

URBAN STRATEGIC ROUTING IN CVIS

Matthias Mann, Thursday 24 September 2009



Agenda

- > Introduction
- > Goals
- > Architecture
- > Strategic Routing in Dortmund

Introduction

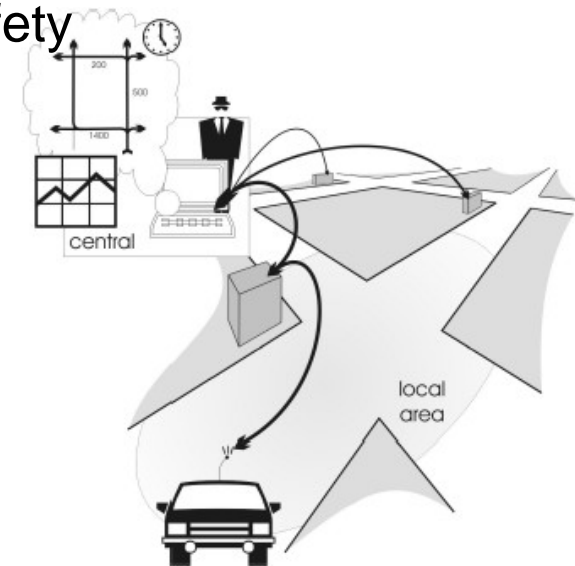
COOPERATIVE VEHICLE-INFRASTRUCTURE SYSTEMS - CVIS

- > Create a unified technical solution for V2X communication
- > Create an open application framework

COOPERATIVE URBAN APPLICATIONS - CURB

- > Improve the efficient use of the urban road network
- > Incorporate positive effects on traffic safety and the environment

Cooperative Network Management



Introduction

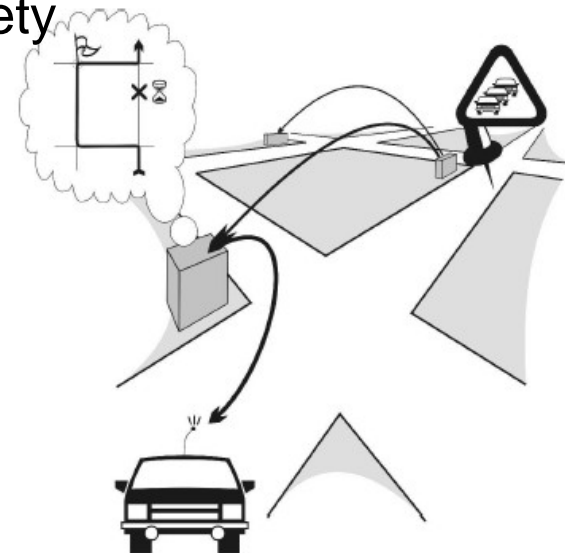
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Cooperative Area Routing



