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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

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

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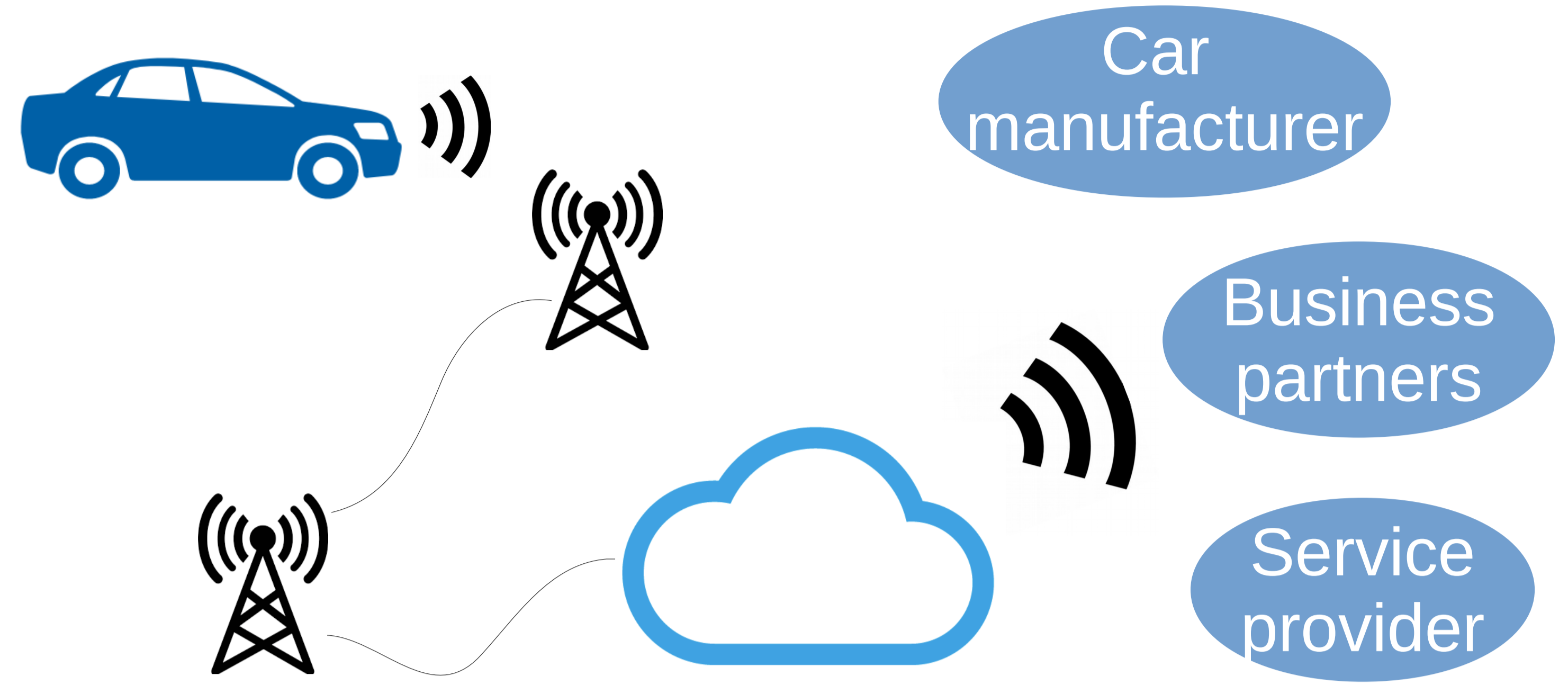
LAAS-CNRS, Université de Toulouse, CNRS, INSA, Toulouse, France

