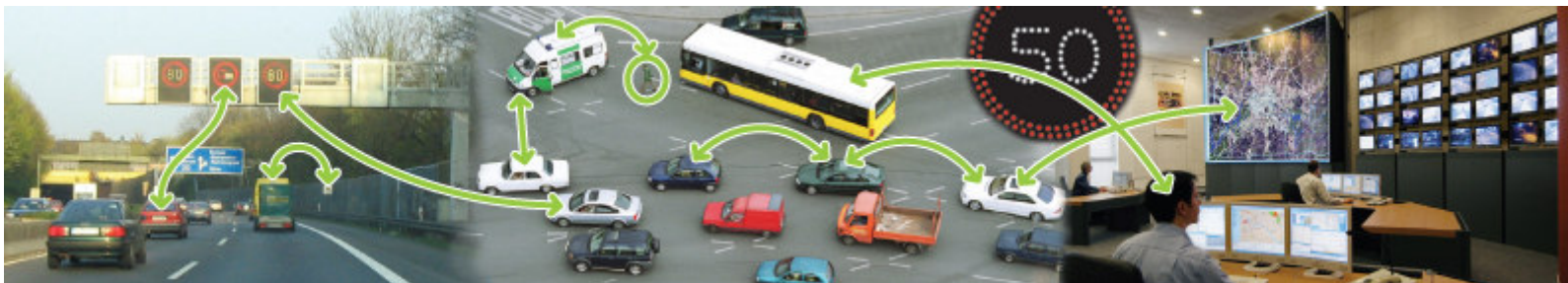




CVIS COMO

ITS World Congress 2006
Axel Burkert





Topics



- Introduction
- COMO Objectives
- The setting of COMO inside CVIS
- Current Results
- Typical Examples of COMO Use Cases and System Requirements
- CVIS Requirements Workshop
- Current COMO Data Flow
- Vision of CVIS and COMO



Introduction

What is COMO?

- COMO provides central traffic data services for all CVIS applications
 - Network monitoring
 - Incident and hazard detection
 - Virtual loop detection for traffic control systems etc.
 - Local/area traffic state
- COMO provides merged data on basis of mobile (XFCD/EFCD) and stationary (e.g. loops) detectors achieving better quality than by using one source alone





COMO Objectives (1)

COMO is set to:

- Utilise data in vehicles and infrastructure alike
- Implement algorithms for fusion of data from different sources on different levels
- Provide fused traffic data and messages to CVIS applications on different levels (car, infrastructure, centre)

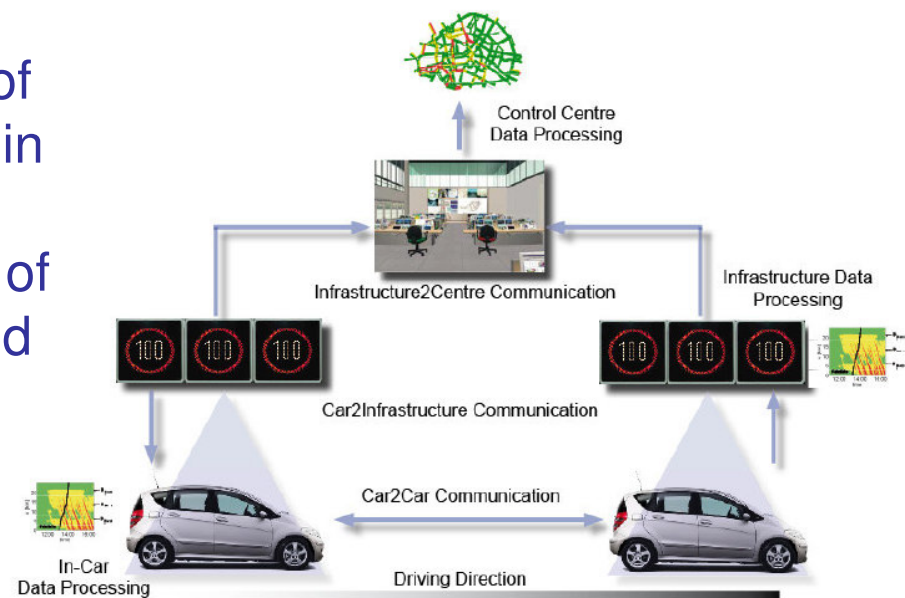




COMO Objectives (2)

