



iTRANSIT – Overview

Henrik Eriksson, SP

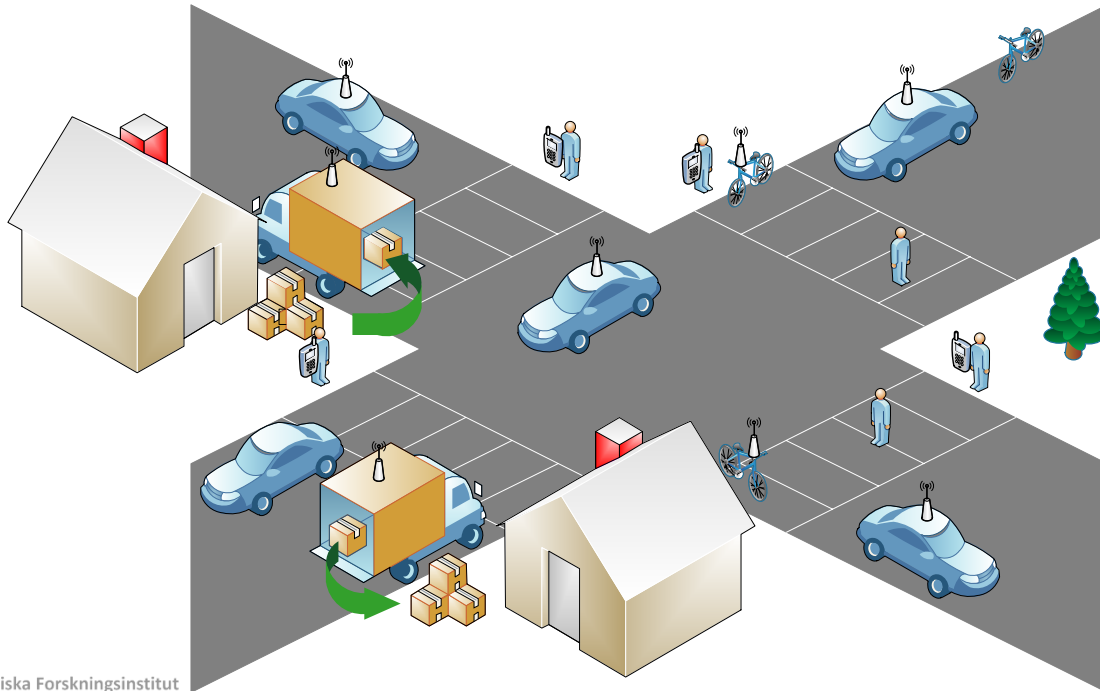


Partners and Duration

Vinnova FFI Project
Sept. 2015 to Aug. 2017

AstaZero, Chalmers, SP, Volvo Cars, and ÅF

Goal



CITS
Automated driving

Safe ITS Station

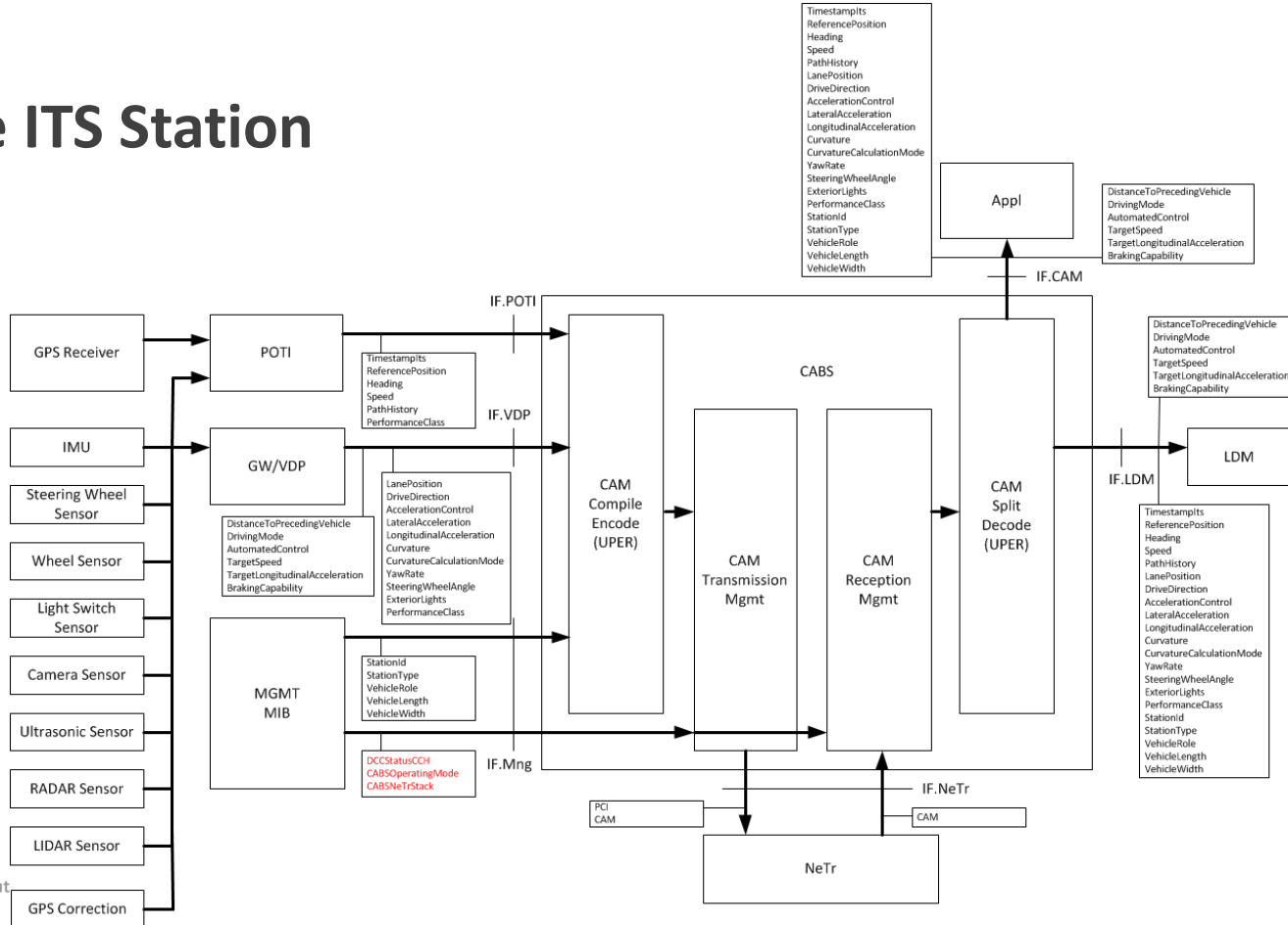
- Safe C implementation of CABS and LDM
- Cooperative Awareness Basic Service
 - Periodic CA messages, 1 – 10 Hz
 - 3 modes
 - conventional CAM
 - extended CAM (AUTONET)
 - Test (no DCC)
- Local Dynamic Map
 - Data storage
 - Objects in region of interest
- Can be used for operational control
- Extra dictionary (Sensed Object List)

Descriptive Name	SpeedValue
Identifier	DataType_74
ASN.1 representation	SpeedValue ::= INTEGER {standstill(0), oneCentimeterPerSec(1), unavailable(16383)} (0..16383)
Definition	A speed value. For values equal to or greater than 163,82 m/s, the value shall be set to 16 382. When the information is not available, the value shall be set to 16 383. The DE is used in <i>Speed</i> DF as defined in clause A.126.
Unit	0,01 m/s
Category	Vehicle information

```
SpeedValue ::= INTEGER {standstill(0), oneCentimeterPerSec(1), unavailable(16383)} (0..16383)
```

