

# Red Hat

## Mission Readiness

Using Software and Data to Achieve Decision  
Superiority from the Strategic Core to the Mission edge



# Red Hat is the catalyst for a 'coalition of the willing' built on open source.

For over two decades, Red Hat has taken the best of global open-source innovation and made it available to the enterprise in a secure, supported, and certifiable way.

Our role is to provide the common ground for industry partners, national security, and frontline operators.

We are the world's leading provider of enterprise open-source solutions, delivering a trusted, consistent, and comprehensive foundation for transformative IT and AI applications.



# We provide the common ground for Global Primes, National Champions, and Integrators

Red Hat serves as the foundational glue, enabling a diverse ecosystem to integrate into a single, resilient force. Our hardware-agnostic layer ensures consistency and prevents vendor lock-in.

## Global Primes



We abstract software from the “iron,” allowing rapid updates to mission systems without proprietary hardware lock-in.

## National Champions



We enable partners to meet strict sovereign security requirements while remaining fully interoperable with NATO standards.

## Strategic Integrators



We ensure large-scale digital transformation projects are built on a consistent, automated framework that scales from HQ to edge.



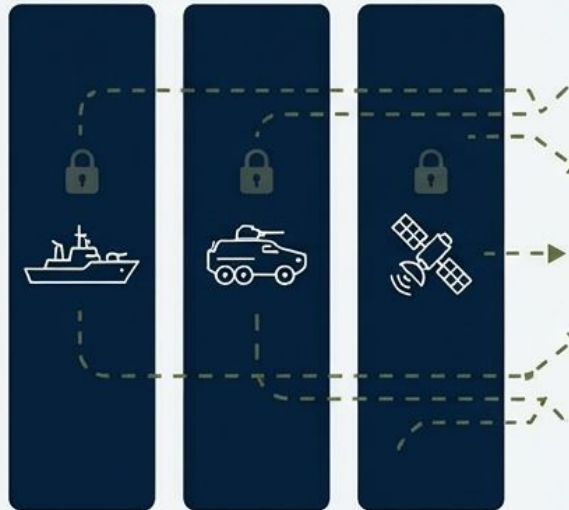
## The New Battlespace is Defined by Data and Software

- The modern frontline is a hyper-connected, software-driven ecosystem of sensors, drones, and autonomous vehicles.
- Real-time data analytics and AI are the decisive arms of contemporary military strategy.
- This reality demands a resilient, shared digital foundation—what the UK Ministry of Defence terms a “Digital Backbone”—connecting sensors, decision-makers, and effectors across all domains.

# The Decisive Bottleneck is Data Fragmentation

The primary challenge facing the Army, Navy, Air, and Space domains isn't a lack of data; we are drowning in it. The real issue is the fragmentation of that data across three critical barriers:

