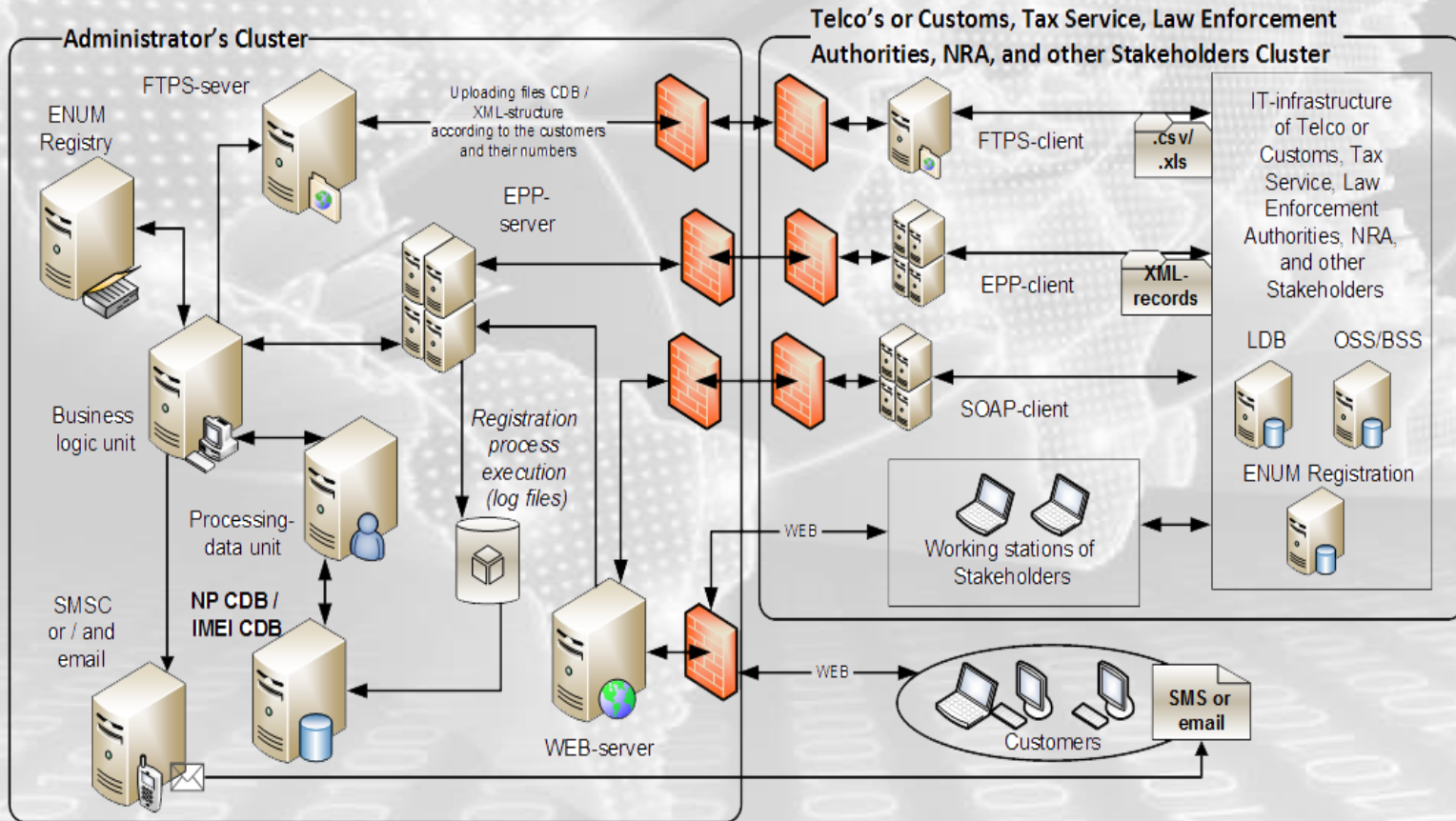
Relevant and necessary features of the NGN to support of the USN⁴ applications and services

- Open service environment
- Differentiated QoS and data prioritization
- Connectivity
- Location management
- Mobility
- Security
- **Identification, authentication and authorization**
- Accounting and charging

