Output

1. DLT evaluation

The general suitability evaluation of DLT for this use case states: DLT suitable

More subjective fitting criteria indicate for DLT: Likely use case

2. DLT elicitation

After detailed elicitation of requirements, the following recommendations for most appropriate, also viable and least recommended DLT type are:

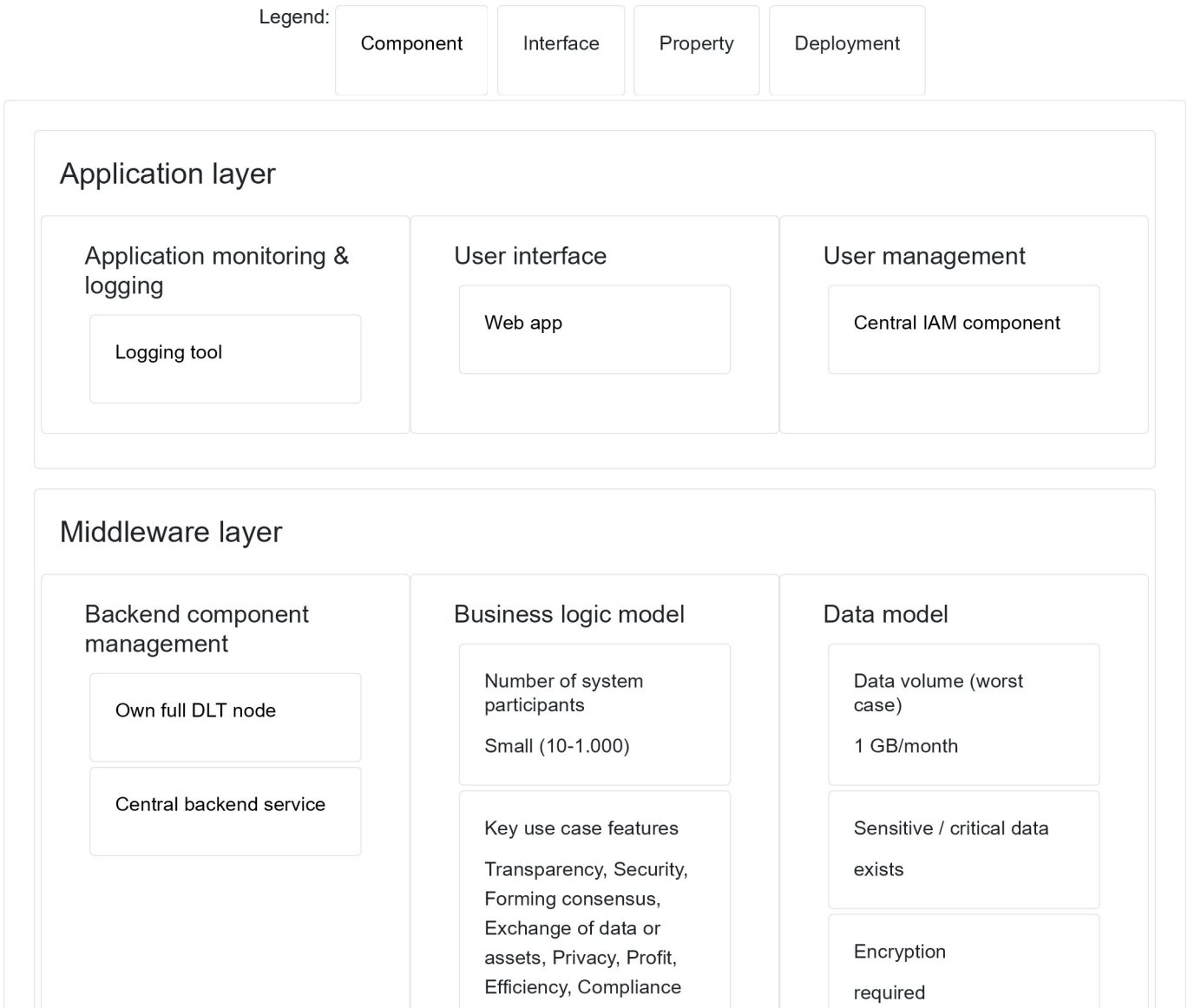
- Most appropriate: hybrid DLT
- Also viable: hybrid / private DLT
- Not recommended: public DLT

3. DLT design

After re-evaluating the DLT type in the DLT design stage, the tool concludes the following DLT type as best fit: hybrid DLT

The following design patterns are recommended for the use case:

- On-/off-chain connection
  - Off-chain signature pattern
  - Content addressable storage pattern
  - Delegated computation pattern
- Encryption
  - Hash on-chain and raw data in external storage (database or decentralized content addressable storage)



Type of users

(Governmental) institutions, Companies

Stability / standardization of business logic

Stable

Token

not required

Database

required

File system

not required

Infrastructure layer

Network layer

Deployment

Frontend

Public cloud

(Private / hybrid) DLT component / node

On-premise

Remaining system (central backend service, IAM, logging, monitoring)

Public cloud

On-premise

Governance

hybrid DLT

Consensus

Recommended algorithm

PBFT

Processing layer

DLT Business logic execution

Smart contracts

Usage

Ledger (e.g. data storage, accounting, digital rights and IP management), Security (e.g. verification, identity management, access control), Interaction with others (e.g. messaging, voting)

Non-DLT Business logic execution

Storage layer

On-chain-data

Data type

Reporting data

Data source

User input, System itself

Encryption

not required

Off-chain data

Decentralized database

Central NoSQL database

Central relational database

Data type

Reference data, Meta data

Data source

Web services

Encryption

required

Recommended algorithm

IBFT

Recommended algorithm

Raft

Scalability

Consistency

Strict consistency

Throughput

tps > 1k important