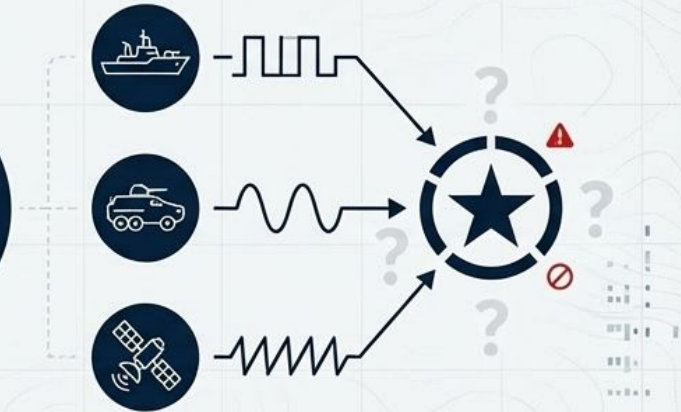
## 1. Entrenched Data Silos



## 2. The Air-Gap Dilemma



## 3. Hardware & Language Barriers

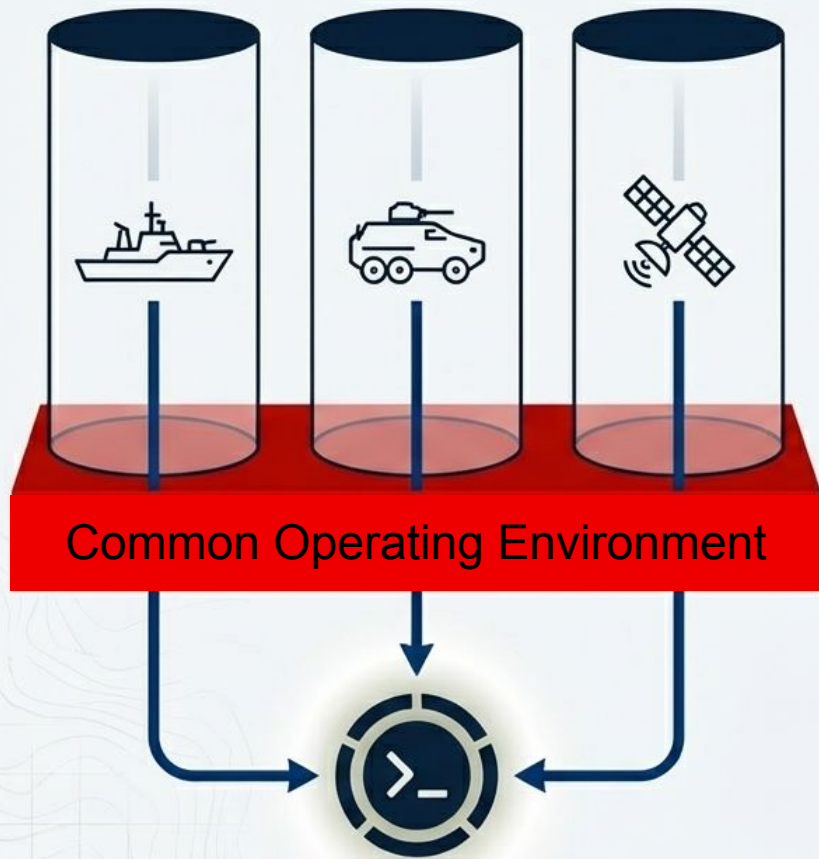


# Promising innovations fail to cross the 'Valley of Death' into operational use.

We see a recurring pattern: promising experiments and “lab-based” prototypes from SMEs and National Champions fail to make the leap into production. This is because the underlying foundations—security protocols, data standards, and interoperability frameworks—are not consistent from the start. Without a stable, common ground, even the most advanced AI and analytics projects fail to deliver value.



*“When data is fragmented, even the most advanced AI and analytics projects fail to deliver value. The issue isn’t the technology; it’s that the foundation beneath it is unstable.”*



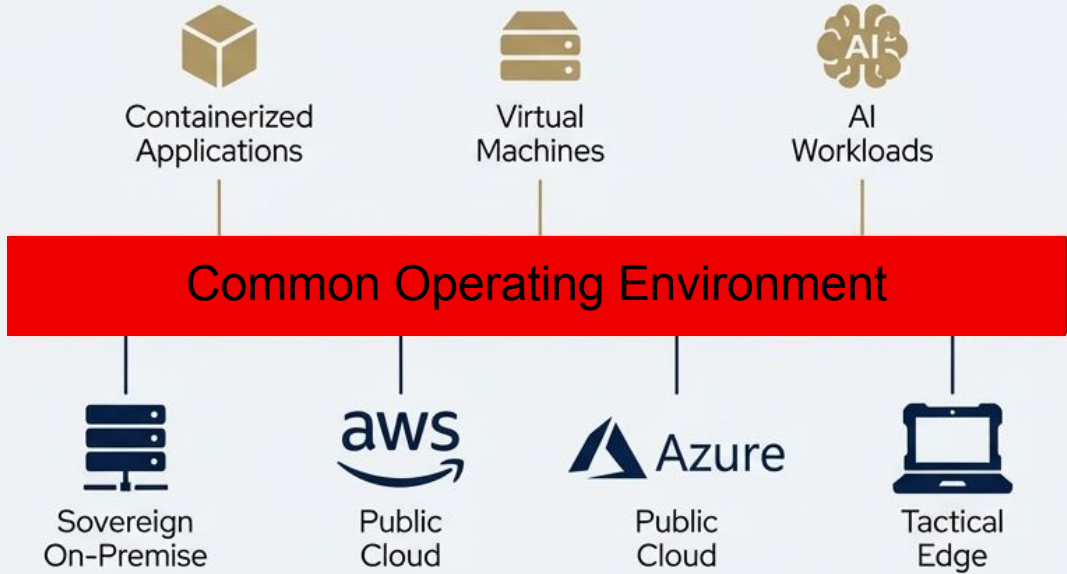
## The Path Forward Requires a Common, Interoperable Foundation

To solve the data sharing crisis, the industry must shift from fragmented, platform-centric procurement. The solution lies in three key pillars:

- **Open Collaboration:** Move away from proprietary “black box” systems to ensure every new technology is “interoperable by design.”
- **Secure Interoperability:** Bridge secure and open environments with modern data movement and Zero-Trust architectures.
- **A Unified Technical Language:** Establish a common technology foundation to translate data from diverse hardware into a single, actionable truth.

