MOBILIZING THE MILITARY WITH DATA VISIBILITY

ACCORDING TO 86 PERCENT OF DOD EMPLOYEES, DEFENSE LOGISTICS CHALLENGES HAVE AN IMPACT ON U.S. READINESS—AND MANY OF THESE PROBLEMS STEM FROM A LACK OF DATA VISIBILITY.

When the Department of Defense carries out a complex operation, there are a million moving parts and logistics happening all at once. Immense amounts of training, preparation, and landscape analysis are necessary—all of which ultimately depend on the reliability of the defense supply chain. Knowing that supplies are available where and when they're needed is critical for successfully carrying out missions that ensure the safety of the United States.

That's why the results of a December survey in 2014 by Government Business Council (GBC) are so concerning: 86 percent of employees at the Department of Defense believe that defense logistics challenges have a negative impact on U.S. readiness. What's more, fully 25 percent describe this impact as "severe."

Defense Logistics Challenges

That's because, more often than not, the delivery of defense material and equipment experiences problems. From the GBC survey, 72 percent of respondents said materiel and equipment is delayed; 63 percent said it arrives over budget, and 56 percent said it arrives in bad shape at least some of the time.

"Think about what happens if a war-fighter in the field doesn't get the right materiel," said Webster Mudge, senior director of technology solutions at Cloudera. "They're able to get their job done, it's just they're not able to get their job done very well."

But defense logistics challenges don't end there. In the survey, 80 percent of respondents agree or strongly agree that their service has experienced materiel or equipment shortages in the last year. In addition, 67 percent said their group has been forced to dispose of materiel and equipment due to excess inventory.

In other words, the challenges for defense logistics go beyond simply delivering equipment over-cost and damaged. Agencies are not able to forecast how much equipment is needed in a specific location at a specific time, and consequently they either under- or over-deliver, leading to concerning shortages and wasteful oversight.

"83 PERCENT OF DOD EMPLOYEES BELIEVE THAT THEIR SERVICE'S SUPPLY CHAIN ENTAILS GREATER RISK THAN IT DID JUST 5 YEARS AGO."

An Increase in Risk

Defense logistics officers are being asked to accept increasing levels of risk too, with 83 percent believing that their service's supply chain entails greater risk than it did five years ago. This risk stems from disruptions to the supply chain. In fact, 50 percent of respondents said that they experience supply chain disruptions at least once every six months. More shockingly, 29 percent said it happens at least once a month.

What does this mean for the military? While they are capable of making mission and carrying out intricate operations, they are not backed up by the security of knowing that the tools will be there. This introduces a level of insecurity that is a liability both to individuals in defense functions and also to the citizens whose livelihoods rely on the successful completion of defense missions.

The Difficulties of Data Visibility

Ultimately, what this all comes down to is a lack of data visibility. The government has—and continually is—collecting enormous amounts of data on every part of their supply chain. Turning this data into actionable information is the key to improving the defense supply chain.

Today, defense officials are not confident in their ability to draw insights from their supply chain data, or to forecast demand for materials using existing systems and methods. Only 25 percent of surveyed employees were confident or very confident in their ability to draw insight from supply chain data. The study found that ineffective systems used to manage supply chain data and federal sourcing mandates are two of the greatest factors adding risk to supply chain.

Similarly, when asked what actions would have a positive impact on supply chain effectiveness, more than half (52 percent) of respondents cited the ability to forecast demand using real-time and historical data streams. Fully, 49 percent believed that automated data collection at facilities throughout the supply chain would help, while 38 percent believed that the ability to integrate and analyze unstructured and non-standardized data sources would help too.

The Path to Improved Data Visibility is in Sight

By improving data visibility, defense agencies will find themselves with an unprecedented ability to analyze and extract information from supply chain data. This critical information can then inform decision-making—such as the type and quantity of resources necessary at a specific location. It can also help regularize the supply chain, eliminating error, such as sending too many or too few items to one location, and ensuring that there are not disruptions in the day-to-day work.

"What you see right now with data processing is that people have been able to run reports and crunch their numbers using a database as their primary engine," Mudge said. "But that's because it's a capable tool—it's just not always the best tool for the job, as it turns out.

Apache Hadoop™, with its combination of cost-efficient storage and diverse computing and analytical capabilities, offers compelling options that can help expose the right information at the right time to the right people and provide that needed longitudinal view – the 360 degree view across all types of data and across timeframes – to build a better supply chain."

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Improving the supply chain depends on improved data visibility, and there are some simple solutions that defense agencies can take with Apache Hadoop and Cloudera:

1.   Free up resources and realize enormous cost savings by utilizing a Hadoop-powered enterprise data hub (EDH).
50 percent today cite budgetary constraints limiting investments in analytics or storage tools as a factor limiting data visibility currently.

2.   Maximize existing skills sets and work experience by training personnel in big data management and analytics with Cloudera University.
47 percent today cite lack of personnel with training in data analytics as a factor limiting data visibility.

3.   Ensure all data is readily accessible and appropriate for analysis by fusing data silos together using the flexible storage and processing of an EDH.
34 percent cite difficulties integrating disparate data sources.

4.   Integrate analytics throughout all phases of the supply chain, from historical analysis to operational reporting, within the shared IT infrastructure of an EDH.
52 percent believe the ability to forecast demand using real-time and historical data streams would positively impact supply chain effectiveness.