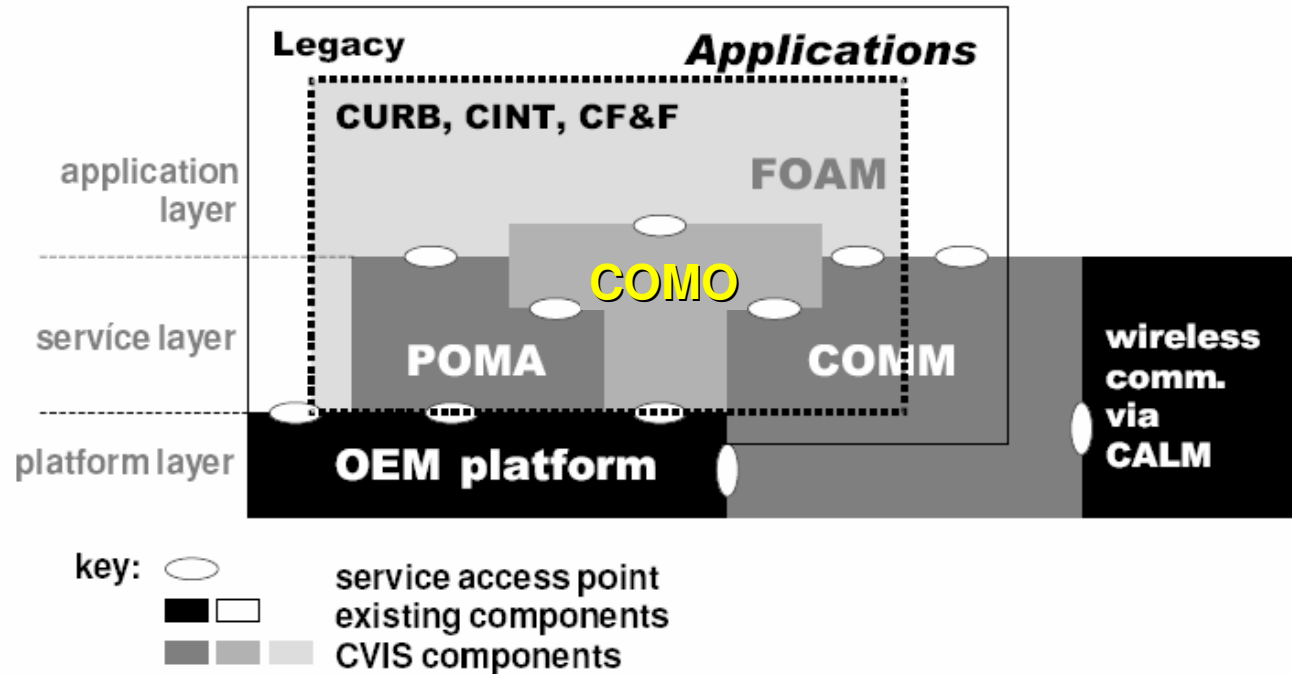
COMO: Cooperative Monitoring

COMO is to create a distributed architecture where a maximum of processing can be done locally, in individual or amongst groups of vehicles, and where the volume of data transmissions can be limited according to the context and content of the data.





The setting of COMO inside CVIS



COMO: provide data - COMM: provide communication - POMA: deliver geo-reference and map matching
FOAM: application platform to embed the functionalities - CURB/CINT/CF&F: provide the applications



Current Results

Use Cases and System Requirements have been defined (continuous update)

Four groups of use cases were defined:
Data exchange and processing in a

- Vehicle-vehicle scenario
- Vehicle-centre scenario
- Vehicle-roadside scenario
- Infrastructure scenario (roadside-roadside or roadside-centre)





Typical Examples of COMO Use Cases and System Requirements (1)



- **CV-UC-SP3.4-0041: Distributed mobile probe data and its processing in vehicles**
 - Goal: merge the data of a cluster of vehicles deriving a more accurate view on the traffic state for an extended region around the vehicle cluster
- **CV-UC-SP3.4-0015: Centre data fusion**
 - Goal: integrate data from CVIS vehicles and other data sources into one model in the centre



Typical Examples of COMO Use Cases and System Requirements (2)



- **CV-UC-SP3.4-0009: Asses traffic situation in a motorway section**
 - Goal: combine CVIS-car data and RSU section detection to generate indicators for numerous traffic situations in a RSU
- **CV-UC-SP3.4-0028: Transmit local traffic states from RSU to a central system**
 - Goal: transport local traffic states derived from processed local data (XFCD) from the according RSU to an central system (e.g. UTC, TMC, TIC) by means of a well defined and possibly standardized protocol



CVIS Requirements Workshop

Interested in further details?

