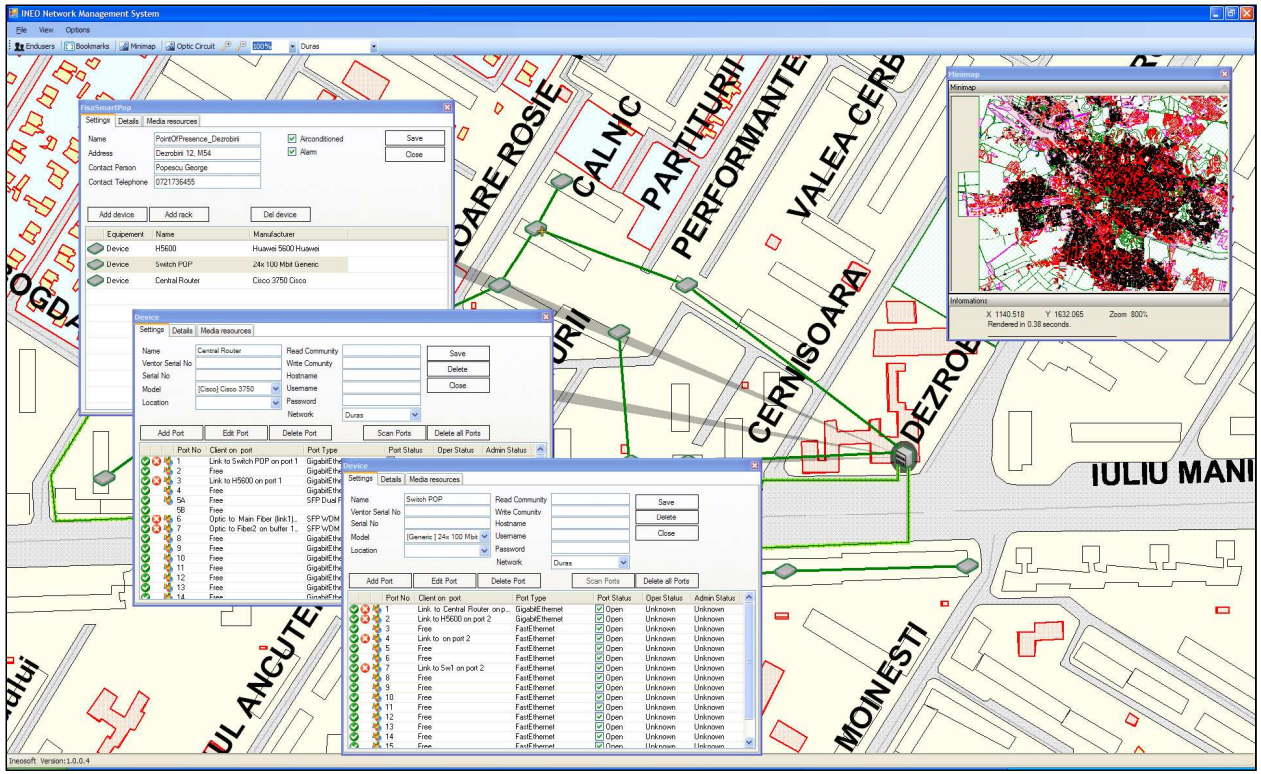
ANMS

Adaptable Network Management System

ANMS - Adaptable Network Management System



Alexandru Smeureanu **Cost 605 - 2010**

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- What software is used across the industry to describe and document networks?
- Why commercial GIS are not good at describing networks and what are the alternatives?
- What is an Adaptable Network Management System?

