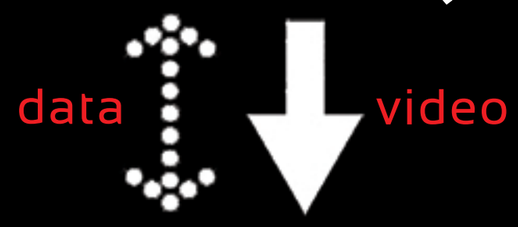
SILVUS TECHNOLOGIES

UNMANNED SYSTEMS DATALINKS

...ALWAYS CONNECTED

The Status Quo



Historically, unmanned systems have utilized multiple wireless links, each with a specific and limited purpose. In a typical setup, a bidirectional datalink was used for command/control, and a separate video link was used to transmit live imagery from the platform to the operator. The 2 disparate links were necessary because the datalink lacked the capacity needed for full motion video, and the video link lacked the bidirectionality and data interfaces for command/control. As a result, each platform:

Requires twice as much radio hardware
Occupies twice as much RF spectrum

The Evolution

With the proliferation of WiFi (802.11) technology, came a tidal wave of radio modules being marketed as “tactical” solutions. Under the hood, these WiFi based radios have all the same shortcomings as your typical home or office WiFi devices. Namely they have issues with:

Limited Range
Unreliable Connectivity
Degraded non-line-of-sight performance
Poor mobility
High latency
Vulnerability to cyber attack

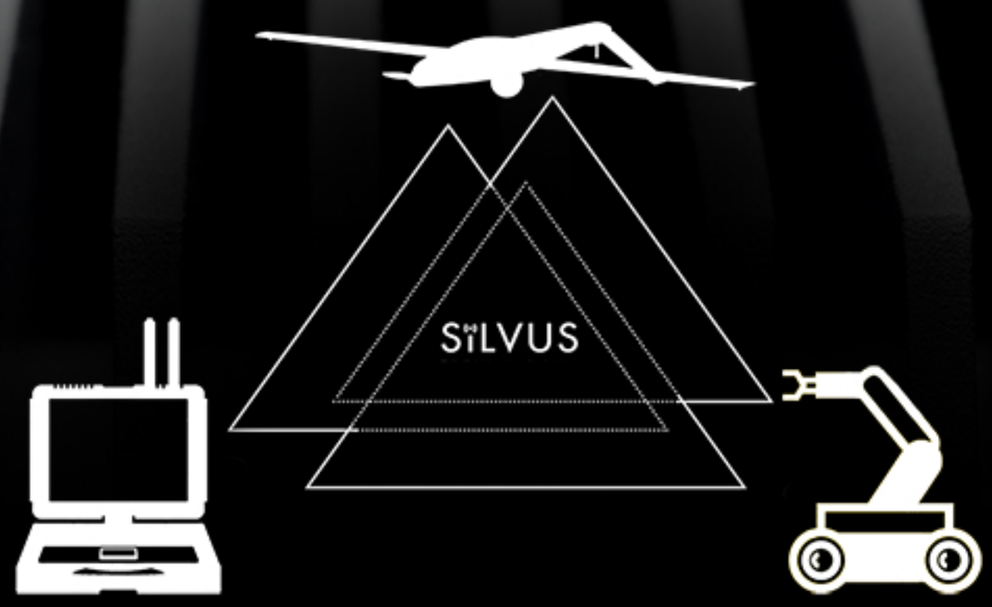
THE REVOLUTION

To solve these problems, Silvus Technologies is proud to introduce its Mobile Networked MIMO (MN-MIMO) technology to the Unmanned Systems Market.

MN-MIMO is the result of more than 15 years and $55M of Research and Development, funded by the US Government. MN-MIMO utilizes the latest advances in military technology to provide wireless video and data communications in the harshest of environments where traditional systems fail. Touting COFDM modulation, up to 4x4 MIMO, and mesh networking capability, MN-MIMO has been proven to provide longer range, better reliability, and higher data rates than any commercial or military wireless standard available today.

Silvus StreamCaster radios feature MN-MIMO at the core. 2 radios join to form a robust, long-range, bidirectional datalink, supporting video, C2, telemetry and any other form of IP data. When a 3rd radio is powered to the same frequency, they join to form a fluid, self-healing, self-forming mesh network. Each radio can act as a repeater for its neighbors, enabling advanced swarm and relay missions.

JOIN THE REVOLUTION!



STREAMCASTER LINKS EVERY PIECE OF THE PUZZLE

UAV
LOS communications out to the horizon, NLOS communications in urban landscapes, and BLOS communications using swarm/relay.

UGV
Reliable operation all environments from rural LOS to subterranean extreme non-LOS. UGVs, UAVs, and breadcrumb repeaters can be used to relay signals for extended range.

