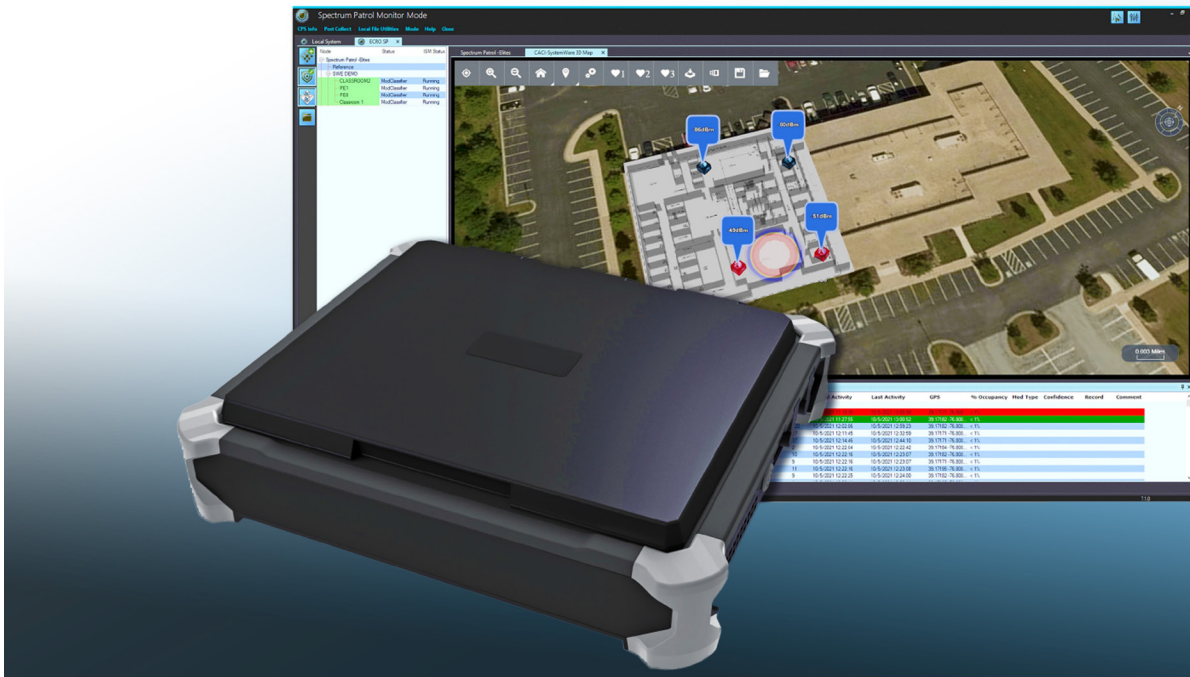# Spectrum Patrol

CACI's **Spectrum Patrol**® in-place-monitoring-system (IPMS) offers the ability to identify internal and external radio frequency (RF) threats, while allowing for differentiation between authorized and unauthorized personal electronic devices operating on common cellular or industrial, scientific, and medical (ISM) radio frequencies. Spectrum Patrol is comprised of a collection of sensors at a single site, and is scalable to cover multiple sites with distinct protected areas. Spectrum Patrol also allows users to complement its capabilities by incorporating additional CACI sensors. Our experts are innovating with new RF monitoring technologies for vital national security missions.

