Secure Vehicle Communication

PKI

Public Key Infrastructure for V2X Communication

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Standardization and Consortia

SEVECOM

IEEE 802.11p: WAVE
(**W**ireless **A**ccess for the **V**ehicular **E**nvironment)

IEEE 1609: DSRC
Dedicated **S**hort **R**ange **C**ommunication

IEEE 1609.2: WAVE Security

CAR 2 CAR
COMMUNICATION CONSORTIUM

ETSI ERM TG37

Radio Basis System: WAVE – IEEE 802.11p

Standardization worldwide on Telematics: ISO TC 204 WG 16 (CALM)

Vehicle Infrastructure Integration Initiative (VII)
Vehicle Safety Communication Cons. (VSC)

Car2Car Communication Consortium
(C2C CC)

PKI Supported Certificates

- Current proposals for security in VANETs and V2X communication rely on certificates

- PKI based certificates are expensive
  - Certification Authority (CA) has to be coordinated on a European level (laws, etc.)
  - Someone needs to setup and run the CA
  - Certificates need to be maintained

- Who will pay for certificates / the CA?
  - Manufacturers – NO
  - Customers – NO

- What could be solutions?
  - Governmental support on European level