



M2M-REGION



**Regional GLONASS-enabled
navigation and data system for
transport industry**



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Major task of transport industry in regions of the Russian Federation



1. Implementation of Government public policy in area of transportation safety and security supply
2. Delivery of various transport services for population needs on inter-regional routes
3. Analysis of population and economic needs in transportation services
4. Control and recovery of losses to carriers with government contracts at the expense of regional budget
5. Transport control on inter-regional and interurban routes
6. Maintaining the registry of interurban, inter-municipal and local route network
7. Public reporting about the organization of transport services in the territory of the subject of the Russian Federation

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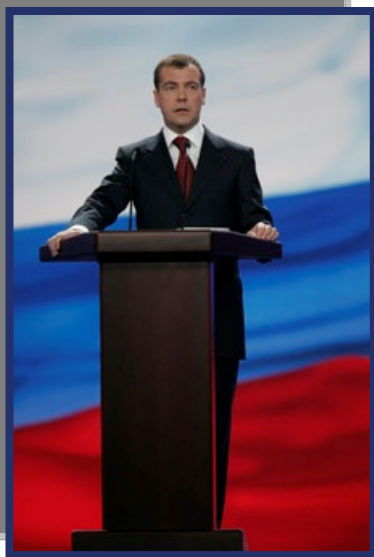


Prerequisites to establishing of regional navigation and data systems for the transport complex



The necessity of integration of intellectual, technical, financial and administrative resources to provide safe, effective, ecologically clean and comfortable transportation and goods delivery creates prerequisites to creation of unified transportation management system.





- **Federal Law**

14/02/2009 N 22-ФЗ "On Navigation Activities"

- **Presidential Decree**

17/05/2007 N 638 «On the use of global navigation satellite system GLONASS for socio-economic development of RF»

- **Regulation Federal Government**

25/08/2008 № 641 «On the transport equipment, facilities and equipment of satellite navigation systems GLONASS or GLONASS / GPS»

- **Regulation Federal Government**

27/08/2005 № 1314-p «On approval of the concept of a federal system of monitoring of critical facilities and (or) potentially hazardous Infrastructure Russia and dangerous goods»





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Purpose, business tasks



M2M-REGION System – *innovative solution based on GLONASS/GPS satellite navigation technology and GPRS data transfer technology*

M2M-REGION - navigation and information system, designed to automate the supply of regional transport services by local authorities, enterprises and organizations of the subjects of the Russian Federation

Main tasks handled by the system are:

1. Maintaining and controlling the regulations of implementation of regional transport sector public functions and services
2. Management the transport of variable functionality (including transport of organs of the law and order)
3. Public reporting on the organization of transport services in the region
4. Providing information on law violation and emergency on the transport to the Situation Center in real time
5. Monitoring of security of transport and passengers



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The aim of automation within the bounds of creation M2M-Region System is control and management of mobile and stationary objects of regional and municipal services and organizations.

- Mobile objects are listed below:

- motor and electrified transport
- construction and road-building machinery
- rail transport
- water transport
- mobile units with and without chassis: compressors, electric generators, etc.
- mobile amenity and accommodation buildings: workers' cabins, site huts, etc.

