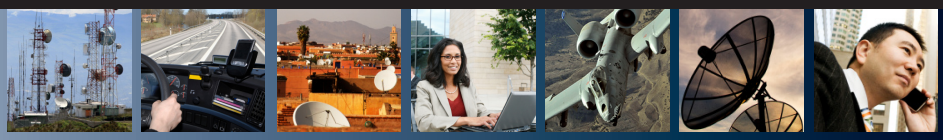
CASE STUDIES



future TECHNOLOGIES

Indonesia Tsunami Relief - Emergency Response

INDONESIA RELIEF

Client: Indonesia Tsunami Relief

Project type: Emergency Response

1/21/05 - 2/24/05 Teunom, Lamno, Banda Aceh;
Band Aceh Province, Indonesia

Requirements

- Provide minimum 3mbs/3mbs high-speed internet connectivity, VoIP, wireless local area network, and wireless metropolitan area network to provide internet connectivity from a single "access point" for multiple locations separated by hundreds of miles.
- Pods must be mobile and rapidly deployable and fast to set up in the field.
- Assist United Nations tsunami relief efforts in Indonesia.
- 24X7 on-site and technical support in remote jungle locations.
- Configure Ku-band system to operate in C-band environment while in the field (jungle).

Challenges

- Massive destruction and loss of life. Banda Aceh one of hardest hit locales.
- Mobile command center with no climate control in severe heat and humidity, no permanent power and no existing structural wiring.
- Harsh living conditions and limited food and water supplies.
- Local infrastructure destroyed, very severe logistical issues. FT was required to manage logistical support through military resources as well as local Indonesian resources.

Solution

- VSAT C-band based mesh network providing high speed internet connectivity.
- Included WiMAX certified equipment to extend network connectivity over 35 miles point-to-point and used WiFi access points to provide wireless network.
- 10 wireless laptops and 15 VoIP phones per pod.
- Used 2 3000 220 volt generators with step-down voltage regulators to support 110V system design per pod.
- Used 2 C-band 2.4m quick-deploy satellite antennae and 20 watt C-band booster and BUC

Results/Outcome

- Deployed 3 technicians and all equipment from FT facility in Atlanta, GA to Indonesia. Once on site, system operational within 48 hours of arrival at each location.

- FT provided technical expertise to space segment provider to make Ku-band system work in C-band environment. Management of space segment is not a requirement within standard statement of work.

- 3Mbs/3mbs connectivity and all peripherals running. After success of initial deployment, pod relocated to Governor's complex (local government) in Banda Aceh. System interconnected to existing network at complex to facilitate local government operations.

- Systems operational at time of departure. FT trained local Indonesian contingent to be able to minimally maintain the system. Only active US-based network operating on the ground within the Banda Aceh Province.