

FG-DPM WG3 : **Data sharing , Interoperability and** **Blockchain**

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FG DPM WG3:

Data sharing, Interoperability and Blockchain

WG3

Data sharing, Interoperability and Blockchain

- Data accessibility and data sharing
- Data interoperability
- Use of blockchain approach in DPM

FG DPM WG3:

Data sharing, Interoperability and Blockchain

WG3 Deliverables

| | | |
|---|------|---|
| 1 | D3.2 | Technical Enablers for Open Data Platform |
| 2 | D3.3 | Framework to support data interoperability in IoT environment |
| 3 | D3.5 | Overview of Blockchain for supporting IoT and SC&C in DPM aspects |
| 4 | D3.6 | Blockchain-based data exchange and sharing |
| 5 | D3.7 | Blockchain-based data management |
| 6 | D3.8 | Identity framework for supporting blockchain based data sharing |

FG DPM WG3: Data sharing, Interoperability and Blockchain

D3.2 – Technical Enablers for Open Data Platform

D3.3 – Data Interoperability Framework

D3.5 – Blockchain and DPM

D3.6 – Blockchain-Based Data Sharing

D3.8 – Identity Framework For Blockchain-Based Data sharing

D3.7 – Blockchain-Based Data Management

WG3

FG DPM WG3 Progress

WG3 initials another 2 Deliverables
(D3.2 and D3.3)

-2017.10

-2018.05



-2017.07

-2018.02

FG DPM WG3 initials
3 Deliverables (D3.5, D3.6 & D3.7)

WG3 initials new deliverable (D3.8)

-2019.01

-2019.07



WG3 completes

6 deliverables

-2018.09

-2019.04

WG3: **4** Deliverables are agreed
and forwarded to ITU-T SG20



FG DPM WG3 Progress

| | | | |
|-----------------------|--|---|---|
| WG3 | Geneva 17-19 July 2017 | Geneva 20-25 October 2017 | Brussels 20-23 February 2018 |
| Input docs | <u>8</u> | <u>9</u> | <u>9</u> |
| Output docs | <u>3</u> | <u>5</u> | <u>4</u> |
| Meeting report | <u>FG-DPM-O-012</u> | <u>FG-DPM-O-029</u> | <u>FG-DPM-O-039</u> |
| WG3 | Cairo 1-3 May 2018 | Tunis 17-20 September 2018 | Seoul 14-18 January 2019 |
| Input docs | <u>5</u> | <u>7</u> | <u>8</u> |
| Output docs | <u>4</u> | <u>4</u> | <u>4</u> |
| Meeting report | <u>FG-DPM-O-076</u> | <u>FG-DPM-O-95-R1</u> | <u>FG-DPM-O-132</u> |
| WG3 | Geneva 3-7 April 2019 | Geneva 15-19 July 2019 | |
| Input docs | <u>7</u> | <u>4</u> (2 WG3 proposal for WG2) | |
| Output docs | <u>6</u> (4 deliverables agreed and forwarded to ITU-T SG20) | <u>2</u> | |
| Meeting report | <u>FG-DPM-O-160</u> | <u>FG-DPM-O-181</u> | |

FG DPM WG3 outputs

| | Deliverables | Champions | Title of output document |
|----------|--|---|---|
| 1 | D3.2 Technical Enablers for Open Data Platform | <ul style="list-style-type: none">• Steve LIANG (Open Geospatial Consortium) | Technical Specification : Sensor Things API – Sensing |
| 2 | D3.3 Data Interoperability | <ul style="list-style-type: none">• Sajjad ALI (Hankuk University of Foreign Studies, Korea) | Technical Specification : Framework to support data interoperability in IoT environments |

FG DPM WG3 outputs

| | Deliverables | Champions | Title of output document |
|----------|--|--|--|
| 3 | D3.5 Overview of IoT and Blockchain | <ul style="list-style-type: none"> Xiongwei JIA (China Unicom) | Technical Report : Overview of blockchain for supporting IoT and SC&C in DPM aspects |
| 4 | D3.6 Blockchain-based Data Exchange and Sharing | <ul style="list-style-type: none"> Liangliang ZHANG (Huawei) | Technical Specifications “Blockchain-based data exchange and sharing for supporting IoT and SC&C” |
| 5 | D3.7 Using blockchain to improve data management | <ul style="list-style-type: none"> Zheng HUANG (ZTE) | Technical Specification: Blockchain-based data management for supporting IoT and SC&C |
| 6 | D3.8 Identity framework in blockchain to support DPM for IoT and SC&C | <ul style="list-style-type: none"> Ning HU (Onchain) | Technical Specification “Identity framework in blockchain to support DPM for IoT and SC&C” |

