

Press Release

FOR IMMEDIATE RELEASE
2025

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PSG Secures Dual Patents for Encrypted Light Scene Authentication Technology

Austin, Texas – May 1, 2025

Prometheus Security Group Global (PSG), a pioneer in Zero Trust physical security, announces the issuance of two U.S. patents protecting its revolutionary Scene Authentication technology, a component of its Zero Trust Unified Solution. This industry-first solution verifies the authenticity of video streams using encrypted light pulses embedded into the monitored environment.

The awarded patents are:

- U.S. Patent No. 9,432,390-B2 – Methods for embedding encrypted light into a scene to verify video authenticity.
- U.S. Patent No. 2015/0188938-A1 – Enhancements for multi-device sync and continuous authentication, even during network disruptions.

Prometheus's Scene Authentication solution introduces a new layer of defense in video surveillance by embedding encrypted light into the physical environment itself, enabling each frame to be cryptographically validated in real time. This approach defends against tampering, spoofing, and other attacks that traditional camera-based architectures cannot detect.

"Prometheus's Scene Authentication solution ensures video integrity at a level the industry has never seen before," said Jeremy Freeze-Skret, CSEIP, VP of Engineering at PSG.

The technology was born out of field work at sensitive government sites, where PSG engineers demonstrated how easily surveillance video could be looped and spoofed—even with the cameras powered off.

"With just Wireshark and a few lines of code, we replayed footage that fooled experienced operators," said Freeze-Skret. "It became clear that we needed to authenticate not just the video stream, but the scene itself."

As generative AI and deepfake technologies advance, demand for verifiable visual data has grown exponentially. Unlike conventional methods that secure only the camera, Prometheus's Scene Authentication solution embeds integrity directly into the environment—making it ideal for high-stakes applications across financial institutions, critical infrastructure, and government environments. Additional potential use cases include legal evidence, treaty verification, and content authentication on social media and political platforms.

The technology ensures that video data is continuously verified and authenticated, supporting end-to-end Zero Trust Architecture and aligning with cybersecurity mandates including Executive Order 14028.

About Prometheus Security Group (PSG)

Prometheus Security Group (PSG) delivers next-generation security solutions, bridging the gap from legacy analog to advanced digital systems in critical environments. Using Zero Trust principles, our ZTA Unified Solution, and its integrated technologies, ensure continuous authentication and verification across physical and digital domains, enhancing safety, situational awareness, and response. PSG seamlessly integrates with

intrusion detection, access control, video and cyber-secure data platforms, protecting government agencies, critical infrastructure, and industrial operations.

High-security facilities rely on PSG for clean data to power AI-driven analytics, safeguard edge devices against threats, and enable cost-effective system integration. Backed by top federal certifications, PSG meets the most rigorous security standards. Headquartered in Austin, Texas, we operate globally, supporting defense, energy, and enterprise markets.

For more information, visit www.psgglobal.net or contact marketing@psgglobal.net.