E-112, EMERGENCY CALL SYSTEM IN REPUBLIC OF MACEDONIA

2012
Republic of Macedonia

Population - 2,022,547 (census 2002), Area 25,713 km²
Current existing emergency calls numbers in Republic of Macedonia

Police – 192
Firefighting Service – 193
Emergency Medical Assistance - 194
Crisis Management Center – 195

- IN THE FUTURE 195 – emergency telephone number in Crisis Management Center will be change in 112 and will be unique telephone number for all emergency calling in the Republic of Macedonia
LEGISLATION

**International Regulation:**

- The European emergency telephone number 112 was established by a decision of the European Council on 29 July 1991.


**Domestic Regulation:**

- Article 40 of the Law on Crisis Management - for the continuous and efficient execution of the works under the Article 37 the Law, the Centre is establishing a single communication-information system with a unique call number for calling in case of risks, hazards and other disasters throughout the country, 112.

- More articles of the Law on electronic communications define the obligations of the operators.
The process of establishing the E-112 emergency calls system in the Republic of Macedonia

1. Governmental Decision with which the Director of the CMC in accordance with the Minister of Transport and Communications is responsible to form a team for the conceptual definition of the E-112.

2. Decision for formation of a Team for conceptual definition of E-112 in Republic of Macedonia consisting of senior representatives from:
   - Crisis Management Center
   - Ministry of Transport and Communications
   - Ministry of Interior
   - Ministry of Health
   - Ministry of Environment and Physical Planning
   - Ministry of Finance
   - Protection and Rescue Directorate
   - Agency for Electronic Communications
   - Directorate for Security of Classified Information
The process of establishing the E-112 emergency calls system in the Republic of Macedonia

3. Governmental Decision with which the concept of the E-112 emergency calls system in Republic of Macedonia was adopted and obliged the CMC to develop a feasibility study on the system by hiring a consulting firm in accordance with the Law on Public Procurement.

4. A consulting company was selected for the preparation of a feasibility study on E-112 emergency calls system in Republic of Macedonia - Austrian consulting company Dr. Buhler Hermand.

5. An Information to the Government was created and sent for appointing members to a Supervisory Board with the role of supervision of the preparation of the feasibility study on the E-112 emergency calls system in Republic of Macedonia.
The process of establishing the E-112 emergency calls system in the Republic of Macedonia

6. Governmental Decision for appointing members of the Supervisory Board for supervising the feasibility study, with representatives from:
   - Crisis Management Center
   - Ministry of Internal Affairs
   - Ministry of Health
   - Ministry of Transport and Communications
   - Protection and Rescue Directorate
   - Agency for Electronic Communications

7. Adoption of the feasibility study by the Supervisory Board and adopted from the Government of Republic of Macedonia

8. Formation of a new Supervisory board for supervising the implementation of the sE-112 system in the Republic of Macedonia.
Future activities and needs of the Crisis Management Center for implementation of 112

1. Finding the financial means for the implementation of E-112
2. Signing of agreements with telecom and internet operators
3. Signing of agreement for interconnecting the E-112 Centers, with a tendering process aimed to resolve all technical problems with the centers
4. Announcing a tender for construction works
5. Announcing an international tender for selecting the implementator
6. Making an analysis of MTS and human resources
Description of the future model of 112 in Republic of Macedonia according with feasibility study

KEY SYBSYSTEMS OF 112

1. CIS – Communications information system
2. GIS – Geographic Information System
3. OMS – Operative Management System
112 Center – A collection of automated job positions for operational employees (call-takers) who receive 112 emergency calls
- Operational workplace - provides access to different types TC and IT links
**Internal information-communication network** - provides IT and TC connectivity to all employees in the subject - holder of the 112 System (CMC) including the employees from the operational 112 center.

- Includes server devices for specialized needs (GIS server, database server, DMS server, etc..), data storage, back-up solution, security solutions, provides Internet access, internal video-conference connection, mail and messaging communication, etc.

**Interconnection of all 112 centers** - each 112 center should be able to function independently, but all 112 centers should be connected with each other via WAN and when necessary data between them may be shared

- WAN (Wide Area Network) option that can be used include: leased telephone links to operators, the Internet, some of the existing optical or wireless links owned by the state or to invest in the construction of new infrastructure.
- In case of outage of a 112 center there should be the ability to divert calls to the main or any of the other 112 Centers

- There should be a copying (replication) of data from the backup location using the WAN resources

- If there is a break of the link through the WAN, the 112 Center will be able to operate using local databases, which later will be synchronized with those of other 112 Centers when the WAN will be back in function

**Public Warning System** - the 112 Centers receive information about the danger from accidents, major disasters or the possibility of their occurrence. If such an event is impossible to avoid and there is a danger to people and material goods the 112 Centers will conduct timely reporting and public warning to the population through the mass media and the sirens of the public warning systems
The GIS subsystem enables collection, storage and utilization of data about resources, roads, location and optimal routes for access to a location, in order to ensure optimal and rapid deployment of resources for rescue.

The components of the GIS segment are:

- Central database
- A module to access and edit data
- Applications for data review
- XML interfaces for integration with the CIS segment
3. Operative Management System (OMS)

The OMS subsystem consists of a database of standard operating procedures for the operation and management in everyday and crisis situations.

Based on the adopted standard operating procedures software applications are developed that can be used - for example by call takers for collecting the necessary data during 112 call for a particular event.
Republic of Macedonia has a population of 2022547 spread on a territory of 25713 km². There will be three regional E-112 centers for emergency calls will be used - in Skopje, Stip and Bitola, as shown in the picture below.

Regional centers for emergency calls will be interconnected into one integrated system, in which each individual regional center can overtake all the functions of any of the other regional emergency calls centers and will represent a unique functional and communication-information whole.

Simultaneously, each of the regional centers will be able to receive, regardless of the location from where the call is sent and will be able to fully act on received calls from the entire territory of Republic of Macedonia.
Placement of the E-112 System in the republic of Macedonia who recovery 84 municipalities and city Skopje
Possible solution according to feasibility study

Main characteristic: gathering of all disciplines in a single location at the regional level
THANK FOR YOUR ATTENTION

QUESTIONS ?

MORE INFORMATION:
dusko.petrovski@cek.gov.mk