

Space EA Unveils Hidden Technology for Next Generation Satellites.

"PAVISE" technology is a collaborative effort with Space EA and an Austin-based cyber security technology company. Space EA professionals have over 35 years' experience with the Department of Defense and NASA for Space and ground system development.



El Segundo, California Aug 24, 2022 ([Issuewire.com](https://www.issuewire.com)) - Space system experts at Space Engineering & Acquisition Systems, Inc. (Space EA) unveiled the latest network application technology called "PAVISE". Over six years in development, this proprietary software/hardware technology package is designed to protect large satellite networks from cyber-attacks utilizing a unique process never seen before. According to company officials, this technology application is now deployable.

[In August of 2021, Space EA introduced a major development milestone in cyber technology.](#)

Heralded as a technology breakthrough, PAVISE enables satellite transmissions to be completely hidden and undiscernible to other networks and cyber operations. Simply put, a satellite can conduct communications back and forth to earth stations and other PAVISE-enabled satellites, with complete anonymity. Network transmissions cannot be detected therefore making it impervious to external interruptions through hacking, denial of service (DDoS) attacks, or other unwelcomed intruders.

All protocols activate a patented random data generator, which never repeats a pattern and results in exponential algorithmic complexity and randomization. PAVISE does not respond to port probes, fake IP attempts, unapproved network messages, replay-, altered-, or inserted messages, DDoS, and MiTM.

Rico Jones, Founder and Principal Director of Space EA explain in more detail, "PAVISE is a technology suite with a patented Network Access Control - a hardened network process which is immune to external hacking and DDoS attacks. Its hyper-secure global intranet methodology provides no discernable data to an unauthorized attempt."

Cyber protection in space is critically important for satellite transmissions, especially where mesh networks are in place. A disruptive attack on one satellite can cause a series of effects. Space EA states their new technology, PAVISE has multiple proprietary protocols which enable quantum-proof secure channels of communication within the network.

Dr. John Seamons, PhD., Chief Technical Officer (CTO) at Space EA highlighted that, "the PAVISE on-location internally generated token creation and destruction is a gamechanger in the area of key distribution and token security. The technology operates without the limitations and physical security needs of traditional tokens. It becomes more advantageous with its application to space as the nodes become increasingly separated."

Variable length key distribution not only overcomes distance limits but also requires no transfer and no storage. Leveraging its encryption breakthroughs, PAVISE utilizes exclusive quantum-resistant communications and authentication security technology. Five interoperable systems of encrypted authentication in a space of $10^{235.000}$ secure every packet, message, application, and node across the network and internal to satellite and ground systems.

The quantum computer is widely known to be the next big threat to cyber technology. According to Space EA, PAVISE delivers multiple post-quantum cryptographic algorithms that defeat attacks by quantum computing, Cryptanalysis, Statistical Analysis, Mathematical Analysis, and AI. The technology has successfully undergone and excelled in stringent government, academic, and military testing.

"The quantum emergence drives a global shift to new satellite-enabled, post-quantum cybersecurity. Quantum-defying technology is the core element of secure communications infrastructures among constellations and other military assets," explains Rico Jones. "Space EA's solution with PAVISE facilitates an intrusion-proof data exchange mechanism to overcome quantum computing threats."

About Space EA:

Space EA Systems is a minority-owned small business, with 3+ decades of DoD, NASA, and US Agency experienced professionals providing advanced technology, acquisition, design, engineering, and R&D support to DoD Space and ground system development. The company's Security Technology Suite includes post-quantum cryptography, multiple authentication systems, and advanced NAC

solutions. Space EA's primary customers include US Space Force and Space Systems Command (SSC). Space EA Point of Contact: 949-562-3536; info@Spaceea.com



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