FG-DPM WG3 deliverables: (D3.2 and D3.3)

| WG3 | Data sharing, Interoperability and Blockchain |
|--|---|
| D3.2 TS:Sensor Things API – Sensing | <ul style="list-style-type: none">• The SensorThings API provides an open standard-based and geospatial-enabled framework to interconnect the Internet of Things devices, data, and applications over the Web. |
| D3.3 TS: Framework to support data interoperability in IoT environments | <ul style="list-style-type: none">• Overview of data interoperability in IoT environments;• Requirements to support data interoperability;• Functional model to support data interoperability;• Details on the semantic mediation functions, syntactic mediation functions, interoperable object abstractions functions ect; |

FG-DPM WG3 deliverables :

Blockchain (D3.5-D3.8)

D3.5

TR: Overview of IoT and Blockchain in for supporting IoT and SC&C in DPM aspects

- Analysis on challenges, characteristics, common reference model of blockchain in DPM in DPM aspects
- Analysis on key issues for blockchain in DPM aspects;
- Analysis on effects when using blockchain in DPM aspects.

D3.6

TS: Blockchain based Data Exchange and Sharing for supporting IoT and SC&C

- Requirements ,Functional models and platform of blockchain-based data exchange and sharing;
- Deployment modes for blockchain-based data exchange and sharing

D3.7

TS: Blockchain-based Data Exchange and Sharing for supporting IoT and SC&C

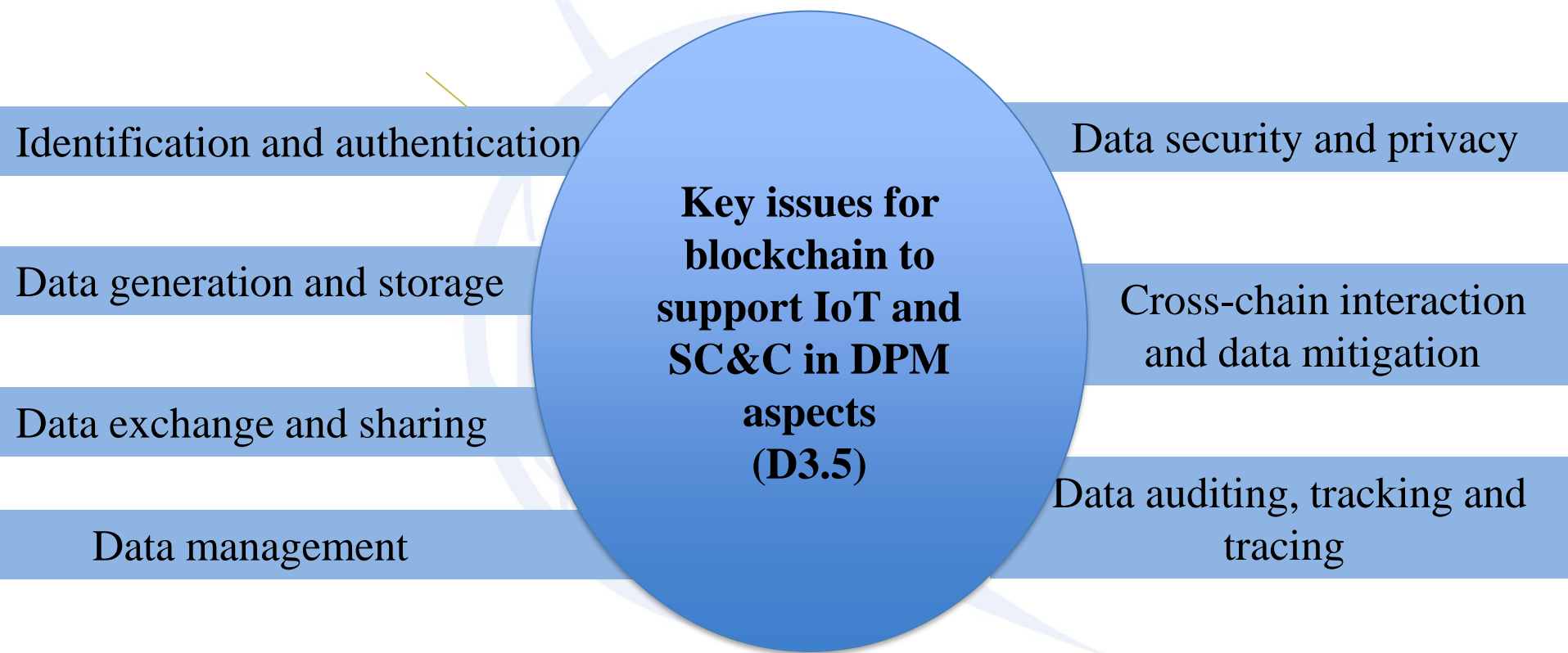
- Requirements of blockchain-based data management;
- Generic reference model of blockchain-based data management;
- Common capabilities and procedures of blockchain-based data management

