

## Reducing time in EMS by improving information exchange among information systems

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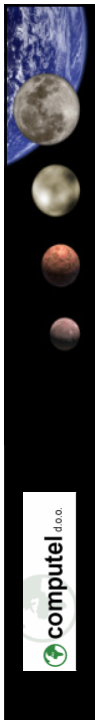


## Introduction

- EMS sector: HIS, CAD and RMS
- Current problems:
  - *Paper information cannot be shared simultaneously*
  - *Availability of a call taker*
  - *Inefficiency of paper on terrain*
  - *Poor and delayed information in ED for further hospital treatment*
  - *Lack of cooperation among mobile units from different rescue stations*
  - *Manual retyping when elaborating accounting and statistic analysis*
- Integrated modular solution



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## Problems & Solutions (1)

- **Paper information cannot be shared simultaneously**

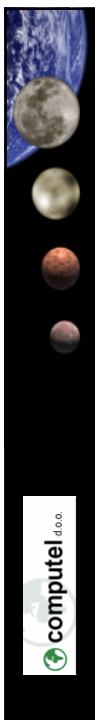
- Path: Call Taker → Dispatcher
- SOLUTION: Dispatching program → Online data → Time savings: 10 – 30 seconds



- **Availability of Call Taker**

- Urgent vs. Non-urgent calls
- SOLUTION: HIS → e-ordernig → CAD; better availability of Call Takers

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## Problems & Solutions (2)

- **Lack of efficient control over mobile units**

- Factors for deciding which mobile unit will be assigned the intervention, locating the mobile unit with oral data exchange
- SOLUTION: improvement of CAD with technologies as: GPS positioning, HSDPA network devices in mobile units → quick and complete data exchange between RMS and CAD



- **Inefficiency of paper on terrain**

- paper vulnerability, manual copying
- SOLUTION: enhanced hardware, RMS program solution

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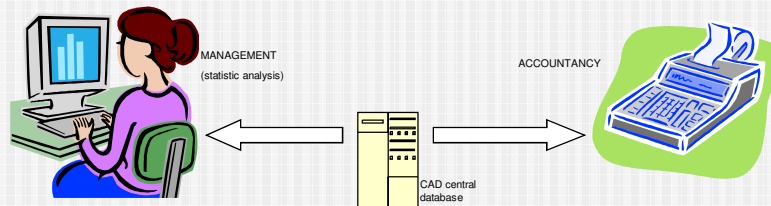
## Problems & Solutions (3)

- **Poor and delayed information in ED for further hospital treatment**
  - ED has poor information about patient's state
  - SOLUTION: data exchange between RMS and HIS → all collected parameter of patient's state
- **Lack of cooperation among mobile units from different rescue stations**
  - shortage of available mobile units, time inefficient waiting
  - SOLUTION: cooperation among different Rescue Stations by enhanced data exchange among their CADs

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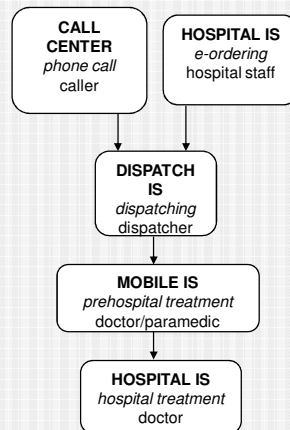
## Problems & Solutions (4)

- **Manual retyping when elaborating accounting and statistic analysis**
  - management and accountancy sector, income for salaries, infrastructural upkeep
  - SOLUTION: automatic information exchange between CAD and HIS (used by management and accounting sector) → provides data for statistic analysis and quality accounting (less mistakes than re-typing)



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# Integrated modular solution

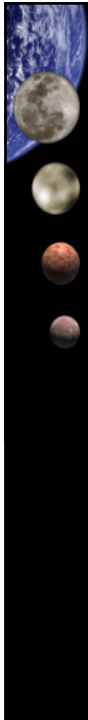


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# Conclusions

- Significant progress in response time (lower is better)
  - better response of mobile unit when handling a high-priority intervention
  - shorter waiting queue of patients for non-urgent transport
- Better utilization of vehicles → less cost → better economic results
- More productive accounting, management and quality assurance

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Thank you for your time.

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