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System Architecture

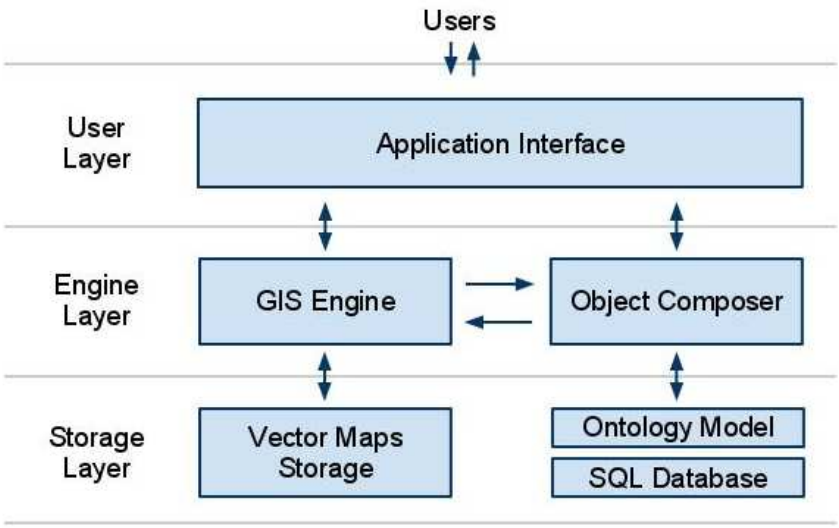

Figure 1. Logical System Architecture

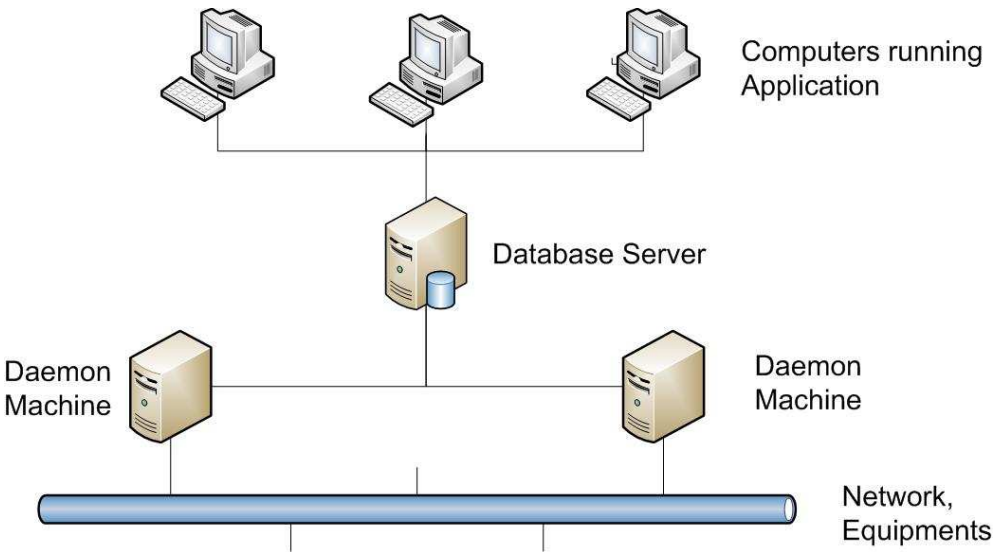

Figure 2. System Diagram

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Features:

- Easy to use GIS System
- Network Planning and Description
- Real-time network monitoring
- Managed equipment control