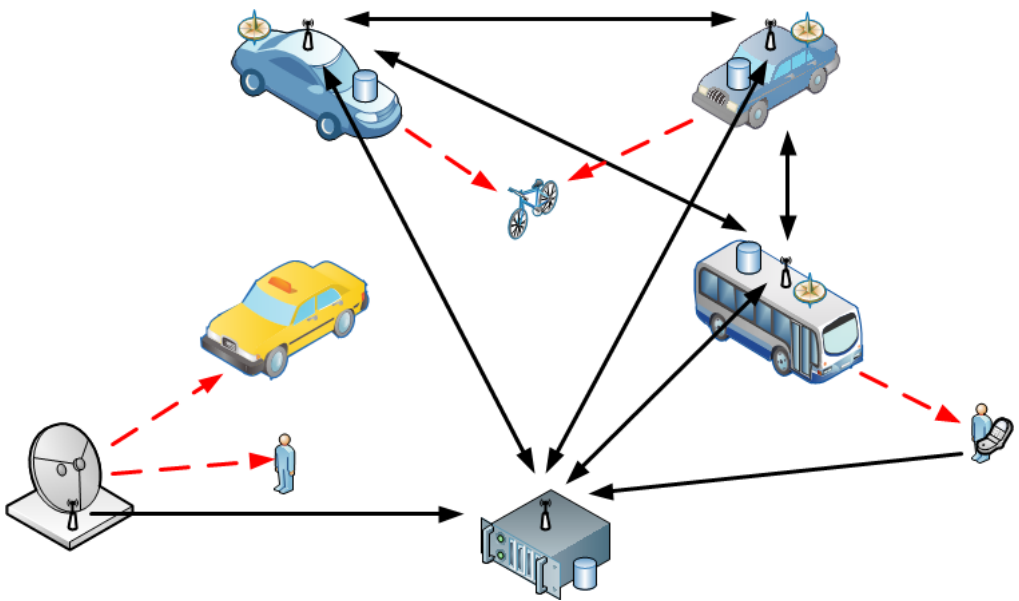
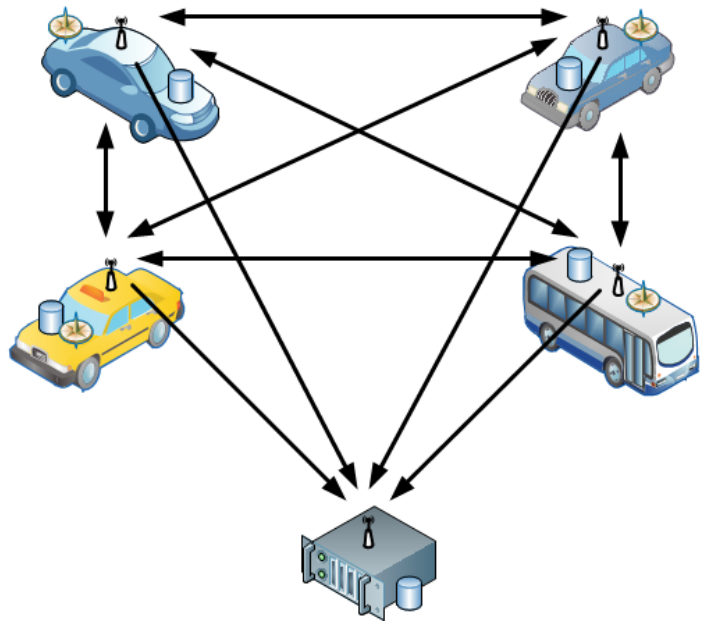
```
typedef unsigned short SpeedValue;
#define          standstill 0U
#define          oneCentimeterPerSec 1U
#define          SpeedValue_unavailable 16383U
```

