



VIRVE alerts rescue personnel

Case Pirkanmaa

VIRVE Day 2011
2.3.2011



Pirkanmaa rescue services

- Tampere Regional Rescue Department
- 3 rescue areas
 - 22 municipalities
 - 484,436 inhabitants (2009)
- Permanent staff 485
- Paid by participation (6) 144
- Agreement fire brigade members (VPK 45) 700
- Fire stations 61 (thirteen 24/7)
- Other fire brigades 12
(Defence Forces / industry etc.)

VIRVE radios around 600

GSM alarm groups 76





How are operators alerted?



Re-alerting service

The service provider sends the received text message alarm to the assigned group via text and/or voice message using mobile phone operators.

Service provider responsible for

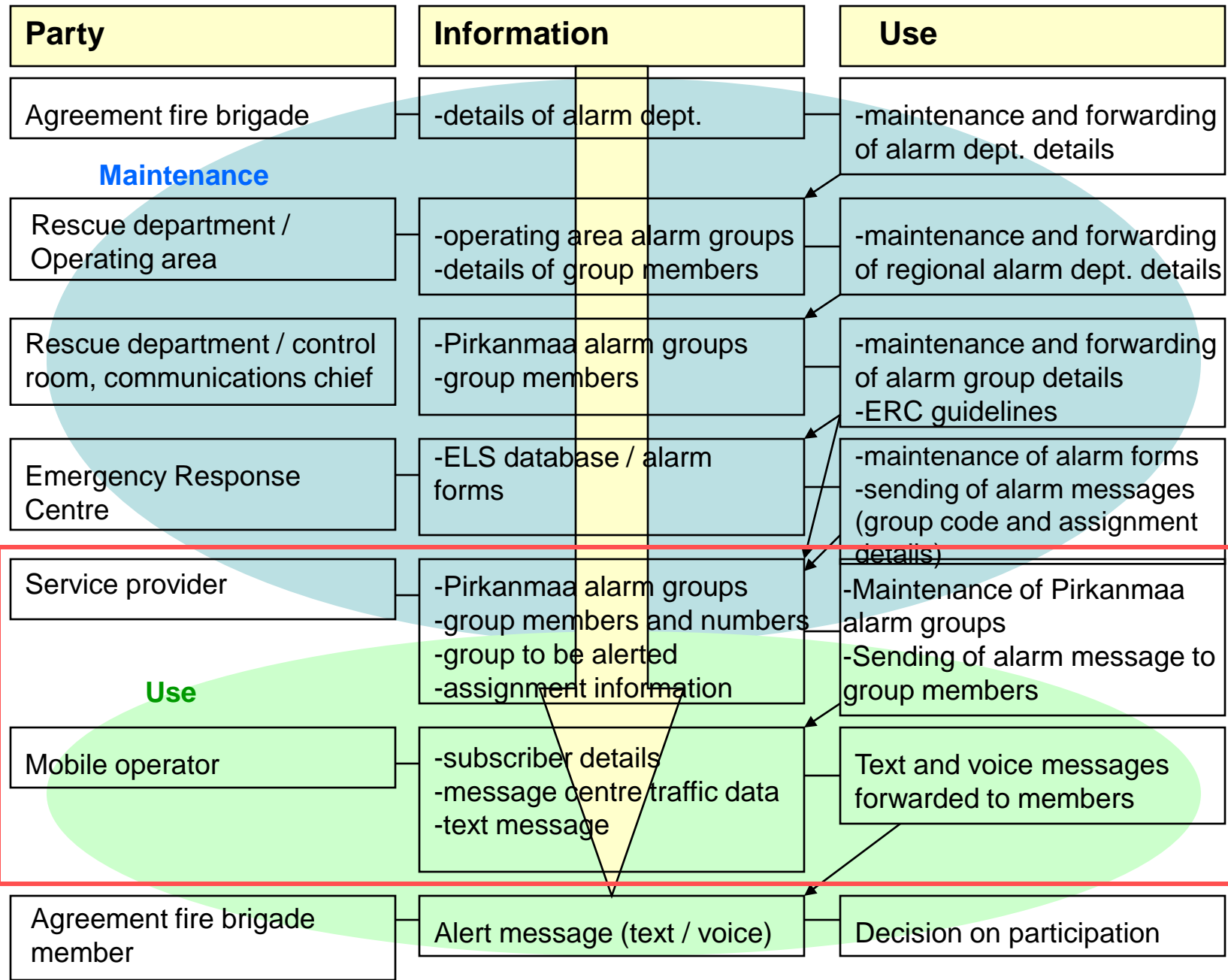
- receiving alarm messages
- maintaining alarm groups
- maintaining the information system
- operator connections