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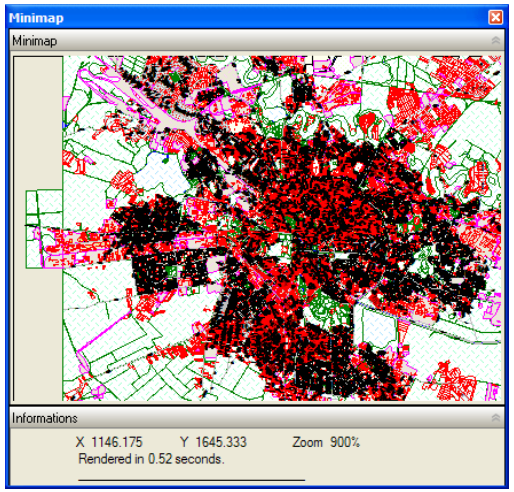
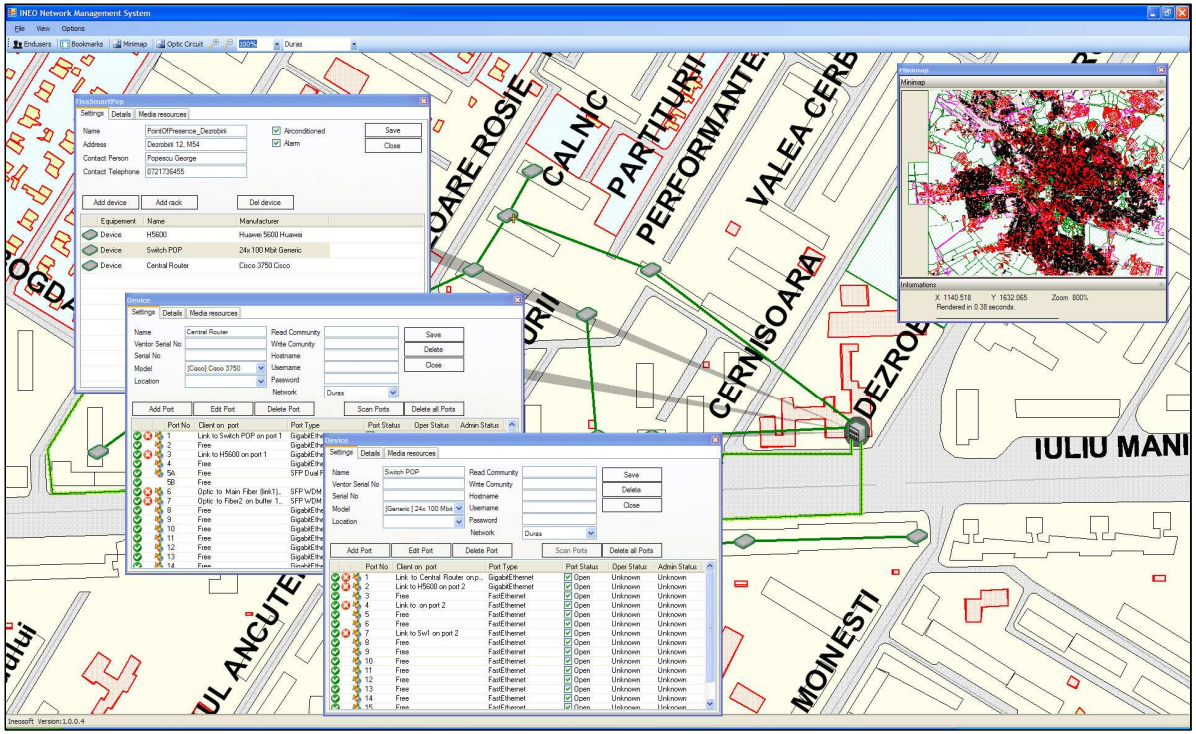
Easy to use GIS System

- Uses vector maps
- Employs Raster Caching tehniques to improve performance





- Easy navigation:

  Minimap
  Zoom
  Bookmarks

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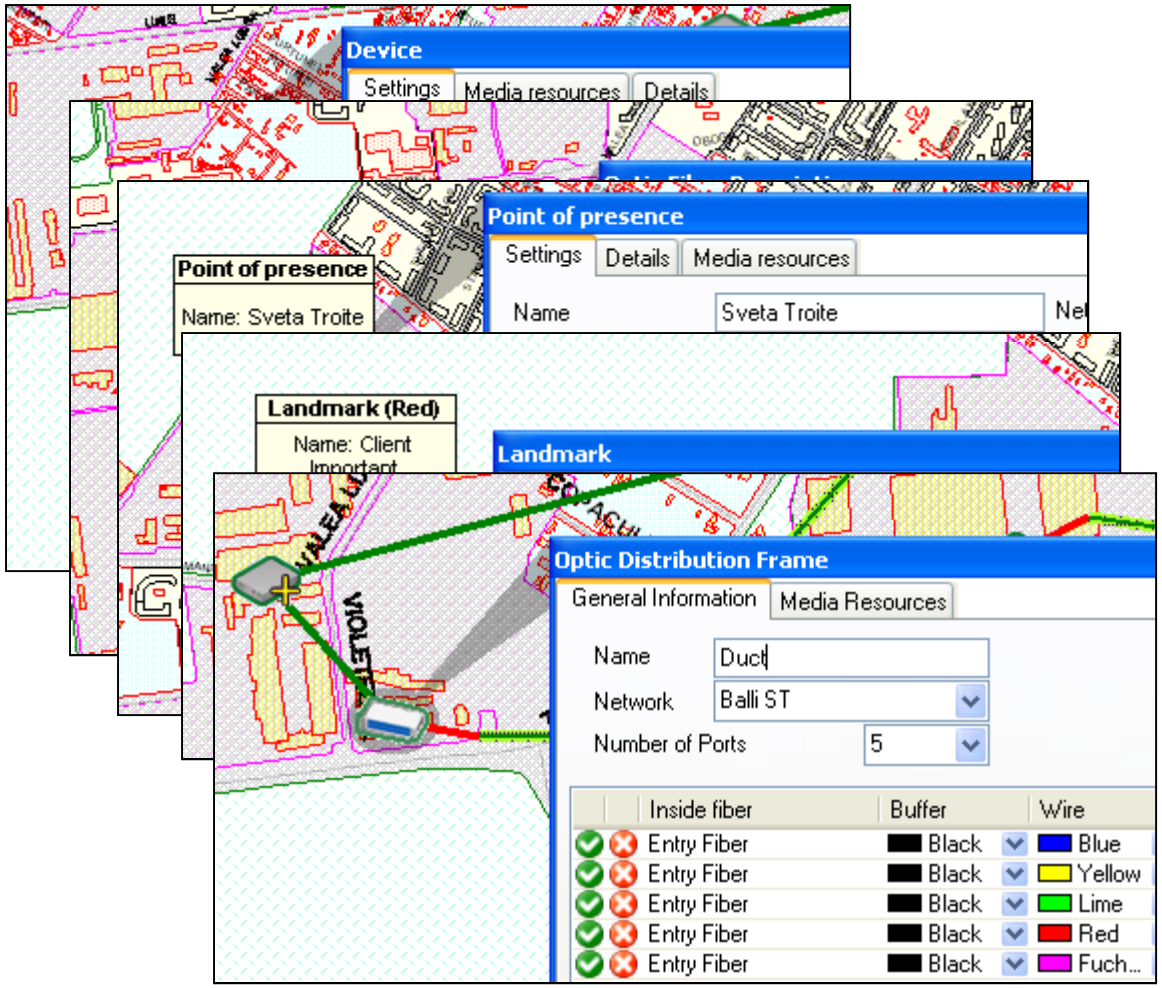
Network Planning and Description



- **Device description**
- **Network devices**
- **Fiber optic**
- **Point of presence**
- **Landmark**
- **Optical distribution frame**