Goals

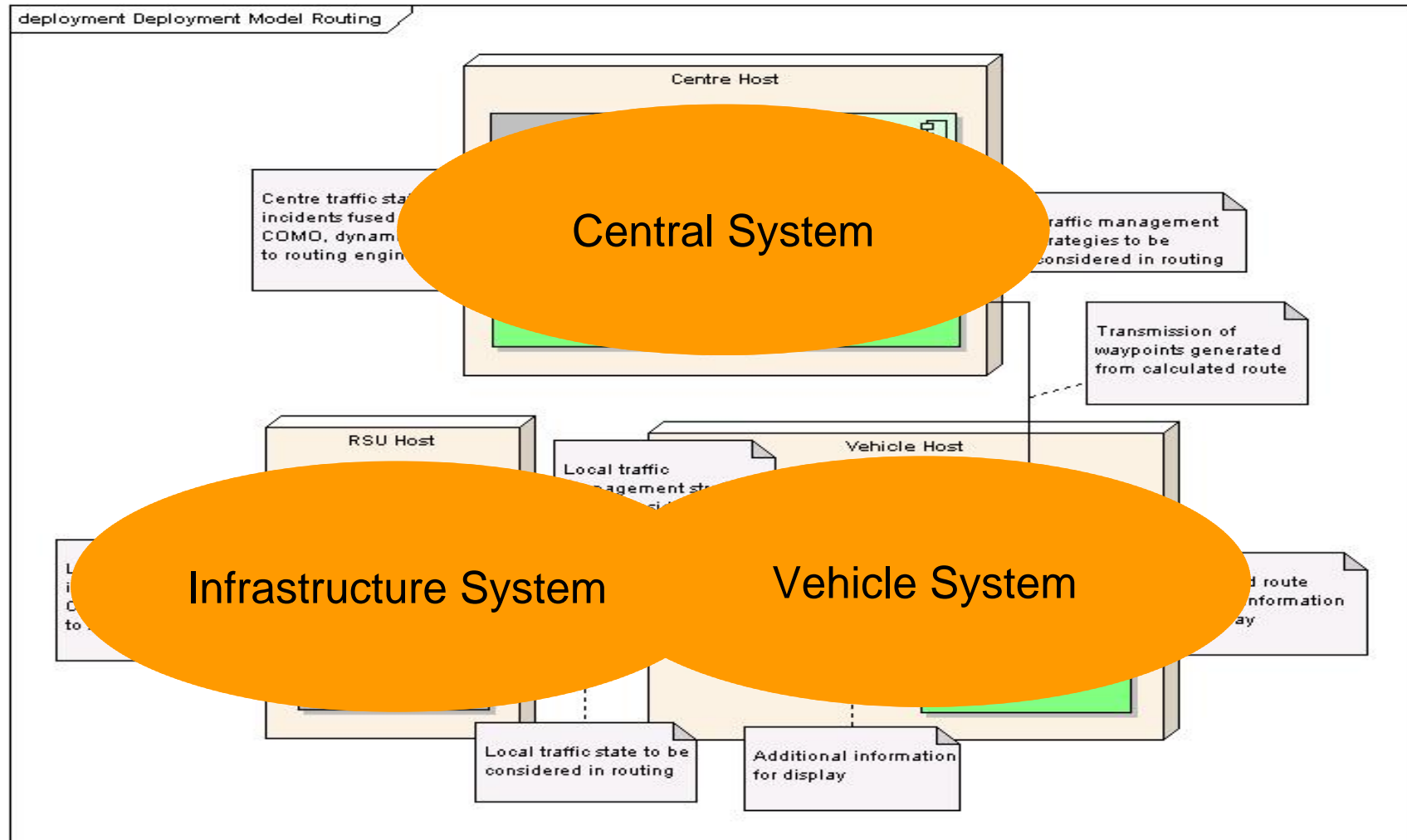
Road Network Operator

- > Reduction of congestion
- > Reduction of travel times
- > Improvement of efficient use of road network
- > Improve environmental impact

Fleet Operator

- > Optimise fleet transport
 - > E.g. time restriction
 - > E.g. transport costs
 - > E.g. fuel consumption

Architecture



Strategy Definition

Trigger Links

- > Entry point
- > Exit point
- > → Filter describing affected source-destination relation

Restricted Links

- > Subnetwork to be avoided

Recommended Links

- > Recommended subnetwork

Strategy Definition

map&guide calculate 2008

File Edit View Tools Help

Roads Editor 1


Segment Modifications

Settings: eur_Attributes

Observation time: 24.09.2009

Copy Delete Group Export Print Import User-Defined Categories

Course	Name	Length	Enabled	Valid from	Valid till	Recurrent	Description
5	E20/E6	1647 m	<input checked="" type="checkbox"/>	-	-	<input type="checkbox"/>	



1 / 1 / 1

Segment Restrictions | Attributes | Validity Time | All Properties | **E20/E6 at 434 91 Kungsbacka / Ysby (Medium motorway)** | Enable

