Border Surveillance & Security Solutions

KEY FEATURES

- Visual & Physical Deterrent to Intruder
- Day/Night Realtime Video Streaming
- Virtual Barrier by Video Analytics
- Cut & Climb Monitoring
- Backhaul by Wireless and Fiber Network
- 400 MHz to 6.2 GHz

SOLUTION

- Taut Barrier
- IR and Microwave
- Vibration Sensors
- Geophones
- Ultrasonic Sensors
- Buried Cable

Perimeter Security

Border Surveillance System Using Day and Night Vision Cameras
A major concern of most countries is the ability to secure their national borders against illegal immigrants, smuggling and the infiltration of terrorists.

**MONITORING & SURVEILLANCE SOLUTION**

**Video Surveillance System**

Broad coverage is essential to a surveillance system. Solution offers a range of far-field cameras, thermal vision, and pan/tilt/zoom cameras to remotely monitor border zones. With these high definition megapixel cameras, entire borders can be monitored in real-time from single or multiple points of contact.

The surveillance & monitoring solution for border areas is entirely IP-based. The connectivity is provided through a wireless radio unit (RU). The entire solution works in licensed or unlicensed bands (400 MHz to 6.2 GHz) and its flexibility allows the solution to work in many alternate configurations.

The security cameras can monitor, track and prevent any suspicious activity in the area under surveillance and the video streams from the cameras can be recorded for later use. Keeping in mind the high security requirement of border areas, installed cameras are capable of military grade video capture.

**Video Management System (VMS)**

The video management server at the master control room gets live feed from remote units. The video analytics runs on video streams and alarms are triggered on the basis of various checkpoints.

**Video Analytics**

Video analytics algorithms are used on live or recorded video, adding intelligence to the system. Analytics filter sensor data, identify behaviors, categorize targets and potential threats, and generate alarm events. Intelligent video analytics algorithms such as perimeter protection and intrusion detection can be used for detecting any kind of intrusion or breach in a restricted area.

The advantage of applying the video analytics is that it monitors and warns security personnel even when nobody is monitoring the system. It filters out irrelevant content and significantly reduces false alarm rate.

**PERIMETER SECURITY**

Perimeter security system is a powerful intruder deterrent. The deployment of a combination of perimeter intrusion sensors provides a layered approach to border security. It improves observation & detection results with high detection level and low false alarm rate.

**Perimeter Security System:**
- Taut Barrier
- IR and Microwave
- Vibration Sensor Line
- Geophones
- Ultrasonic Sensors
- Buried Cable (electromagnetic disturbances in the buried perimeter cable generates alarms when targets cross the cable.)

**JAMMING & DETECTION SYSTEM**

Border security solution includes wireless and cellular communications jamming & detection systems. High security facilities like military headquarters, briefing rooms, etc., continuously face risk of spy cell phones leaking sensitive information. With a jamming system, it is possible to disable communication between cellular phones and nearby cellular base stations, hence no phone calls, text or multimedia messages can be exchanged.

The detection system consists of highly sensitive detectors installed in strategic locations. These detectors easily detect all types of cell phone activities and immediately report an alert to the central control room. The real time information can also be transmitted to the control room whenever any unauthorized activity is detected or vandalism attempts occur.

**WIRELESS CONNECTIVITY**

To guarantee total data security, solution offers an IP-based wireless network solution which provides high capacity and seamless Wi-Fi connectivity between border guards’ sites using using reliable and flexible communications that meet border safety and security requirements,

Highly modular, this system leverages the flexibility of IP routing and can accommodate any kind of IP traffic; for example, connecting IP cameras and sensors to the control room. End-to-end encryption enables secure information exchanges from the field (sensors and patrols) to command levels.

Lightweight and transportable, it offers a rapid deployment capability and is thus suitable for integration in a border security system.