Palantir

Sustainment: Logistics

Palantir Technologies
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The Challenge ↘

U.S. Naval power hinges on global reach and presence. This strategic advantage, however, also characterizes the Navy's potential Achilles Heel – the more complex, often isolated, and physically distributed naval operations become, the more logistical vulnerabilities those operations face.

Reliable operations require a resilient logistics backbone capable of supporting integrated deterrence by powering all resupply, rearm, and refuel operations near port and while far underway.

The Solution ↘

Palantir aids in forging this backbone through delivering a rapidly deployable, comprehensive data foundation for enhanced information discovery, data-backed decision-making, and strategic planning. Our solutions can provide the Navy with a unified data asset for immediate tactical and strategic needs. The value of this asset will compound over time as the Navy develops a long-term foundational knowledge base spanning the entire enterprise. Our software's flexible and open architecture – with its ability to interoperate with third-party applications and the Navy's existing technology investments – can enable the Navy to improve the efficiency of its logistics and maintenance programs and decrease long-term IT costs through system rationalization, legacy system deprecation and cyber risk reduction. Our solutions can enable the Navy to understand its many complex supply chains, reduce the time required to query data and conduct risk assessments, and make more informed decisions (e.g., for acquisition), leading to improved operational efficiency and cost savings. Palantir's solutions can also support the Navy with the following capabilities:

Supply Chain Awareness through Comprehensive Data Integration

Our software's data ingestion and integration technology enables rapid integration, automates updates, and includes robust cleaning tools to generate a holistic view of complex naval supply chain. We can ingest data of any size, type, or format (including structured, semi-structured, and unstructured data) from all relevant supply chain source systems. Once ingested, our solutions integrate this data to create a unified, scalable layer of authoritative data encompassing internal data (e.g., materials equipment, personnel) and external data (e.g., data from risk indexes, operational interruptions). We automate laborious portions of this process (e.g., entity resolution and transformation) to reduce manual collection and expedite supply chain risk analysis. This is especially relevant when tracing the full lineage of technologies and materials as they move through the supply chain – from country of origin to the system they're ultimately deployed on.

The Solution ↘

Flexible and Configurable Data Modeling

Our software maps disparate supply chain and logistics data to a data model that builds a digital representation of the Navy supply chain to optimize user understanding and support the Navy's diverse SCRM workflows. This model, which can be modified to accommodate changing needs, unifies device-centric supply chain data into a single layer for effective management, analysis, and assessment. Users can explore part-centric supply chains and complex relationship networks (e.g., the relationships between corporate entities, materials, processes, and locations).

Advanced Data Analytics and AI/ML

Our software can streamline the creation of in-depth supply chain assessments and other analyses with built-in analytic applications for both technical and non-technical users, as well as an efficient environment for AI/ML model development, deployment, refinement, and testing. Our configurable, user-friendly capabilities can help the Navy (1) understand all supply chain data associated with a device or device component; (2) identify critical times in design, production, and distribution when a product may be susceptible to malicious insertions, inferior substitutions, supply interruptions, or IP theft; and (3) run simulations on the data to see how risks change under different circumstances (e.g., a change in materials or testing location) to assist with risk mitigation. Outputs of analysis can become inputs for other complex supply chain assessments. All analysis, reports, data, and logic can be shared directly within our solutions or exported from our platform in non-proprietary formats.

Maximize Navy Platform Uptime

Our software can provide users with a 360-degree total asset view while dynamic, real-time alerts and in-platform assignment tracking enable rapid maintenance responses. Updates to inventory and system status are automatically captured and written back to the system, providing users with full situational awareness on system status. Combining alert data with historical maintenance or part replacement data can also improve the accuracy of predictive maintenance schedules and reduce unplanned issues or outages of critical systems.

Anticipate Time-between-Failure

Palantir's solutions can track all integrated equipment, including historical failure data from multiples systems, allowing this data to be used for holistic back-end analysis, and thus enabling more accurate device failure predictions.

The Solution ↘

Reduce Bottlenecks and Minimize Inventories

Using Palantir, the Navy can integrate its siloed logistics and maintenance data landscape into a centralized platform with an intuitive interface that enables supply chain, inventory management, and resource allocation decisions to be made with the most relevant and up-to-date information available. Navy users can also analyze historic logistics and maintenance data to identify efficiencies or predict potential inventory shortages.

More Efficient Condition-based Replacement

Using Palantir, Navy maintainers will have access to a single source of truth for up-to-date system information as well as a unified portal for their day-to-day operational workflows, whether through the platform's built-in intuitive applications or third-party systems integrated into Palantir. All parts of the maintenance and logistics management process—from monitoring, outage, and troubleshooting through to repair and restock—can be managed in a single system, allowing the Navy to streamline its maintenance and inventory management processes and investments.

Interoperability and Extensibility with Open, Future-Proof Design

Palantir's modular architecture and open APIs ensure interoperability with the Navy's existing and future technology landscape, while its built-in flexibility enables the configuration of new workflows and use cases. Its industry-standard APIs (e.g., REST, JDBC) offer connectivity to these systems and ensure safe access to all data stored in the solution. This allows users to model, explore, and otherwise interact with enterprise data while leveraging existing or emerging tools that support operational needs. Palantir's open, modular, microservice architecture enables the Navy to add new or existing analytic capabilities on top of our software, ensuring the Navy can always take advantage of new technology or expand the scope of use.

Past Performance ↘

U.S. Department of Health and Human Services

To make the COVID-19 vaccine available to Americans as soon as it was authorized, the U.S. Government and state partners required a way to oversee and implement the distribution and administration of the vaccine – an effort initially named "Operation Warp Speed." Through this initiative, the U.S. Department of Health and Human Services (HHS) was responsible for overseeing the production, distribution, and administration of an initial 700 million vaccine doses.

To support HHS's COVID-19 vaccine distribution effort, Palantir created the Tiberius platform – deployed within just six weeks – to integrate and help manage vaccine data from across public and private sources, including systems of record at the federal and state level, data from vaccine developers, distributors, and more. Tiberius provides near real-time information, including inventory levels and administration patterns, for data-driven vaccine decision-making.
Specific impacts include:

- Tiberius integrated over 6.5TB of data from 16000+ datasets across the vaccine distribution landscape. This includes a wide range of COVID-19 data as well as demographic, employment, and other public health datasets used to proactively identify distribution bottlenecks, inventory constraints, and gaps in administration across key and priority populations. Tiberius also powers 40+ collaborative work streams used by thousands of unique users for allocations, distribution, micro planning, and tracking of orders, shipments, manufacturing, and other metrics. For example, state health officials can identify vaccine providers, design distribution plans, and track vaccine delivery, and verify efficacy of plans.

- Government stakeholders can identify potential bottlenecks in the manufacturing, distribution, and administration of vaccines to effectively anticipate challenges. Once a vaccine is distributed, stakeholders will be able to centrally track what vaccine orders have been filled and released.

- Federal officials are effectively planning for vaccine allocation according to federal and state policies. Hundreds of federal and state-level users can collaborate on top of live data and easily understand the logic and data behind allocations. Granular access controls ensure that jurisdictions are only able to see their own data, and not that of other jurisdictions.

- Tiberius was recognized in 2021 as a Champion of Change program and in 2022 as a Disruptive Tech Program that is shifting the landscape.