SiLVUS TECHNOLOGIES

SURVEILLANCE SOLUTIONS

UNRIVALED DEPENDABILITY & RANGE

The Status Quo

For decades, law enforcement and security specialists have utilized wireless transmission equipment to conduct surveillance operations. Originally, these systems were based on analog Frequency Modulation (FM) technology, which supported only Standard Definition (SD) video, and suffered impaired performance in the presence of multipath (wireless signal reflections, typical of urban environments). Later, Coded Orthogonal Frequency Division Multiplexing (COFDM) video transmission systems replaced FM systems, for their ability to support HD video, and operate in the presence of multipath. Still, COFDM systems are designed to transmit video and audio in only one direction, and lack a return channel for PTZ camera control or intercom audio. COFDM systems are also spectrally inefficient requiring one frequency per camera.

The Evolution

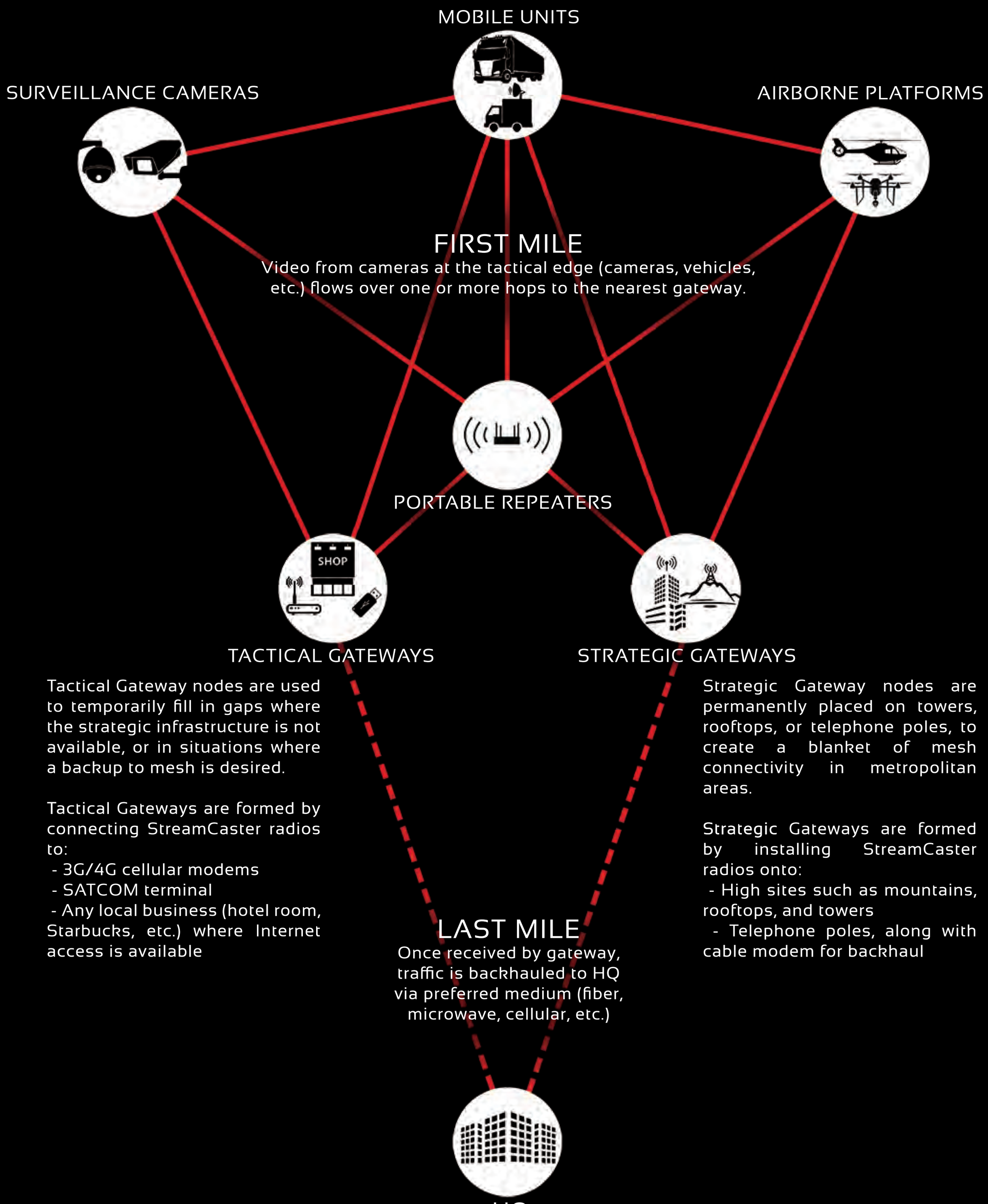
With the recent proliferation of cellular communications, WiFi, and network connected cameras, teams tasked with security and safety have found simplicity in the setup and operation of IP video surveillance equipment. Wherever you have a network connection, you can collect or view video in real time.

However, COTS IP transmission solutions come with limitations. WiFi is limited in range, performs poorly outdoors, and is prone to interference. 3G and 4G modems have inadequate upload speeds, recurring monthly usage fees, and cannot be relied upon during large public gatherings such as sports events, parades, or times of crisis.

