Proiect: Calea Verde spre Dezvoltare Durabila







Promotor:



Parteneri de proiect din partea Statelor Donatoare:













Parteneri de proiect:





02-05 iunie 2015 Instruire III Cheile Grădiștei

Strategii, actiuni privind adaptarea la schimbarile climatice in municipiul Brasov I





BRASOV SMART CITY, GREEN CITY, CLEAN CITY



Municipality of Brasov





LOCAL DEVELOPEMENT

SMART CITY BRASOV from vision to reality



IMPLEMENTATION OF THE SMART CITY CONCEPT



- City population is on a raising trend
- The economy gravitates more and more around cities and metropolitan areas
- Cities become players in the globalization process
- Local public administration in Romania become more and more de-centralized
- Technological progress has a greater impact on the urban fabric and actually becomes a catalyst or urban development



SMART CITY - CONCEPT

- "Smart City" is a urban development strategy based on ICT means (communications infrastructure, electronic sensors, specialised software, mobile devices, etc)
- This strategy should be developed within a partnership framework involving citizens, local businesses, NGO's, public bodies etc. in order to develop a common vision.
- "Smart City" can be implemented by developing ICT infrastructure with the inclusion of the existing independent systems



SMART CITY - COMPONENTS



GOALS:

Improving quality of life and work for our citizens

Increase the efficiency of urban management

- City Hall
 - Citizens
 - **Local Business**
- Environment =
- Communications
- Public Utilites
- Transport

Public Services

Beneficiaries of the public services

Infrastructure/
Public utilities
services



Public Services – City Hall

Item

 Public services for city Dwellers (citizens and local business)

Public services for tourists and other visitors

Method

- Web portal for electronic services, Technical dispatch
- Citizen Relashionship Management
- Smartphone apps for better communication between citizens and public bodies
- Tourism portal

- Highly efficient public services
- Promoting the local touristic potential



- Education
- Active citizenship

Method

Item

- E-learning solutions (local development through flexible education)
- E-citizenship efficient public consultation for the public administration's decision making process

- Educated citizens, qualified for high end industries
- Active involvement in civic endeavors



End users of public services— Local Businesses

Item

- Local economic environment
- Partnership with the local public administration

Method

- Facilitation of the information exchange relevant for the local economy (public debates, opinion polls, data exchange platforms, etc.
- G2B scenarios implementation

- Prosperous local economy
- High efficiency level for public investments



Environmental infrastructure



Item

- Sanitation, sewage
- Intervention in the public spaces cleaning, removing snow and ice, public utilities accidents, maintenance of green areas, etc.

Method

- Technical dispatch
- Partnerships with local utilities companies, local polices, businesses, etc.

- Clean city
- Increased intervention capability in case of environmental emergencies



Infrastructure - Communications



Item

- Public access to electronic services
- Video surveillances, network monitoring, interconnectivity

Method

- Internet Hotspots, info kiosks, municipal internet network
- Geospatial electronic services
- Networks (fiber optics, WiFi)

- Use of electronic public services by residents and visitors
- Benefits Real time data gathering



Infrastructure – Public Services

Item

- Public Lighting
- Water, gas and electricity networks

Method

- Tele-management and optimized lighting systems
- Technical dispatch
- Network sensors

- Reduced electricity consumption
- Increased public safety
- Optimization of maintenance costs
- Minimalize loss, reduced accident rate.



Infrastructure – Mobility

Item

- Public transport
- Traffic management
- Public parking management

Method

- E ticketing, optimized routes
- Fleet management, adaptive traffic lights, smart crossroads

