

# National and regional systems for traffic information providing

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# Traffic Information Systems - TIS

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## That means systems for:

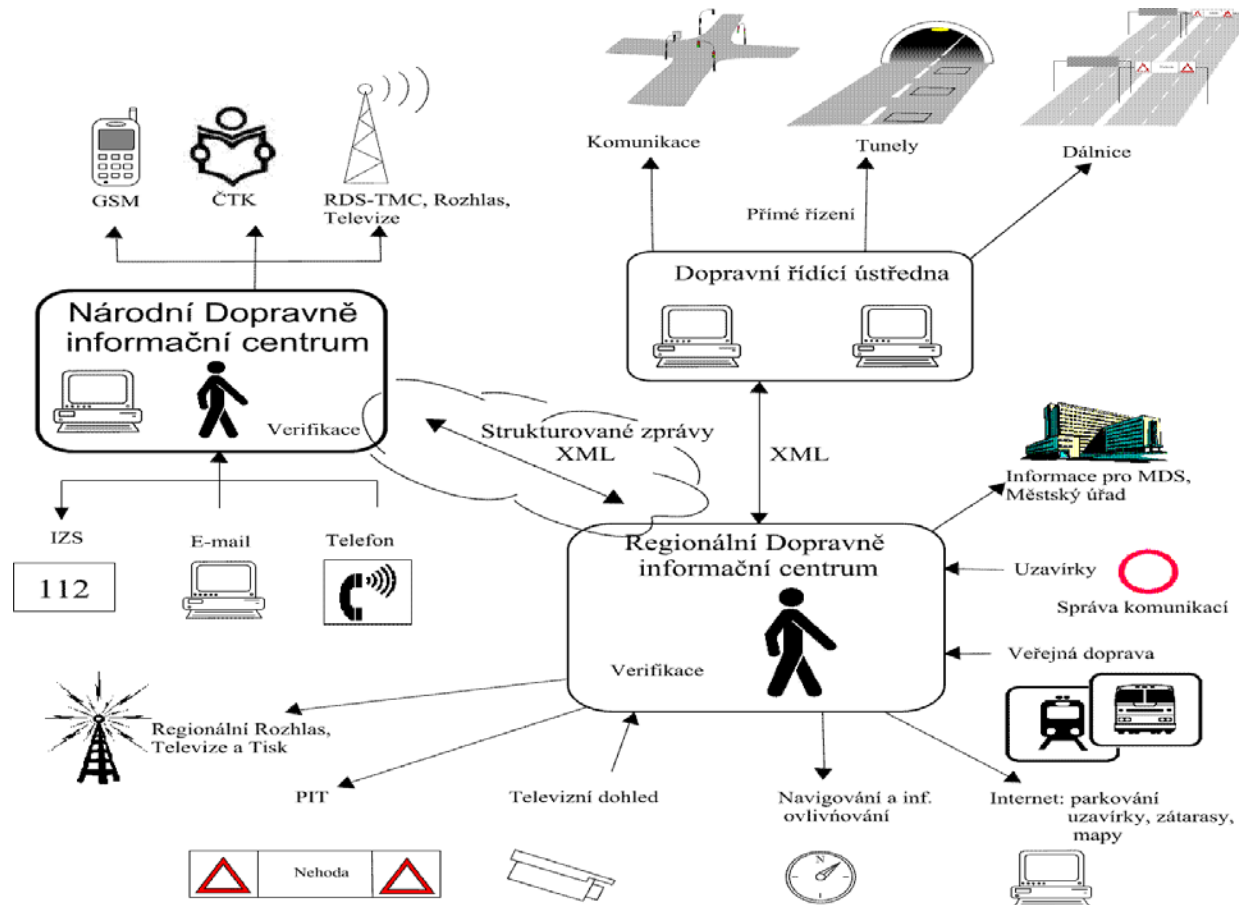
- Traffic information collection
- Archiving of events and parameters
- Data processing
- Distribution of information
- Restrictive traffic management
- Integration of traffic technologies
- Central traffic situation surveillance

# Reasons for creation of TIS

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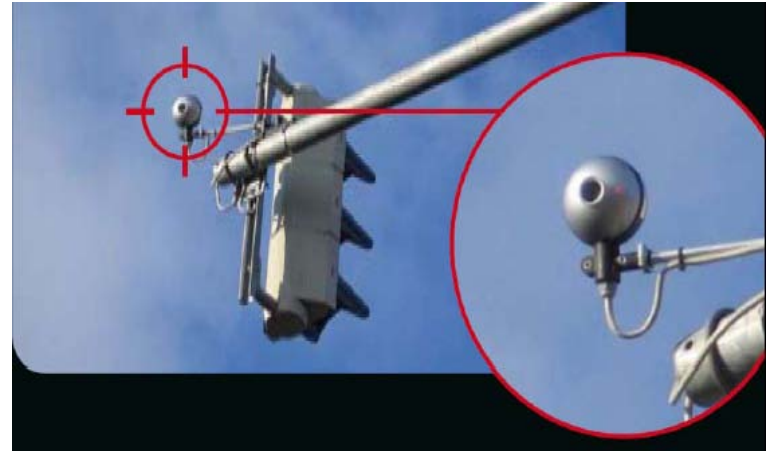
- Increase of road occupancy regularity
- Road capacity increase without physical extension
- Traffic accidents reduction
- Travel time reduction
- Saving of fuel – environment protection
- Increasing of travel comfort
- Road infrastructure protection – lifetime extension (WIM,..)

