



CASE STUDY

How Alrena Technologies is Using Elsight Technology to Revolutionize Emergency Medicine with its SmartMedicase Mobile Solution

Background

Alrena Technologies is a Paris-based innovator on a mission to integrate new and innovative medical devices with advanced technological capabilities. The company offers the medical community and emergency forces a strong team of engineers and R&D personnel, and is currently developing a platform that is expanding the coverage of emergency medical services to remote locations.

SmartMedicase was developed to address an acute and growing challenge: the global shortage of doctors, especially in remote and rural areas. Alrena's compact, easy-to-carry SmartMedicase suitcase is the ideal solution for saving lives from afar. The solution enables paramedics, nurses and firefighters to help people in remote locations who are injured or sick and in need of emergency assistance, all while being actively supervised by the best doctors in real-time and via telemedicine. Within the framework of this project, the company sought a communications service provider to develop an on-the-move communication device capable of helping them achieve their goal of saving more lives.



 SmartMedicase by Alrena Technologies

 www.smartmedicase.net

 ELS Medical

Why Elsight?

Alrena designed the SmartMedicase suitcase and chose Elsight's Multichannel on-the-move communication device to assist in saving lives, without needing a medical team on site.

- **High Security** - Elsight's Multichannel technology secures medical information by splitting the data up into packets and encrypting them prior to transmission over multiple IP links.
- **High-Bandwidth** - Multichannel relies on multiple IP links simultaneously, dramatically increasing the overall bandwidth and enabling the swift transmission of large amounts of vital medical information from the field.
- **High Availability** - Multichannel detects automatically which existing communication channels are available at any given moment, and adapts the transmission of sensitive medical data accordingly.

Initial Challenges

- The presence of an aging population and a dire shortage of doctors in remote and rural areas.
- Many areas in France are located far away from established medical facilities, and are without reliable cellular reception.
- Connecting doctors to the scene of the emergency remotely and reliably.
- Secure transmission of vital medical data (ECG, blood pressure, etc.) from the field to the hospital.

The Solution

Elsight, an Israel-based company that develops cutting-edge, on-the-move, high-bandwidth technology enabling secure, real-time, bi-directional data & video transmission over multiple IP links, was contracted by Alrena to provide a dynamic and flexible communications solution to meet their customers' data security needs, and to integrate Elsight's Multichannel technology into the SmartMedicase kit.

Results

With the SmartMedicase on site at any remote or rural location, communication can immediately and automatically be established with a doctor in an emergency room, meaning the victim can receive critical care without having to be transported to a far away hospital. Outfitted with Elsight's Multichannel technology, the SmartMedicase kit enables the doctor to receive vital signs remotely via the medical equipment in the SmartMedicase. The doctor can view the patient over a high-quality HD camera, and can make informed medical decisions in real-time. The doctor can decide what procedures should be conducted on the ground, advise the paramedic, and prepare the ER for the arrival of patients in need of immediate medical attention without wasting valuable time.

"We are in the business of saving lives, and with Elsight's super high-bandwidth and fully secured communication device, we are able to remotely provide first aid to the elderly, sick and injured, without having a doctor on site. With the integration of the Multichannel unit, our SmartMedicase solution enables the user to communicate and transmit medical data from anywhere to any hospital of choice."

(Richard Kletzkine, President of Alrena Technologies).

- Creation of real-time data transmission link connecting first responders in remote locations to doctors in hospitals.
- Seamless, real-time transmission of vital patient data (ECG, blood pressure etc.).
- Ability to immediately administer medical treatment and prescribe medication.
- Guaranteed security and high-level encryption of personal medical information.
- Available, long-range cellular communication, anywhere, at any time.
- The SmartMedicase has enabled health professionals to save 150 lives as of June 2019.

Elsight's innovative data transmission technology

- Enabled the completion of a fully-connected suitcase
- Securely transmitted live, high-quality video over four cellular IP links
- Adaptively fit into Alrena's SmartMedicase mobile suitcase
- Enabled real-time data and video connectivity while on-the-go
- Allowed long-range, high bandwidth, secure and real-time data communication