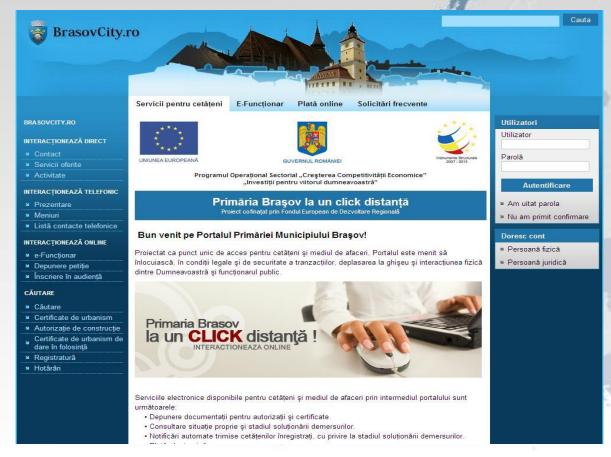
- Command center technical dispatch
- Apps for free parking spaces

- Reduced fuel consumption by using public transport
- Reduced noise and air pollution, better timing for getting around the city
- Optimized operational capacity
- Efficient management of public parking



Public e-services for citizens and local business

WEB PORTAL: Information interaction, transaction, e-payment, automatic notification



Smart City – Technical Dispatch



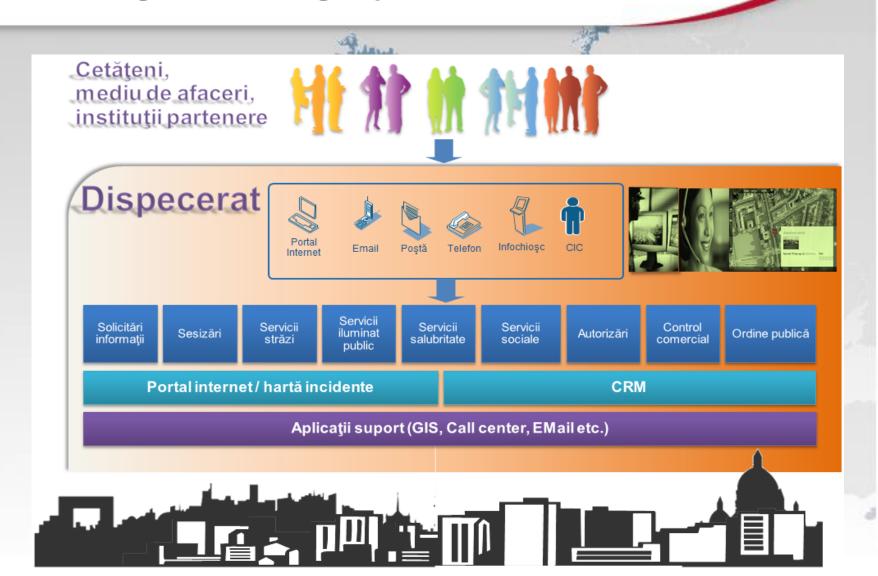
- taking and resolving requests



Smart City – Technical Dispatch

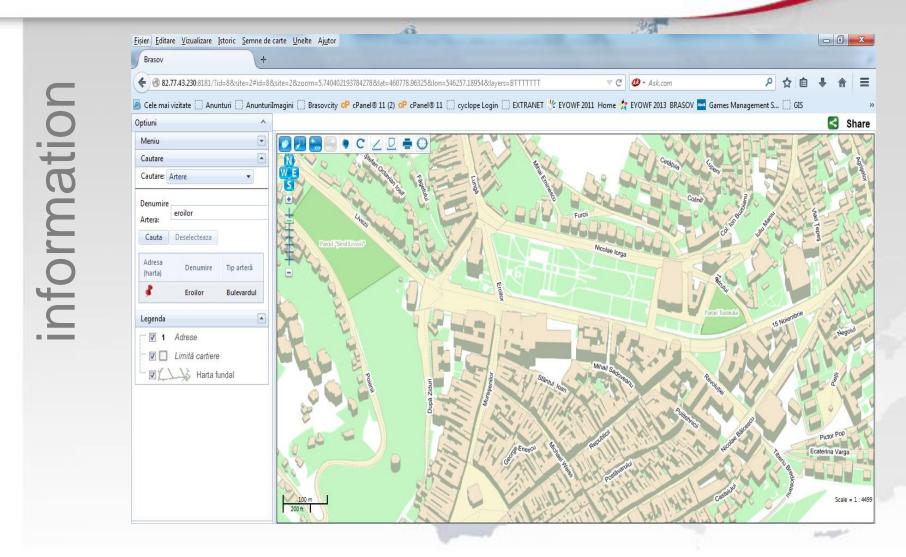


- taking and resolving requests



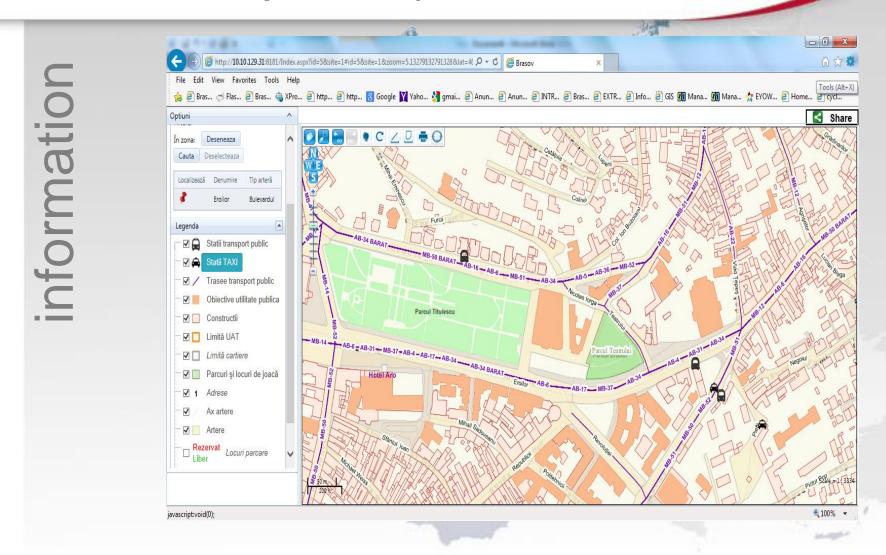
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E-Services: Services for citizens Green areas, parks, recreational areas



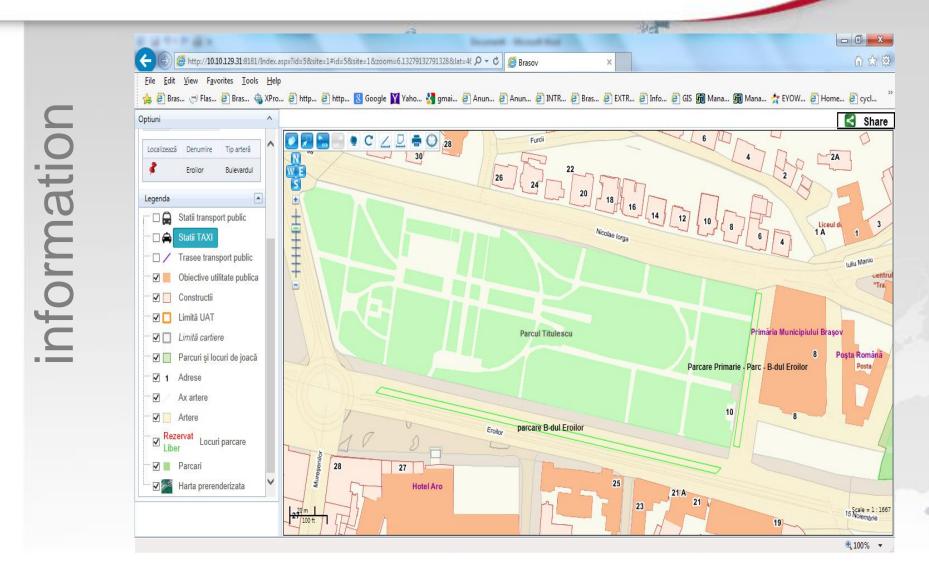


Public Transportation (routes, stations, schedule)