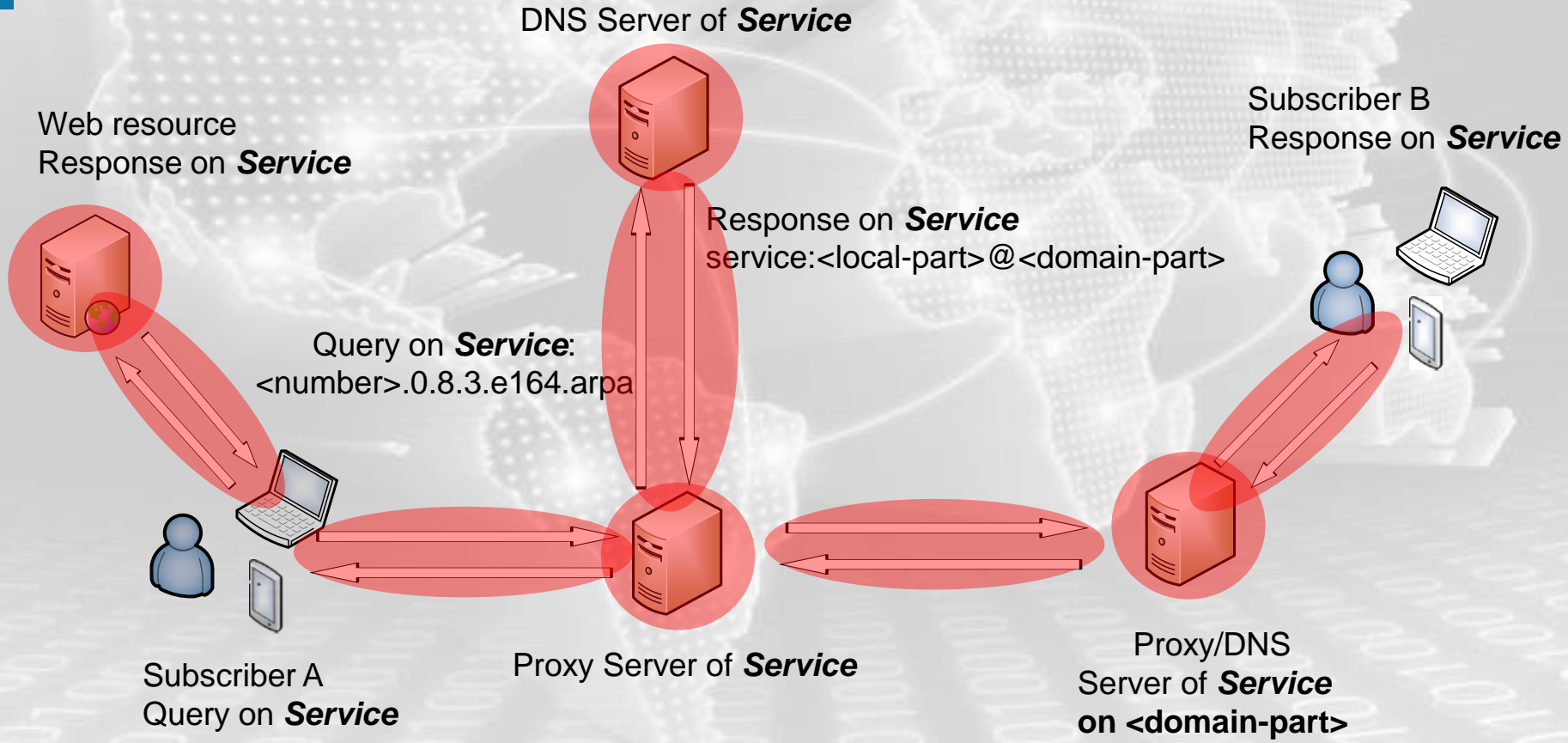
Place IdM in the general architecture



The proposed architecture of the IdM system



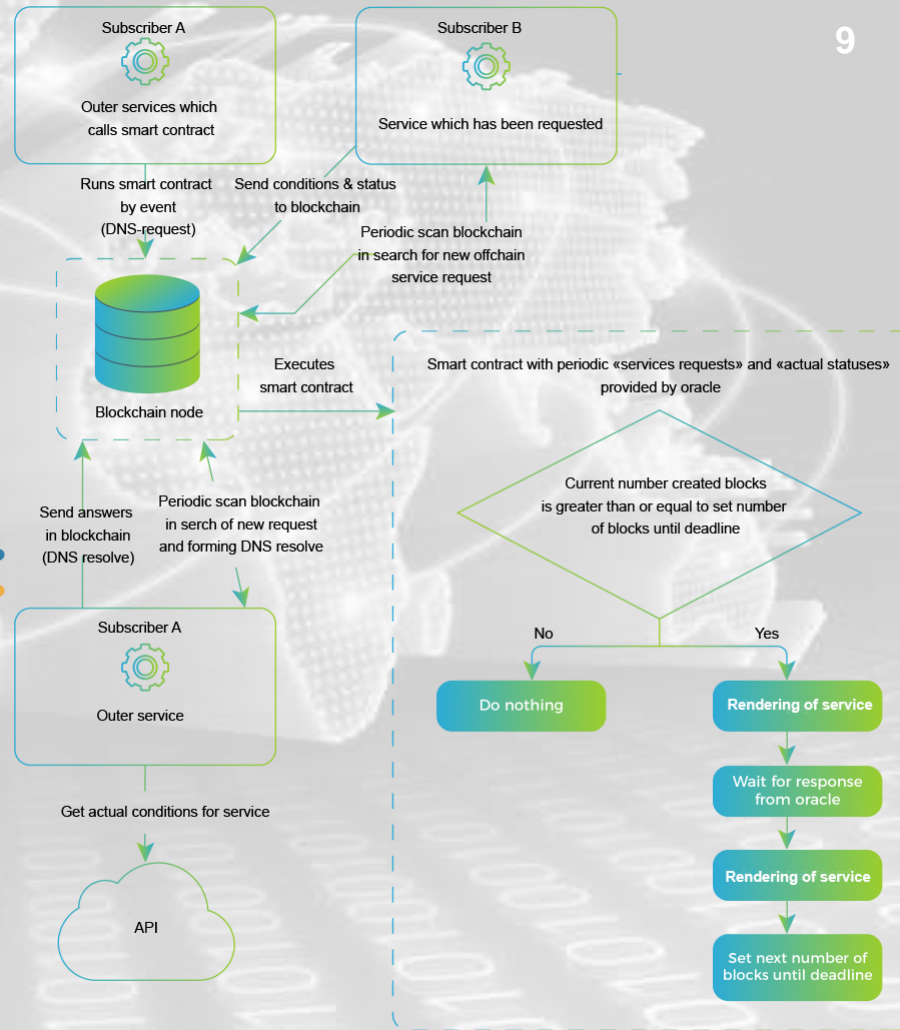
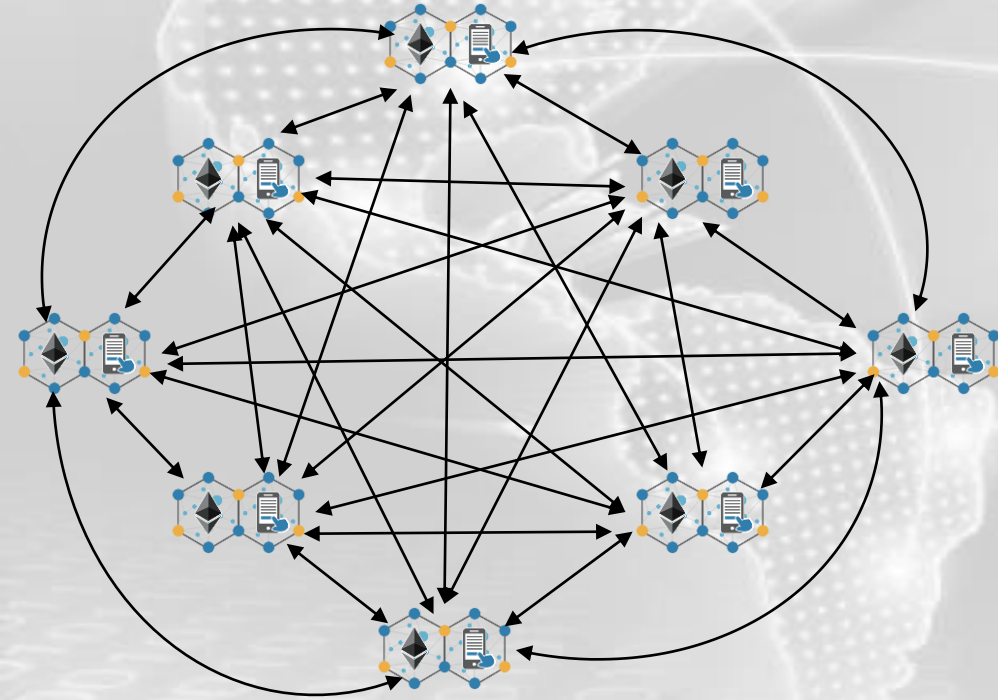
IdM/DNS and security





***Practical Case:
Security, Mobility, and Identity***

IdM/Blockchain+Security security



Properties of the Next Generation Networks and IoT

- ~~Full support USN applications and services~~
- Multistakeholders and multi-user ~~trusting~~ environment ~~within network structures~~
- ~~Easy~~ connectivity of any elements – sensors and actuators
- ~~Personalization of the Services~~
- ~~Technologically independent~~ identification of the digital objects and services
- Identifiers' ~~and Services'~~ Mobility
- Security
- ~~Scalability of the Network and Subject Solutions~~



**Thanks!
Questions?**

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