Context

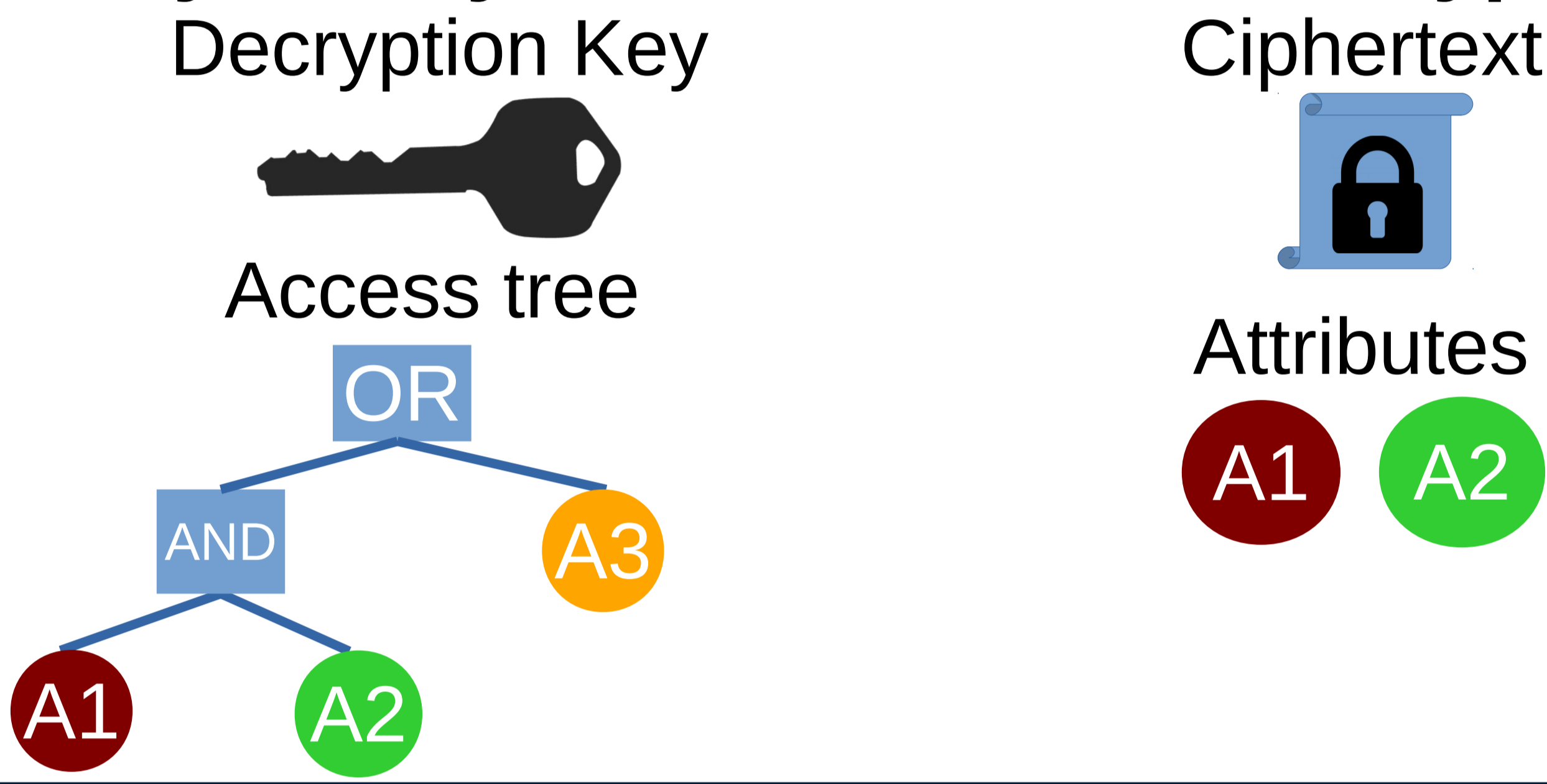
- Vehicles are more and more connected
 - Loss of control of personal data by drivers
- Access control policy