Go to the

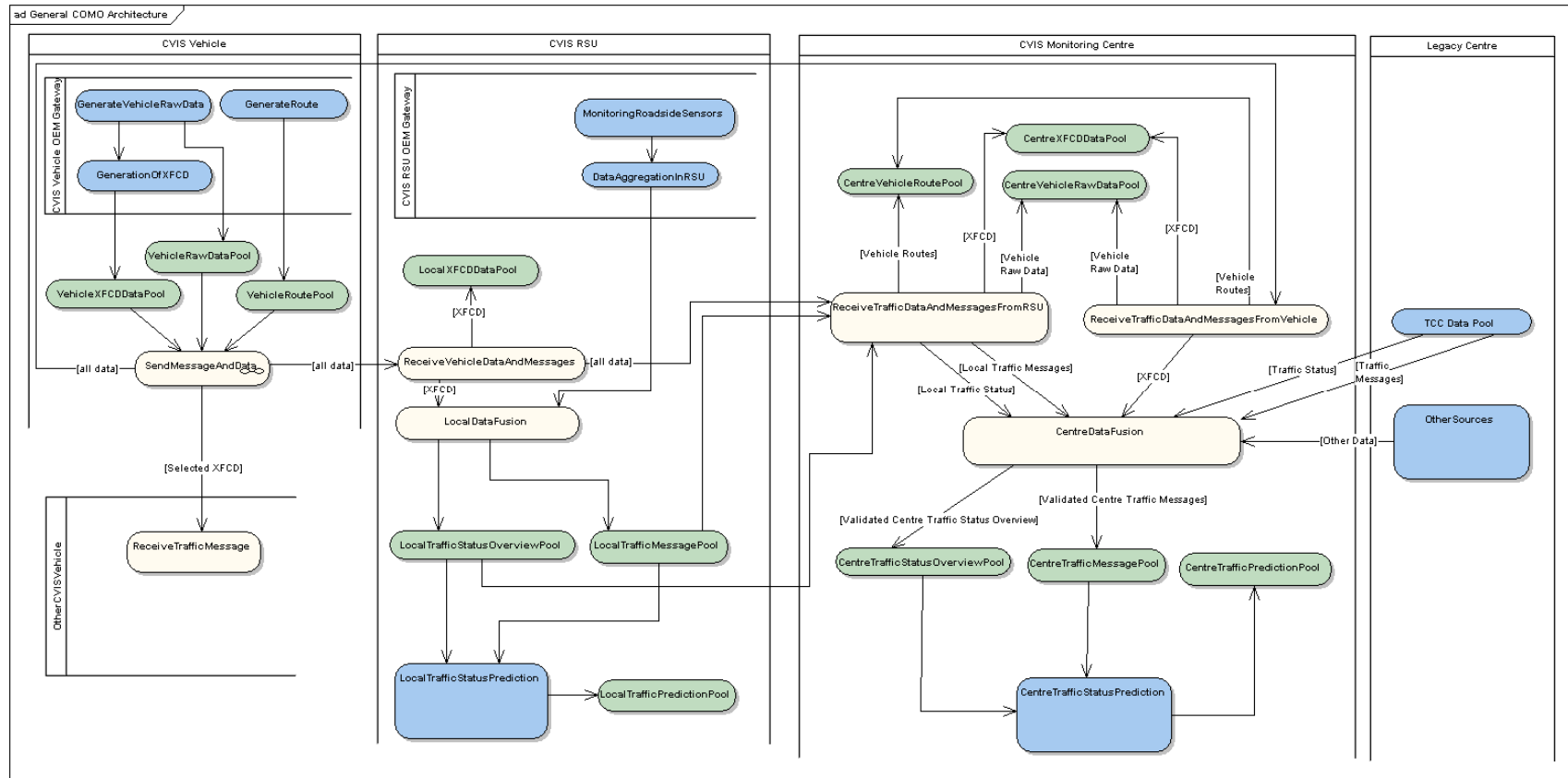
**CVIS Requirements Workshop
on 18/19.10.2006 in Brussels**

**Book your seat @ www.cvisproject.org
(free of charge)**





Current COMO Data Flow





Vision of CVIS and COMO



- CVIS (thus COMO) wants to become the European standard for XFCD
- CVIS wants to be implemented in all
 - Vehicles
 - Road side units
 - Local centres
- CVIS provides an open system with distributed traffic data sources (vehicle, road side unit, centre) encouraging
 - Interoperability
 - Commercial services
 - Future business



Thanks for your attention...

www.cvisproject.org