Breakdown of service costs

- monthly fee (according to number of alarm groups)
- message fee (according to messages sent)
- change fee (according to changes made)
- connection fee (by new alarm group)
- listing fee (by group)
- on-call fee (by hour)



Alert chain, GSM





Example of service costs

Monthly fees	16,800 €
Message fees	85,662 €
Change fee	2,028 €
TOTAL	104,490 €
Number of messages	200,358
	0,52 € per message



Deficiencies in the current system

Information

The same basic information being maintained in different systems by the various parties

- > difficult to ensure that data is up-to-date and accurate

Use

Lack of access to various systems by the Rescue Department

- > difficult to check and maintain information
- > sending of alarm messages can only be monitored by the service provider
- > difficult to solve problems
- > statistics only available from service provider's invoicing system

Costs

- > expensive SMS system
- > overlap of work results in additional costs (rescue department and ERC)
- > costs incurred by "unnecessary" messages



Alerting development needs

The starting point has to be process development, not just technology development. Benefits necessary also for management of rescue operations, not only alarm operations.

Information

A single, extensive data repository with the rescue department in charge of maintaining contact information.

Use

Rescue department requires a fixed connection to the information system, enabling maintenance, sending of group messages and monitoring of performance.

Costs

Cost benefits can be achieved through the elimination of overlapping functions and the optimisation of message volumes.

Additional benefits stand to be gained by increasing system functionality and improving the efficiency of fire brigade operations.

Demands for alarming presented in the Ministry of the Interior report "Development of rescue services' personnel alarm system.



Where does VIRVE come in?

Joint project of Finnish rescue departments and State Security Networks

- In the spring of 2010 the Association of Finnish Local and Regional Authorities and the rescue departments requested State Security Networks to investigate how the service level of the authority network VIRVE could be raised as concerns data communications among 112 operators and VIRVE network services
- The response led rescue services to decide on a solution forming the joint operative data network of rescue departments, also known as the PeIP network
- In the autumn of 2010 the association of Finnish rescue directors set up a joint coordination team tasked with coordinating cooperation between rescue departments and State Security Networks
- The tasks of the team include the coordination and setting up of subscription orders and the charting of possible network services, some of which are in the pilot phase