# Structural schema



# Examples of information collection

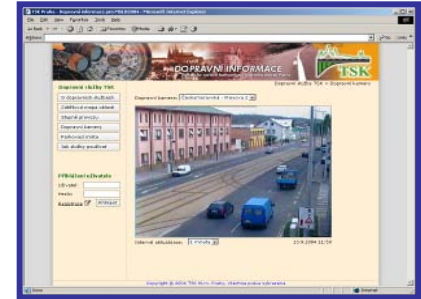
- ❖ Control centers
- ❖ Tunnel control systems
- ❖ Toll systems
- ❖ Variable speed limit assignment systems
- ❖ Weather sensors
- ❖ Camera systems - CCTV
- ❖ Information from rescue teams
- ❖ Traffic collectors
- ❖ Traffic information from public transport
- ❖ Floating Cars Data - FCD
- ❖ Verified messages from traffic participants
- ❖ Parking systems etc....



# Examples of information distribution

## Information for drivers:

- ❖ Variable message signs
- ❖ Information panels
- ❖ Internet, WAP
- ❖ RDS (Radio Data System), DAB (Digital Audio Broadcasting)
- ❖ DSRC (Dedicated Short-Range Communication)..



## Information for the others:

- ❖ Dispatcher of operation centre
- ❖ Road operator
- ❖ Police, rescue teams..

