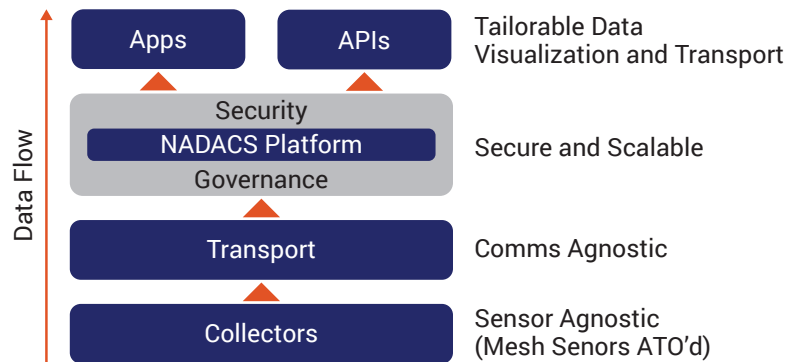


# NADACS

## Bridging the Visibility Gap in Supply Chain Management

Manual processes challenge supply chain missions with incomplete visibility, reduced accountability, and a lack of auditability for logistic assets. Partnering with Naval Supply Systems Command, LMI designed and developed the Naval Autonomous Data Collection System (NADACS) to solve persistent logistics challenges. NADACS comprises sensors that collect data at the tactical edge (e.g., passive radio-frequency identification [RFID] or wireless sensor mesh [WSM] sensors); a backend data environment to collect, store, and transform that data to make it useful to users or move the data to other enterprise systems; and a front-end web interface to visualize the data. NADACS is a government-owned system housed in a Navy-operated Amazon Web Services (AWS) cloud environment, making the capability scalable as new data sources are connected to it over time.



*NADACS collects, stores, aggregates, and displays logistics data from automatic identification tracking (AIT), radio frequency identification (RFID), mesh tags, and other internet of things (IoT) sources to track and monitor assets.*

NADACS leverages passive RFID and WSM technology to collect data. WSM sensors operate via a mesh networking protocol called mist that was designed for logistics processes and meets or exceeds all Department of Defense (DoD) cybersecurity requirements. Compared to other network protocols, the licensing costs for deploying NADACS sensor networks are minimal and not tied to the number of devices in use. WSM tags are approved to track all classes of supply, including ammunition, and provide location via GPS or checkpoint beaconing, as well as temperature, pressure, humidity, and shock/acceleration data to support logistics operations. NADACS is designed to connect to and integrate additional types of sensor hardware based on use case using sensor technologies that are already procured or in procurement pipelines, provided those sensors meet DoD cybersecurity standards.

*“NADACS holds an authority to operate (ATO) and can be leveraged to speed up the delivery of edge sensor capabilities, particularly for mission-critical logistics processes.”*



## Deployment Benefits

Deploying NADACS has benefits:



### Faster Inventory

Enables automated inventory processes that greatly reduce the manhours spent manually reconciling supply records with on-hand inventory.



### Cost Savings

Enhances visibility into on-hand inventory provides cost-saving benefits by preventing units from ordering parts that are already available locally, either in their own inventory or at a nearby unit, alleviating transportation burdens across the logistics enterprise.



### Improved Inventory Management

Benefits locations that manage, store, and distribute large inventories by enabling personnel to quickly locate stocks and materials. NADACS also enables proactive reorders of stocks that are nearing expiration or useful life end date, and alerts personnel to intervene when environmental conditions may harm item serviceability. For example, servicing breached aircraft engine canisters (which have strict pressure tolerances) requires processes that reduce the amount of serviceable on-hand inventory.

NADACS offers a secure and approved method for collecting remote internet of things data, which can be used by other programs, potentially accelerating and reducing the cost of their implementation. Mesh devices can form networks and enable rapid deployment of other sensors, particularly in environments with limited connectivity—a common challenge in military operations in remote locations.

*“NADACS provides a logistics process enabling capability at the tactical edge at the lowest up-front and ongoing cost to the taxpayer while meeting all DoD cybersecurity standards.”*

## NADACS Use Cases

### Army NADACS Field Assessments

The NADACS Army team conducted field assessments at Fort Liberty and Sierra Army Depot (SIAD) in September 2024.

- The assessment at Fort Liberty showcased the capabilities of NADACS passive RFID technology on critical parts/items from a unit's authorized stockage list in the supply support activity (SSA) and in a company level arms room. The autonomous inventory demonstrated a 91% time savings in the SSA and a 96% time savings in the arms room with 100% data accuracy validated using GCSS-Army, the existing system of record.
- The assessment at SIAD demonstrated NADACS deployment capabilities via WSM at four locations across the installation. The autonomous inventory provided 100% asset accountability for and visibility of 93 class VII assets spread across the 36,000-acre installation in less than 2 minutes. NADACS also demonstrated in-transit visibility of assets moving across SIAD and provided 100% data accuracy validated using the Logistics Modernization Program, an existing enterprise resource planning system.



## About Us

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