For more information, or to purchase contact:
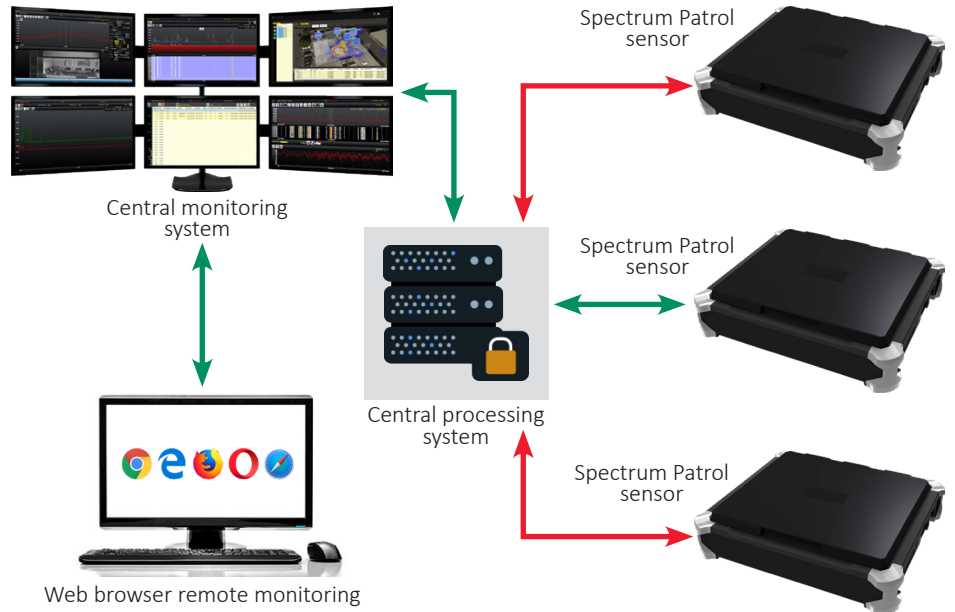(410) 579-1300
csw-sales@caci.com

For more information about our expertise and technology, visit:
**www.caci.com/
spectrum-monitoring**

CACI
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Wireless collection and analysis

- Wi-fi MAC address
- Bluetooth MAC address
- SSID detection
- Signal strength
- Hardware manufacturer
- Wi-fi protocol detection
- ZigBee node addresses
- Packet identification and analysis
- MAC address registration
- Authorized vs. unauthorized list

Software functions

- Threat localization
- Sweep RF spectrum with user-defined frequency parameters
- Real-time signal analysis
- Frequency (channel) scan
- Multiple visual representations of the RF spectrum
- 2D display, waterfall display, and display zooming feature
- Signal of interest frequency list
- One-button or automatic audio recording
- Classification of common digital and analog signals
- Video recreation (NTSC/PAL)
- Post collection data analysis tools
- Colored raster
- Consolidated exceedance list spectrum

Central monitoring system

Spectrum Patrol sensor

Spectrum Patrol sensor

Central processing system

Spectrum Patrol sensor

Web browser remote monitoring

Spectrum Patrol provides low-level processing, localization through sensor saturation, and the plotting of estimated emitter locations via a 3D display of the protected area on a central monitoring system. Individual sensors collect, plot, and save spectral RF data to networked, internal, or external storage. These sensors compare live data to a dynamic reference file combined with signal source localization to determine alarms. Once a sensor detects an alarm condition, an on-site central processing system takes readings from all sensors, detecting the potential threat signal. Using GPS if available, the location data of the sensor and signal strength at each point are fed to a localization algorithm that estimates the area location of the transmission source and plots it on a 3D facility display. Once a threat is localized, the nearest sensor provides basic interactive analysis for signal classification, operator examination, and threat determination.

The central monitoring system displays the Spectrum Patrol software, and features the ability to operate in a multi-display setup showing simultaneous results of Spectrum Patrol's multiple capabilities.

EXPERTISE and **TECHNOLOGY**
for National Security

At CACI International Inc (NYSE: CACI), our 25,000 talented and dynamic employees are ever vigilant in delivering distinctive expertise and differentiated technology to meet our customers' greatest challenges in national security. We are a company of good character, relentless innovation, and long-standing excellence. Our culture drives our success and earns us recognition as a *Fortune* World's Most Admired Company. CACI is a member of the *Fortune* 1000 Largest Companies, the Russell 1000 Index, and the S&P MidCap 400 Index. For more information, visit us at www.caci.com.

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