EMERECC

Information management for emergency crews.
IT solutions from Rosenbauer

For more than 140 years, the Rosenbauer name has been synonymous with ground-breaking technology in the fire fighting industry. In part because of these decades of experience, Rosenbauer knows the needs and problems of fire departments and emergency response organizations. All of this knowledge and extensive IT know-how goes into the software and hardware solutions from Rosenbauer.

Time is of the essence in operations, because objective-oriented decisions have to be made in split seconds. The IT applications developed by Rosenbauer offer emergency response organizations relief in every phase of their daily routines, starting with effective vehicle management via operational navigation solutions and alarm applications, through to the provision of relevant information on scene.
EMEREC

Information management for emergency crews.

System and solution overview

The crew deploys. Now, it's all about managing the operation "perfectly." The key to a smooth flow lies in the type, quality, availability, and the interconnection of the right information: starting with the operational leader and the command center right through to all emergency response organizations partaking. Rosenbauer provides the corresponding tools with its specially developed IT systems.

In the past, valuable time was lost in operations because data such as geographical maps, fire protection plans, hazardous material datasheets, and much more were only available in different places and mostly on paper. EMEREC puts an end to all of that. EMEREC compiles digital data, unifies it, integrates independent partial applications, and makes this available in situation-related form where it is needed - at the press of a button, on-site, in real time.

With EMEREC, you are equipped for current and future operational challenges. From alarms to firefighting calls, from technical operations to traffic accidents to storms, floods, and other large-scale emergencies - EMEREC helps with its system solutions to maintain an overview and manage the individual scenarios.

With the EMEREC system concept, Rosenbauer delivers all information from different sources via single media.

The mission

Based on innovative information and communication solutions, Rosenbauer seeks to provide its customers with tools with which the necessary activities in a specific field of operation can be managed in an efficient and effective manner. By combining traditional vehicle and firefighting equipment with pioneering information technology, Rosenbauer offers a comprehensive range of solutions for managing the operational scenarios of tomorrow.
What is EMEREC?

The term EMEREC (EMErgency & RECord) stands for the compilation and provision of operationally relevant information on mobile as well as stationary end devices – whether tablet, cellphone, PC, notebook - always ready to hand and up to date, available online as well as offline.

In the integrated EMEREC system, the DataCenter is the central hub for communication, information, documentation, and coordination. Alongside the provision and backup of all operationally relevant data, it also ensures automatic synchronization of this in the respective end device - so that information standstills are prevented. The DataCenter application can therefore be operated in its own IT environment as well as a central hosting solution. The safety of the whole system and your data is paramount. The central solution runs in a ISO 27001-certified high-security data center of a well-known telecommunications provider. (management system for information security - ISMS).

In the same way, the communication between the DataCenter and the end devices takes place via a protected and encrypted connection.

All operationally relevant information ...
... in digital form
... provided via a central DataCenter
... automatically synchronized to all end devices
... available anywhere and everywhere, online as well as offline
EMEREC Office is used to manage the master data of the respective organizations. This is easily possible from any PC at any time. Access to the contents is secured via user name and password. This makes EMEREC Office a central element for the preparation of operations and, via the DataCenter, enables the input of a variety of specific information: water drafting points, object data and plans, route plans, contact information, geo-referenced data, etc. The data can also be managed externally, and thus is not tied to the operational leadership or other members of the fire department.

How EMEREC works

A combination of one or more mobile devices, a central database, and an administration application is what EMEREC is based on. During operational preparation, all operational data can be administered centrally and automatically synchronized on the corresponding devices. The operational leader receives all relevant operational information via the mobile EMEREC. Quick and intuitive operation of the system is enabled by the user-friendly preparation of content that is relevant to the situation. Information such as maps, plans, datasheets, or vehicle rescue cards are available at any time. And everywhere – online as well as offline.

Data from external sources?
Yes please.

External information sources that are relevant to the project can also be integrated via a data interface. Command center and alarm computer, video systems, water levels of water courses, fire detection system, etc. are therefore connected with EMEREC. The integration options of systems like these are virtually limitless.
Applications and modules
EMERECE modules

**Situation image and alarm data**

Alarm data can be automatically accepted, e.g., from a command center. The situational image shows developments on scene. Besides the constantly updated position of the emergency crews, tactical characters and icons are available to label the danger zones.

