

RF Blade

RF Blade provides the user with an independent, high bandwidth wireless system which is easily configured and integrated into any system.



ITT

Communications Systems

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ITT

Engineered for life

The ITT RF Blade system is modular, scaleable and adaptable to support a wide range of applications.

The ITT RF Blade is built upon open standards and standard internet protocols to allow for 'plug and play' integration of new capabilities, as well as support future upgrades without expensive modifications. It is designed for sustained 24/7/365 operations and uses alternative power sources including solar and wind turbine for primary power. It also employs an automatic stand-by generator when weather/power loading conditions require. At the heart of each system is a family of high bandwidth wireless communications backhaul systems (20 megabits – 3 gigabits of throughput) depending on the distance between systems.

The system automatically shuts down the stand-by generator when power loading is normalized and notifies the network management system when refueling is required. Typical installations can operate over a week without refueling. The system can be configured to operate from local power in lieu of the alternative power systems as a lower-cost alternative, keeping the stand-by generator on-hand for reliable continuous operations.

Each RF Blade has an enclosed 19-inch rack for data routers, interoperability modules and other special payloads needed in each application. Our interoperability modules allow for each RF Blade to provide interoperability between a wide range of communications technologies including HF, VHF, UHF, APCO 25, SATCOM, PSTN, VoIP, 802.xx and more. In addition, the voice and data channels can be routed over the RF Blade's high-bandwidth backhaul to provide remote access to operators in the field using their own communications systems.

The power and communications subsystems make the platform ideal for fixed and mobile security and surveillance applications. Each RF Blade has fixed and telescopic masts to provide a stable platform for a wide range of sensors including remote pan/tilt/zoom cameras and FLIR systems, thermal imagers, seismic sensors, and other technologies. These sensor inputs are all combined and routed back over the wireless backhaul system to a fixed or deployed operations facility. This operations facility uses automation to fuse and analyze the sensor inputs and filter out false alarms before presenting events of interest to the operator.

