Preventing Unauthorized Calls

Detecting and Locating Cell Phones In Prisons

Cell phones and other connected devices have become a major problem for prisons around the world. In the United States alone, 5,116 cell phones were confiscated in 2016, and 2017 saw that number rise by 28 percent. Cell phones make it possible for prisoners to communicate with people outside the prison, transmit text, video, or other data, and potentially coordinate crimes or purchase contraband. These activities jeopardize the safety and security of other prisoners, prison guards, staff, and the public.
The Challenge

Given the large inmate population it is extremely difficult to prevent cell phones from entering the prison in the first place. Cell phones are small and not picked up by metal detectors in most cases. Like all contraband brought into prisons a wide variety of tactics are used to circumvent security measures, including bribing guards, having items thrown over the fence, or, increasingly, dropping packages from drones that fly undetected over the prison.

Prevention techniques used to find cell phones or disable them have legal or practical issues that limit their viability and effectiveness. Random searches and pat downs are time and resource intensive and can easily miss contraband when dealing with a large number of people. Jamming techniques that prevent phones from transmitting entirely face legal barriers, and have the potential to disrupt connectivity for guards, emergency services, or people in the surrounding area of the facility.

Prisons need to be able to detect that a cellphone is present, determine its exact location, and dispatch guards to find and confiscate it.

QUICK FACTS

More than 5,000 cell phones were confiscated in US prisons in 2016.

Jamming and other prevention techniques face legal and practicality challenges.

The ThinkRF R5500 Real-Time Spectrum Analyzer enables continuous, 24/7 monitoring and advanced geolocation to detect and remove illegal cell phones from prisons.
The ThinkRF R5500 Real-Time Spectrum Analyzer is a compact, versatile, and remote deployable spectrum analysis solution that gives prison guards a full view of the spectrum environment. The R5500 analyzer supports advanced analysis capabilities and innovative indoor geolocation to pinpoint the location of an illegal device. It is easily integrated with the leading Kestrel TSCM Professional Software from Professional Development TSCM Group Inc., for deeper analysis.

The R5500 analyzers are networked and designed for remote deployment. To detect signals, prisons place a number of units around the facility and monitor them from a centralized location. This gives guards a continuous, 24/7 view of the spectrum and makes it easy to identify signals coming from a specific cell or area in the yard.

The analyzers can also alert prison staff to the presence of drones by detecting the RF signals used to control the vehicles. Guards can then check for any contraband dropped by the vehicles and confiscate it before it is collected by inmates. This further increases the safety and security of the facility.

Benefits of the ThinkRF R5500 Real-Time Spectrum Analyzer Integrated with Kestrel Software

- Purpose built networking capabilities to deploy multiple devices remotely and monitor from a single location
- Cost-effective units for wider coverage areas
- Rapid sweep rates of 28 GHz/s for increased likelihood of detecting of brief or low powered signals
- Advanced indoor geolocation technology that can determine the source of the device, even in complex environments such as a large prison facility
- No legal issues compared to jamming techniques
- Less resource intensive than random searches or mandatory pat downs
The Results

Leveraging the capabilities of the ThinkRF R5500 analyzer and advanced analysis software such as Kestrel TSCM Professional Software, prisons can detect and locate cellphones or other wireless devices used by inmates. This keeps prisons safer by reducing contraband and other illegal activities.