Radiofrequency Interference (RFI) Detection-Machine Learning (ML) System ("Truffle Pig")

Assuring our Nation Remains a Global Leader in the Space Domain

Independent Technical Solutions

Stephenson Stellar Corporation (SSC) is a nonprofit, vendor-agnostic organization that can mitigate complex cybersecurity challenges to the DoD effectively with COTS hardware and tailored software.
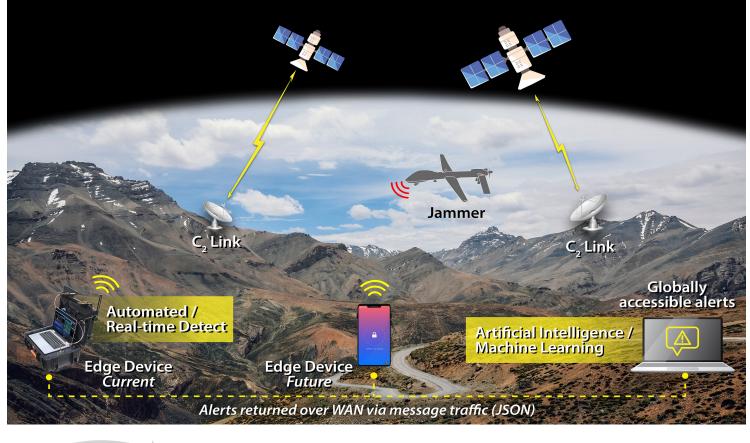
Machine Learning Expertise

SSC's unattended artificial intelligence/ML technologies allow operators to easily re-train algorithms and monitoring parameters organically, without the need for field technicians or depot reach-back.

Low-cost RF Monitoring

Truffle Pig provides automated, real-time detection for critical assets against RF attacks (jammers, spoofers, UAS), employing state-of-the-art compressed sensing combined with convolutional neural networks. Analysis takes seconds versus hours/days for traditional approaches that require time consuming and error-prone SME analysis.

The Future of Space Security

We can provide Tactics, Techniques, and Procedures (TTPs) to improve space resiliency and provide next-generation cybersecurity solutions for space systems.

Jammer

C_2 Link

C_2 Link

Globally accessible alerts

Automated / Real-time Detect

Artificial Intelligence / Machine Learning

Edge Device *Current*

Edge Device *Future*

Alerts returned over WAN via message traffic (JSON)

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Stephenson Stellar® Corporation