DISASTER RECOVERY & HUMANITARIAN NETWORKS

Satcom for Disaster Recovery & Humanitarian Networks

When a disaster strikes, a timely reaction and intervention is of upmost importance in order to save lives, bring stability to the region and restore the affected key infrastructure elements.

Satellite communication is the only reliable method to exchange critical logistic, medical and situational awareness information with mission headquarters after a manmade or natural disaster. In such events, telecom landlines and terrestrial wireless systems are destroyed, or overloaded by people sourcing help, information or trying to contact relatives.

ST Engineering iDirect satcom technology supports the emergency response and humanitarian missions by providing a platform that can be deployed from the early stages after a disaster to the restoration of the affected area. Reliable satellite links can be set up at all times in a flexible, scalable and efficient way. Moreover, double throughput can be achieved at maximum service availability.

Reliable and efficient satellite communication from the early stages after the disaster to the restoration of the affected area.

DIALOG

powered by
Newtec **iDIRECT**

ST Engineering iDirect Satcom Technology to the Rescue

During emergency and humanitarian missions reliable satellite technology is key to support mission critical information exchange. ST Engineering iDIrect satellite hub and modem technology is based on the concepts of efficiency, availability, flexibility and scalability that will provide the emergency teams peace of mind and help them focus on their core rescue and restoration tasks.

Global Reach and Fast Deployment

Through our satcom technology, a satellite link can be set up quickly anywhere in the world independent of the location on land, air or sea. Once the network is in place extra remotes can be put into operation simply and at any time.

Best-of-Trade Equipment and Technology

ST Engineering iDirect has a track record of humanitarian, emergency response and disaster satellite network installations worldwide. A rich portfolio of state-of-the-art COTS satcom products and solutions from hubs to modems to network optimization software and OEM boards serve as building blocks or turnkey systems for emergency satellite networks.

Support of Video, Voice & Data

Different file-based or streaming services can be exchanged over our satcom network for emergency services. These range from voice (telecom, VoIP) to video (surveillance, medical, broadcasting, video conference, training) and data (logistics, administration, mail, internet browsing).

Double Throughput in Same Bandwidth

Dedicated technologies by ST Engineering iDirect, such as DVB-S2/S2X, Mx-DMA®, FlexACM®, Clean Channel Technology® and Network Optimization Software (acceleration, compression, multicasting) are used in a large number of these emergency and restoration networks to achieve maximum throughput independently of the selected satellite (Ku-, Ka-,C-, X-band, HTS). At the same time important OPEX reductions can beaccomplished.

Figure 1: Dialog Satellite Modems Portfolio

Maximum Service Availability

Even in harsh and hostile conditions (rain fading, interference, shadowing etc.) mission critical communication lines over satellite are available at all times (without service interruption or loss of data) thanks to our auto-adaptive modulation technology FlexACM inside our modems.

Moreover, service priorities (e.g. video, data, voice) and Quality-of-Service policies can be auto-adapted on-the-fly depending on the bandwidth availability through our Cross-Layer-Optimization technology.

Scalable, Flexible and Efficient Multiservice Platform

Through the Dialog® multiservice platform the emergency and disaster recovery teams can access a communication network over satellite from the early stages after the disaster up to the restoration of the terrestrial communication infrastructure.

From a single satellite hub, various information, services (video, voice & data) and traffic types can be exchanged from the disaster area to the mission control and back for multiple applications (medical, logistics, video conferencing, etc.) at maximum availability.

The Dialog hub comes in two flavors:
- A compact, cost-effective 1IF version to connect one emergency operation network up to 250 remotes
- An all-encompassing, versatile 4IF Hub to connect multiple networks or operations around the world

The satellite service operator has the flexibility to select the carrier return technology (MF-TDMA, SCPC or Mx-DMA) that best fits his application depending on the required throughput (few kilobits to 380 Mbps) and traffic type and Quality of Service (CIR, PIR, Overbooking).

The Dialog platform provides reliable two-way IP connectivity through a flexible, scalable hub and efficient, cost-effective and low power consumption terminals. Remote terminals can easily be assigned and reused for other operations.

The network contains management functions for monitoring, control, SLA management, advanced QoS, Fair Use Policy and Reservation through the NMS and the Satlink manager.