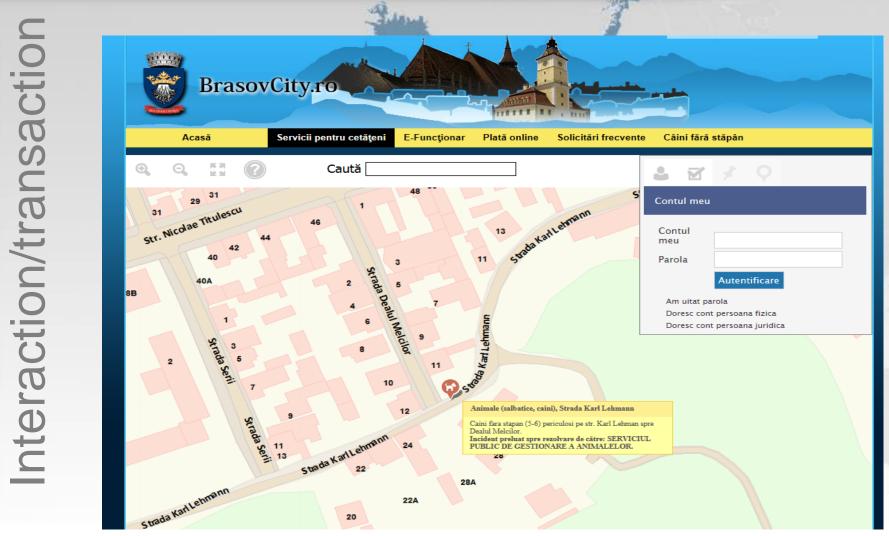


Buildings, roads, public parking



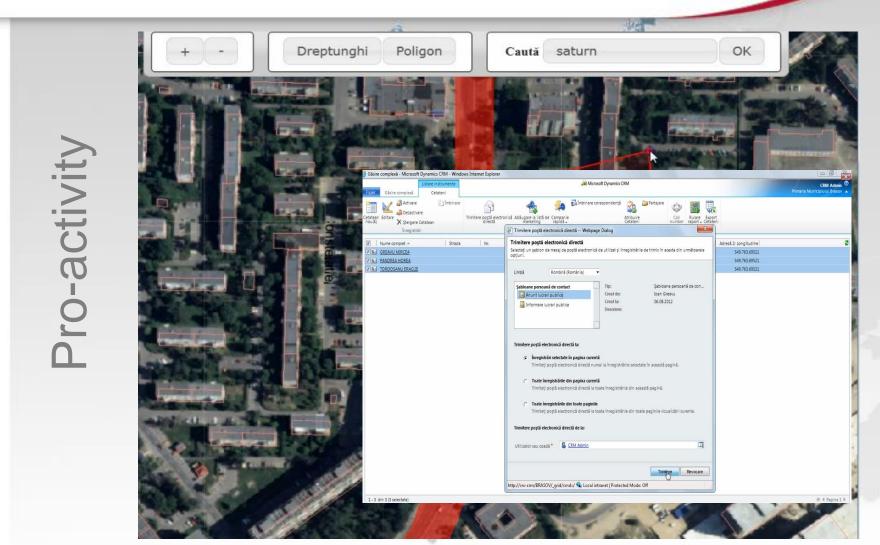


Geoportal - Incident reporting management





Geoportal - Incident reporting management



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Tele-management and optimized lighting systems

inteliLIGHT® FEATURES



- Plug and Play compatibility with every lamp and grid
- Uses the existing infrastructure and lamps
- Data communication on the power lines
- Viability of investments in the Street Lighting grids
- Interoperability with future Smart Grids
- The foundation of the future **Digital Cities**
- Continuous development of new features



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Tele-management and optimized lighting systems

inteliLIGHT® ENERGY EFFICIENCY



- More efficient energy consumption
- Variable decreasing luminosity
- Gradually reduced energy consumption by dimming the lamps
- Reduced CO2 emissions: less energy means less pollution. inteliLIGHT can reduce energy consumption up to 30% and also lower CO2 emissions by the same amount.
- Uniform luminosity of the streets



