CXEdge™

Information superiority at the tactical edge

Tactical units operating in austere conditions represent the tip of the tactical spear on today's battlefield. On these front lines where communication networks are weak and access to the latest cloud computing technology is limited, units struggle to quickly move data and analyze threats.

The solution? CXEdge.

Simple yet robust

CXEdge is an AI-enabled data platform designed to run on low size, weight, power, and cost (SWaP-C) hardware. It enables tactical teams to collect, analyze and distribute mission-critical data in real time on handheld devices. CXEdge enhances situational awareness and shortens target timelines, increasing mission effectiveness in the most challenging conditions.

Designed for tactical units and teams without access to robust networks or enterprise cloud resources, CXEdge uses the power of AI to employ innovative compute and data management capabilities at the tactical edge. Extensible architecture and robust APIs enable rapid integration of emerging sensors and soldier-borne compute hardware. Based on open source software, CXEdge provides unlimited flexibility and tears down stovepipes inherent in proprietary solutions.

Reduce the cognitive workload

CXEdge is sensor agnostic and greatly decreases the cognitive load on end users by integrating data feeds from many modalities—including full-motion video (FMV), the radio frequency (RF) spectrum, and internet of things (IoT) devices. AI/ML algorithms analyze these feeds in real-time for insights such as automated target detections, RF emitters of interest, acoustic threat indications, and others. These integrated feeds can all be displayed on a single pane of glass, informing decision-makers and driving mission success.

With CXEdge, end users and ground force commanders can view tactically relevant information quickly and easily from all battlefield domains. CXEdge software is geared towards interoperability and is capable of supporting multiple configurations based on changes in mission sets. Further, CXEdge will scale from SWaP-C devices in low or no-network environments up to the enterprise level within and across services and agencies.

Operate on the edge

IBM oLabs™

CXEdge was developed by IBM oLabs. oLabs is home to a team of data scientists, ML engineers, academics, and special operations Veterans focused on operationalizing mission-specific AI and emerging technology solutions for the US Government.

oLabs features a highly experienced cadre of technical solution architects who provide reachback support to ensure their customers' solutions are scalable to meet rapidly evolving needs and technological advances. To learn more, visit ibm.com/oLabs.