- Stationary objects include guarded buildings and facilities





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Objects of implementation



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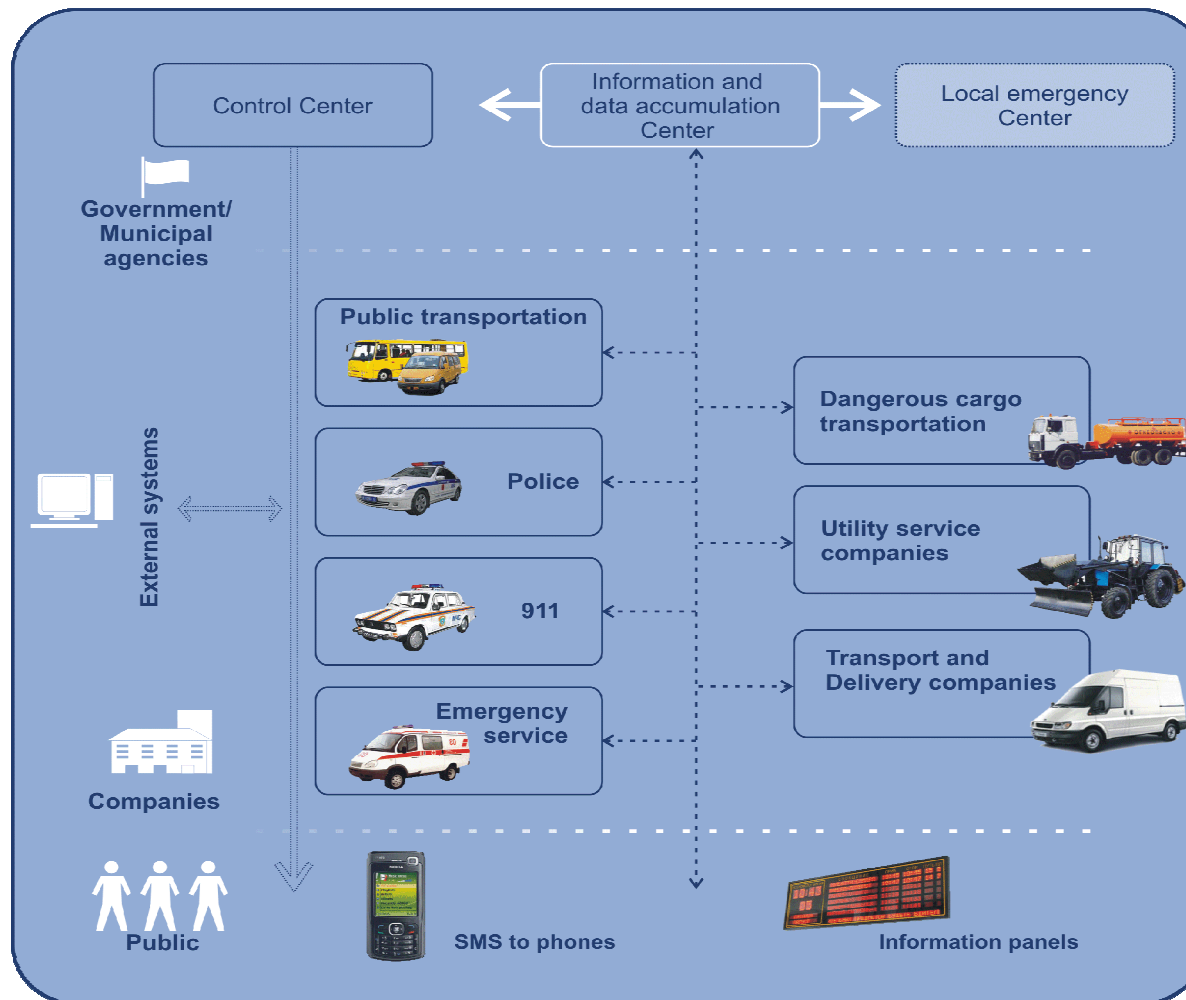


