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# A user privacy-centric access control policy of data for intelligent transportation systems

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# A user privacy-centric access control policy of data for intelligent transportation systems

Rémi Adelin, Eric Alata, Vincent Migliore, Vincent Nicomette

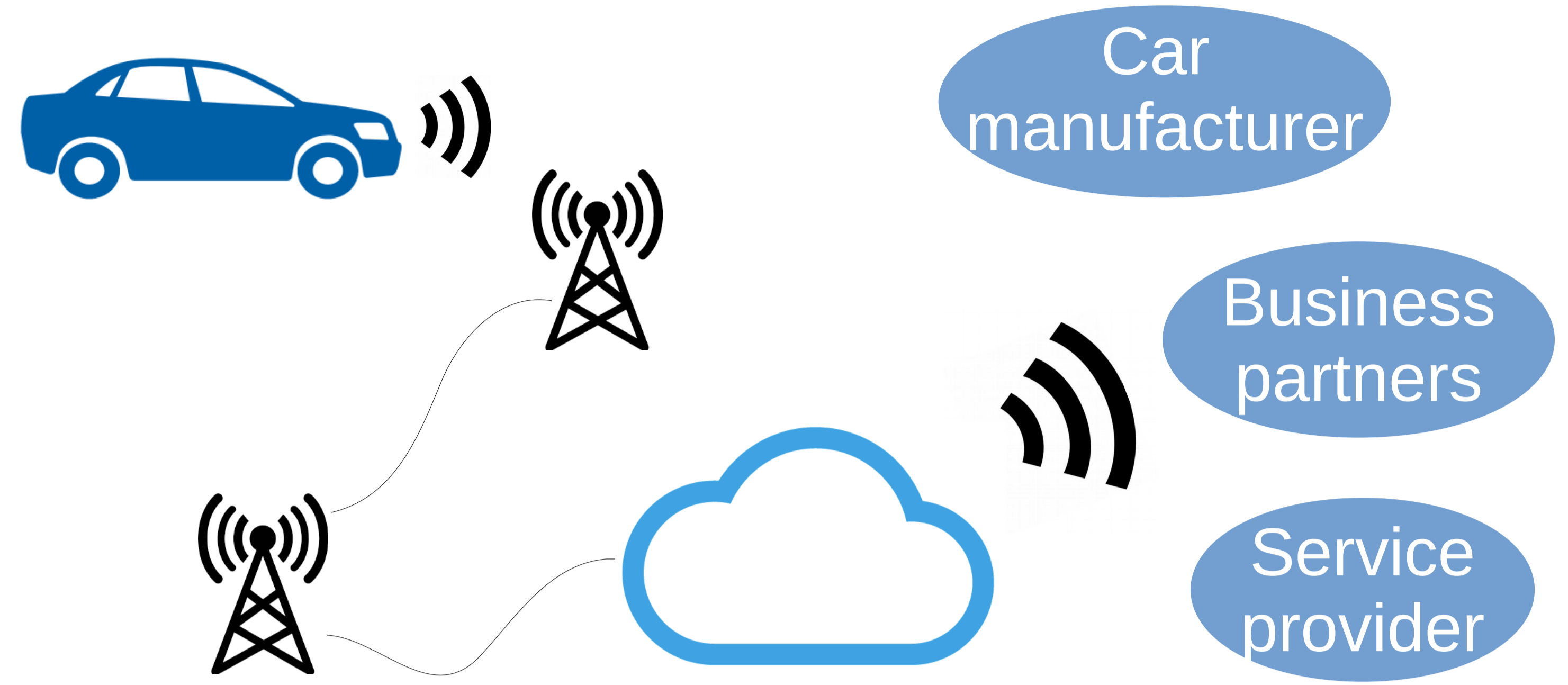
LAAS-CNRS, Université de Toulouse, CNRS, INSA, Toulouse, France

## Context

- Vehicles are more and more connected
  - Loss of control of personal data by drivers
- Access control policy

## Access control policy

- 1) Encrypted storage
- 2) The driver defines the access control
- 3) Exceptionally exceeding rights