None

Closed To

Default Categories

- Car
- Lorry
- Water-polluting goods
- Hazardous goods
- Explosive substances
- Heavy goods

User-Defined Categories

- Test

None

Closed To

Default Categories

- Car
- Lorry
- Water-polluting goods
- Hazardous goods
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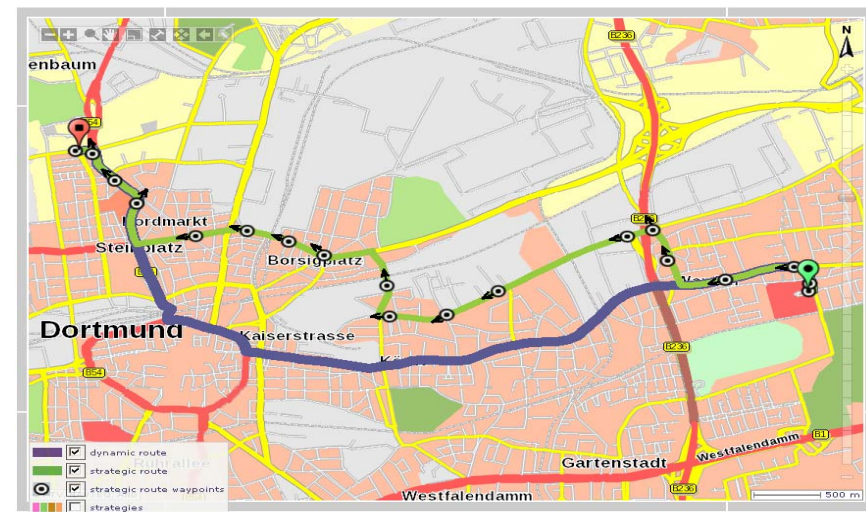
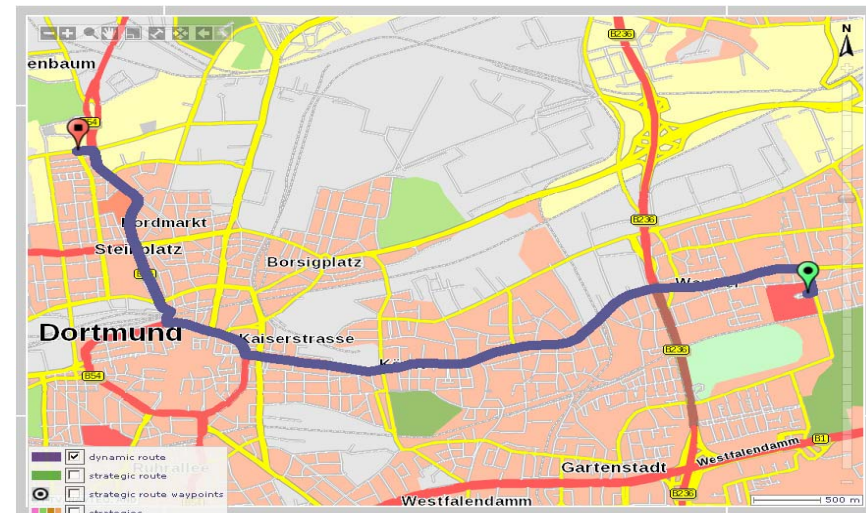
User-Defined Categories

- Test

Strategic Routing

Network Strategic Routing

- > Based on network wide traffic state
- > Based on network wide strategies defined by Traffic Management Center
- > Strategic route is provided by Routing Service Centre directly (e.g. 3G) to vehicle client