THE REVOLUTION

Silvus' StreamCaster radios provide law enforcement with the performance of COFDM and the ease and flexibility of IP. Silvus' revolutionary Mobile Networked MIMO (MN-MIMO) technology utilizes a powerful combination of Coded Orthogonal Frequency Division Multiplexing (COFDM) modulation and Multiple Input Multiple Output (MIMO) antenna techniques to enable unprecedented throughput, range, spectral efficiency, mobility, and robustness. Unlike WiFi-based technologies, the MN-MIMO waveform provides robust, bi-directional or mesh communications in a variety of environments from dense urban to sprawling rural plains. The radios combine to form a single frequency network, operating in your choice of licensed and unlicensed bands from 400MHz to 6GHz. And with AES128/256 encryption and IP67 construction, Silvus radios provide unmatched mission reliability.

MN-MIMO SURVEILLANCE ECOSYSTEM



FIRST MILE

Video from cameras at the tactical edge (cameras, vehicles, etc.) flows over one or more hops to the nearest gateway.

TACTICAL GATEWAYS

Tactical Gateway nodes are used to temporarily fill in gaps where the strategic infrastructure is not available, or in situations where a backup to mesh is desired.

Tactical Gateways are formed by connecting StreamCaster radios to:

- 3G/4G cellular modems
- SATCOM terminal
- Any local business (hotel room, Starbucks, etc.) where Internet access is available

STRATEGIC GATEWAYS

Strategic Gateway nodes are permanently placed on towers, rooftops, or telephone poles, to create a blanket of mesh connectivity in metropolitan areas.

Strategic Gateways are formed by installing StreamCaster radios onto:

- High sites such as mountains, rooftops, and towers
- Telephone poles, along with cable modem for backhaul

LAST MILE

Once received by gateway, traffic is backhauled to HQ via preferred medium (fiber, microwave, cellular, etc.)

HQ

Cameras and radios from the whole network are monitored and controlled from HQ. Video is stored and displayed locally, and disseminated to remote users.

CONTACT US FOR A DEMO

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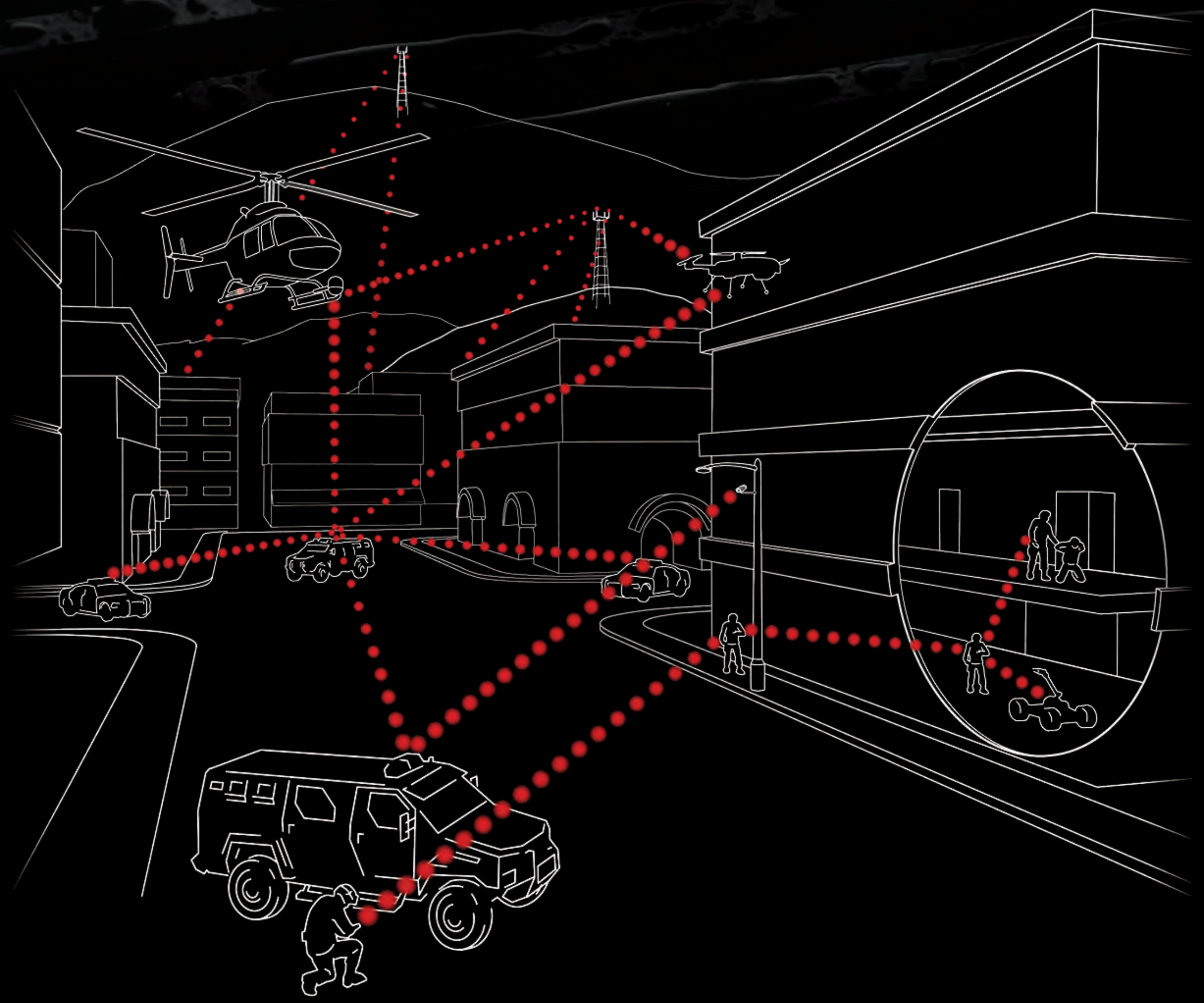

SILVUS

TECHNOLOGIES

Leading the MIMO Revolution