Management of Dynamic Traffic Data and Connectivity into Vehicles

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ASFINAG Maut Service GmbH
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Agenda

• ASFINAG summary
• Traffic information from the point of view of ASFINAG
• What is dynamic traffic data?
• From „the digital road operator“ to „the connected vehicle“
The ASFINAG Group
### ASFINAG Overview

<table>
<thead>
<tr>
<th>Tasks:</th>
<th>Planning, construction, maintenance, operation, funding and tolling of motorways and expressways in Austria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road network:</td>
<td>In operation: 2,183 km</td>
</tr>
<tr>
<td>Employees – group:</td>
<td>2,652</td>
</tr>
<tr>
<td>Motorway operation and maintenance facilities:</td>
<td>43</td>
</tr>
<tr>
<td>National traffic management centre:</td>
<td>1</td>
</tr>
<tr>
<td>Regional traffic management centres:</td>
<td>9</td>
</tr>
<tr>
<td>Locations:</td>
<td>Wien, Graz, Innsbruck, Salzburg, Ansfelden, Zirl</td>
</tr>
</tbody>
</table>
| Financing: | Vehicles < 3.5 t: toll stickers + special tolls  
Trucks > 3.5 t: mileage-dependent toll |
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ASFINAG focus on traffic information

ASFINAG is one of Europe’s leading motorway operator especially recognised as content provider for traffic and travel information (in Austria)
Ways to ASFINAG customer information - TODAY

- www.asfinag.at
- www.asfinag.at/app
- Verkehrsinfo @ 0800 400 12 400
- TMC plus

Online traffic information
ASFINAG-companion for travellers
Current traffic information by phone
Navigation device

Not connected vehicles

Connected vehicles

OEM value-added services
ASFINAG Services

Reliability all the way.

> 580 webcams

On Trip Services

Smartphone App "UNTERWEGS"

expert tools

VAO route planner

wide variety data interfaces
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ASFINAG Incident Messages

- wrong-way driver
- traffic accident
- break-down vehicle
- traffic congestion
- loss of load
- extreme weather conditions

- heavy load
- fire
- system error
- height control
- maintenance measure
- other
ASFINAG Incident Management

➢ From incidents to information
Traffic Management Centre

National

Regional

OEM’s, National Access Points, Mobile Service Provider
Traffic Information Service Provider
Services (apps, etc.)
Road Operators

- datex2
- ticml
- json
- rss

From incidents to information
Traffic Management Centre

- National
- Regional
ASFINAG information content

Messages
- ASFINAG incident information
- Construction site reports

Webcams special view

Calculated data
- Traffic situation

Dynamic data
- Speed restriction and regulatory sign
- Reduction of speed based on current immissions measured (Austrian law)
- Occupancy status of truck parking information

Static road data
- Webcams
- Infrastructure data (connection point + node)
- Distributor (toll sticker, Go-Box, video toll)
- Resting opportunities (truck parking, facility for removing snow from trucks, Park&Drive)

Reliability all the way.
Integration with automotive & internet

- **TELEMATICS PLUS**
  "Inform as many customers as possibly with high quality real-time information."

- Data exchange with international providers

Incidents
Traffic situations
Traffic sign display
Road works

ASFINAG receives

Traffic jam index
Automatic detection of construction sites
Automatic traffic jam warning
Traffic situation secondary road network

ASFINAG delivers
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ASFINAG Vision “Cooperative Driving”

Infrastrukturbetreiber

Provides anonymised vehicle data and events
rain sensor, Temperature, speed, location, crash,…

ASFINAG Vision “Cooperative Driving”

Reliability all the way.

Customer / Vehicle

Provides improved and reliable traffic information

Road Operator

Receives additional information directly from the vehicles

real-time data exchange

Provides improved traffic information and management measures
Digital Road Operator

Cloud Solutions

ASFINAG CONTENT
Data interfaces standardized

Road infrastructure

Traffic data provider

ITS G5

Cellular

Vehicles ("Connected Vehicles")

Reliability all the way.
The Cooperative Construction Site
Reliability all the way.

Services:
+ Route planner
+ APP

- Speed restriction
- Regulatory sign
- Incident information
- Construction site

- Speed restriction: 100
- Construction site
- Incident information
- Regulatory sign
Positioning and Key Messages

- Evaluation about specific events will become even more important in the future
- ASFINAG wants to provide data for OEMs
- Differentiation between not connected vehicles and connected vehicles
  - Not connected vehicles 1.0: via online traffic information, ASFINAG-companion for travelers, apps, etc.
  - Connected vehicles 2.0 >: Cooperation with OEMs for data exchange
    - Sign giving orders: Cooperation with OEMs in any case
    - Event warnings: Cooperation with OEMs for additional information
RELIABILITY ALL THE WAY.