



BROCHURE

Octave's Connected Rail ecosystem



Overview



Rail and mass transit operators and infrastructure owners are under increasing pressure to modernize aging infrastructure, improve operational resilience and maintain the highest levels of safety and security. Many organizations still rely on siloed systems for asset management, operations, security and infrastructure, limiting transparency, efficiency and slowing response to changing conditions.

Octave's Connected Rail ecosystem brings these systems together into a unified operational environment. By connecting geospatial information, asset intelligence, operational data and security systems, organizations gain a shared view of the network that improves situational awareness, strengthens collaboration and supports faster, more informed decision-making.

Built on an open, integrated architecture, the Connected Rail ecosystem integrates with existing technology investments to create a connected operational ecosystem that improves safety and security, optimizes asset performance and increases operational efficiency.

1

Unified view across operations,
asset management and security

2

Operational and information
silos eliminated

3

Improved situational awareness
with real-time operational and
asset intelligence

4

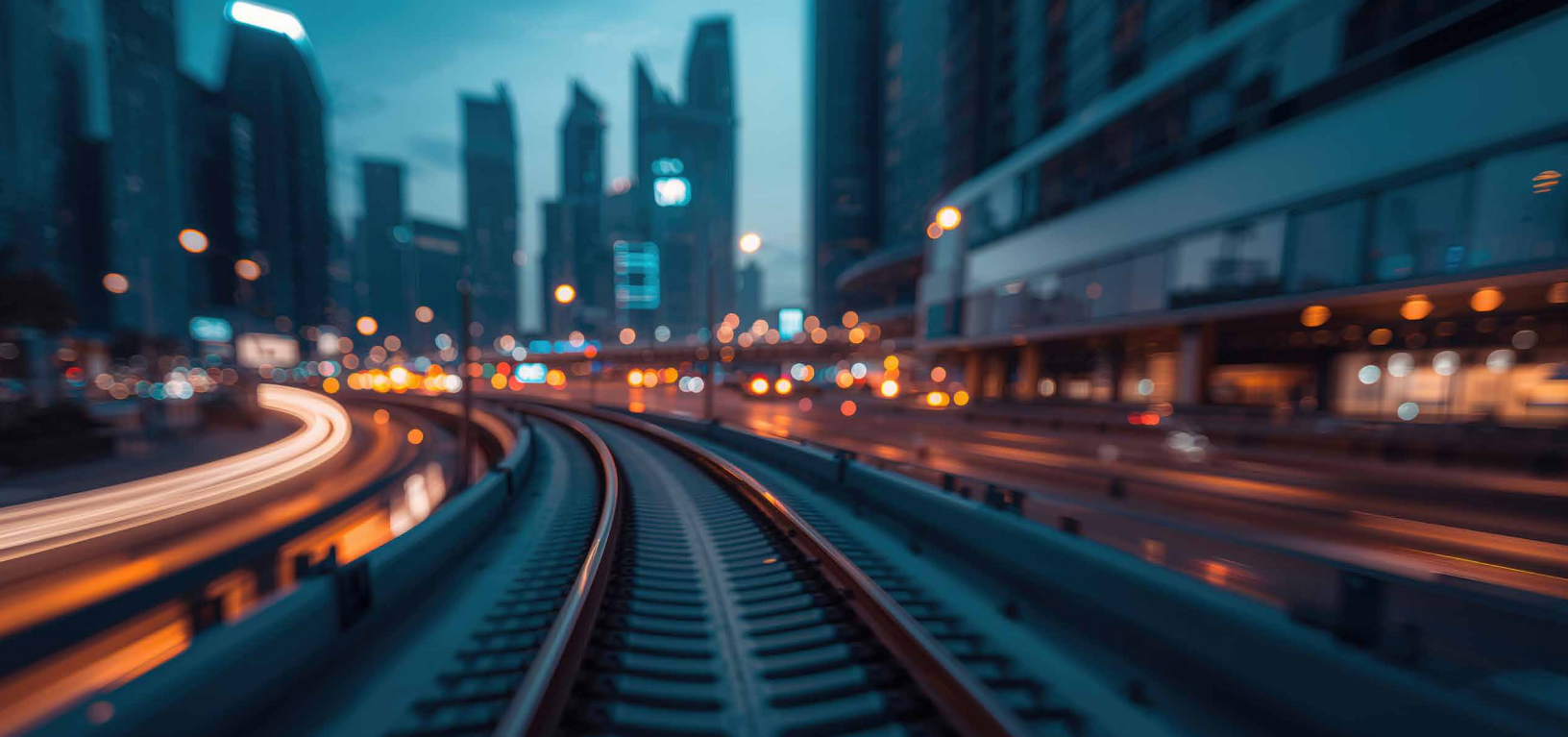
Maintenance, operations and
security coordinated through
connected workflows