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M2M-REGION Structure

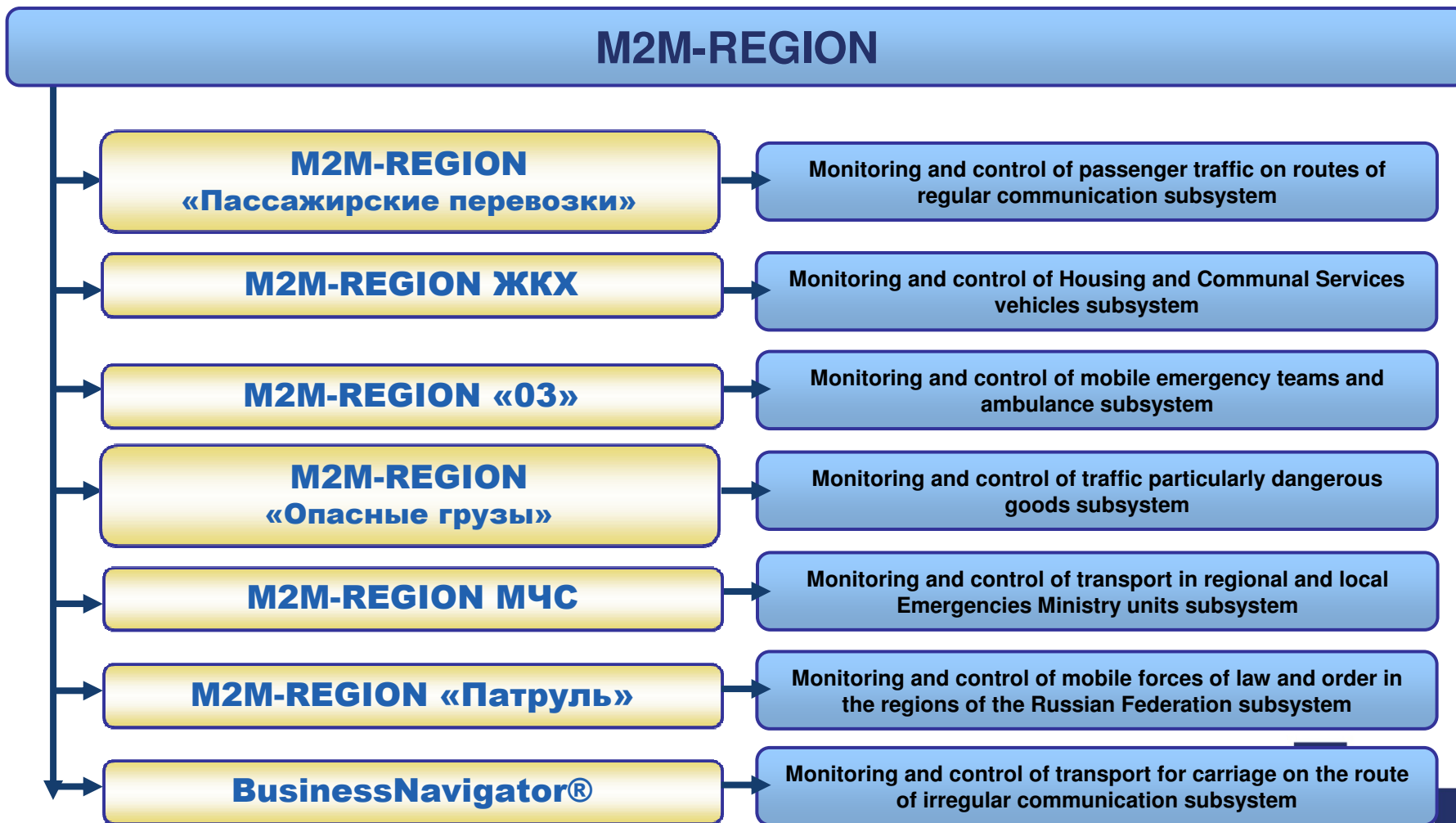


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M2M-REGION Composition

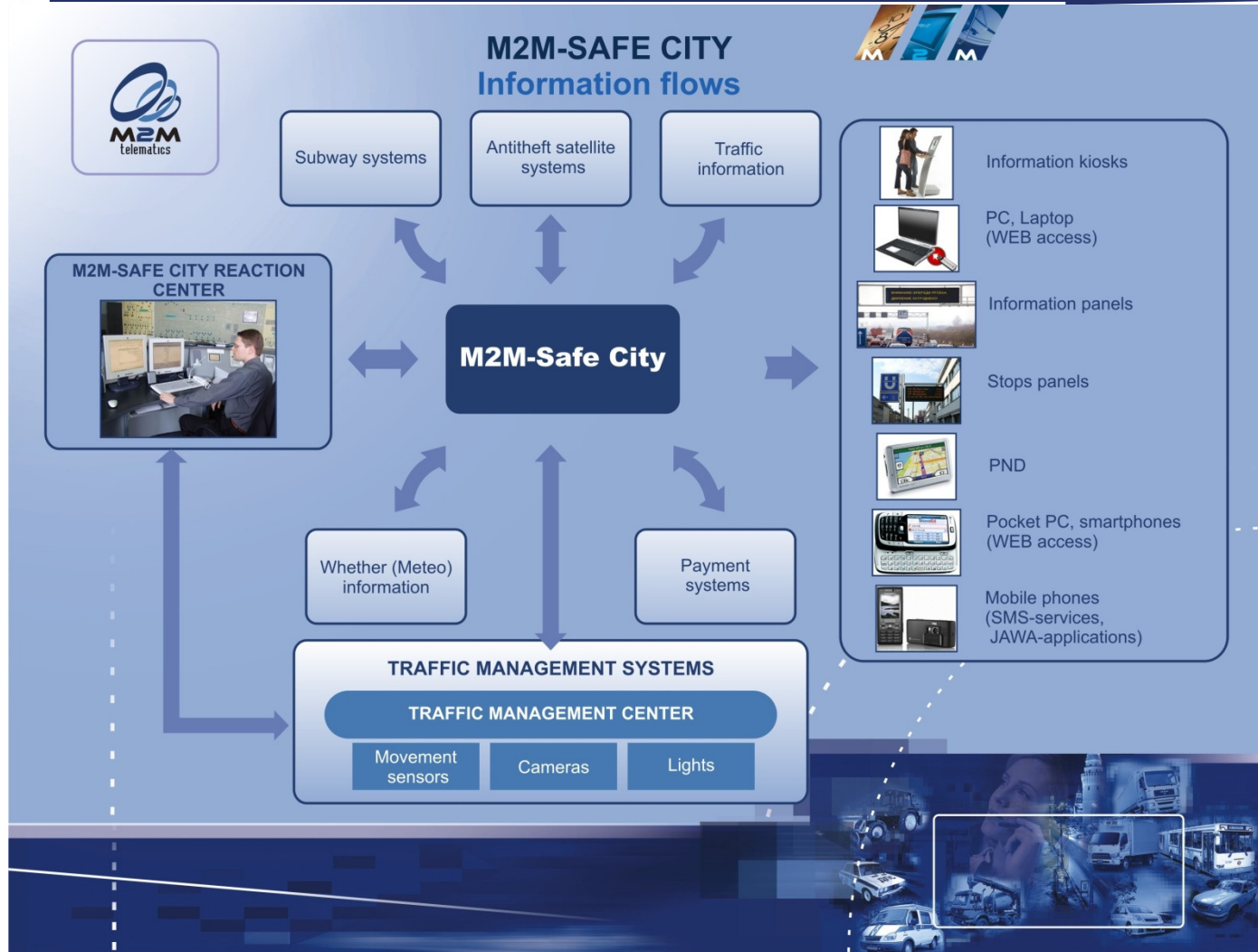


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M2M-REGION Element of Intelligent Transportation Systems



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Technological basis Software



**M2M telematics platform
BN™-Complex server software**
A core for building a telematics system of any degree of sophistication



**Client software
CyberFleet®**
Dispatcher workstation software for tracking and online management of the transport fleet in real time with a possibility to address logistical tasks

**WEB access service
CyberWeb®**
Dispatcher workstation software for tracking and online management of the transport fleet in real time with a possibility to address logistical tasks



**Client software
M2M-CityBus**
Software for workstations of the dispatcher and passenger fleet operation and management service

**Client software
M2M-Security Systems**
Superintendent workstation software for tracking and securing vehicles and stationary objects



**Client software
M2M-Utility Infrastructure Administration**
Software for automated remote monitoring of municipal contract performance by housing and utility enterprises

**Client software
M2M-Utility Enterprise**