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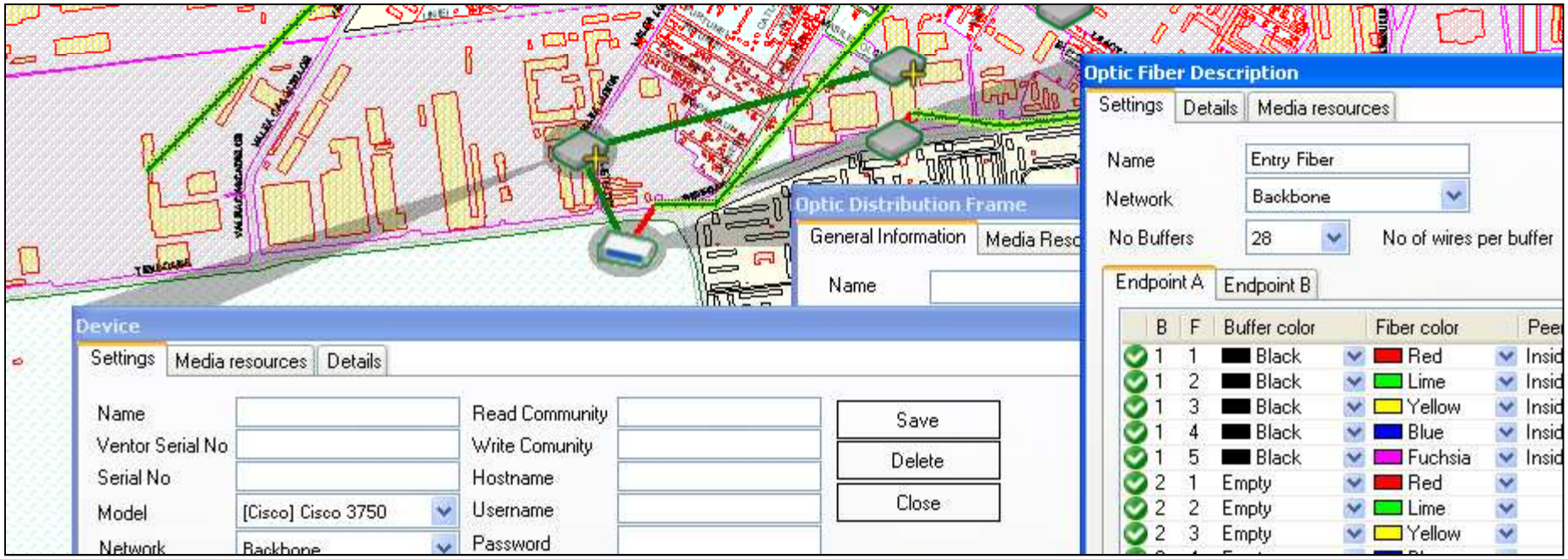
Network Planning and Description

- Connecting devices via Drag and Drop
  - Placing devices at actual real-life positions on the map



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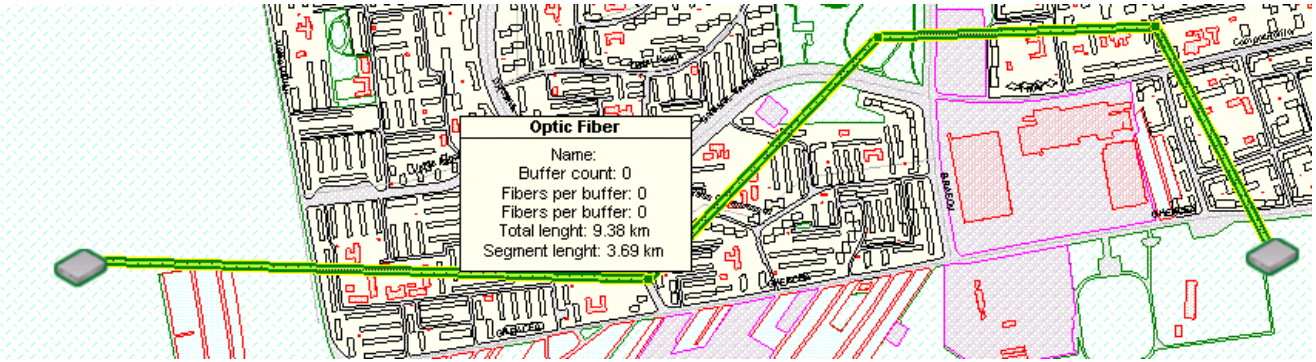
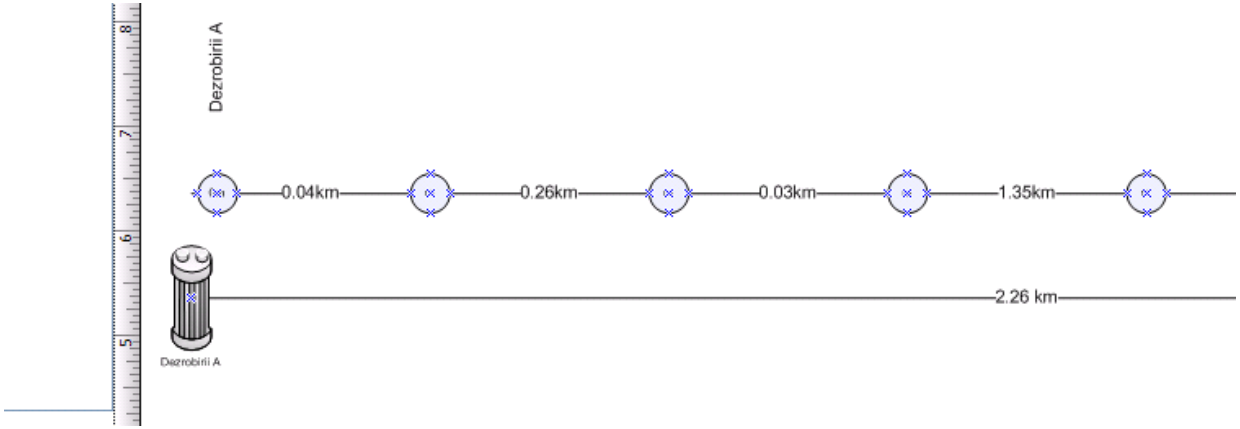
Network Planning and Description