Tele-management and optimized lighting systems

inteliLIGHT® other advantages



- **Less light pollution**
- Eco-friendly with the environmentSupport for architectural and ornamental lighting control on the same network
- The grid may be continuously powered
- Compatibility and adaptability: inteliLIGHT should be regarded as a modernization of the electricity grid
- compatible with traditional electromagnetic ballast streetlights, LEDs or renewable energy sources, without affecting the infrastructure



Tele-management and optimized lighting systems

inteliLIGHT® environmental monitoring possibilities



- Temperature and humidity sensors
- Smoke and air pollution sensors
- Light sensors
- Traffic density sensors
- Explosion detection

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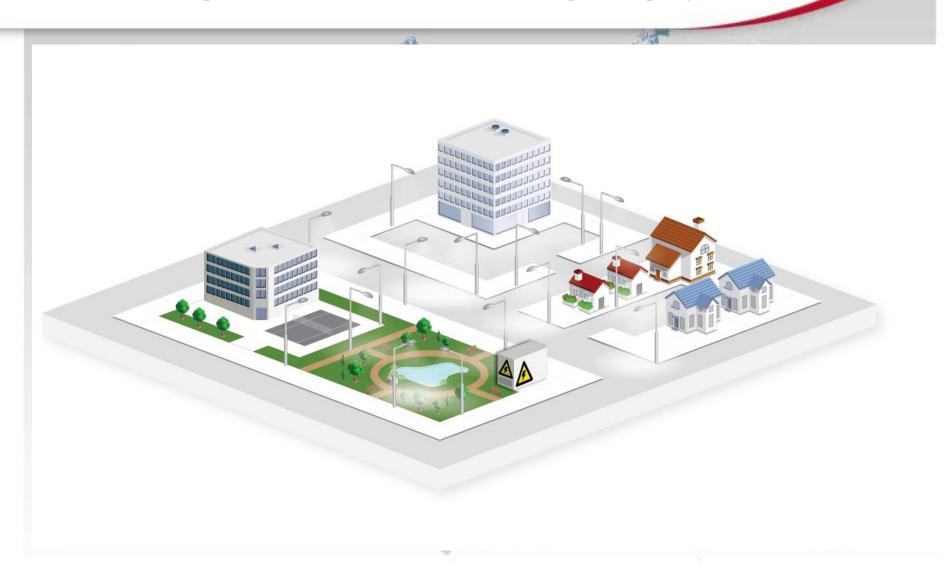
Tele-management and optimized lighting systems

inteliLIGHT® applications

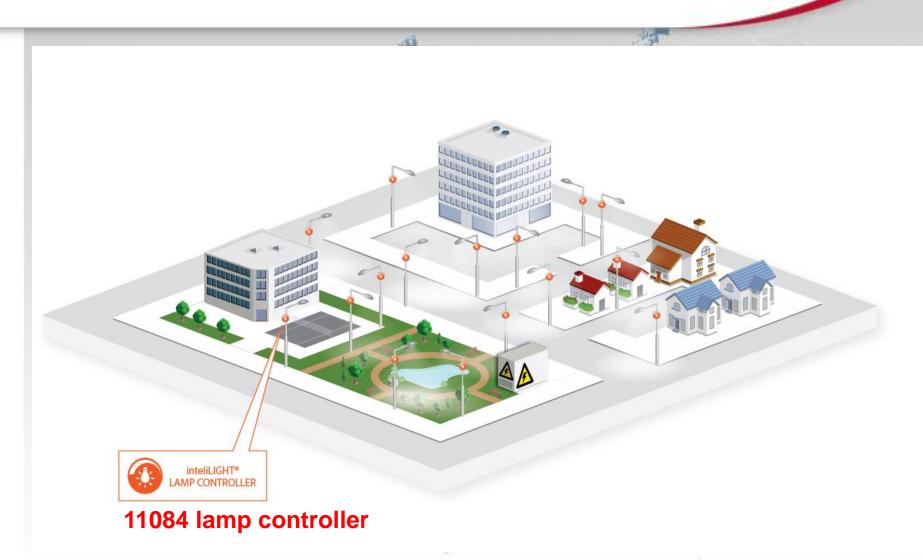
- CCTV surveillance systems
- Advertising panels
- Wireless communication devices
- Warning light panels
- EV vehicle charging from street lighting grid (Romania has assumed the installation of 6.000 points for electric vehicles charging)
- Near-zero energy concept



