



SOLUTION SHEET

Securing the perimeter

Detect and deter threats before they become incidents



Securing the perimeter

Organizations face more risks, stricter regulations and increasingly sophisticated intrusion methods. As threats become more complex, even more robust, smarter technologies are needed to protect people, assets and critical infrastructure.

Perimeter security plays a crucial role in a comprehensive physical security strategy, safeguarding physical assets such as data centers that house vital information targeted in cyberattacks, substations that supply power to millions and many other high-security environments. Without strong perimeter protection, vulnerabilities can be exploited, leading to significant safety, financial, operational and reputational consequences.

Traditionally, perimeter security systems have included 2D intrusion detection (infrared, microwave, optical barriers, vibration sensors – but limited to the fence line), 3D surveillance (LiDAR), video analytics (both on the edge and server based, with thermal cameras to reduce false alarms), central video management platforms and other adjacent technologies like access control and LPR. Traditional systems are often made up of siloed, legacy tech, don't provide true situational awareness and involve labor- and cost-intensive installation and maintenance.

Solution

The Octave difference: The Octave Coda perimeter protection ecosystem

Octave's approach is different. Our Octave Coda (formerly HxGN dC3) perimeter protection ecosystem is part of a powerful, holistic physical security portfolio that is open and built for integration with PIDS (2D), access control, video analytics and more.

Strengthen physical security with Octave's powerful solutions designed to detect and deter threats on and around the perimeter before they become incidents. Whether using traditional technologies or by implementing a state-of-the-art LiDAR system, organizations have the choice how to best safeguard facilities, infrastructure and property with real-time monitoring and automated alerts, always ensuring the highest level of protection.

The Octave Coda perimeter security ecosystem

Octave Coda Video (formerly HxGN dC3 Video)

This enterprise-class future-proof VMS solution is built to meet the unique requirements of enterprise video users and interact with a wide variety of third-party systems, devices and sensors. It is the perfect choice to sit at the heart of your physical security ecosystem.

- **Open enterprise architecture:** Easily integrate traditional perimeter protection systems (e.g., fence protection) and leverage classic sensors or video analytics solutions to effectively and reliably protect indoor and outdoor areas against unwanted intrusion; its flexible rules system offers numerous possibilities for efficient area monitoring across unlimited zones
- **Video and business operations integration:** Make the use of video surveillance technology even more effective and efficient
- **Low total cost of ownership:** Minimize your hardware footprint and use the advanced management and monitoring tools to facilitate efficient operations and rollouts, even for thousands of sites

Octave Coda Video Analytics (formerly HxGN dC3 Video | Analytics)

This powerful application suite is geared toward perimeter protection, 2D counting, object counting, fire/smoke detection and facial analytics.

- **Reliable detection architecture:** Leverage AI and cutting-edge image analysis algorithms to get reliable results with extremely low false alarm rates
- **Improved situational awareness:** Facilitate early detection and prevent escalations
- **Seamless user experience:** Leverage tight integration with Coda Video

Octave Coda Spatial (formerly HxGN dC3 LidarVision)

This LiDAR-based 3D surveillance solution leverages digital twin and volumetric detection technology to protect an entire area, not just a fence line.

- **Comprehensive surveillance:** Monitor an entire area – not just the perimeter – while continuously tracking intruders
- **Powerful, more precise detection:** Leverage 3D maps to create a digital twin of an area for a more accurate picture of what's taking place
- **Fewer false alarms:** Reduce unwanted alerts due to wind, misidentified people, animals, car headlights, etc.
- **Increased accuracy:** Detect intrusions and anomalies down to the centimeter
- **Improved object tracking:** Identify and track objects even if they are not moving
- **Reduced risk:** Comply with GDPR and other regulations more easily, as LiDAR sensors do not capture personal identification data

Octave Coda Designer (formerly HxGN dC3 Designer)

This high-powered design tool leverages the power of digital twin technology to provide organizations with an intuitive and realistic planning experience for LiDAR-based surveillance systems.

- **Simple system design and planning:** Place LiDAR sensors and cameras in a 3D map to visualize LiDAR beams and camera views
- **Real-time simulation and testing:** Test camera views and sensor coverage and use a virtual intruder to simulate detection capabilities before installation
- **Comprehensive visualization tools:** Identify blind spots and choose parameters for fixed cameras for optimized coverage and camera positioning

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

©2026 Intergraph Corporation and/or its affiliates. All rights reserved.

[More information at octave.com](https://octave.com)