D3.8

TS: Identity framework in blockchain to support DPM for IoT and SC&C

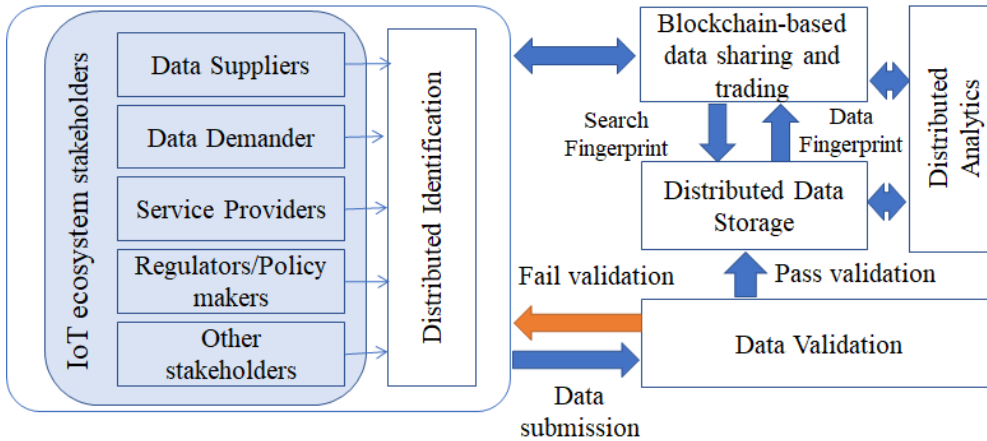
- Overview of identity framework in blockchain;
- Requirements of identity framework in blockchain to support DPM
- Functional model of blockchain identity framework to support DPM