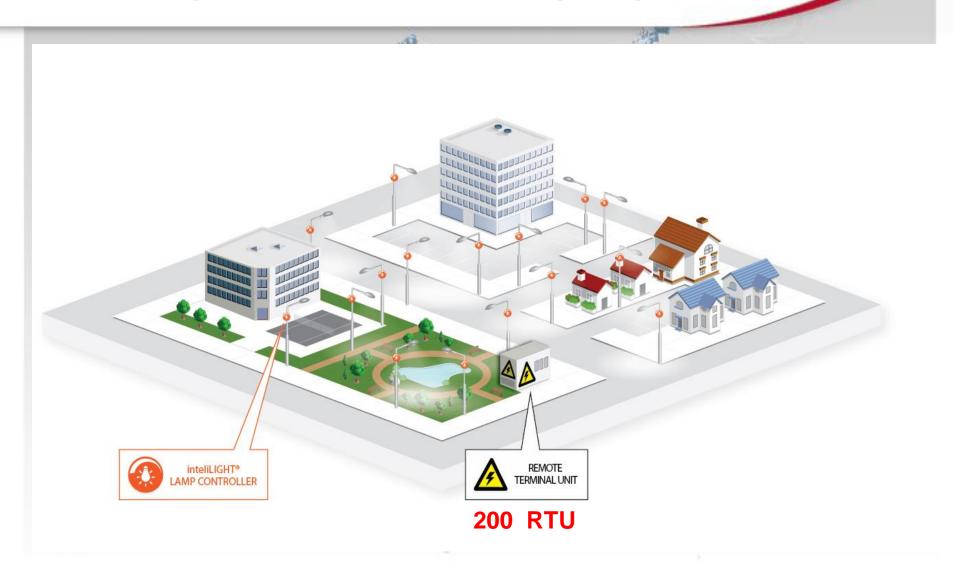
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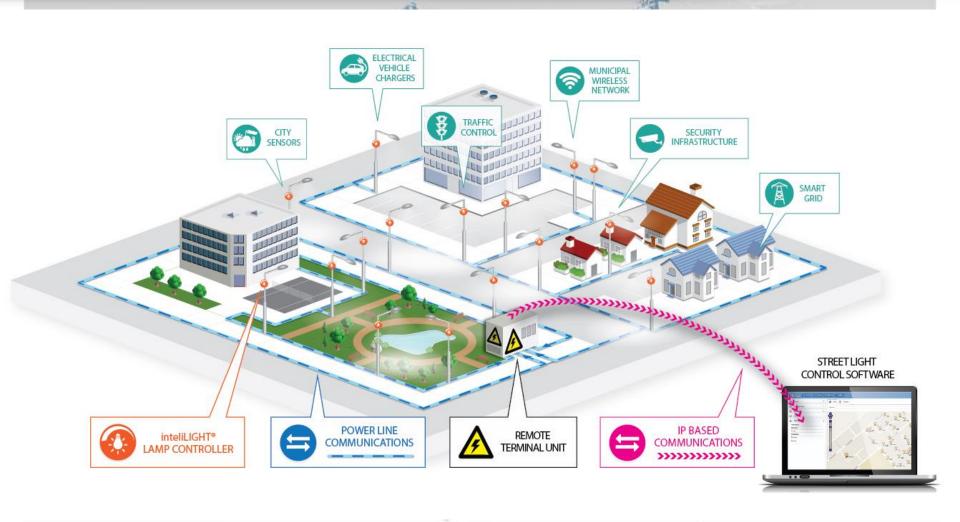
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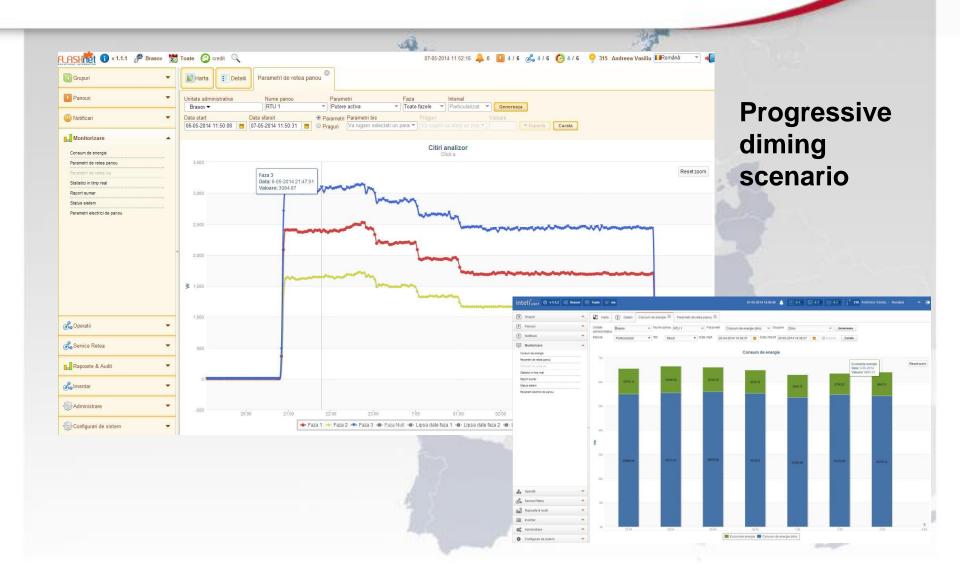
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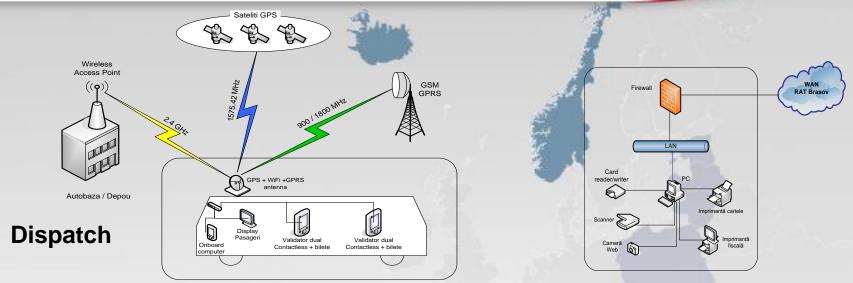


