



# A HEARTBEAT AWAY

Orange and Sorin Group have teamed up to offer a telemedicine solution for doctors and their patients.

**By Carol Wilson**

**When Sorin Group**, a leading global maker of medical devices, wanted to get into the U.S. market for remote heart monitoring, the company decided to look for a telecom partner — a company that could design a managed service around home heart monitoring and help Sorin take the service global. Sorin chose Orange, which

designed a secure service using wireless access and Orange transport and data centers to deliver not only in the U.S., but also in Europe and Asia.

“The system we are going to be putting in place will be a system that will allow information on the patient’s disease to be transmitted wirelessly to a physician on a daily basis,” said Stefano Di Lullo, president of the CRM business unit of Sorin Group. “The requirement is to have a system that is extremely reliable and which also is 24-7 and very secure. You are in a sensitive area of personal patient information, so we had to make sure the system has all the encryption and safeguards to protect patient data.”

The U.S. market for such devices already is robust, Di Lullo said, and Sorin will be competing against companies that have developed their own solutions or have hybrid solutions. “We thought it was critical to deal with one of the world’s largest telecom players,” he said. “As we did our due diligence, the company that had the best fit for us was Orange.”

Orange has developed a specific telemedicine practice and was able to provide Sorin Group with much more than connectivity.

“Orange is supporting Sorin with a full range of services,” said Rich Millendorf, Orange Business Services account manager for Sorin. “We are truly helping them, from developing the service to managing the service, providing systems integration for the service and then supporting it going forward on a round-the-clock basis.”

The result is indicative of new services from telecom operators moving deeper into the telemedicine space, as the need for more remote patient care becomes acute with the aging of populations worldwide.

Sorin provides a defibrillator device that is implanted in the heart patient,

Di Lullo said. It wirelessly communicates vital statistics about the patient's heart to a home monitoring device that typically sits on a bedside table. The information is generally captured at night, while the patient is sleeping, Di Lullo added.

Orange provides the network services that connect the home monitoring devices on a secure, encrypted basis, as well as back-office and data center support, and applications development that enables doctors to view the collected data in PDF form.

"We develop the communications aspects of a home care monitor that sits on the patient's nightstand out into the infrastructure," Millendorf said. "We are providing the applications development to support the back office and hosting the encrypted data in our infrastructure. From there we are building a graphical user interface that will enable the doctors to access this information and translate it back into user-friendly information. We take all that encrypted data and make sure we can read it into a PDF format for the doctor."

Orange then provides a help desk for troubleshooting any problems with the telemedicine service. "We are not emergency response, but we have tech support available — an IT help desk" to handle any problems with the communications infrastructure, the applications or the security, Millendorf said.

By regularly checking on the health status of chronically ill patients, doctors can more quickly determine when further care is needed and allow patients to avoid unnecessary visits or emergency room trips when things are fine, Di Lullo said.

"One of the key objectives is for the physician to delay as much as possible the progression of the disease," he said. "The device has different algorithms built in so it will stimulate the heart so it will beat in a physiological manner, and it also captures information from the heart and stores this information — and depending on the progression of information, it will make a diagnosis and share with the physician how the disease is progressing. Then the physician will dial a different diagnosis into the device. The device also has an alarm, which will red flag a physician that something has happened. By being able to get information daily, the physician can follow the patient much more closely and can change the therapy and get ahead of the curve, as opposed to seeing a patient every six months and finding out what has happened in the meantime."

Much has been made about the aging of U.S. baby boomers, but globally, countries are facing a larger older population with more health care needs and are look-

ing for a way to both provide a better level of care and cut costs, said Niels Helkov, vice president of e-health and pharma for the Americas for Orange Business Services. Orange has, for the past few years, been developing an e-health portfolio that includes better communications and information management within hospitals as well as telemedicine for managing chronic diseases, Helkov said.

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"Chronic disease management is an area that basically requires telemedicine for remotely monitoring the vital signs of patients," he said. "You want to try to do that in the home of the patient, so you can see how they are doing in a more proactive fashion."

"In the hospitals, there are a number of things we can do by bringing in unified communications. A patient can get one terminal that can enable them to access the Internet, dial out, get the nurse in and look at his health records. We can increase the productivity in the hospital through a better flow of information. And there is another area of interest around facilitating communication between the ambulance and the hospital so that the emergency room can get vital assistance and aid in the treatment of a patient, who may be seriously injured."

Some of the Orange solutions are Euro-centric, but many will be offered in North America as well, Helkov said. The remote monitoring of heart patients already is well-established in the U.S. market, but it is lagging in Europe, where Orange and Sorin hope to make a mark. ■