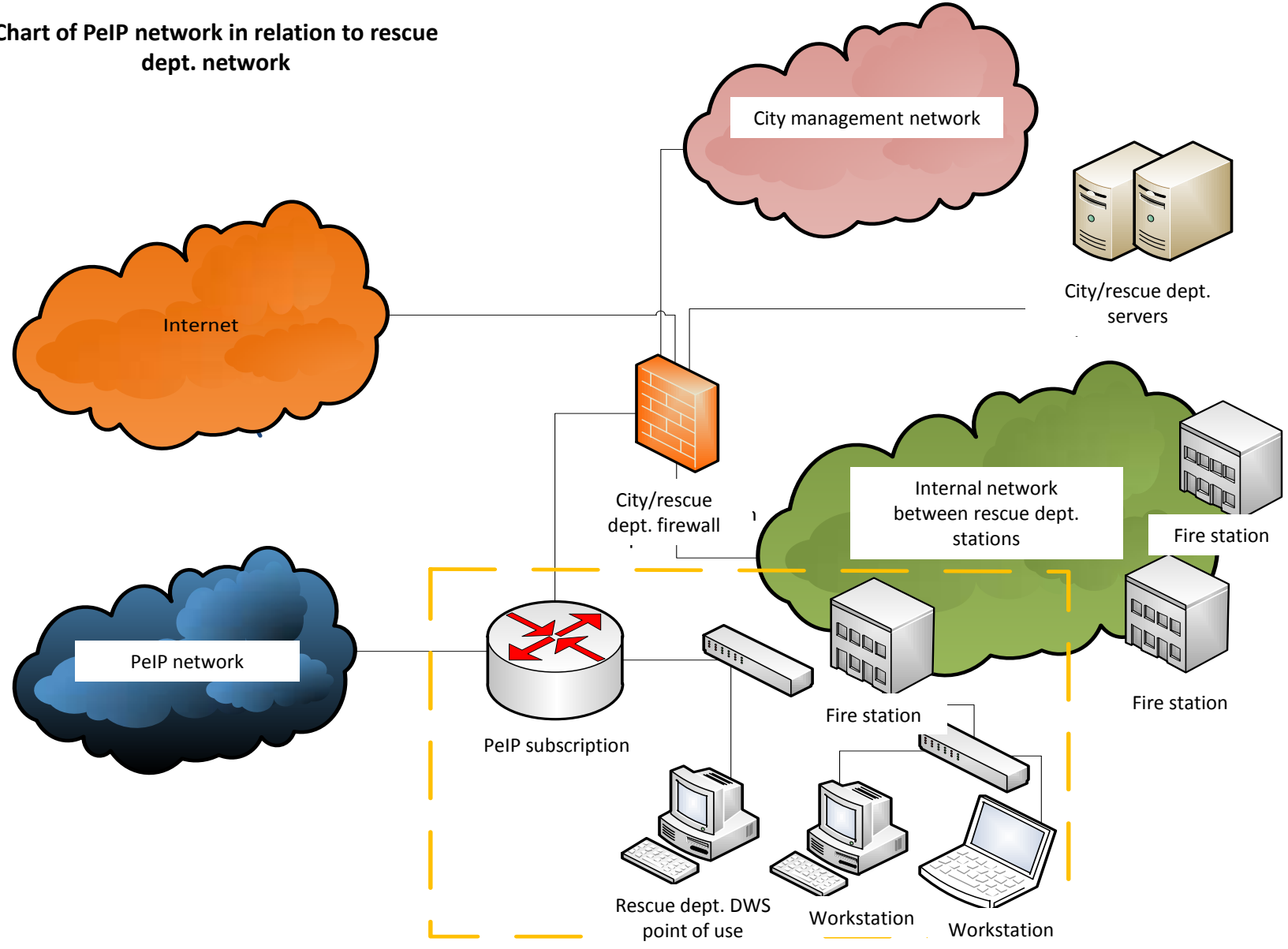
What is the PeIP network?

- Based on the MPLS trunk network of State Security Networks
- The PeIP network subscription is an IP-based data network subscription provided by State Security Networks
- Not a traditional Internet subscription, but an operative network subscription establishing authenticated and secure connections to various authority services and other rescue departments
- The PeIP subscriptions connect rescue departments, forming the PeIP network enabling the creation and production of new IP-based services for rescue departments
- The objective is that all rescue departments are connected to the network to achieve joint services
- The network will be completed during spring 2011 with all 22 regional rescue departments involved



Description of the network

Chart of PeIP network in relation to rescue dept. network





Functionalities enabled by the PeIP network

- **Availability services (cf. alerting)**, Tampere pilot
- **Merlot data connections**, Helsinki pilot

- Use of PEKE services (PEKE IP)
- Data transfer at the point of use, DWSip (estimated summer 2011)
- State Security Networks reporting services on the VIRVE network
- Recording of VIRVE voice communications
- Secured alarm connections to stations (backup alarm)
- Shared servers and services for rescue services
 - Joint software purchases
 - Shared e-mail / calendar / disk space
- Videoconferencing connections
- Secured telephone communications (IP voice connections or calls)
- Connections to authority services

The establishment of services first requires the network to be set up.