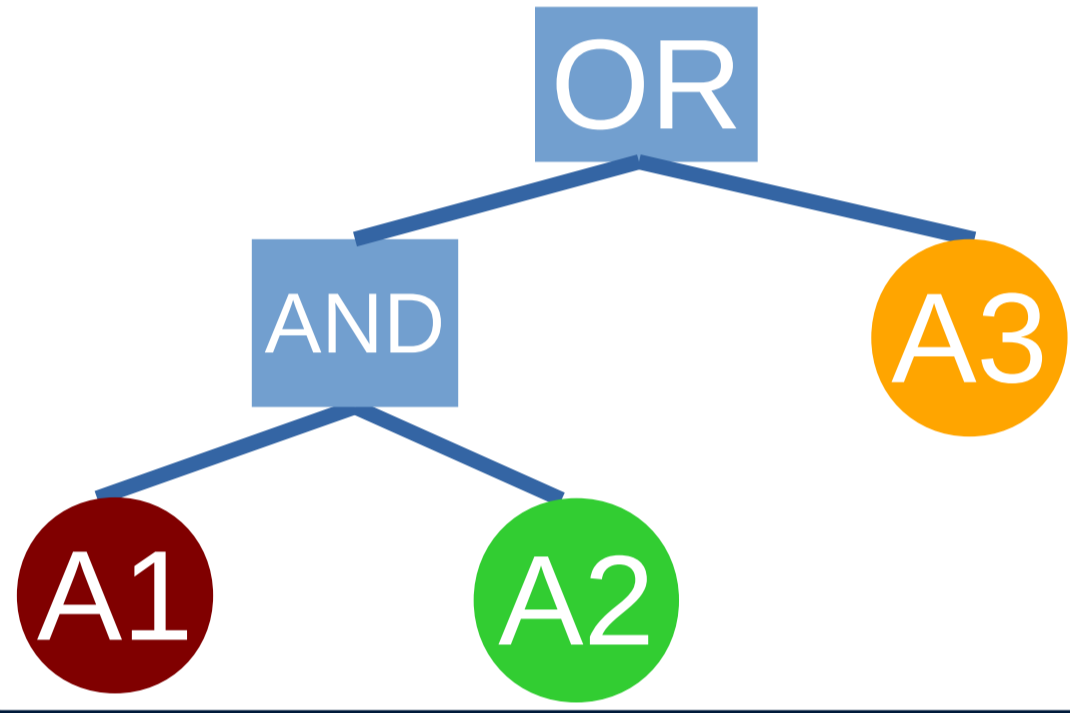


## Key-Policy Attribute-Based Encryption

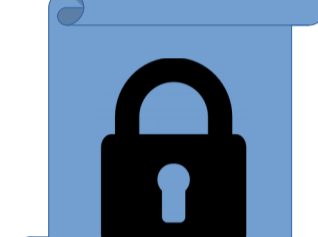
Decryption Key



Access tree



Ciphertext



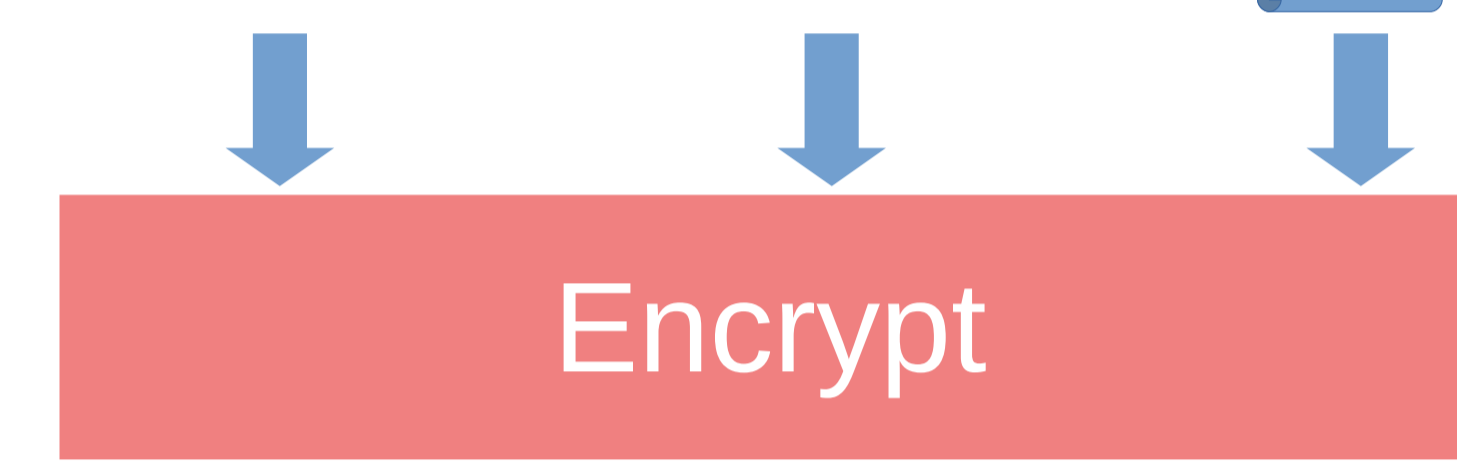
Attributes