Access control policy

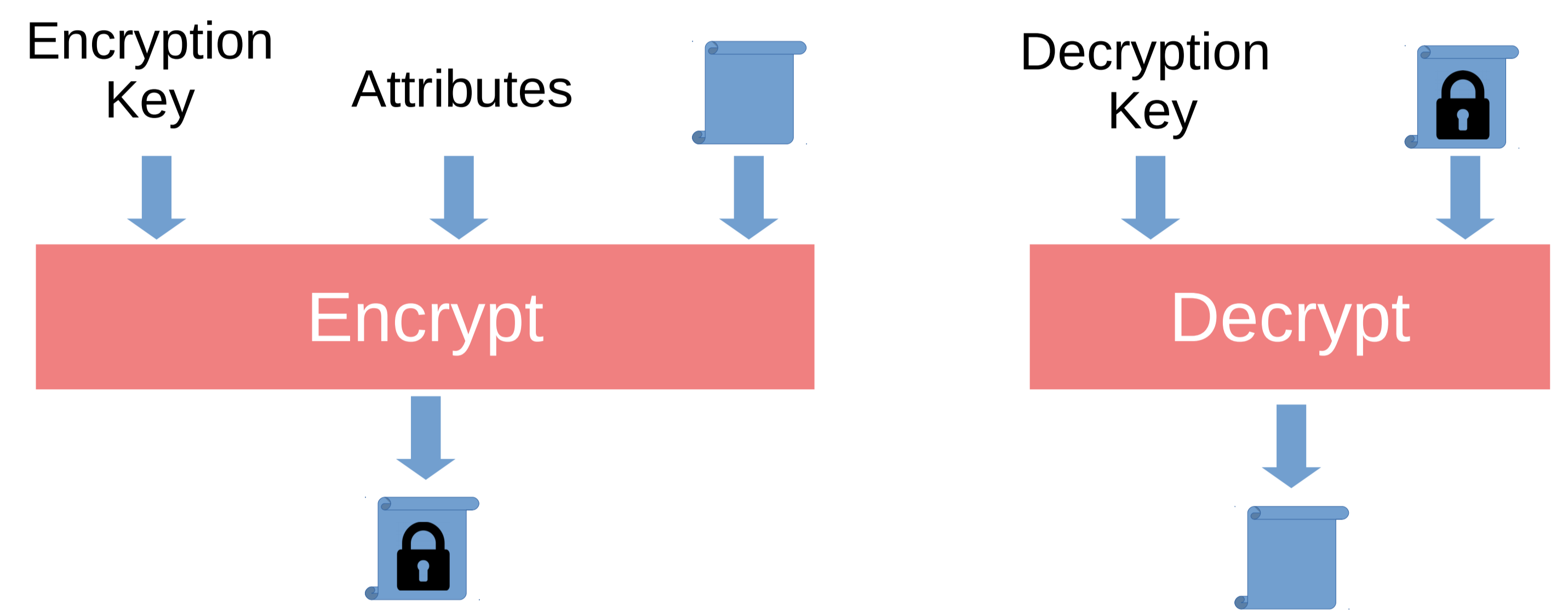
- 1) Encrypted storage
- 2) The driver defines the access control
- 3) Exceptionally exceeding rights