Software for automating remote monitoring of the transport fleet of a utility enterprise

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Technological basis

Telematics terminal

Telematics platform M2M-BusinessSolution®
Server software BN-Complex®
Basis for building telematics systems of any complexity

Telematics terminal
GPS/GLONASS/GPRS
M2M-Cyber GLX

Telematics terminal
GPS/GPRS
M2M-Cyber GX



- Vehicle positioning and movement tracking — GLONASS/GPS. GLONASS is the priority system
- Communication with the telematic server: GSM GPRS
- Status log: up to 16,000 records
- Voice communication
- Connection of various analog and digital sensors
- Special bus for connecting extra devices
 - Fuel level sensors
 - Information display



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Technological basis Accessories



Telematics platform M2M-BusinessSolution®
Server software BN-Complex®
Basis for building telematics systems of any complexity



Information LCD-display



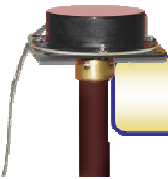
Buzzer



Voice communication

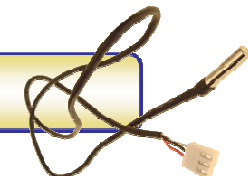


Alarm button



Fuel Level Sensor

Temperature Sensor



**Accelerometer /
DC-DC-converter /
tachometer**



Intelligent Power Switch



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M2M-REGION Implementations





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Successful implementations - Sochi