## Encryption / Decryption

Encryption Key

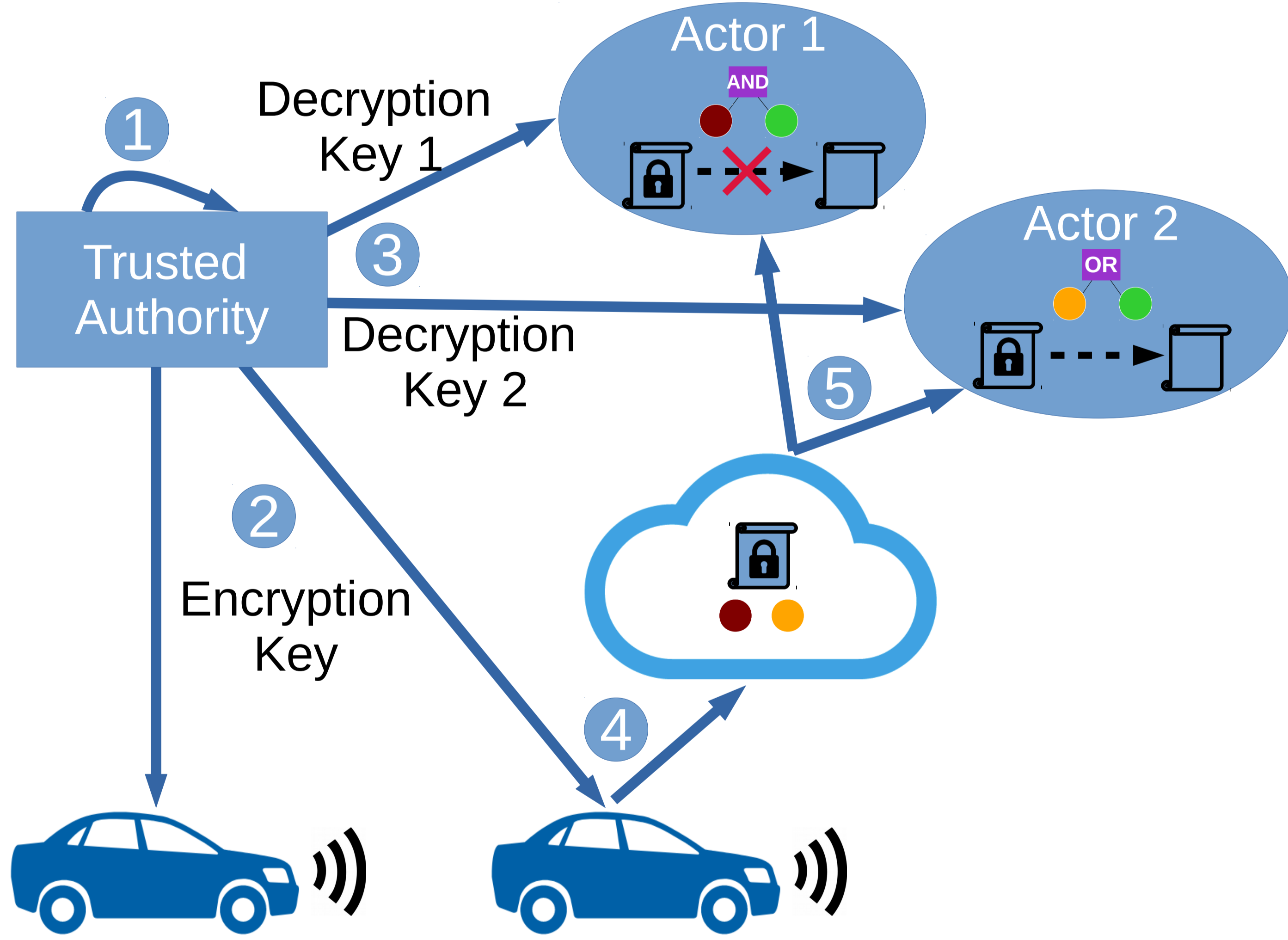
Attributes



Decryption Key



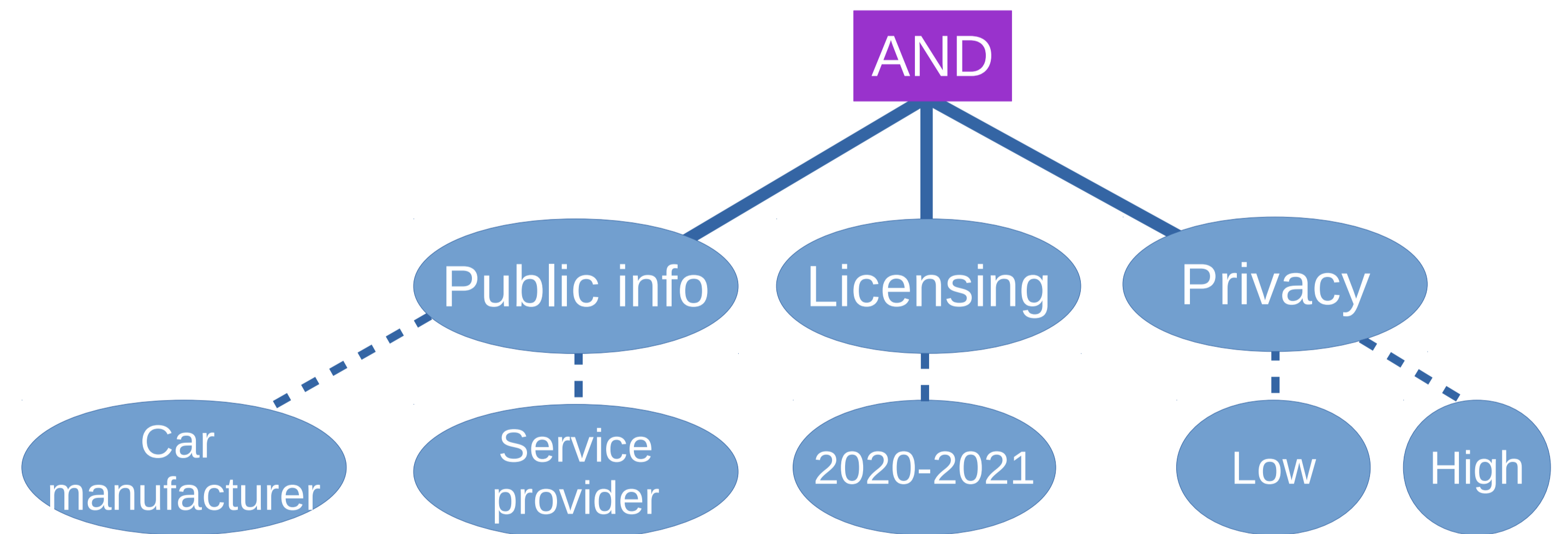
## Architecture



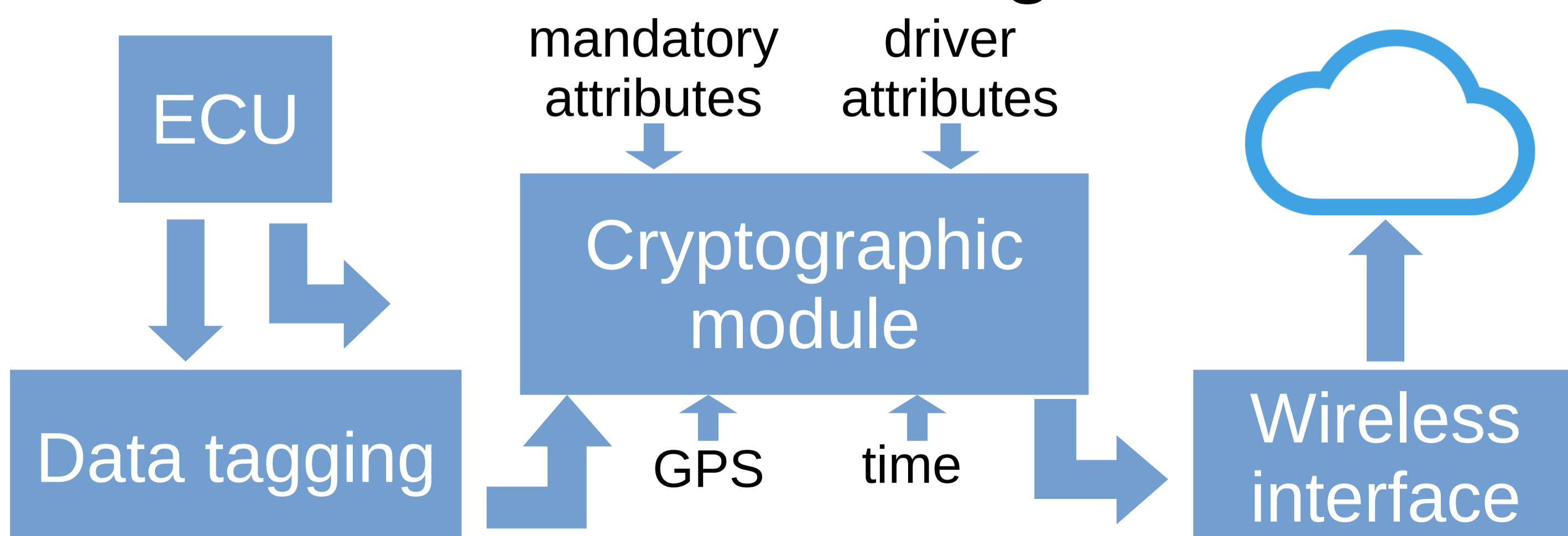
## Attributes

- Role related
- Data type related
- Contextual information
- Privacy related

## Access tree



## Data sending



## Future work

- Implementation
- Authentication
- Integrity check
- Efficiency
- Attributes space