Students Bazaar:  
Connecting Emergency Services in Slovenia  

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1. Problem Definition  
The goal of the project is to reduce the time from received emergency call in a dispatch center until the needed emergency intervention group being sent to the spot of the emergency, whether this is a police, medical, fire department related situation or any of the combinations of those three. In order not to have dispatchers continuously repeating the same key questions about the emergency situation and loosing valued time, there is a connection between the information systems of emergency organizations needed. There is also need for a better and more efficient overview of emergency field teams available or in action in order to ensure that the nearest and the most appropriate emergency team is send in action.  

Within 4-months period (January – May) a group of students of the Faculty of Organizational Sciences, University of Maribor developed an integration scheme for three key emergency organizations in Slovenia: Operational Communication Center, Administration for Civil Protection and Disaster Relief and University Hospital Rescue Center.  

2. Project Description  
In this project an idea of the integration of three key emergency organizations in Slovenia (Figure 1) is proposed. The solution provides the tracking of all the field teams inside the certain predetermined area. This is solution for transition time till the implementation of GPS system (Global Positioning System), which enables pinpoint location of field teams, which enables the operator to see which team is closest to the incident. In case the team leaves the field of coverage we can track it by radio connections.  

In this project we also propose to change the working hours of dispatchers from 12 to 8 hours per day, as it is too stressful now for them to work long shifts. This will enable better decisions in shorter time as the decisions still belong to dispatcher. One solution for lowering the quantity of work is to prevent multiple inputs of data collected by all the different organizations by them selves. No matter which organization collects the data, there should be a possibility for the data to be transferred through servers to all the emergency organizations if needed. GIS (Geographical Information System) will enable
all the organizations to avoid loosing time by asking the callers about their location, as the data about the location will be transferred to them at the time of call. The phone operators (regular and mobile) will send the position of the call directly to the GIS system which shows the position of the caller on the big map. The same map is being used also by GPS to show the positions of the field teams. GPS will enable the overview of the field teams at the time of the call, so the dispatcher can decide in a moment about which team he/she would send to the place of incident. This also enables easier coordination of the field teams in case of some major incident where lots of teams are needed.

With our solution we should also consider the European Union and World trends in emergency services development. By merging all the emergency organizations under one phone number 112, we follow the trend of the European Union in standardizing the emergency call numbers throughout the whole European Union (http://www.eena.org/). By standardization there would be a possibility for every citizen to call 112 numbers in case of emergency in any European Union member state and he/she would receive emergency help. It also enables less call transfers among the emergency organizations which save time to respond. All the systems, proposed to be implemented by the organizations are good, but the organizations are mostly working by them selves and they do not connect in development. For these three key emergency organizations: Operational Communication Center, Administration for Civil Protection and Disaster Relief and University Hospital Rescue Center, it is necessary to integrate them into one highly collaborative group.

Figure 1: An integration scheme for three key emergency organizations in Slovenia
3. Lessons Learned

In this project we:

- learned about how the emergency services cooperate,
- discovered there should be much more funds for development of integrated emergency system in Slovenia,
- we propose to get involved in European Union initiatives for emergency services development,
- saw the development of information systems in all the entities of research.

References

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