Strategic Routing

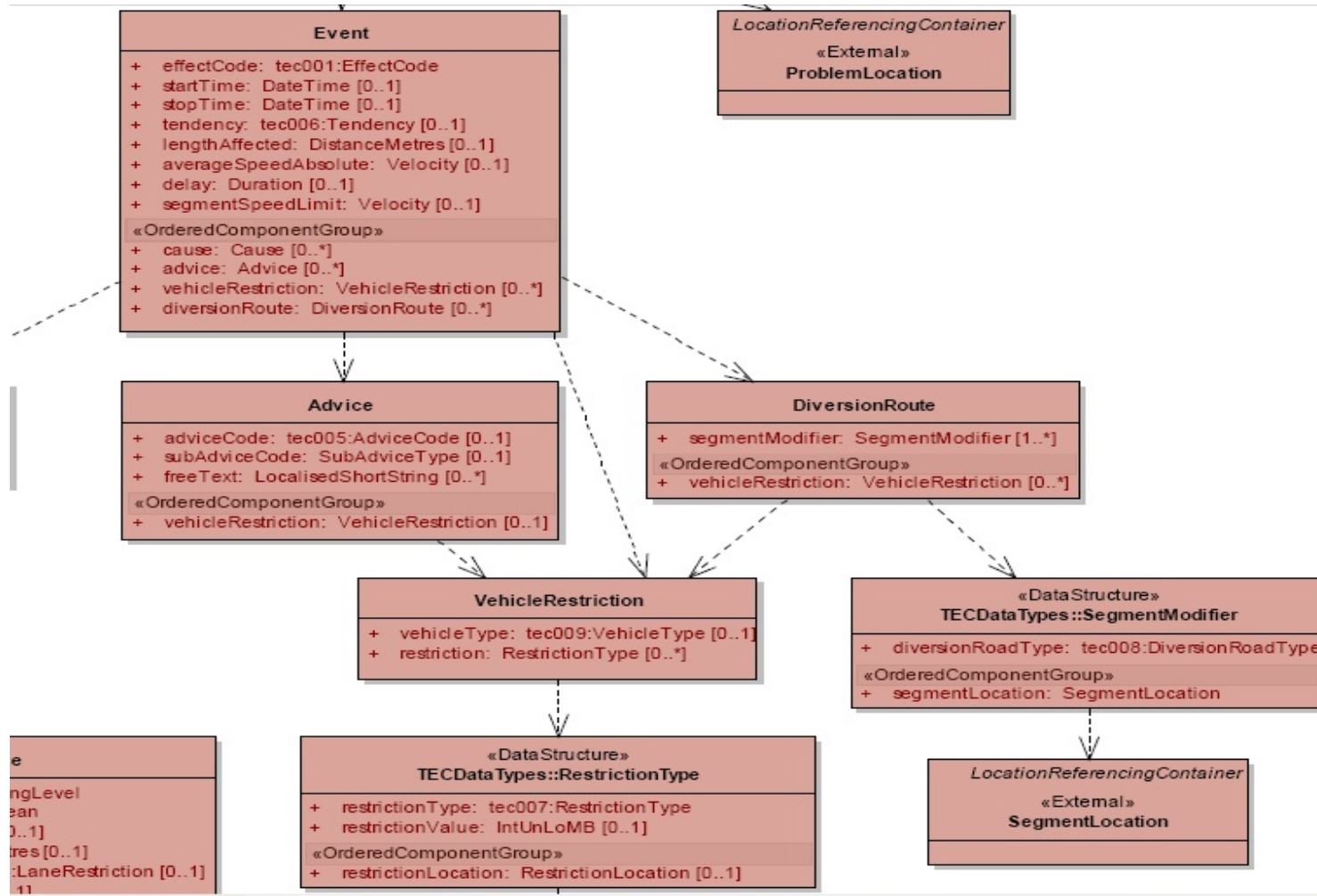
Local Strategic Routing

- > Based on local traffic state
- > Based on local strategies defined by Traffic Management Center

- > Strategy Information is provided by Road Side Unit directly (e.g. M5 Broadcast) to vehicle client



TPEG-TEC



PTV

Thank you