- Distance calculation based on vector maps (**telemetrics**)
- **Fiber Optic Reports**



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Real-time network monitoring

- Equipment level monitoring by port level statistics
- Monitoring and alerting by SMS and email for any problem that appears
- Ensuring real-time communication

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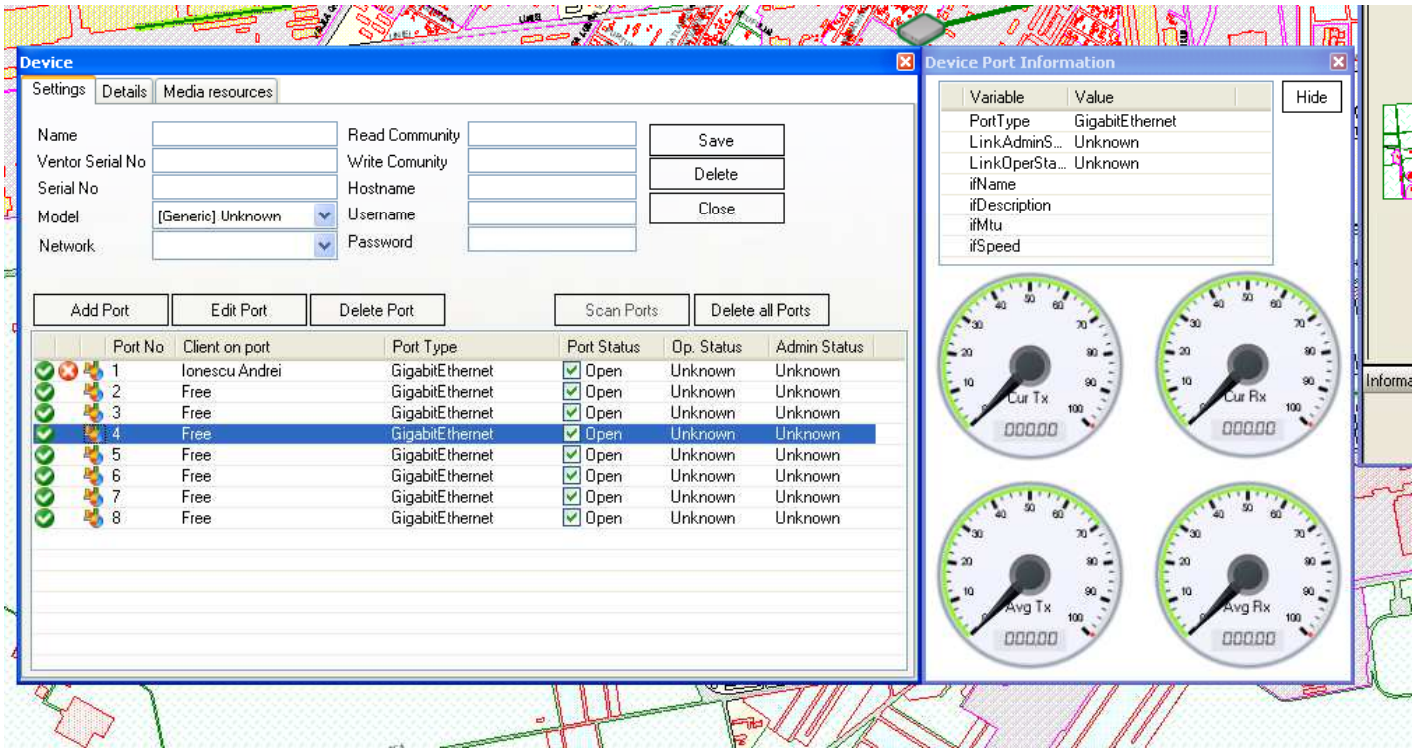
Real-time network monitoring

