



Compress the kill cycle with Red Hat Device Edge



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Executive summary

The U.S. Air Force and its mission partners are fielding new mission capabilities on airframes and command and control (C2) nodes to compress the kill chain. The find, fix, track, target, engage, assess (FTTEA) process requires ubiquitous access to data at the strategic, operational and tactical levels. Red Hat® Device Edge embeds, installs, analyzes, and federates data sets in a manner that provides the warfighter to use artificial intelligence and machine learning (AI/ML) to increase the accuracy of airborne targeting and mission guidance systems. Challenges of edge computing on aircraft include limited C2 edge nodes include addressing constrained capabilities on airframe hardware (size and weight), connected and disconnected, meeting airworthiness security requirements, and efficiently installing software at scale. The Air Force can meet these requirements with Red Hat Device Edge, the edge-optimized software platform that is hardware agnostic.

Opportunity: Use edge technology to defeat the adversary

The Air Force seeks to partner on emerging commercial capabilities on airframe and ground systems to gain intelligence advantage, including:

- Combining and analyzing data to feed AI/ML at the edge to increase the accuracy of targeting and mission guidance systems and compresses the mean time to detect (MTTD), mean time to act and control (MTAC) and flight decisions.
- Delivering near-real time data from sensor pods directly to aircrew, accelerating the sensor-to-shooter cycle.
- Supporting Joint Central Employment (JACE) in the highly connected 21st-century battlespace.
- Sharing near real-time sensor fusion data with joint and multinational forces to increase awareness, survivability, and lethality.

With Red Hat Device Edge Lockheed Martin is leading the infusion of cutting-edge commercial technology into military capabilities that deliver advanced solutions to our customers. Unlocking these AI technologies can help national security decision makers stay ahead of adversaries, enabling a safer and more secure world.*

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Automated deployment streamlines sustainment at scale. Read about how Red Hat Device Edge meets this need and airworthiness security requirements.