

## SAP Customer Success Story Defense and Security – National Security and Emergency Response Service



**“We now have a state-of-the-art system, based on the SAP NetWeaver platform, for managing medical emergencies. It will help us save lives and improve patient care and will ultimately deliver long-term cost benefits.”**

Rudolf Junker, Project Leader IES, Koordinator Sanitaetsdienst

### AT A GLANCE

#### Summary

Koordinierter Sanitaetsdienst (KSD), based in Ittigen, Switzerland, was set up to coordinate nationwide response to life-threatening events, such as epidemics, natural disasters, major accidents, and terrorist attacks. Using the SAP NetWeaver® platform, it built a centralized system to coordinate medical response to large-scale crisis situations.

#### Web Site

[www.ksd-ssc.ch](http://www.ksd-ssc.ch)

#### Key Challenges

- Increase the number of lives saved by providing the appropriate treatment in the critical first hour
- Optimize use of medical facilities and skills throughout Switzerland
- Cut administration costs involved in coordinating emergency medical assistance during a major incident

#### Project Objectives

- Build an easy-to-use, Web-enabled data repository containing information and process for handling emergency situations
- Provide a platform to support the rescue operations in making the best decisions in a high-stress environment
- Create a scalable, low-cost solution

#### Solution and Services

SAP NetWeaver

#### Why SAP® Solution

- The preferred software for the armed forces and 80% of hospitals in Switzerland
- Scalable, flexible, robust, and easy to develop and use
- Supported from development life cycle and beyond through an SAP partner
- Affordable

#### Implementation Highlights

- Completed project on time and within budget
- Successfully transferred knowledge, enabling KSD to manage day-to-day operation of the system
- Used a train-the-trainer approach

#### Key Benefits

- Provides a comprehensive overview of medical resources
- Enables emergency staff to match each casualty's needs to the most appropriate hospital in seconds, ensuring that more patients are treated in the critical first hour
- Provides standardized, best-practice procedures for handling a wide range of potentially hazardous situations quickly and safely
- Enables control center managers to assess response times and analyze performance of medical teams, which support continuous improvement
- Provides a robust model for coordinating disaster management that can be enhanced and used by other organizations for rescue coordination
- Enables personnel to apprise hospitals of current situation via electronic reports

#### Implementation Partner

itelligence AG Schweiz

## KOORDINIERTER SANITAETSDIENST

### Building a Vision for Integrated Emergency Medical Care Provision with SAP NetWeaver®

“We now have a state-of-the-art system, based on the SAP NetWeaver platform, for managing medical emergencies. It will help us save lives and improve patient care and will ultimately deliver long-term cost benefits,” says Rudolf Junker, project lead at Koordinator Sanitaetsdienst (KSD), based in Ittigen, Switzerland. The organization, which represents all KSD partner organizations, like emergency control centers, hospitals, police, fire brigade, executive staff, and the armed forces in Switzerland's 26 cantons (administrative regions), was originally set up to coordinate nationwide response to life-threatening events, such as epidemics, natural disasters, major accidents, and terrorist attacks.

Junker says that KSD uses the new Web-based system – known as *Information und Einsatz im Sanitaetsdienst* or IES – to ensure rapid medical assistance to disaster victims. IES provides a comprehensive, real-time picture of the number of emergency beds, medical facilities, and specialist skills available at all the country's 220 major hospitals. Developed by SAP partner itelligence AG Schweiz and couniq consulting GmbH, the aim of IES is to make sure that casualties receive the most appropriate medical care in the critical first hour following the incident. After 60 minutes, a patient's chance of survival drops steeply, and the risk of long-term disability or other conditions requiring prolonged and expensive care increases substantially.

## **The Core System for Saving Lives**

Following successful laboratory trials at the World Economic Forum 2004 in Davos and at the AIR Show 2004 in Payerne, IES underwent its first live test at the World Economic Forum 2005. It will eventually be used by thousands of emergency service workers throughout Switzerland.

KSD aims to extend the use of IES and make it the core system for coordinating day-to-day medical emergencies, such as traffic or other accidents that require assistance from medical teams in more than one canton. As well as delivering the potential to save many more lives through prompt treatment, IES will help lower the cost of coordinating emergency disaster management by reducing administrative tasks.

## **Streamlined Communication and Collaboration**

Before the implementation of IES, each canton coordinated its own disaster response plans via its medical control center, but there was a need to improve communications between KSD

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partner organizations across cantons. In the event of a large-scale disaster or an emergency situation occurring in an area bordered by several cantons, control center employees sometimes used valuable time telephoning hospitals to check on the availability of emergency beds. After conducting a crisis-planning exercise to test the country’s response to a major epidemic, KSD realized that a centrally managed,

easy-to-use system, accessible by all control centers, was essential to maximizing survival rates. It felt that emergency procedures needed to be standardized and streamlined, with automated workflow to guide control center staff and speed up each stage of the process. In addition, KSD wanted to provide all cantons with an online database of best-practice processes for managing potentially hazardous situations, such as chemical spills on roads. Finally, it wanted to set up a nationwide individuals- and patient-tracking system to give relatives information on where injured family members were being cared for, together with up-to-date details of their condition.