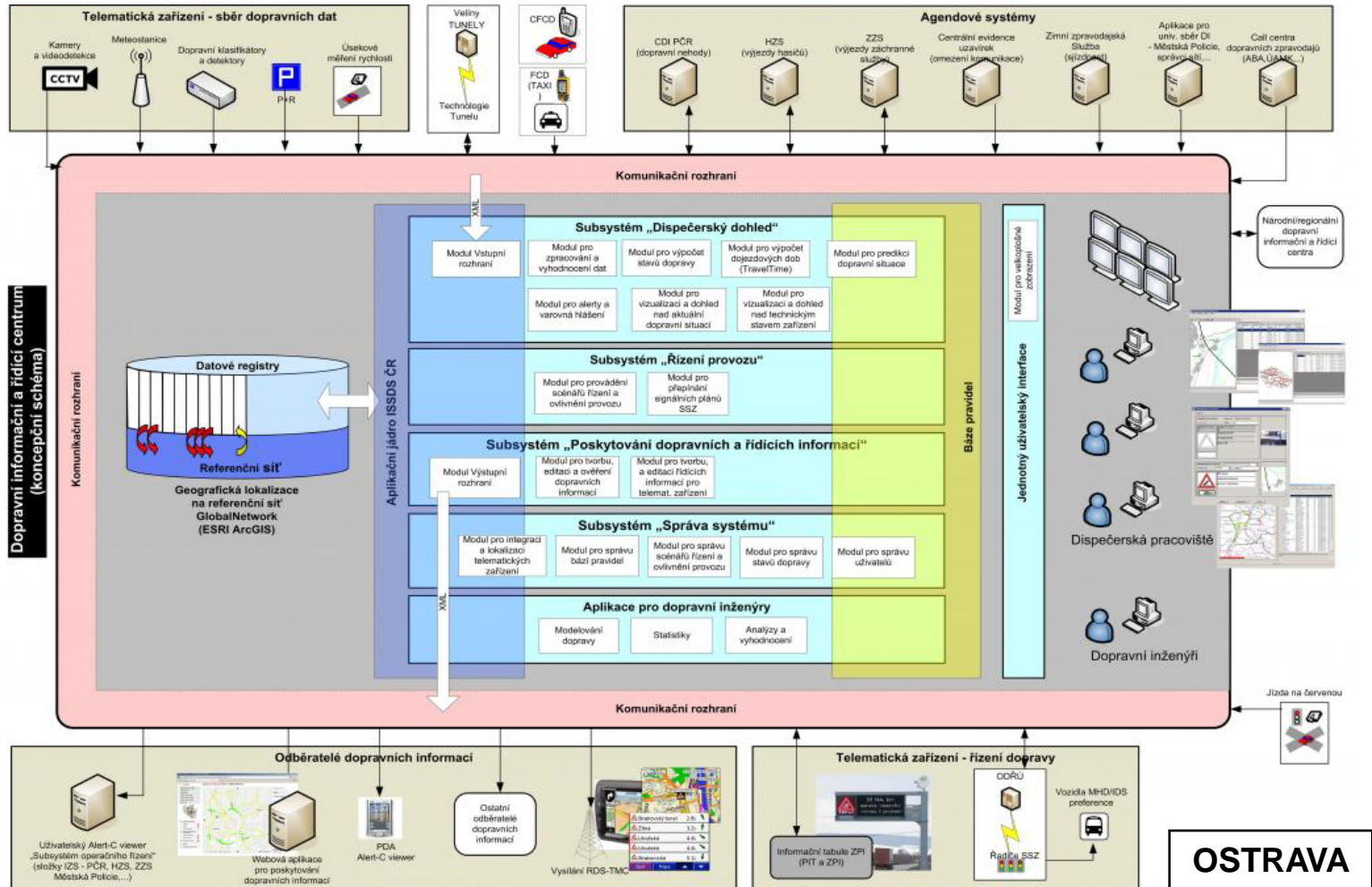


# Rules of information exchange

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- Simple open language – XML (Extensible Markup Language)
- Uniform structure and typology
- Events validation
- Time and place localization
- Classification by relevance
- Unification of data models – UML (Unified Modeling Language)
- The information is free of charge and good accessible
- EU regulatives

# Czech National Traffic Information Centre



28.09.10

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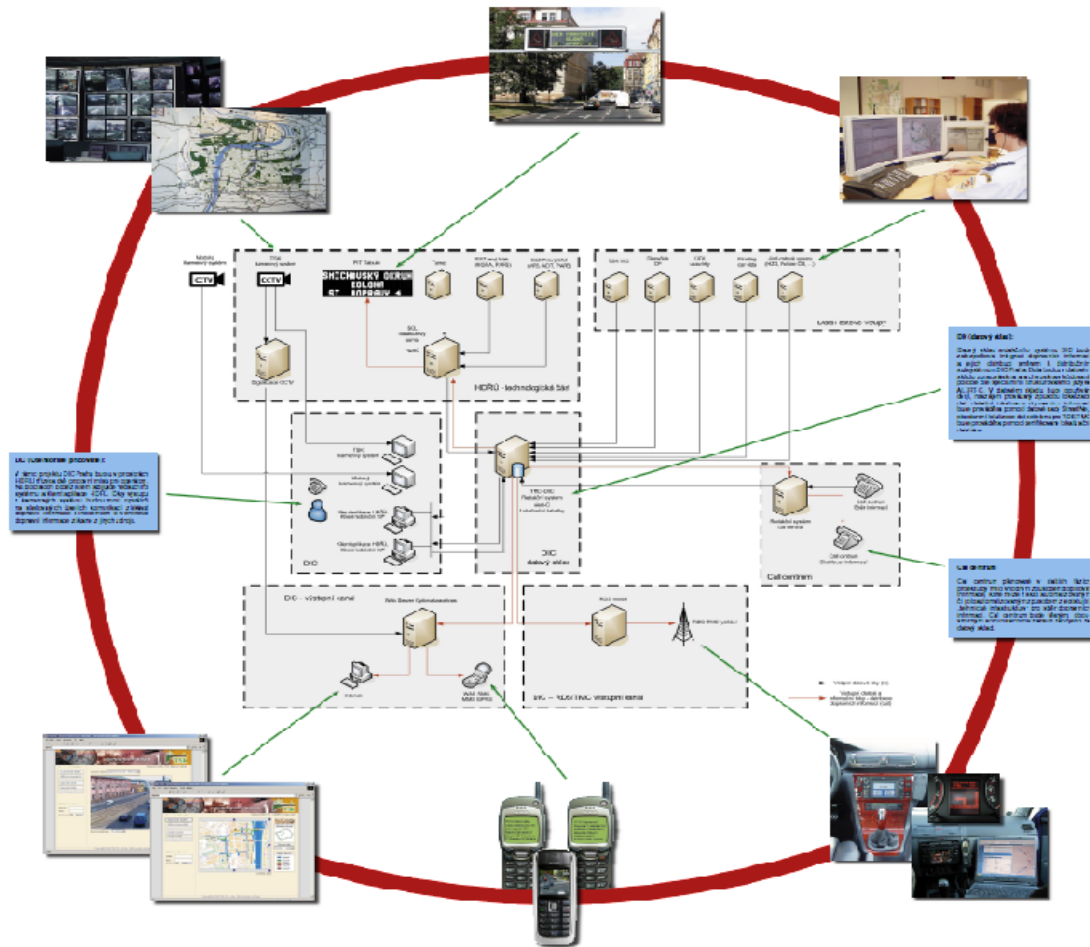


# Samples of components – CNTIC Ostrava

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- Traffic condition calculation module
- Travel time calculation module
- Traffic situation prediction module
- Module of warning messages
- Module for traffic situation monitoring
- Module for technical equipment monitoring
- Module for traffic scenarios
- Module for traffic information
- Module for statistics and analyses
- Traffic modeling module
- Maps module – ArcGIS
- Application - Information System for Road Meteorology
- Application – Unified System of Traffic Information
- Interface for integration of telematic facilities
- Traffic information providing application

# Traffic Information Centre Prague



# Further information

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Příbyl P., Svítek M.: Inteligentní dopravní systémy, BEN, 2002

Příbyl P.: Inteligentní dopravní systémy a dopravní telematika, díl I a II, skripta ČVUT FD, 2004 a 2006

TP98 „Technologické vybavení tunelů pozemních komunikací“, Eltodo, Praha

**Thank you for your attention**