Safe ITS Station

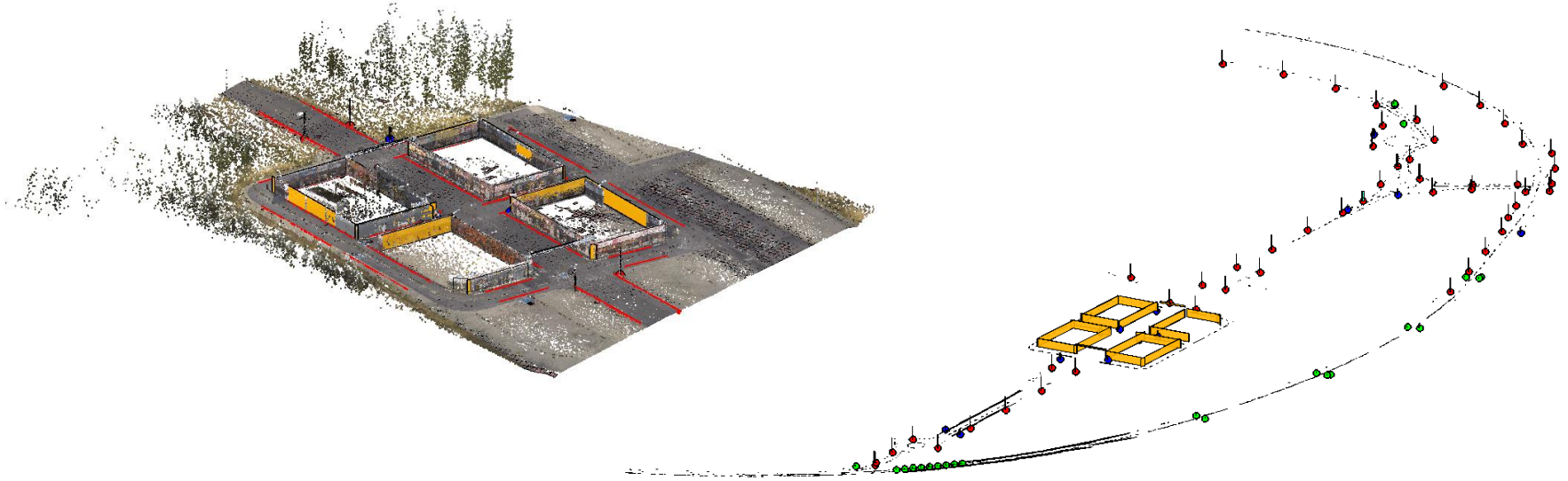


Central Server

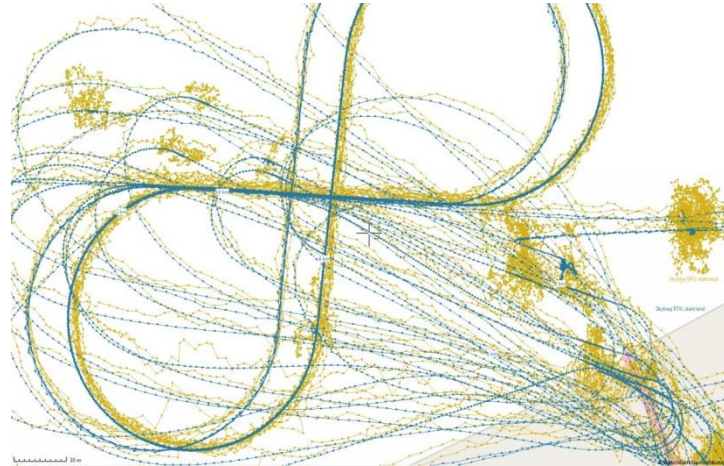
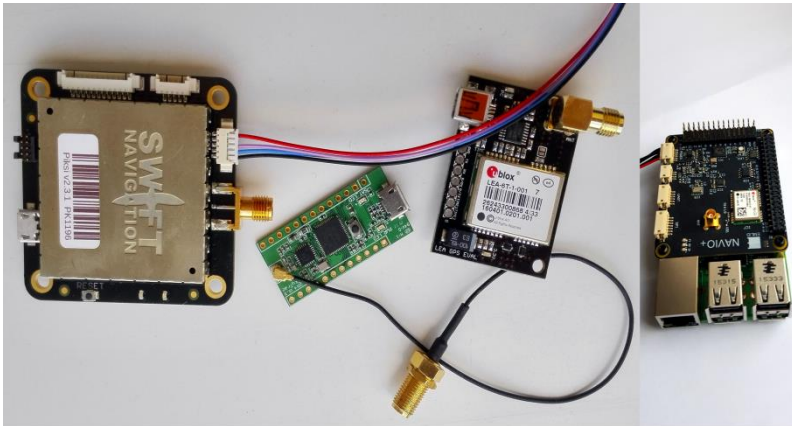
Aggregation and fusion



Digital Map



Positioning (Low-Cost RTK GPS)



Positioning (LIDAR or VIDEO)