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Public transport management system (e-ticketing, optimized routes)



- 250 vehicles equipped with GPS, information panel, trip computer
- 119 bus stations equipped with automated sales tickets, personalization cards point, real-time information panel, surveillance cameras
- E-ticketing system, ERP system
- Traffic prioritization system for public vehicles
- Dispatch



Public transport management system (e-ticketing, optimized routes)



- Optimizing the use of a vehicle through a better correlation between the number of passengers and number of vehicles exiting route
- Providing a traffic prioritization for public vehicle by joining them at the traffic light system and ensure fluent traffic generally better when a vehicle is late and thus reduce fuel consumption generated waiting times (stationary route);



Public transport management system (e-ticketing, optimized routes)



- Reduce fossil fuel consumption and pollution associated (both carbon dioxide and other greenhouse gases - CO, NOx) in the entire city, due to the increasing number of public transport users and thus reducing the number of users of personal vehicle
- Reduce fuel consumption and pollution due the optimal use of the fleet (vehicles will run according to the number of passengers, the system providing exact information on the number of vehicles needed in traffic every moment (in real time), as well and predictions based on statistical parameters (derived from actual reports);



Thank you for your attention! Vă mulţumim pentru atenţie!

Gabriela Vlad Municipality of Brasov 02-05 June Cheile Gradistei Fundata