5

Asset performance strengthened
with data-driven maintenance
and lifecycle management

6

Safer, more resilient operations
with connected decision-making



Capabilities

Key capabilities of Octave's Connected Rail ecosystem

Geospatial network foundation



Octave Alto Mass Transit (formerly HxGN Mass Transit) provides a topology-based view of the rail network, connecting infrastructure, assets and operational information through advanced GIS and linear referencing capabilities.

This geospatial foundation enables organizations to understand where assets are located and how they relate to one another and provides the operational context needed across Octave's Connected Rail ecosystem.

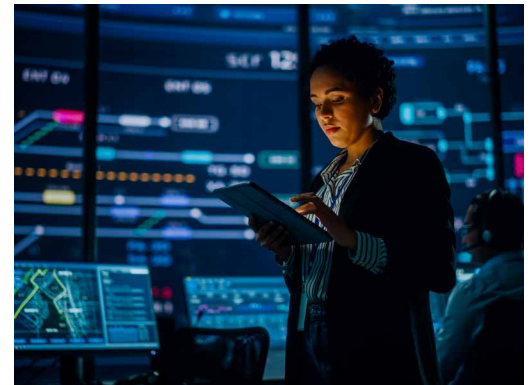
Enterprise asset management



Octave Attune EAM (formerly HxGN EAM) helps organizations manage maintenance, inspections, work orders and asset performance throughout the asset lifecycle.

Advanced capabilities such as condition monitoring and reliability-centered maintenance help improve asset performance, optimize maintenance strategies and support long-term investment planning.

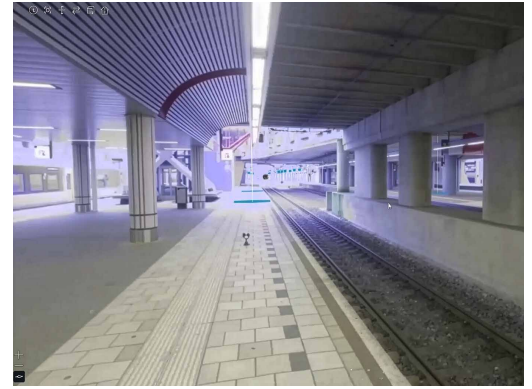
Integrated security operations



Octave Coda (formerly HxGN dC3) combines video surveillance, incident management and LiDAR-based volumetric protection to provide unified real-time situational awareness and enable fast and targeted response.

By connecting security events with operational and asset information, organizations can accelerate response, strengthen worker safety and better protect critical rail infrastructure.

Operational digital twin



Octave Alto Twin (formerly HxGN Smart Sites) brings information from asset management, operations, security and geospatial systems into a real-time 3D operational environment.

Operators gain an intuitive view of stations, depots, buildings and other critical assets, helping improve situational awareness, streamline operations and make faster, more informed decisions.

Connected operational ecosystem



Octave Databridge Pro (formerly HxGN EAM Databridge Pro) connects Octave solutions with enterprise, operational and third-party systems, enabling information to move seamlessly across the organization.

By eliminating data silos and connecting workflows, it creates the operational foundation that allows the connected rail ecosystem to function as a unified solution.

Octave's Connected Rail ecosystem in action



Unified operational view

Bring together incidents, assets, maintenance activities and operational information within a shared geospatial view of the rail network. A single operational picture helps teams coordinate responses and make more informed decisions.



Security with operational context

Share maintenance schedules, crew assignments and authorized work activities with security operations to reduce false alarms, improve coordination and strengthen worker safety.



Smarter maintenance planning

Align maintenance strategies with actual asset usage by combining operational data with enterprise asset management. The connected rail portfolio helps improve preventive maintenance, optimize resources and extend asset lifecycles.



Connected incident response

Automatically convert validated operational and security incidents into maintenance work orders, connecting operations, security and asset management through a shared workflow with a complete audit trail.



Workforce validation and asset protection

Validate workforce activity against planned maintenance schedules and authorized access. Identify unauthorized activity, protect critical infrastructure and support faster incident response.

Ready to take your experience with Octave to the next level?

Explore Octave's rich portfolio of software solutions that deliver intelligence at scale.

[Learn more](#)

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.

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