

Accelerating Decision Advantage Through A Digitized Supply Web

Booz Allen LOGWERX™ digitizes the supply chain and provides AI-enabled modeling and simulation to accelerate decision making—providing enterprise predictive logistics and sustainment across the Department of Defense

THE CHALLENGE

Delivering combat-critical integrated deterrence is impacted by the ability to accurately predict both pre-conflict and in-conflict supply chain requirements, from strategic to operational. LOGWERX is a suite of capabilities that optimizes route and supply locations, performing mission risk and vulnerability assessments of the supply web to adjudicate real-time prioritization of supply demands.

SELF-HEALING SUPPLY WEB

LOGWERX transforms the static supply chain to a self-healing supply web by digitally mapping the DOD supply chain and leveraging AI-enabled modeling and simulation. This provides global logistics awareness with the ability to:

- **Map the global nodal network** of the DOD supply chain across services and classes of supply
- **Assess sustainment** of supply and optimize route and resupply planning around contested or constrained areas in theater
- **Perform wargaming and simulation** to “fail segments” of the supply chain—and then assess and mitigate impacts
- **Plan missions and generate courses of action (COAs)** that meet supply requirements and priorities
- **Perform predictive analytics** to forecast future supply and demand requirements, using the data to evaluate impact of potential supply chain disruptions



FEATURES

Nodal Logistics Network

Structures raw logistics data from the data mesh into a digitized DOD supply chain, generating supply chain data visualization and predictive analytics

Data Mesh

Provides real-time data capabilities—leveraging extract, transform, and load (ETL) algorithms, graph, and relational databases to optimize nodal and transactional data deployed across DOD systems

Visualization

User-friendly visualization of the battlespace, maps out all the logistics supply chains for the mission and integrates each mission area (all based on mission priorities, OPLANS, etc.)

Predictive Analytics and Applied AI

Enables users to forecast future supply and demand requirements, routes, disruption, and constraints to inform scenario planning and issue alerts for supply chain disruptions in advance

Modeling and Simulation

Provides user interaction to test supply chain hypotheses, formulate mitigation strategies, and adjudicate competing demands; integrates analytic layer to stimulate, wargame, and optimize supply chains

BENEFITS

- Puts the DOD global supply web at your fingertips. Creates a unified environment from strategic to operational and tactical across the timeline of pre-conflict to in-conflict. Allows planners, logisticians, and operators to seamlessly simulate real-time decision making with comprehensive modeling tools on ontology-driven data.
- Improves pre-conflict decision making, informed by historical and current data. Rapidly iterates through complex “what-if” mission and supply scenarios to optimize operational plans while increasing agility for complex command and control needs. Sets conditions across multiple predictive methods to increase resiliency of the pre-conflict supply web—to maximize readiness and perform in-conflict mission risk management and real-time decision making to ensure mission success.
- Increases supply web resiliency and accelerated decision making in conflict. Delivers a holistic picture with a comprehensive underlying algorithmic linkage of the supply web. Enables commanders to sense and anticipate mission impacts and make real-time mission decisions based on knowledge from pre-simulated scenarios and current data. Users can adjudicate competing supply demands across multiple mission sets, generate alternative COAs with rich context, and select the right course of action with confidence.

For more information
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About Booz Allen

Trusted to transform missions with tomorrow's technologies, Booz Allen Hamilton combines AI and cybersecurity with leading-edge technology and engineering solutions to realize our purpose: Empower People to Change the World®.

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