Key issues on blockchain in DPM

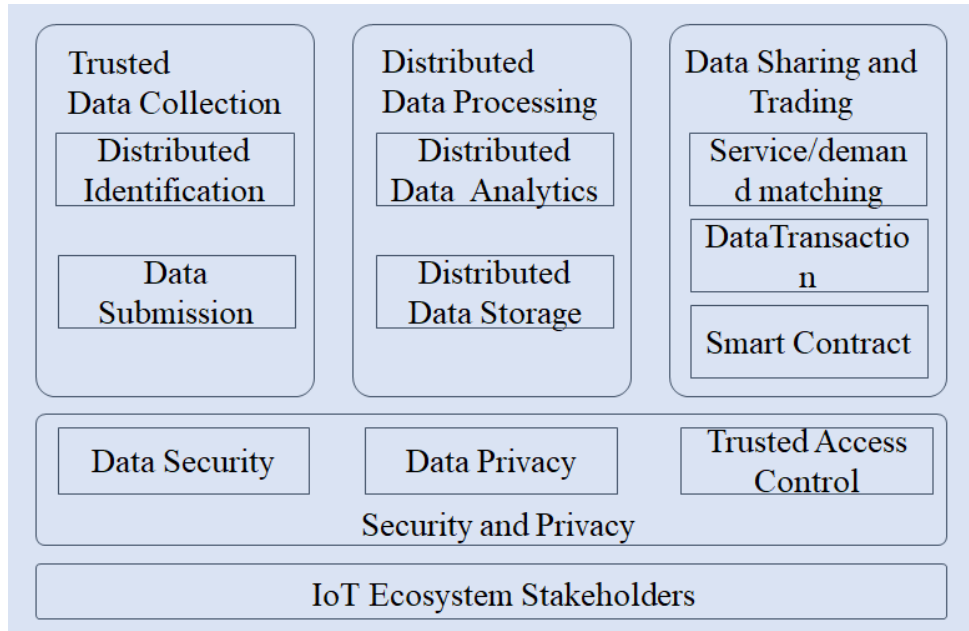
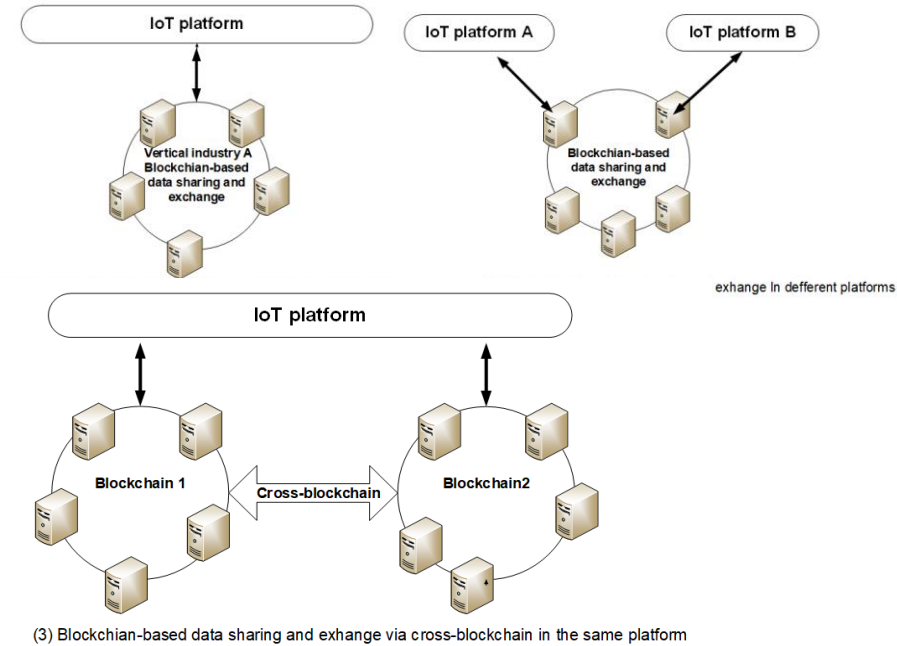