USV
StreamCaster radios are able to harness signals reflected from the water, to increase the reliability and robustness of surface communications.

GCS - omni antennas
Battery powered radios, paired with tablets, laptops, and custom GCS stations, to provide portable solutions for control of unmanned vehicles.

GCS - sector antennas
Sector antennas provide a fan beam which can be coarsely pointed in the general direction of the unmanned vehicle. Multiple overlapping sector antennas can be used in order to provide continuous azimuth coverage up to 360 degrees.

GCS - tracking dish
Dish antenna(s) mounted to mechanical autotracking pedestals provide extremely high gain and long range for Unmanned Aerial Vehicles. Ranges exceeding 300km have been demonstrated in real world testing.

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CONTACT US FOR A DEMO

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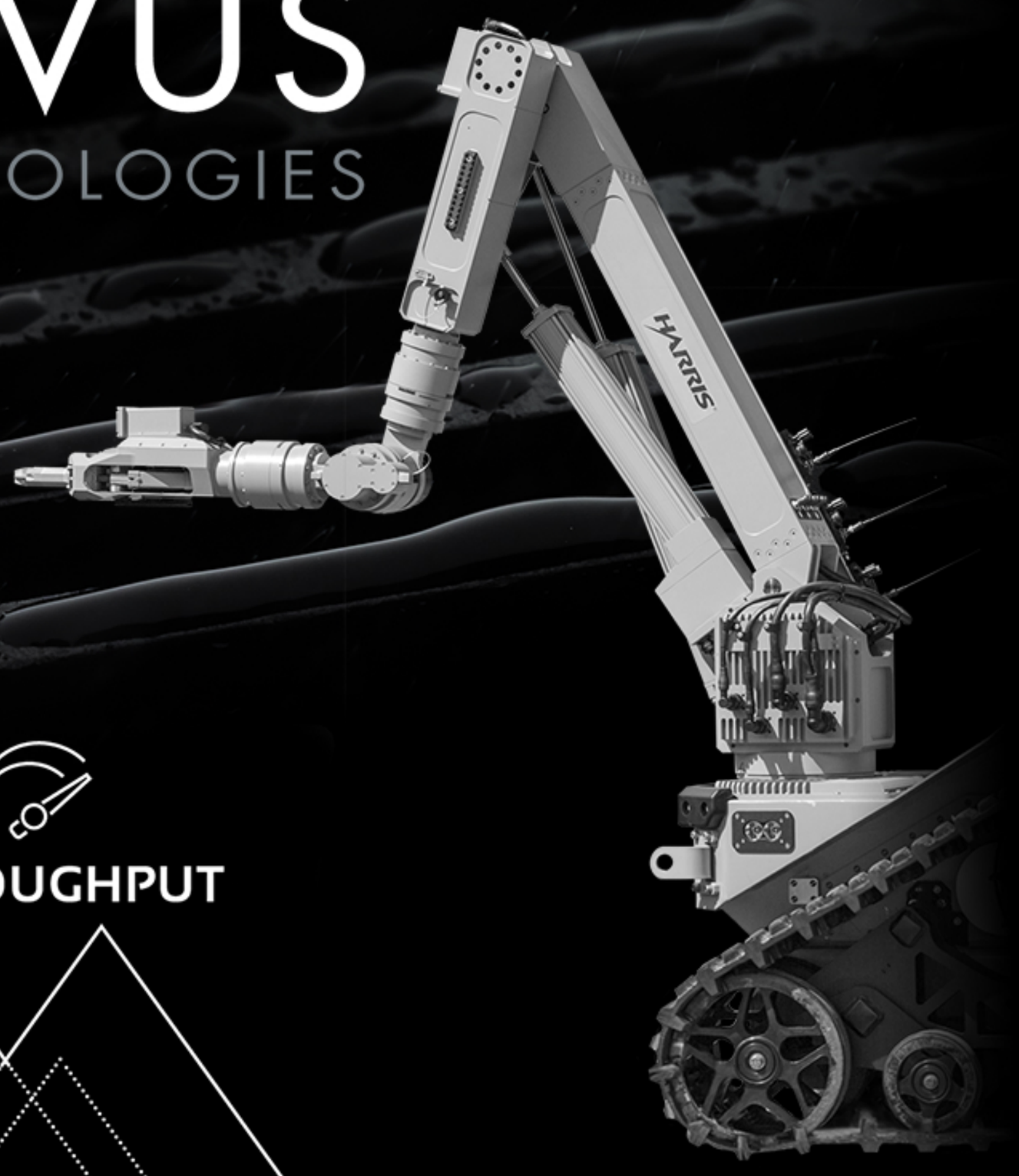

THROUGHPUT

SiLVUS TECHNOLOGIES

RANGE

ROBUSTNESS

Leading the MIMO Revolution