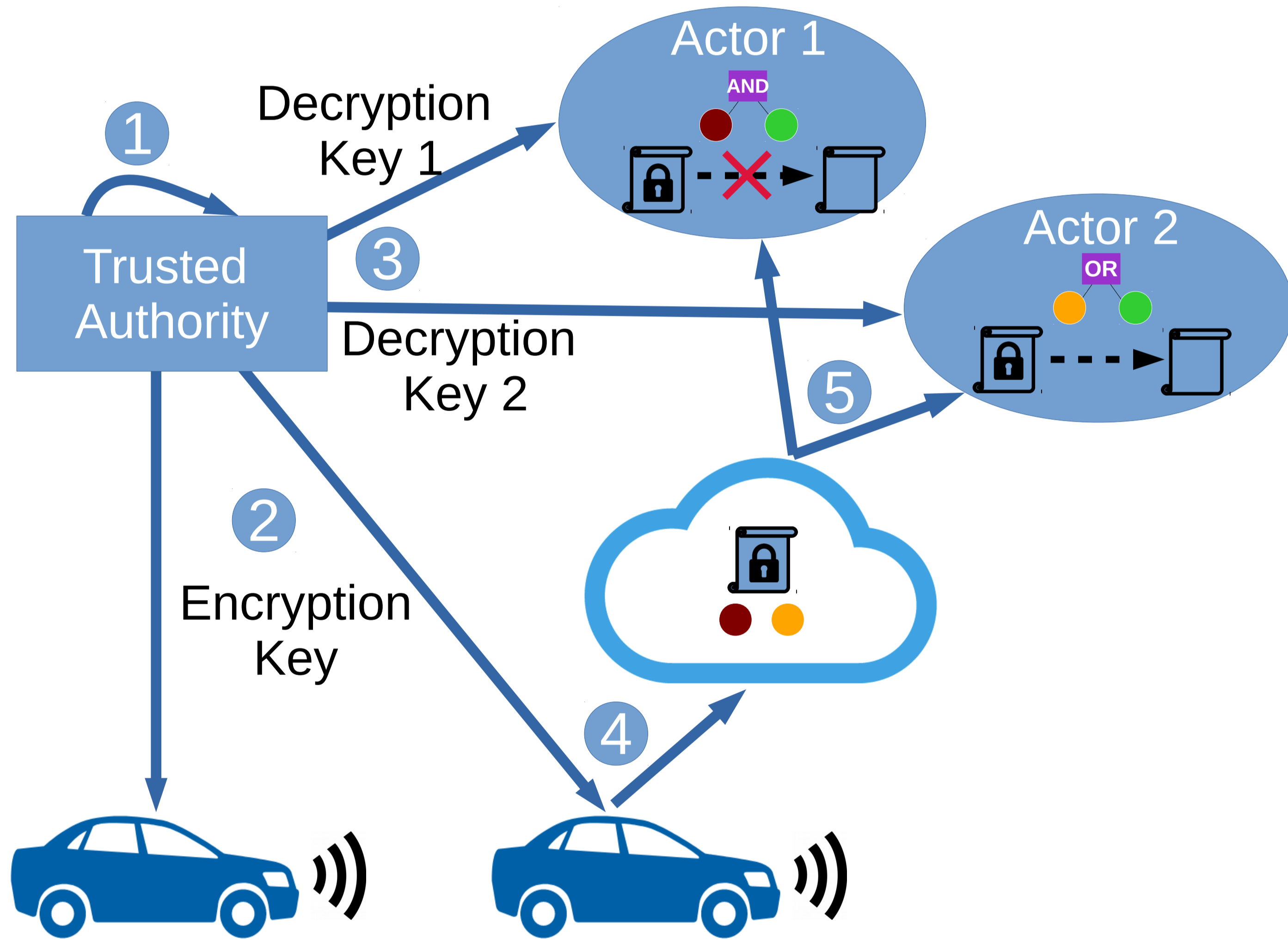
Key-Policy Attribute-Based Encryption



Encryption / Decryption



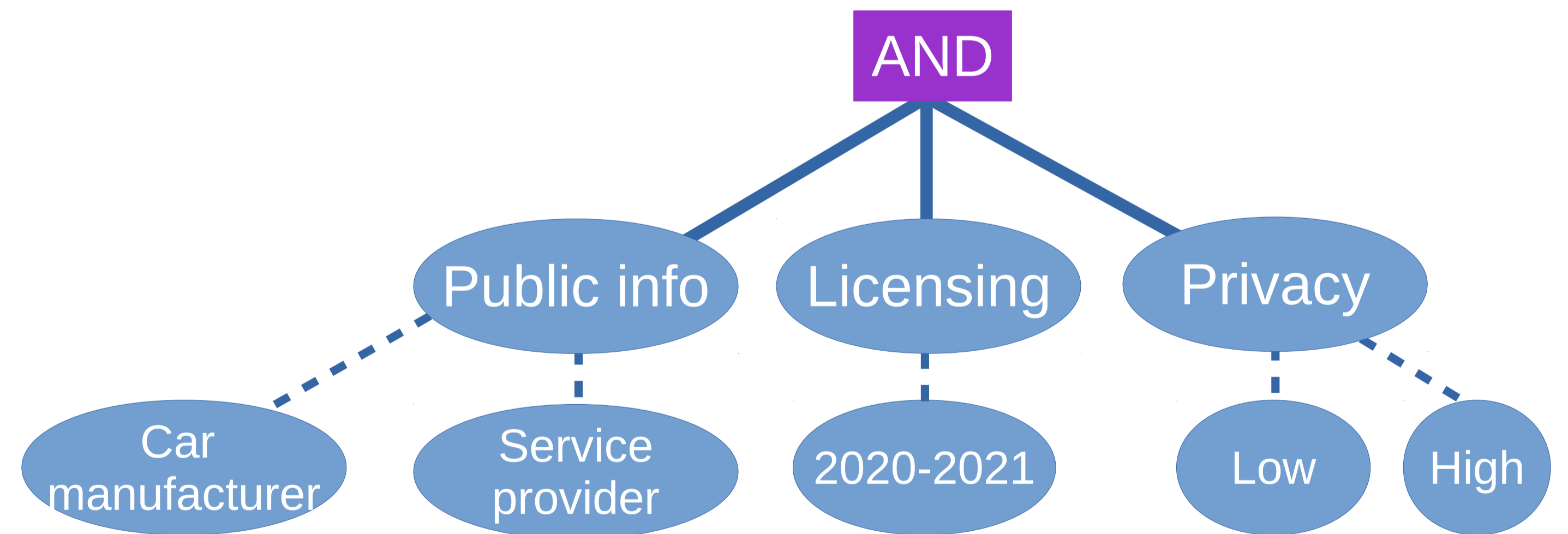
Architecture