- **Equipment level monitoring by port level statistics**



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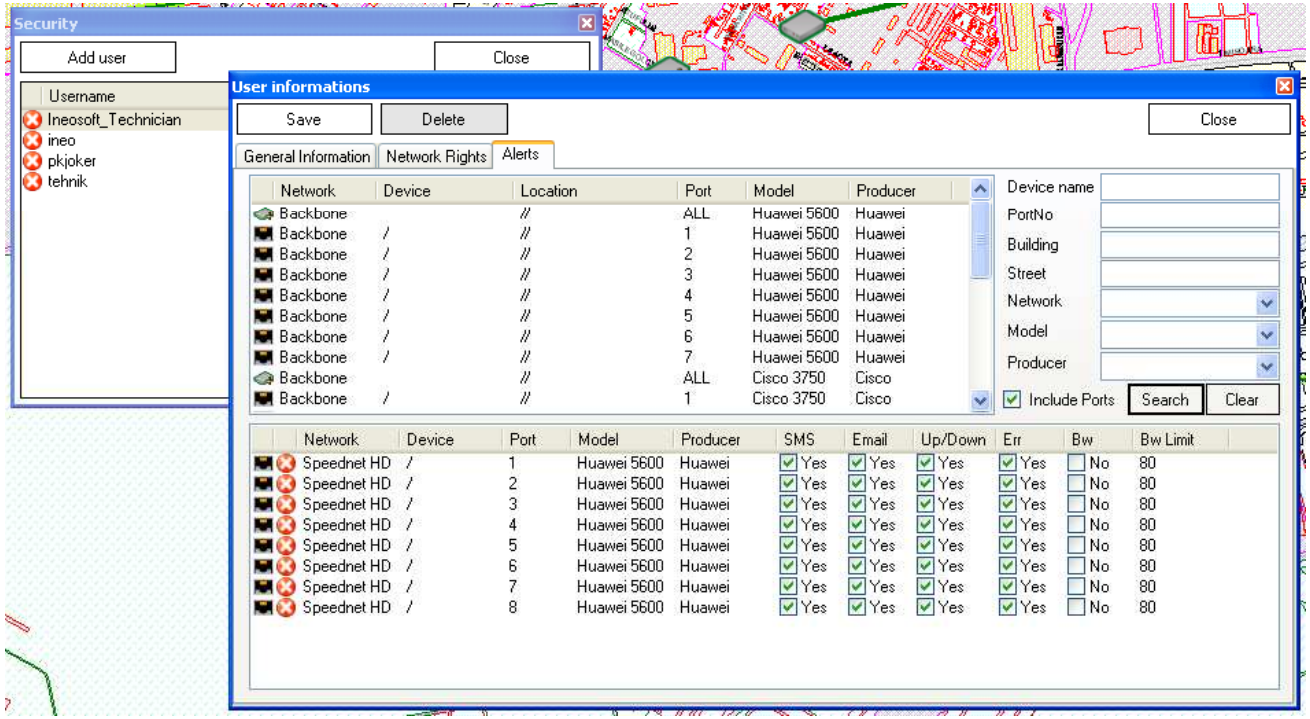
Real-time network monitoring

- **Monitoring and alerting by SMS and email for any problem that appears**



Encountered problems and future development

Problems

Real-time character of the application

GIS rendering performance

GIS performance of message processing

Future development

MPLS configuration support

VLAN configuration support

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Conclusions

- Problem detection and identification time is substantial decreased
- Service quality improvement
- Human resources scale-down and process improvement due to automatization
- Employee knowledge sharing and leveling

- Money saving and profit increase by improving service quality and procedure improvement