

# CXEdge™

Information superiority  
at the tactical edge

Always-on situational awareness is essential for military teams operating in contested environments. With CXEdge from IBM oLabs, advanced multi-sensor intelligence and targeting capabilities reach tactical units operating at the edge even when enterprise networks are out of reach.

CXEdge fuses disconnected sensor feeds and provides AI-enhanced alerts so operators can maintain orientation when mission parameters require minimal or no connectivity. Its open architecture supports rapid onboarding of new sensors and mission applications, enabling units to adapt quickly as mission needs evolve.

## Designed for edge devices

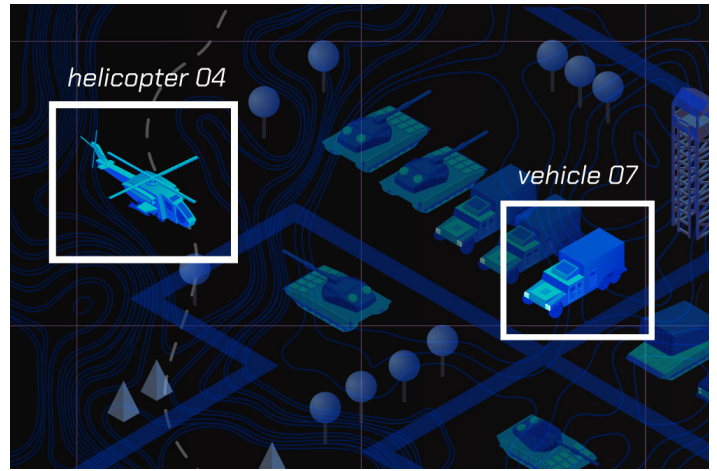
CXEdge is an AI-enabled suite of software solutions providing units with a trusted and tested sensor visualization and data integration capability for synthesizing mission information. Designed to run on low size, weight, and power (SWaP) hardware, it delivers mission-essential operational insights to edge devices.

CXEdge supports:

- Multi-sensor integration across full-motion video (FMV), radio frequency (RF) signals, and environmental sources
- AI-assisted analysis for rapid threat, target, and RF identification
- Configurable displays that reduce operator workload
- Deployable assets such as handhelds, edge devices, and tactical servers
- Automated alerts and reporting that speed decision-making
- An extensible and auto-scalable architecture designed for fast capability growth

## Future-ready, scalable, and cost-effective

Because CXEdge is sensor and hardware agnostic, it works across current and emerging platforms—from UxS and advanced vehicles to space-based assets—without costly reengineering. Its distributed compute model ensures units receive timely, clear visualizations and notifications in conditions where bandwidth is limited or unavailable.



## Accelerating mission software innovation

CXEdge serves as the foundation for Modular All-Domain Raider Reconnaissance Software (MARRS) developed by IBM oLabs in conjunction with Marine Special Operations Command. MARRS is expanding capabilities to units responsible for carrying out complex missions in today's constantly changing operational environments.

Specific MARRS capabilities enabled by CXEdge include:

- A containerized ML-assisted target recognition solution that highlights mission-critical information and lowers operator burden
- A mission analysis and environment preparation tool that enhances intelligence preparation of the battlefield
- GenAI applications for reporting, pattern-of-life analysis, targeting workflows, document search, summarization, and rapid exploitation
- A one shot/few shot classifier for real-time identification and correlation of targets without model retraining

## Demonstrated success

*Following a military training exercise, a US military officer said an opposing force using MARRS for AI-enabled target recognition was “four times more lethal” than the control training group that relied on time-consuming, manual tools and techniques for target identification and engagement.<sup>1</sup>*

## Mission innovation

Developed by IBM oLabs, CXEdge is curated by a team of data scientists, ML engineers, academics, and special operations veterans focused on operationalizing mission-specific AI for the US government. oLabs provides world-class in-house, on-site, and reach-back support to help customers scale solutions as technology and mission requirements evolve.

## Learn more

**IBM oLabs™** For information about CXEdge and MARRS, contact Russ Harris, IBM oLabs, at [Russ.Harris@ibm.com](mailto:Russ.Harris@ibm.com), or visit [ibm.com/oLabs](https://ibm.com/oLabs).

1. Threats from the Sky: Bayonet Innovation Team Takes Drone Warfare to Next Level, ARMY Magazine, December 1, 2025