Configurations

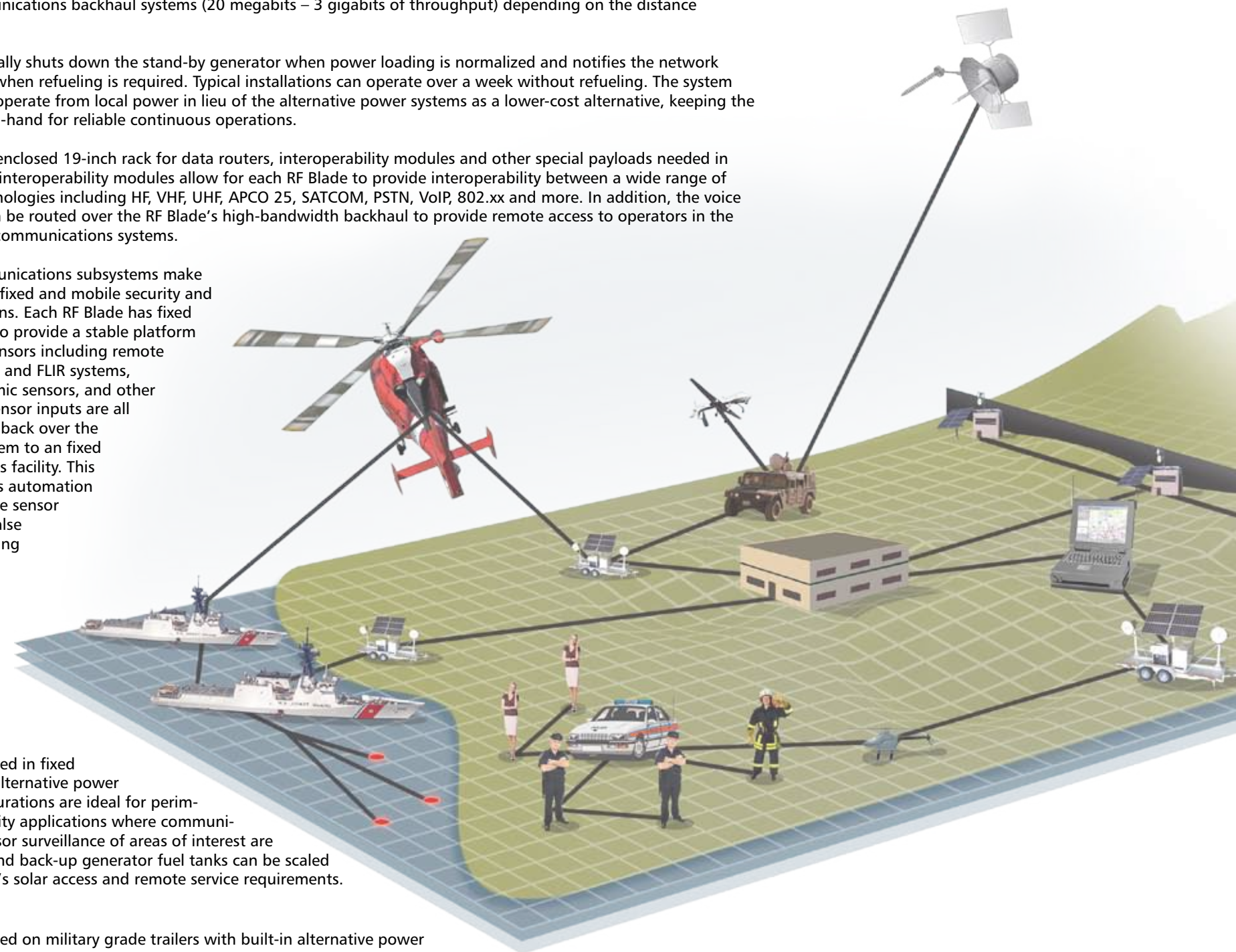
Fixed Installations

RF Blade can be installed in fixed shelters with built-in alternative power systems. These configurations are ideal for perimeter/border/port security applications where communications and video/sensor surveillance of areas of interest are critical. Solar panels and back-up generator fuel tanks can be scaled to meet the local area's solar access and remote service requirements.

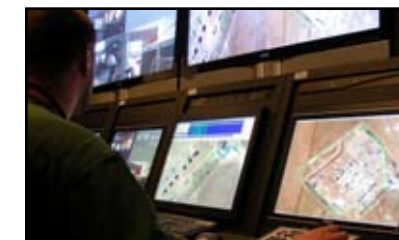
Mobile Installations

RF Blade can be installed on military grade trailers with built-in alternative power systems to allow for 'drop in' operations when and where the need requires. As with the fixed configurations, these systems are ideal for providing communications access and temporary security infrastructures where power and terrestrial communications infrastructure are not available online.

In a communications, networking or data collection configuration, each system is designed to interconnect between nodes at high bandwidth while providing access points around each node to allow authorized field users to access the voice and data communications infrastructure. Whether your requirements are for WiFi, WiMAX, MESH, APCO 25, public service voice or military communications interoperability the RF Blade can provide remote users connectivity with other users on the "extended" network.



Implementation



Training Instrumentation

The RF Blade provides an automated capability to collect and transmit data for exercise events for battle-field replay and analysis to support training conducted at fixed or mobile training centers. This event data will provide unit training performance feedback via the multimedia After Action Reviews (AAR) and the Take Home package (THP).



Emergency Response

Can be utilized in an operational environment that has had its infrastructure damaged or destroyed. It would provide the capability for interoperability between multiple agencies. Provides backbone for passing sensor data from handheld, ground or airborne sensors, provides temporary cell phone ADHOC tower and SATCOM capability.



Infrastructure Security: Ports, Airfields & Pipelines

Provides a communications backbone for a port security by synchronizing the data flow for multiple sensors to include sonar buoy data, ground radar, FLIR and day cameras. The Blade can be positioned in a fixed or mobile capacity to provide a communications backbone to ensure connectivity to multiple sensors for enhanced security and situational awareness.



Border & Perimeter Security

RF Blade provides enhanced security along borders or for critical security sites. Multiple sensors may be handheld, ground mounted, remote or airborne and can be simultaneously routed through the Blade to the C2 node providing uninterrupted/seamless situational awareness.



Day-to-Day Routing of Data and Backbone for Sensor Data Communication

Provides wireless connectivity in urban and semi-urban environments for routine day-to-day operations by passing information and data between multiple civil organizations in different locations. It can replace aging communications infrastructure and simultaneously route sensor data to command posts for enhanced situational awareness of areas. It can also be positioned for security applications for critical transportation nodes.