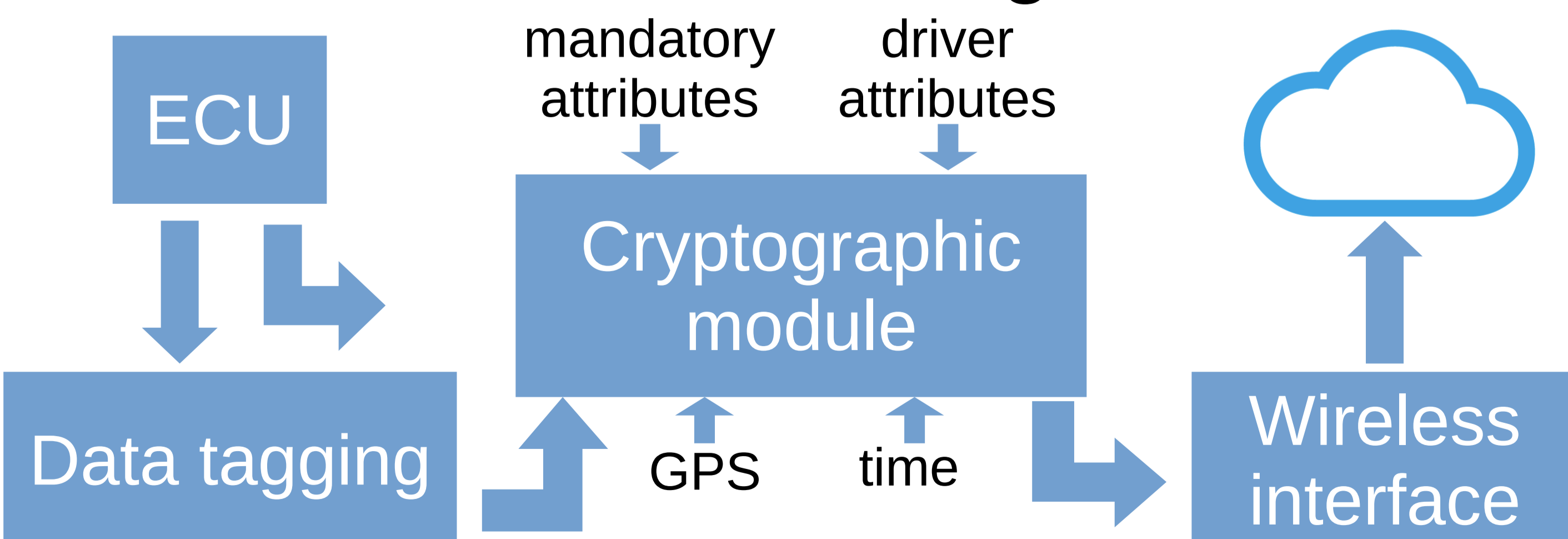
Attributes

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

Access tree



Data sending



Future work

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