## **Scalability and Low Cost of Ownership**

“Our strategy was to use the most advanced information technology available to turn our vision of integrated emergency medical care into reality,” says Junker. “We wanted a solid system architecture and foundation on which we could extend the solution and enhance it with new capabilities to reflect changing needs and priorities. And because it was a publicly funded project, cost was a consideration as was a clear return on investment. We also needed to minimize the risks associated with making a major technology investment by engaging a partner that could support us from conception and design through implementation and beyond.”

## **Cost-Effective Change**

The company chose SAP not only because Switzerland’s armed forces were long-term users of the German vendor’s software for enterprise resource planning – but primarily because 80% of the country’s hospitals were using SAP® solutions. “SAP’s reputation for reliability and innovation, its world-leading technology, and its stability in an increasingly volatile market were other deciding factors,” says Junker. “Implementing a system based on SAP NetWeaver would give us a robust, scalable, open integration and application framework that we could adapt and expand, while reducing complexity and minimizing support overhead.”

The SAP NetWeaver® platform helps organizations obtain more value from technology by ensuring that business-critical processes are reliable and scalable. By unifying integration technologies into a single platform, SAP NetWeaver would eliminate the need for KSD to build interfaces for the custom-developed and third-party applications used to build IES.

### **Flexible Platform for the Future**

itelligence AG Schweiz managed the entire project – from consultancy and design through implementation and support. “itelligence had many years’ experience in creating SAP-based solutions for the healthcare and military sectors. It is also a special expertise partner for SAP NetWeaver,” says Junker. “Consultants from itelligence demonstrated how using SAP NetWeaver as the basis for IES would give us a flexible, future-proofed solution with the lowest lifetime cost of ownership.”

Daniel Grana, head of engineering at itelligence AG Schweiz, adds, “SAP NetWeaver is a high-performance, low-cost platform capable of supporting both standard and proprietary software. It also creates cost savings by enabling organizations to consolidate systems and reduce process times. This makes it ideal for building applications that need to be capable of continuous evolution without incurring high support and development costs.”

### **Implemented on Time, Within Budget by itelligence**

Using SAP NetWeaver development tools, itelligence designed, created, and tested the custom-built applications needed for IES. Thanks to SAP technology, the itelligence team was able to electronically migrate hospital master data from EMH Swiss Medical Publishers Ltd.’s database into IES, eliminating the need for manual rekeying and ensuring the integrity of the data. Because SAP NetWeaver enables seamless integration of legacy or third-party systems, KSD will be able to integrate specialist software or additional functionality. This way, KSD can continue to enhance IES throughout its evolution to becoming Switzerland’s standard system for managing medical emergencies.

itelligence worked closely with representatives from all KSD’s partner organizations, and IES went live in just 18 months. The consultants made sure that KSD staff members were completely competent in managing the system on a daily basis via knowledge transfer. itelligence and couniq also held workshops to train key staff members in best-practice usage of IES and provided user documentation to help them train others.

### **Powering the Rescue Chain**

More than 500 operations and control center employees use IES to coordinate the response of emergency services in situations involving more than one canton. Staff can work in German,

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French, Italian, or any other languages as required, using single sign-on to gain secure role-based access to key information and applications. They can also easily store, search for, and classify documents and add new and updated information. And, thanks to intuitive and highly interactive processes, users can communicate and collaborate in real time and perform their jobs far more effortlessly.

Here’s how it works: Emergency calls are automatically routed to a trained operator who inputs details of the incident, the number of casualties, and the nature of each person’s injuries. The powerful search engines in SAP NetWeaver quickly locate the nearest available hospitals with the right resources, making it easier for staff to decide where best to transport the casualties. “IES enables us to match a patient’s medical needs to the hospital best placed to meet them – in just a few seconds,” says Junker. “It underpins our mission to reinforce best-practice processes and, most important of all, power the rescue chain.”

Control center managers can also use the SAP NetWeaver–based IES to measure and compare the success of each rescue mission and report on key issues, such as response times for emergency

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crews. Data can be analyzed from SAP and non-SAP sources to deliver real-time intelligence, measure KSD's performance against government targets, and track costing against budget.

#### **Developing and Sharing New Functionality**

KSD has been approached by organizers of international sporting events who are interested in using the IES template to coordinate rescue operations in the event of a large-scale incident. “The SAP NetWeaver–based model has the potential for use in multiple applications where lives can be saved through prompt medical intervention,” says Junker. “Using SAP NetWeaver as a development platform, each new user will be able to add new functionality and share it with us – which will enable us to continually improve our overall operations.”