

# SPECTRUM DOMINANCE

Achieve RF Spectrum Overmatch in Any  
Operational Environment



**Capabilities Profile**

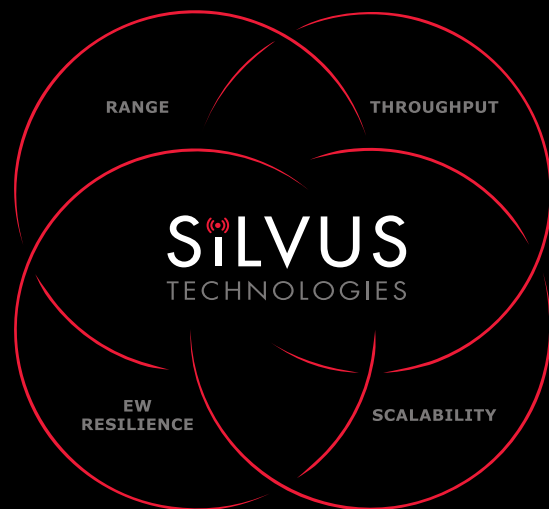
# SPECTRUM DOMINANCE CAPABILITIES PROFILE

## ADVANCED TACTICAL COMMUNICATION SOLUTIONS

Privately held and headquartered in Los Angeles, Silvus Technologies is dedicated to one mission: Solving the toughest Tactical Communications problems facing the warfighter. As the world's leading developer of advanced MANET radio systems powered by revolutionary MN-MIMO waveform technology, Silvus Technologies is reshaping wireless connectivity for mission-critical applications – on the ground, in the air, and at sea.

Serving Defense, Government, Public Safety and Commercial Customers around the world, Silvus' StreamCaster family of MANET radios provide high-fidelity video, voice and IP data communications – delivering actionable intelligence at the speed of relevance.

At the heart of every Silvus StreamCaster MANET radio is Silvus' proprietary Mobile-Networked MIMO (MN-MIMO) waveform that creates a self-healing, self-forming and adaptive mesh network – designed to outmaneuver tactical RF challenges in any environment – and capable of linking hundreds of nodes with unmatched range, data throughput, EW resiliency and scalability.



## SPECTRUM DOMINANCE

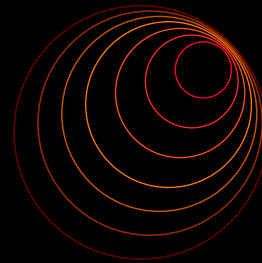
Protection without Sacrificing Performance

As a software licensable extension of the Silvus MN-MIMO waveform, Spectrum Dominance is an expansive suite of Low Probability of Intercept / Low Probability of Detection (LPI/LPD) and Anti-Jamming (AJ) resiliency capabilities. Silvus Technologies is the only tactical MANET provider that delivers Spectrum Dominance LPI/LPD and AJ capabilities without sacrificing range, throughput or robustness – even under electronic attack.

## CORE FEATURE SET

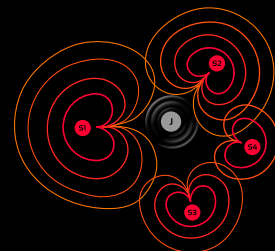
### MANET Power Control MAN-PC

An LPD feature, MAN-PC minimizes the RF footprint of Silvus StreamCaster MANET radios – dynamically throttling power to the minimum amount necessary to maintain network connectivity.



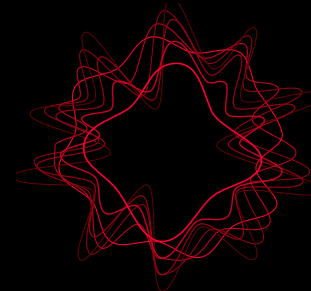
### MANET Interference Cancellation MAN-IC

Silvus StreamCaster MANET radios automatically perform real-time interference monitoring. At the onset of jamming, they employ sophisticated spatial signal processing techniques to nullify the offending interfering signal.



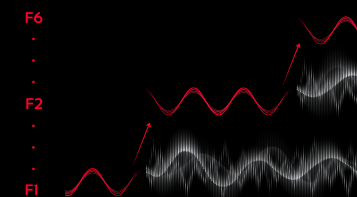
### MANET Protected Waveform MAN-PW

When MAN-PW is enabled, the MN-MIMO waveform is hardened for increased resiliency. For additional CUI information, contact your Silvus Sales Representative.



### MANET Interference Avoidance MAN-IA

Silvus StreamCaster MANET radios automatically scan and monitor the RF spectrum for interference across multiple user-defined channels. At the onset of jamming, the entire network moves to the cleanest frequency without user intervention.



## PURPOSE-BUILT FOR CONGESTED & CONTESTED ENVIRONMENTS

Silvus' Spectrum Dominance capabilities enable StreamCaster MANET radios to thrive in congested and contested environments, empowering their operators with tactical communications solutions to achieve mission objectives even under electronic attack.

Spectrum Dominance creates an EW resilient battlespace – whether it's through massively scalable mesh networks that deliver data connectivity to hundreds of soldiers operating at the tactical edge, creating a secure and protected C2 and communications network for unmanned systems, or providing low-latency connectivity for air and missile defense platforms.

And we're not stopping there – Silvus is investing in AI and Machine Learning to make Spectrum Dominance even more capable – to solve the toughest tactical communications problems of today, and tomorrow.



"At Silvus, we never stop innovating comms technology for the tactical edge. Our mission is to deliver next generation technology to the warfighter – to achieve decision dominance and communications superiority on the battlefield."

**Babak Daneshrad PhD,**  
Founder and CEO, Silvus Technologies

# MISSION CRITICAL SOLUTIONS

## StreamCaster MANET Radios

StreamCaster radios are designed to provide secure and reliable communications in the most challenging environments. With optimized output power (1 to 80W effective) and data throughput up to 100 Mbps, they deliver class leading performance at the tactical edge.

Available in handheld, mounted and OEM module form factors, each unit is certified to MIL-STD-810G to withstand the harshest conditions. Leading the industry in frequency agility with over 30 different frequency band options from 300 to 6000 MHz, they provide the flexibility to choose the perfect configuration for your mission.



At the heart of StreamCaster MANET radios, the MN-MIMO waveform provides exceptional performance, even in complex RF spectrum environments, making it ideal for long range, high multi-path and extreme NLOS communications.

## BATTLE PROVEN PERFORMANCE

### Supporting Key DoD Modernization Priorities

ATO certified, Silvus StreamCaster MANET radios (AN/PRC-169) and MN-MIMO waveform with Spectrum Dominance support key DoD branches, enabling Joint All-Domain Command and Control (JADC2) across the spectrum of operations.

U.S. Army



Next Generation Combat Vehicle



Integrated Tactical Network



Integrated Battle Command System

USMC



Networking On-the-Move

Photo Courtesy of Department of Defense. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

## LEARN MORE

Spectrum Dominance features are available as licenses that can be downloaded onto existing Silvus StreamCaster MANET radios via simple firmware updates. And while the complete Spectrum Dominance package is only available to U.S. Government customers, several of Silvus' Spectrum Dominance features are non ITAR controlled and are commercially available to all Silvus customers, enabling advanced capabilities that provide secure and robust communications in any operational environment. For additional information, contact your Silvus Sales Representative.

**SILVUS**  
TECHNOLOGIES

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