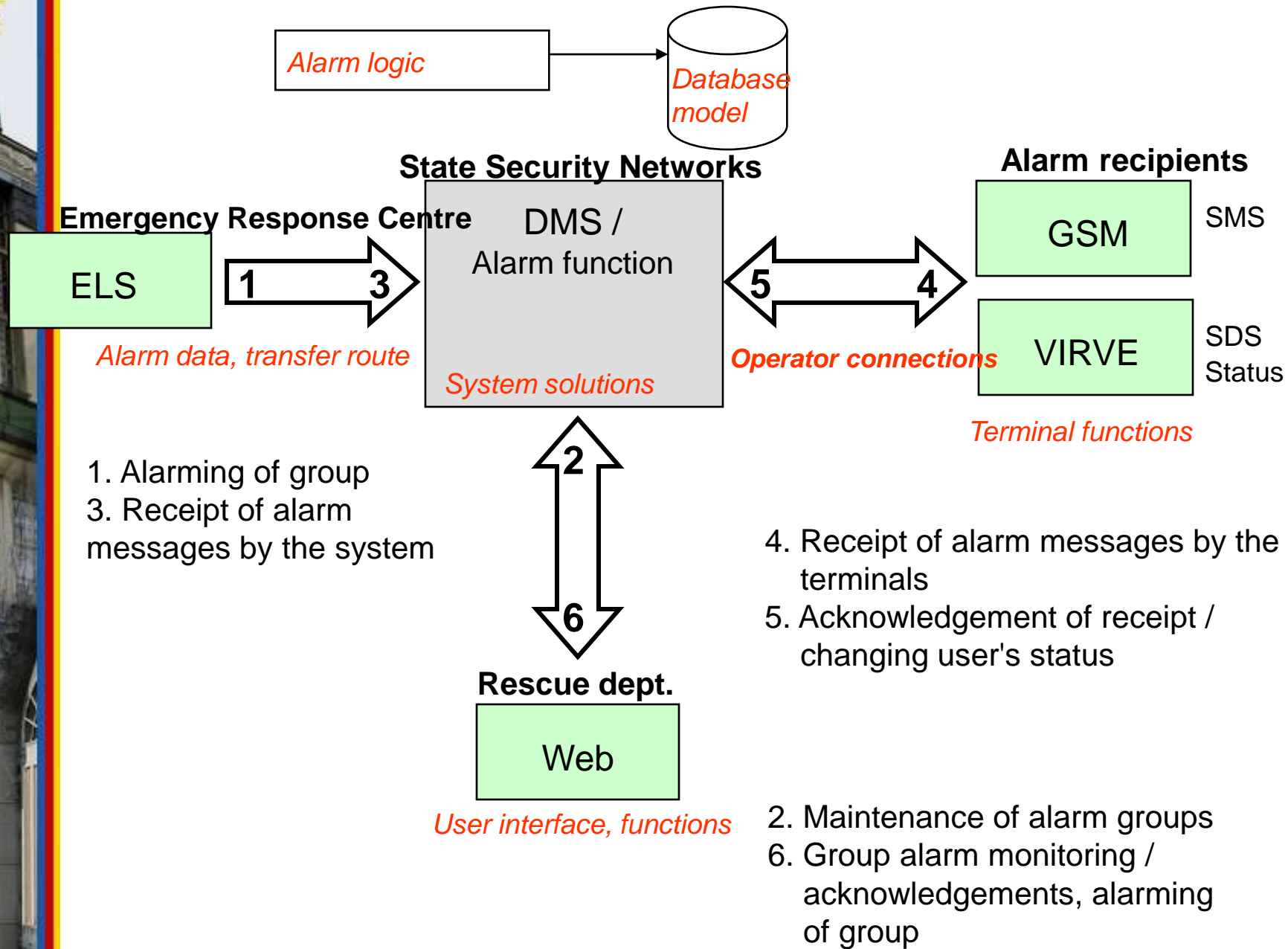


Development of availability services

- Availability services refers to a service on the PeIP network for maintaining message groups related to the alerting of rescue personnel and other organisations and the related contact details as well as for managing communication-related functionalities
- Alarm messages can be relayed to both GSM phones and VIRVE radios. Messages are sent as text messages (SMS and SDS)
- The recipients react to the alarm message by sending a positive or negative reply, i.e. communicate whether or not they will participate
- Senders of messages can monitor the recipient data of alarm messages and the number of those who have acknowledged receipt. This allows additional personnel to be alerted where necessary
- Recipients can enable message filtering, so that they will not receive messages during their holiday, for example
- Testing and piloting of the service were begun at the Tampere Regional Rescue Department in January 2011



Service chart





The future of alarming

*Relaying of alarm information
or resource management?*



Thank you!