

Preparing the worst in Mexico

Mexican Ministry of Health



KazTransOil needed a network to support both regular enterprise business needs, as well as SCADA monitoring of pipelines and remote facilities. They use Gilat's VSAT networks for integrated office communications, with phone, fax and video conferencing, as well as SCADA support, all on a single centrally controlled network.

The Customer

The Mexican Ministry of Health decided to invest in field hospitals that can be deployed in case of epidemics or disasters. The hospitals have to be self-contained and capable of operating for extensive periods of time. The intent of the program was to be prepared if an avian flu epidemic breaks out in Mexico, though the hospitals can also be used for other epidemics or disasters.

Mexico lies in a region of seismic activity, being part of the region called "Pacific Ring of Fire" spanning from New Zealand to Chile. In 1985, an 8.1 Richter earthquake struck Mexico, killing over 9,000 people. Mexico also lies in a region with many hurricanes, with some making landfall and causing catastrophic damage. The most intense Atlantic storm ever recorded, Hurricane Wilma, struck Mexico in 2005 causing over \$US7B worth of damage. The field hospitals can be used for natural disasters such as earthquakes and hurricanes.

The hospitals had to be able to handle all sorts of disasters and operate independently for extended periods of time, while still being quick deploy. Epidemics and natural disasters press government resources to the limits, and often require lengthy stays. They also affect first the medical personnel first, as they are often in direct contact with the infections. The hospitals needed to be designed to be well supplied but also operate remotely from other agencies if needed, with high speed communication available anywhere and all the time.

The Challenge

In a disaster, the field hospitals will require assistance from experts to help the overloaded staff with information, new procedures and updates from the rest of the effected region. Each hospital will also have to routinely update the government and medical agencies regarding the status of the population,



“ We needed an always-on manageable communication network that was highly reliable, could be deployed quickly and was optimized to guarantee uninterrupted operations despite the rugged terrain and the harsh weather conditions of Central Asia. Gilat's VSAT technology provides us with a reliable communication infrastructure for both data and voice, for all of our sites, even those in the most remote areas. ”

Someone from Mexican Ministry of Health

Someone from Mexican Ministry of Health



CASE STUDY

What is a pandemic and how is it different from an epidemic?

An epidemic is an outbreak of a disease in a local or regional population.

A pandemic is an outbreak spanning geographic regions, often global in effect. Because of the ease and speed of transportation, epidemics easily can become global in nature and affect the whole human population

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logistic requirements for the hospital and any other special requirements. Each hospital needed a high-speed communication link that will satisfy those needs. The challenge is that the location of the deployment can not be known – Will there be suitable terrestrial infrastructure where it will be needed? Another level of uncertainty also exists: In case of a natural disaster, will the communications infrastructure be available when it will be needed.

Satellite technology was chosen as the most effective means to provide broadband connectivity independent of terrestrial infrastructure. The communications solution needed to provide high quality voice, video conferencing and data transfer anywhere in Mexico. In addition, it needed to be available quickly, and without the need for professional satellite technicians on site to deploy the antenna.

The Solution

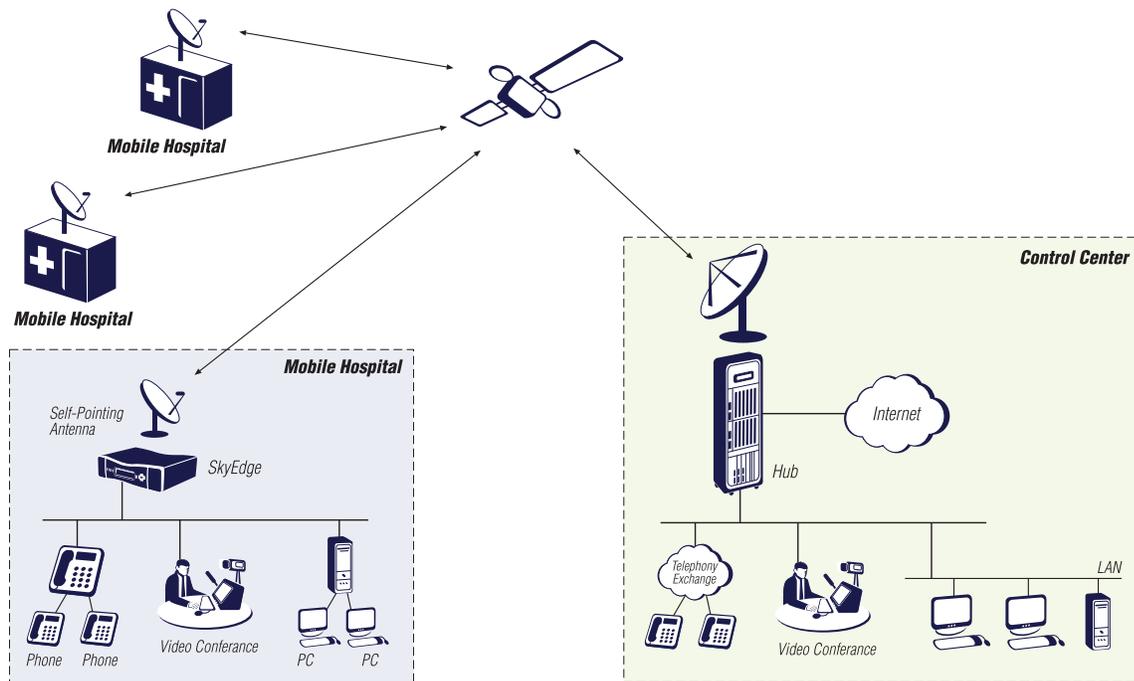
GlobalSat, a leading satellite service provider in Mexico, was chosen to provide satellite connectivity for the field hospitals. With a fully redundant SkyEdge Hub already operational for one of the largest SkyEdge networks in the World, Globalsat has the experience



and ability to provide the field hospitals and excellent satellite communications solution.

To provide a quick-deploy implementation, an auto-pointing antenna was required as part of the solution. Gilat's SkyEdge has already been integrated with C-Com's iNetVu mobile system, and its simple to use one-button operation, providing acquisition within less than 5 minutes, was the best answer for the field hospitals' needs. In addition, the cost-effective antenna

Typical Remote Site



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could be mounted easily on the communications module and various antenna sizes are supported to provide the required bandwidth.

SkyEdge VSATs enable high quality multi-service applications to be provided on a single link. VoIP phones provide telephony services, using QoS and optimization techniques for the best voice quality. Video conferencing equipment is also used when experts need to see patients or visual aids are needed. The network is also an excellent way to train the remote personnel with new techniques that are needed in the field. SkyEdge also provides high speed Internet access, with HTTP acceleration that is important for good user experience via satellite Internet. The link can also be used for high speed data transfer, such as laboratory results, server synchronization, ordering supplies and other data applications.

Summary

The Mexican Ministry of Health has taken action to be prepared for the avian flu virus, by preparing field hospitals that can be rapidly deployed where and when needed. These hospitals require high speed and dependable communication, independent of terrestrial communication. Gilat's SkyEdge has been chosen to be the VSAT technology that will provide broadband



connectivity for voice, video and data access from the field hospitals, with service provided by GlobalSat. In a recent exercise, the Minister of Health was able to see a fully operational field hospital deployed in an epidemic scenario. The VSAT equipment performed as required, providing the vital communication link for the hospital personnel. Hopefully, this equipment will never have to be used. It is reassuring to the Mexican people, that if a disaster does strike, preparation for emergency relief and aid has already been done.

