Secure Data Fabric

Distributed Data Infrastructure for Warfighters

Overview

Secure Data Fabric integrates General Dynamics’ proven tactical data management and MLS Enterprise Cyber Security products and experience, creating a unified data environment for the formation’s echelons regardless of the source and security level of the data.

Smart Data Fabric is a field-tested information service that allows units on the edge of the network to request, publish, and subscribe to information in a tactical network environment. The Smart Data Fabric is:

- Survivable: Data is stored and managed resiliently across Strategic, Operational, and Tactical echelons. Data is replicated across the architecture on demand for operational survivability and resiliency.
- Disconnect, Intermittent, Latent Network-Tolerant: Every node remains mission capable across network disruptions. Disconnected LANs remain operational. Data edits and requests made while disconnected will be automatically satisfied when reconnected.
- Bandwidth Efficient: Efficient publish/subscribe mechanism only sends delta change information and only for data that you have requested.
- Open Standards-Based: REST, JSON, XML, WebSockets, GraphQL.

SDF provides standard PaaS infrastructure and interfaces that leverage both a trusted Operating System and Relational Database that provides MLS versions of productivity and collaboration tools. The MLS environment is approved for Protection Level 4 deployments. Leveraging the PaaS tools and services, customers can rapidly build and deploy C2 and other mission critical applications and data services securely. SDF based solutions are:

- Unified: Data is shared and managed in a single information space to support applications that provide multi-domain mission and administration capabilities.
- Agile: Design, development, deployment, and accreditation of new applications/capabilities is fast, low-risk, and affordable.
- Secure: The system is safe/accreditable, accountable to the highest standards expected by warfighters.

Key Features

- Hosted on current Army tactical network & hardware (TSI stack, edge devices, Android)
- Deploys from Corps to Battalion and below
- Supports Enterprise, Command Post, Mounted, and Soldier CE
- Simplifies integration of 3rd party applications through open APIs.
- Supports interoperability between systems and applications
- Makes data visible, discoverable, accessible and understandable
- Incorporates access control capability
- Seamlessly connects Army systems and mission partner environment
- Efficiently uses bandwidth, memory, and processors
- Supportable by unit-organic resources with minimal FSR support
- Protects against insider threats
- Unit organic and centralized system monitoring and management via a dashboard.