# Red Hat OpenShift provides the 'Common Operating Environment' for the Alliance.

OpenShift is the leading enterprise Kubernetes platform, serving as the core container platform for modern defense. It provides a single, trusted framework for NATO member states to build, share, and deploy critical applications and data services.



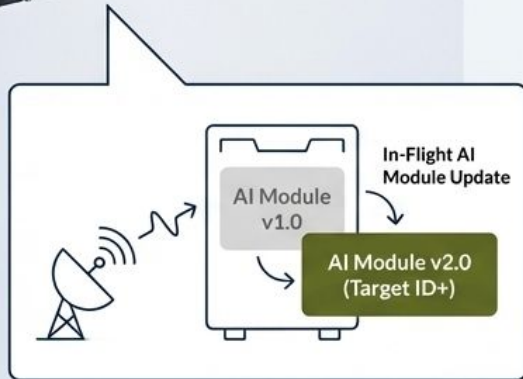
- **Unified Management:** Hosts containerized applications, legacy virtual machines, and AI workloads on a single plane.
- **Security by Default:** Builds in automated compliance, governance, and a hardened software supply chain, dramatically simplifying the Authority to Operate (ATO) process.
- **Hybrid Cloud Control:** Spans sovereign on-premise data centers, AWS, Azure, and Google, allowing nations to maintain digital sovereignty while ensuring interoperability.

# Mission Proven: Dynamically Updating Airborne Assets with Lockheed Martin

A Lockheed Martin Stalker UAS on an ISR mission detected a simulated target.

**The Action:** Using Red Hat Device Edge, engineers pushed a new software module to the drone *while it was airborne*.

**The Result:** The update delivered enhanced AI-based computer vision, allowing the Stalker to more accurately classify the target in real-time. This ability to dynamically improve asset performance *during* a mission is a transformative leap in decision dominance.



# The Mission Edge Demands Radical Simplicity

## ■ The Challenge:

A soldier at a remote base is a mission specialist, not an IT administrator. Yet, modern warfare demands they can adapt technology to an evolving mission.

## ■ The Dilemma:

How do we bring the agility of DevSecOps to the tactical edge? Pushing updates to a cloud is one thing; pushing them to a fleet of thousands of 'attritable' drones and sensors in contested environments by non-IT specialists is another.



# The “Green Means Go” Philosophy for Edge Operations

## The Solution:

Red Hat Edge Manager is a centralized fleet management solution designed for non-IT specialists in austere environments.

## How it Works:

An operator defines the “desired state” for a fleet of devices—the OS, apps, and configs. Edge Manager automatically makes the devices match that definition. The operator’s view is a simple dashboard. They initiate an update and wait for the indicators to turn green.

## The Outcome:

When the screen is green, the fleet is verified, updated, and ready for mission. No scripting. No deep diagnostics. Mission focus first.



# The Standard for the UK's Digital Backbone



# <24 HOURS

**Proof Point:** Red Hat OpenShift is a fundamental component of the UK Ministry of Defence's Defence Developer Services (D2S) platform.