Project: Sochi Monitoring and Dispatch System

Customer: Administration of Sochi

The first project phase was completed in late 2008. Buses of the local carriers SochiAvtotrans and Lazarevskoye and municipal vehicles of Special-purpose Automobile Company were equipped with subscriber terminals receiving and processing signals from GLONASS and GPS satellite navigation systems. Automated workstations based on M2M-CityBus software have been set up at dispatcher stations of the municipal enterprises

The project can potentially evolve into the creation of a regional navigation and data system of Sochi that would encompass all municipal vehicles, including those carrying hazardous materials, public transport, and vehicles of the uniformed services



System trials started in the spring of 2008 in a test zone within Sochi . A demonstration of the test zone was given to First Deputy Prime Minister Sergey Ivanov, Transport Minister Igor Levitin, and Sochi Administration Chairman



In May 2008, the Sochi Automated Monitoring and Dispatch System project was presented to Prime Minister Vladimir Putin during the Transport Week 2008 expo.



Full-scale deployment of equipment at transport enterprises, software configuration, and user training have been carried out between November 2008 and February 2009

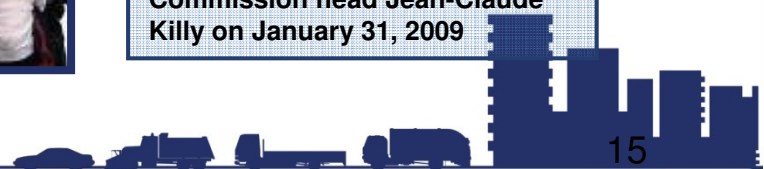


The AMDS project was presented to International Olympic Committee (IOC) Coordination Commission head Jean-Claude Killy on January 31, 2009

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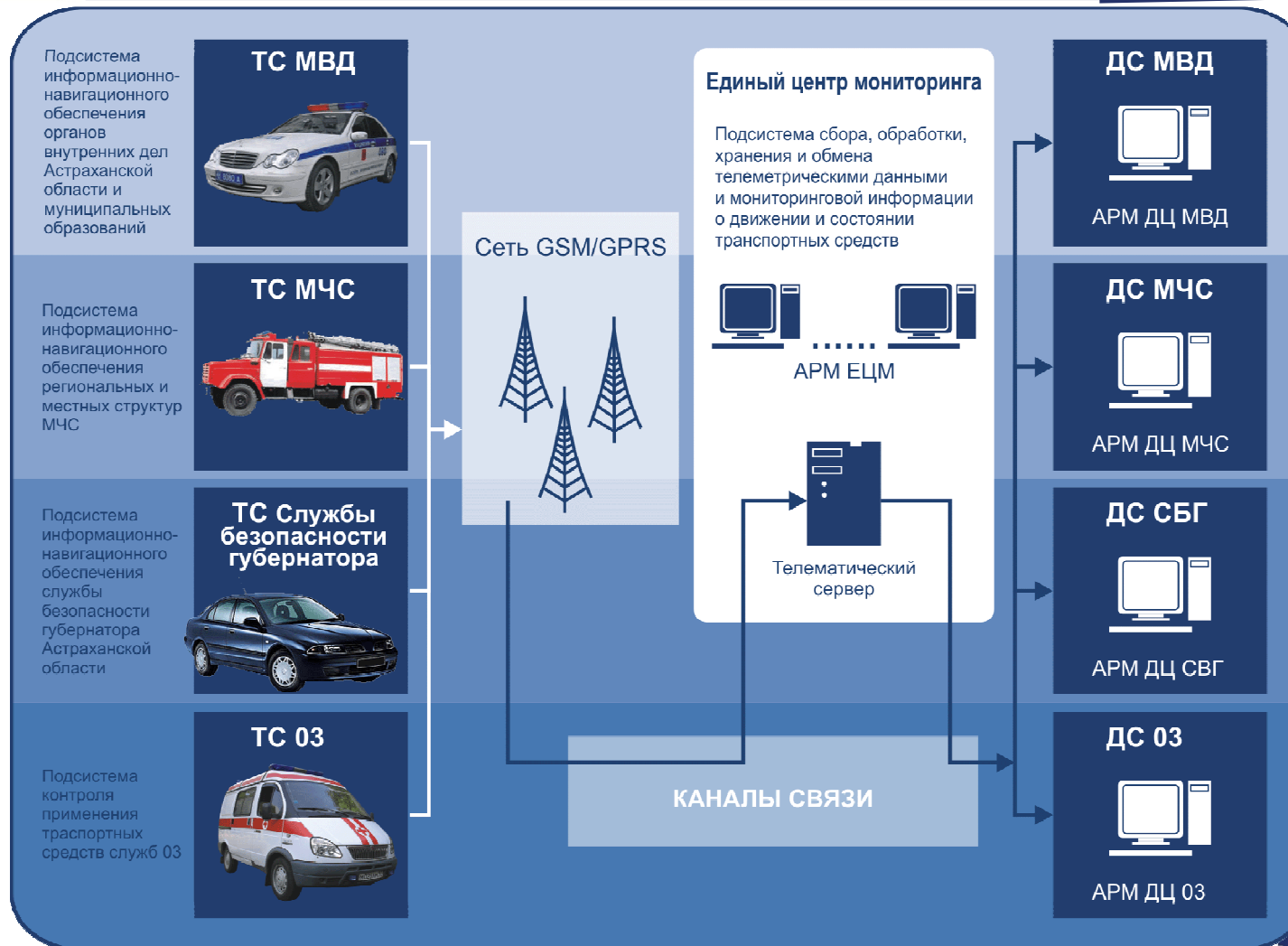
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Successful implementations – Astrakhan Oblast



