INTEGRATED ICT-SYSTEM OF FIRE-MANAGEMENT IN A FIRE-FIGHTING CALL CENTRE (UVI)

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Why we do this?
Our goals

- Standardisation of the processes in firefighting intervention management
- Unique system of acceptance, processing, distribution and storage of information related to firefighter intervention
- Greater efficiency in the system of reporting
- Standardization of ICT equipment in fire brigades
- Efficiency in the maintenance of software, devices and equipment in the firefighting organizations
Firefighting interventions represents a set of activities of firefighting organization, primarily fire brigades, who consists of a series of work/business processes.
Business process for the UVI system

- Preparation for intervention
- Management of intervention
- Analytical and reporting processes
Preparation for intervention

Capability for intervention: people, vehicles, equipment.

- data processed - of daily orders for firefighting units.
  - hierarchical structure
  - data are grouped for local, county and state level

- Contact databases for: towns, cities and municipalities, police, ambulance, mayors, veterinarians, utility companies etc.

- Plans for engaging fire brigades (activation plans, alarming plans etc.)
Management of intervention

- all activities relating to the fire intervention
- takes place in several stages depending on the development of intervention.
- include:
  - taking the emergency-calls
  - alarming and dispatching of fire brigades
  - Radio and tele dispatch
  - communication with other rescue services
  - intervention management (status reports, additional fire brigades and other services)
All events are systematically monitored and stored. A system is used to write reports for fire interventions.

Two modes:
- basic mode
- advanced mode

Uses:
- fire interventions statistic
- strategic planning
Software for UVI system

Logical:
- alarm call center (VOC) level
- fire brigade level
- Administration

Features:
- call receive, call dispatch
- fire unit dispatch and coordination
- fire brigades alarming „silent”
- fire brigades and citizens alarming (through siren)
- recording of all communication
- GIS+GPS systems (position, two way communication)
- analytical and reporting tools
- desktop based application (offline mode enabled)
- web based application
- current system integration
Software for UVI system - modules

- Process management: prepare for fire-rescue intervention
- Fire-rescue management
- VOC (alarm call center)
- Asset Management
- Analytical reporting system
Software for UVI system - integration

**Central database**
- Central database for all firefighting units in Croatia
- Organizations(units), people(firefighters)

**GIS system and GPS tracking**
- GIS system based on GIS Cloud technology
- Tracking of vehicle and firefighters, two way communication

**Alarming system for firefighters**
- Alarming for firefighters for interventions
- Voice call + SMS alarming

**Interactive database for hazardous materials**
- Public portal with basic information for citizens
- Portal for rescue service, lessons learned.
ICT infrastructure of UVI System

- standardization?
- „black box“ concept
- own communications and IT infrastructure
- call forwarding and routing
- cut costs - buying/maintenance
- platforms

UVI SYSTEM infrastructure

Emergency call center

Work place 1

Work place 2
UVI infrastructure has the following subsystems:

- Application Server UVI (application + database)
- Telephone switchboard (IP)
- A system for recording telephone calls, radio communications
- Data Storage (UVI + vodice recording)
- Subsystem for the digital radio console (console for VOC workplace, connecting communications systems)
- The radio communication systems (Analog, DMR, TETRA)
- The fire alarm systems
- Subsystem for siren alarming
- Communication equipment (routers, VPN, Ethernet)
- UPS power supply (battery + aggregate)
- The connection to the "outside": Internet + Telephony
UVI workplace in VOC has following elements:

- Client computer (with UPS power supply, min 2 LAN ports working redundancy)
- Three monitors on which to run UVI, GIS systems, sub-system for receiving and processing alarm, alerting etc.
- Integrated radio dispatch console interface
- The headset wireless headset + microphone for communication.
- Connection to the "outside": Internet + Telephony

- In major accidents -> mobile work place (tablet, laptop)
Conclusion

Complex interventions
- Forest fires
- Natural disasters

Complete approach
- Business process
- Software infrastructure

Modern tool
- Management
One more thing...
YOU DO KNOW THE R IN R.I.T. STANDS FOR RAPID, RIGHT?
Questions??

Freelancing puts a kink in everyone's operations.

What?!