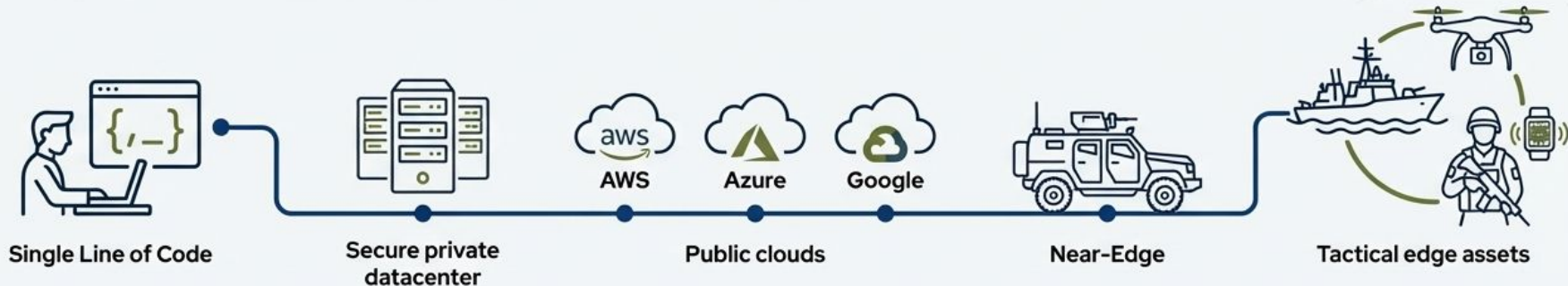
**The Result:** The platform has transformed deployment cycles from weeks or months to less than 24 hours, a massive operational advantage.

**The Standard:** OpenShift has been selected as the standard container platform across all major UK MOD landing zones, from on-premise to cloud (AWS, Azure, Google), and across security classifications.

# One Unified Platform, from a Single Line of Code to the Mission Edge

**The Vision:** Red Hat provides the consistency to connect data seamlessly across NATO and member states, ensuring all forces operate from the same trusted technological baseline, regardless of location or security level. It enables developers to build applications once and deploy them anywhere.

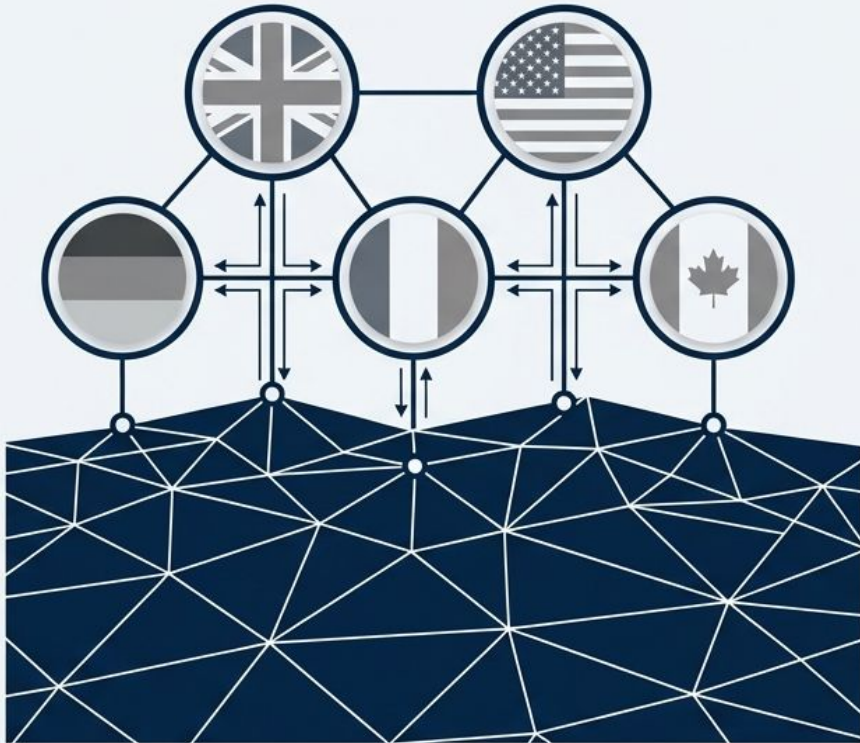
**The Core Message:** The unified platform allows for seamless command and control and data sharing across domains, empowering warfighters with the tools to collect, process, and act on data in real-time.



**Common Operating Environment**

*“OpenShift is not just a platform; it is the common operating environment required for modern alliance warfare.”*

# A Force Multiplier for Alliance Interoperability



## The NATO Value Proposition

The Red Hat platform addresses three core challenges for the alliance:

- **Security:** A transparent and auditable software supply chain, crucial for mitigating cyber threats in high-security environments.
- **Interoperability:** A commitment to open standards breaks down the “nightmare of incompatibility” from proprietary solutions, creating a unified digital fabric.
- **Agility:** An open source model enables rapid, secure deployment of new capabilities to the field, staying ahead of adversaries.

It allows each nation to maintain digital sovereignty over its data while benefiting from a shared, open technology stack.

# Red Hat: The Catalyst for Mission Readiness



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