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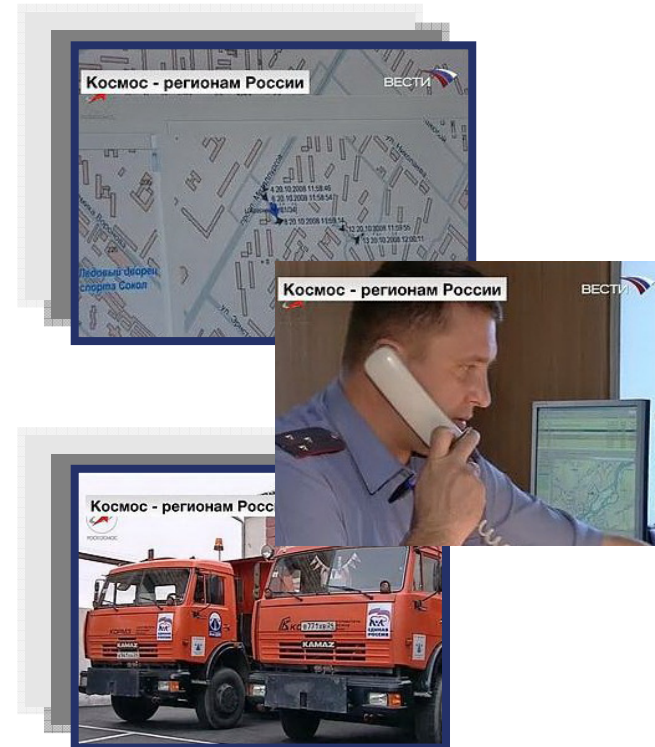
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Successful implementations – Krasnoyarsk Krai

Project: Krasnoyarsk Krai Regional Navigation and Data System (RNDS Krasnoyarsk Krai)

The project was implemented by «M2M telematics» at the own expense with the support of Federal State Unitary Enterprise «RISDE» in the works on the commercialization of GLONASS for demonstration of Russia's Global Satellite Navigation System

- The uniqueness of this project lies in the fact that the monitors of the Unified Monitoring Center receive information on the status of vehicles in several regions - Norilsk, Kaluga, Moscow, Mozhaisk, Sochi and Krasnoyarsk. This network of control units and the Unified Monitoring Center allows different authorities to manage their resources.
- Passenger, road-building, municipal and specialized vehicles of Interior Ministry, Emergencies Ministry and ambulance were equipped



Вести. Октябрь 2008.
Презентация РНИС в Красноярске
руководству страны

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M2M-REGION Federal network of telematic operators



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The effectiveness of implementation

- **Economy**

Enhancement of transport efficiency and productivity. Reduced transport costs.

- **Rationalization effect**

Establishment of an integrated system for management of a city/country transport complex, coordination of the activity of different agencies, enterprises and organizations

- **Social effect**

Improvement of transport service, higher transportation safety

- **Safety and security**

Establishment of a centralized system of vehicle management information support

- **Business effect**

Gaining income from commercial use of the navigation and information system to the benefit of private organizations and individuals





Thank you for your attention!



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20 November 2009



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