**Function**
- Alarm list
- Interactive overview of the situation
- Dynamic data in real time: resources and vehicle positions
- Interface to service4fire: representation of water, foam, and fuel levels of emergency vehicles in real time
- Standard mapping material: representation in different layers (vector/aerial image,...)
- Integration of existing GIS systems
- Easy maintenance of the static data (object data, hydrants)

**Benefits for the operational leadership**
- Automatic marking and positioning of the scene on the situation map
- Alarm data always accessible
- Operational scene and coordinates as basis for navigation to the scene
- Situation overview: WHO, WHERE & WHAT
- Support in operations management and communication (electronic situation management)
- Easy maintenance of static data via EMERECE Office

**Workflow and checklists**

In the rush of an operation, things get overlooked quickly. Checklists are the ideal tool to maintain a good overview.

**Function**
- Provision of prepared operational instructions, guidelines, and checklists
- Status information for carried out work steps
- Fulfills the requirements for documentation according to DV 100

**Benefits for the operational leadership**
- Leadership support
- Illustration of existing work instructions
- "No details overlooked"
- Provision and documentation of processes
- Object- and operationally-specific workflows
**Fire protection plans and object data**

From simple object datasheet through to extensive fire protection plan: for each object, EMERECC administers the information that is needed.

**Function**
- Notes and initial information about an emergency
- Images and graphics
- Direct call-up of electronic fire protection plans (attack routes, extinguishing facilities,...)
- Dynamic situation management and placement of annotations, symbols, commentary fields in digital object plans
- Joint view of the situation through automatic synchronization of different EMERECC Pilots

**Benefits for the operational leadership**
- The most important object information at a glance
- Image information for better situation assessment e.g., object approach
- Access to sprinkler or central fire alarm system
- Documentation of the situation directly in the plans
- Visual support of radio communication

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**Bookmark list**

The Bookmark list is the central store of all content that is critical for the corresponding operation and therefore for all emergency crews involved.

**Function**
- Central store of documents or views
- All emergency crews have the same information

**Benefits for the operational leadership**
- All documents relevant to the operation at a glance
- Quick access to researched operational content (plans, map views, datasheets,...)
- Support of emergency crews on-site through centrally researched information, e.g., at the command center
Photo module

A picture is worth more than a thousand words – using the integrated camera of a tablet computer, the current situation at the scene can be quickly determined and shared with other emergency crews, if required.

Function

▪ Recording images via the tablet’s webcam
▪ Positioning of the images on the digital situation map
▪ Sharing the images via the digital work folder
▪ Automatic archiving of the images via EMEREC DataCenter

Benefits for the operational leadership

▪ Objective image information instead of error-prone verbal, brief descriptions
▪ Visualization of the current situation
▪ Documentation of the operational situation

Video

Video cameras are the *eye* for more safety. Instead of error-prone verbal, brief descriptions, objective representations create a better picture of the situation.

▪ Live videos already during the approach
▪ Video server (optional) for a view of the past
▪ Privacy guidelines are met
Vehicle rescue information

The “Crash Rescue” database from Moditech contains over 15,000 vehicle datasheets with all operationally relevant safety and drive components. This is the basis for efficient and safe rescue of people from accident vehicles.

Function
- Interactive representation of the vehicle with all operationally relevant safety and drive components
- Querying of rescue information for accident vehicles with images and detailed instructions
- Trucks/cars/buses
- The original - MODITECH CRS

Benefits for the operational leadership
- Rescue information for vehicles
- Quicker and more efficient use of hydraulic rescue equipment
- More safety for emergency crew/accident victims
- Monthly updates of the datasheets - always automatically up-to-date

Navigation

Navigation with voice announcements tailored to the requirements of emergency crews. If a control center is integrated, EMEREC automatically gets the coordinates and address information.
- Integrated use in EMEREC Pilot
- Rapid trip to the scene
- No manual, time-consuming input of the address

Hazardous material data

As a professional solution in terms of a hazardous material information database, the Chemdata system is available in an integrated form. Hazard information, handling of materials, and codes of conduct in the event of a release are relevant contents of the system.

Function
- Substance characteristics
- Handling
- Codes of conduct
- Fire hazard
- Health hazard
- Reactivity danger

Benefits for the operational leadership
- Information about initial code of conduct
- Details about handling a hazardous substance
- Passing on the information to other emergency crews (bookmark list)
The most important operational information at any time and anywhere.

EMEREC Mobile

The most important operational information shown in "smart" pocket format.

EMEREC Mobile is a smartphone-based solution that supports the crew in everyday operational procedures. Especially in combination with other EMEREC system products, such as the EMEREC Pilot or the EMEREC Alarm Monitor, this application can play to its strengths. In particular during major incidents, foreign emergency crews as well as other rescue organisations can be easily integrated into the situational overview using QR-code based dynamic licenses. EMEREC Mobile is also a useful tool for large organizations - whether for rapid information gathering, coordination, navigation or position transmission.