Blockchain based data sharing and exchange

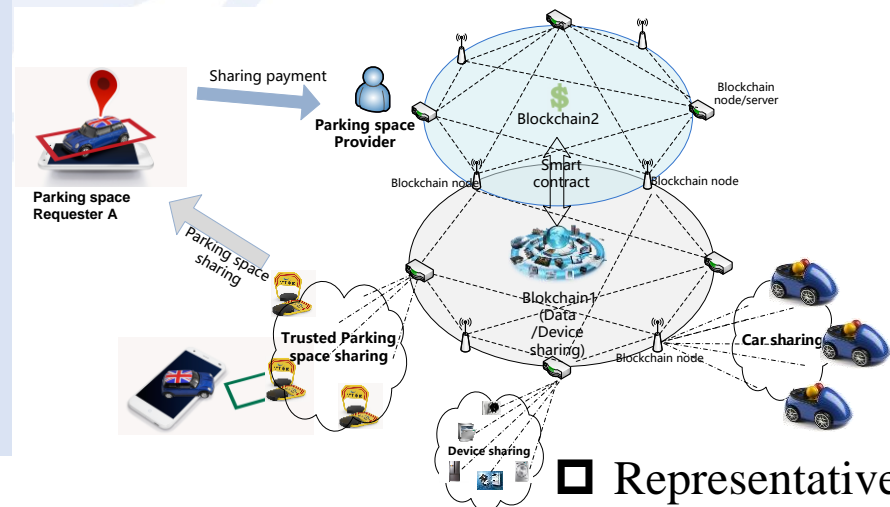
Platform



Deployment modes

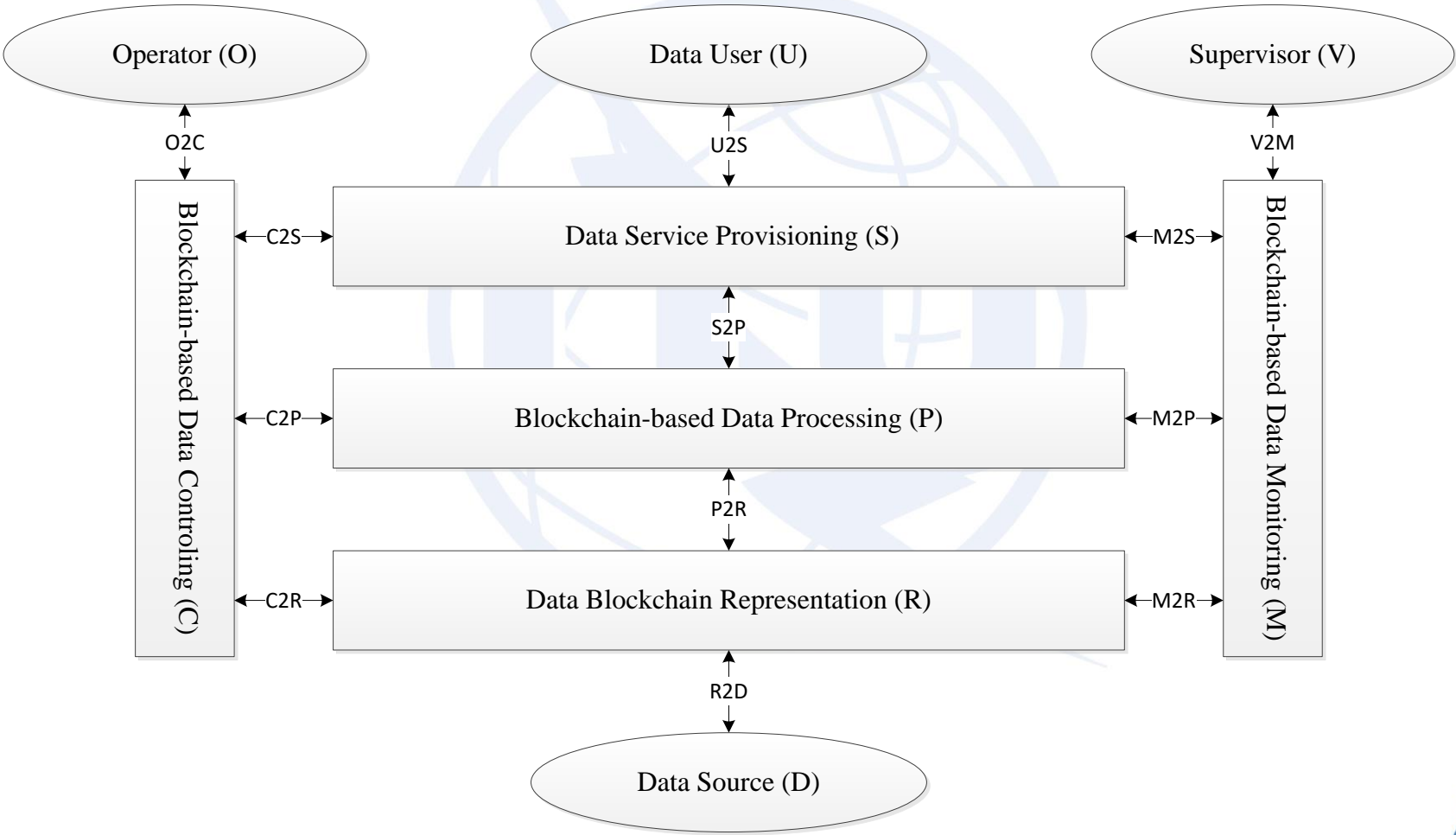


Functional models



Representative

Blockchain-based data management





Thank you!