CALL-TAKING AND DISPATCHING DESIGN

ERICA – ERC SYSTEM FINLAND

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ERICA IS AN ERC ICT SYSTEM FOR ALL PARTIES INVOLVED IN THE 112 CHAIN

The ERICA system is a nationwide networked information system that provides the 112 services throughout the country.

The ERICA system is in use of Emergency Response Centre Agency, police, fire and rescue, emergency medical services and emergency social services, as well as border guard.

There will be altogether 50 different sites using the system within the user rights of different authorities.

ERICA is built by Insta DefSec oy.
THE SYSTEM OPERATES WITH TWO MONITORS

The ERICA-systems call-taking and dispatching is built to work with two screens.

Screen 1:
- ERC-system implemented on one screen

Screen 2:
- GIS integrated on ERC-system

New feature (2021), screen 3, Situational awareness in roles:
- ERC CC: system monitoring, nationwide incoming contacts
- ERC supervisor: ERC employees, incoming contacts
- ERC dispatcher: ERC unitboard, logistics support
- Call-taker/dispatcher: no use for this feature
ERICA contains new things for call-taking and dispatching:

- Integrated queue tool
  - emergency TETRA calls from authorities,
  - emergency SMSs and
  - emergency calls,
  - sensor system for fire and burglaries,
  - eCalls.
- Automatic geopositioning
- Integrated risk analysis
- Integrated communication tool (phone, TETRA radio, emergency SMSs).
- Real-time response time of units / drive time calculation
- Dispatch calculation / response proposal
Integrated queue for contacts

Task list

Unit list

Integrated communications tool
Push mode location

Address

Whiteboard

Integrated risk analysis

Available units near by

Task for authority
INTEGRATED QUEUE FOR CONTACTS

TETRA emergency calls, emergency SMSs, sensor system calls (fire and burglar alarms), 112 phone calls, eCalls.

Can be prioritized. For example in Finland Tetra emergency calls from authorities is prioritized before the other contacts in queue.

Networked operational model:
• Calls routed first to the nearest ERC.
• Call will be shown for to be answered in rest ERCs for 8-20 second.
• The routing details are able to change if needed by ERC Agency´s command and control center.
• ERC agency maintain control using a management tool

"Call-taker can answer automatically or manually or you can pick the contact"
CONTACTS LOCATION

The incoming call is automatically located by
- 112app (push mode)
- AML (push mode)
- operators cell-based location (pull mode) or
- operators’ owner register (pull mode).

Coordinates will be geocoded as an address automatically when contact is answered. ERICA uses the best available location in the order listed above.

New location (push or pull) is possible to transfer to tasks location. ERICA indicates call taker when better location is available.
Approximately 55 different risk analysis.

Analysis can be find by keywords or notes from whiteboard.

Starting point there is folders and the most common or useful risk analysis on a view. Call-taker activate analysis or folder by pressing it. Folder contain a collection of risk analysis for example certain authority.

ERC agency maintain the view by using the management tool. Also keywords are built into analysis by using the management tool.
QUESTIONS IN RISK ANALYSIS

The type of question can be:
- choose one
- choose many
- number (with meaning)
- free text

Answering one question can open more questions to answer.

The order of the questions directs the work of call-taker. Call-taker decides in which order the questions are to be asked.
RISK ANALYSIS CHOICES

One or more answers in risk analysis get things happening. ERICA risk analysis has programmed to do things ready for call-taker.

Programming is implemented by ERC agency and authorities with a management tool.

Features which can be programmed:
- make event (common to all)
- make task, code and urgency per authority
- publish more questions to answer
- publish instructions to be given by call-taker
- make link to a document (guides, plans etc.)
- command phonebook to search different numbers involved
- make a proposal of units to dispatch (abilities for authorities)

In picture:
Task for rescue, code 412, urgency B
Planned for rescue commander and two engines.
The target is reached in 3-4 minutes, units at station

Task planned for police, code 412, urgency C, no units at time
When ERICA have events location it calculates authorities nearest units drive time on scene. Nearest units is shown to call-taker.

Call-taker and dispatcher have always a minute based information and availability of units. Units can be alerted to more urgent task automatically.

The calculation is active the time call-taker has the incident open. Also the incidents calculation starts again when opened.

Routing is drawn to map at time when resource is proposed or planned on task.
ROUTING AND DISPATCHING

With ERICA, the call-taker can dispatch the units with a single mouse click. Synthesized speech (TTS) takes care of the radio announcement.

Units get the alarm to their station, their systems, radios and phones. The unit give its status (received – on a way – on scene etc.) technically or by radio.

ERICA map show routes of units from their location to the scene. You can follow units location and status on live.

Routing is shown right away when call-taker get ERICAs proposal of a units or move unit to be planned by his own activity.
INTEGRATED COMMUNICATIONS TOOL

TETRA radio workstation
• incoming and outgoing radio communication

Phone tools included queue
• answering call, phoning, transferring, muting, group calls, whispering to call-taker, dtmf

Phonebook
• integrated to risk analysis
• contacts that have stored

Recordings from phone calls, radio communications

112sms handling
COMMUNICATION WITH RADIO

All the units are in the same database throughout Finland and have a unique code in the ICT system. Also the units unique radio ID are in ERICA.

Contact with radio can be taken by activating talk group from units icon by clicking unit one time. You find unit icon from units task.

Also communication tool has its history view where you can see which radio or unit is talking or has talked. Also you can find any talk group through group tool.

ERC Agency sets the view of preselected talk groups for dispatchers using a management tool.
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