Advantages:
- Automatic transmission and representation of the alarm data
- Feedback function – quick information about deploying crew
- Radio alarm status (FMS status)
- Representation of hydrants, objects, and symbols on different map layers
- Central administration of all system contents via EMEREC Office

Functions:
- Important operational information and alarm data always accessible
- Simple operation via smartphone
- Positional information of the individual emergency crews – better overview of large-scale damage situations
- Automatic copying of address to navigation system without additional interaction – quick and easy
- AdHoc integration of external crews – all units involved in an operation have the same information
- Scalable and future-proof - as an individual application or in combination with EMEREC Pilot and EMEREC Alarm Monitor
any time and anywhere.

EMEREC Alarm Monitor (EAM)

Vehicle hall – team dressing room – situation center - operational command
A quick overview of alarms

The EMEREC Alarm Monitor gives a quick overview of current alarms as soon as you arrive at the firehouse. Visualization of the operational information takes place via a conventional monitor and a Windows PC (IE 11 or later). So the purchase of expensive hardware is not necessary. The application can also be called up via the browser function of a Smart TV – many manufacturers already support this function.

Advantages and function

- Automatic transmission and representation of the alarm data
- All relevant information at a glance:
  - Operation keyword / Operational scene
  - Display of the recommended approach route
  - Drive time and distance to scene
  - Overview and detailed map view
  - Deployment order according to operational keywords – Vehicle image and name

EMEREC alarm & feedback

- Alarm and visualization of available crews – know who’s coming to the scene
- Alarm push to smartphone (also without application running – preserves battery)
- Alarm – feedback function (accept / arrive later / reject)
- Overview for deploying crews on EMEREC Alarm Monitor
EMERECE hardware

Robust. Tested in operation. Reliable.

EMERECE is a Windows-based application, which means that common hardware can be used to run the application – from stationary computer systems and notebooks through to mobile tablet solutions. Based on this, Rosenbauer offers a variety of very robust and operationally proven devices.

Mobile devices from Rosenbauer are designed for use in tough environments and are therefore the perfect tools for any operation. Whether as Fully Rugged Tablet PC or as Convertible Notebook – Rosenbauer offers the corresponding hardware for any situation and requirement that you can rely on in an emergency.

In cooperation with well-known manufacturers, reliable and market-tested components are used, which are then customized in terms of mobility or assembly in operational vehicles (carrying solutions, vehicle mounts, etc.) A stable product lifecycle provides longtime availability of spareparts and accessories.
Integrated solutions for your operation

Through open interfaces, the EMEREC system concept offers a range of options to integrate the most diverse products and solutions. This makes EMEREC a versatile tool for IT-supported operations management.

Operation scheduling and alarms

The EMEREC has a scheduling and an operations module for simple alarm tasks. This function enables the creation and transmission of alarm data in all EMEREC system components. Additionally, external systems can be integrated via interfaces. Via the simplified user interface, the dispatcher in the operations command center can support the on-site crew with relevant information.

service4fire - Vehicle management for emergency crews

The management of emergency vehicles has been optimized through the integration of innovative information technologies. During operation, all electronic processes in the emergency vehicle and in the built-in components can be recorded via the internal vehicle communication system (CAN-bus) or analog/digital interfaces. A transmission unit (telematics module) built into the vehicle saves the information and transmits it to a central server via mobile phone. As a result, information about the vehicle position, operation, and condition can be called up and evaluated online via the service4fire service portal. service4fire supports management of the entire fleet through notifications and reports. So you always have an overview of operational readiness of your vehicles everywhere and at any time.

In combination with service4fire, vehicle positions or tank fill levels (water, foam, fuel) for example, can be displayed by EMEREC (Pilot/Mobile/Alarm Monitor) right on the interactive situation map. This gives the operational leader an overview of all resources.

EMEREC video solutions – Overview of dangerous situations and disaster scenarios

You need to have a corresponding overview of a situation in order to be able to make the right decision during an operation. Access to videos from different sources can be a foundation for this. Rosenbauer offers video solutions for these situations, which can be fully integrated into the EMEREC system concept. From camera systems and video recording/transmission through to presentation in the EMEREC Pilot application, standard and custom solutions are offered. Additionally, interfaces to existing applications and systems are possible. So, for example, integrating a drone, thermal imaging, or a vehicle camera via corresponding transmission systems.