

How DISA's new Indo-Pacific network meets the Great Power threat



Sponsored by

LUMEN[®]

Lumen is not just replacing aged transport pipes for the DoD, it is transitioning and transforming network capabilities for better speed, latency, availability, affordability, and security.

When it comes to modernizing and securing the Defense Department's vital network transport to meet regional threats in places like the Horn of Africa and great-power threats coming from the Indo-Pacific region, organizations like the Defense Information Systems Agency (DISA), Army Corps of Engineers, and the Air Force's Air Education and Training Command are choosing Lumen to build and run their networks for the challenging years ahead.

Recently, for example, DISA awarded [Lumen](#) the 10-year, \$1.5 billion Indo-Pacific Transport Services (IPTS) contract. Lumen will supply high capacity, end-to-end communications, ethernet, Internet, and wavelengths that will enable US Indo-Pacific Command to execute its mission across the 36 nations in its Area of Responsibility, plus Alaska.



Scott Barnett, vice president and general manager of Lumen's Department of Defense business.

“Lumen is an essential provider of DISA's Defense Information Systems Network and as such is the network infrastructure backbone for the U.S. Indo-Pacific Command, the oldest and largest combatant command charged with integrating US Army, Navy, Air Force, and Marine Corp forces,” said Scott Barnett,

vice president and general manager of Lumen's Department of Defense business.

In addition to IPTS, Lumen is executing other programs for DISA, along with numerous other DoD organizations. Here are a few examples:

- Lumen is executing the Transoceanic Optical Transport-Atlantic (TOT-A) program to install 100G

wavelength services connecting the US mainland and the UK over Google's new Grace Hopper subsea cable system. Grace Hopper incorporates novel optical-fiber switching to better move traffic around outages for a submarine cable, which is a new route providing great diversity in TOT capacity.

- In mid-2022, DISA awarded Lumen the \$223 million DOD365 Integrated Phone System, or DIPS, contract. This is a secure, cloud-based telephony infrastructure that integrates with DOD365's cloud environments. Lumen will deliver softphone access — essentially a secure, virtual phone — for users to make and receive calls through the Teams app.
- Lumen is presently building fiber for high-speed data transmission that will modernize, update, and protect critical infrastructure at five US Army Corps of Engineers dams in Oregon and Washington. The company's ethernet solution will eliminate the need for specialized high-voltage safety protection equipment and the use of old, existing copper.
- The Air Force's Air Education and Training Command has deployed Lumen's secure Wi-Fi to expand learning opportunities for airmen and enable training and education from any device.
- Lumen also operates, maintains, and upgrades DISA's Dark Fiber network under a 7-year, \$196.5 million contract. As part of the contract, Lumen and its partner Ciena are upgrading the network to 100G.

Modernizing defense networks, not just transitioning them

Many of these programs have one thing in common — Lumen is not just replacing aged transport pipes for the DoD, it is transitioning and transforming network capabilities for better speed, latency, availability, affordability, and security.

On the cover: UK carrier strike group led by HMS Queen Elizabeth and Japan Maritime Self-Defense Forces led by Hyuga-class helicopter destroyer JS Ise join with US Navy carrier strike groups led by flagships USS Ronald Reagan and USS Carl Vinson to conduct operations in the Philippine Sea. (US Indo-Pacific Command photo)



EA-18G Growler jets, assigned to the Navy's "Gauntlets" of Electronic Attack Squadron 136, fly over the aircraft carrier USS Carl Vinson in the Pacific Ocean in March 2023. (US Indo-Pacific Command photo)

Even for Lowest Price Technically Acceptable (LPTA) contracts — as opposed to “best value” solicitations, which was the case for the DISA IPTS contract — Lumen provides organizations with a plan and the means for network transformation. That is one of the reasons why Lumen was selected for IPTS over the incumbent.

“Government agencies are not only interested in transitioning, they want transformation and modernization,” said Barnett. “For IPTS, we were students of their network, design, and architecture in the Pacific. We weren’t somebody just bidding on price and not bringing anything else to the table. Where we touch them, we are working hard to transform them.”

For example, Lumen’s engineers got down to the manhole level of detail on the transport routes that were being competed for IPTS. Through that process, Lumen earned credibility and trust on the integrity of its engineering work.

Said Barnett: “We made it our job, our mission to know that network better than anyone. We educated ourselves on their network, took the time to learn their topology, and that’s part of the reason why they were comfortable making the award to someone other than the incumbent.”

Another example is Time Division Multiplexing (TDM). It is a decades-old method for signal switching and is expensive to maintain. Both government and industry are moving away from TDM as quickly as possible, and Lumen is working to replace TDM with new transformational networking capabilities.

“We apply that methodology across the board wherever we’re working,” said Barnett. “As long as we can do it, as long as the government will allow us to do it, we’ll do it.”

Lumen also brings a “secure it all” methodology for all its implementations. The company is one of the few that operate in multi-domain environments with wired and cloud networks — all of which must connect to satellite Earth stations for voice, video, and data transmission.

Lumen may deliver that data directly to the customer, send it to one of their cloud partners like Microsoft or Google to store, or cache it at the edge. Whichever it is, it is all about data dominance and Lumen is in the middle of those data transactions.

“Every time there’s an opportunity to touch something, it’s about transformation, meaning we’re not just opting into the existing technological capabilities, we’re always going to look at what we can bring to the table, how we can best position defense organizations for the future and make sure it has them in the very best place to be prepared for anything that might come their way,” said Barnett.



An Air Force network infrastructure specialist from the 747th Communications Squadron maintains the NIPR and SIPR networks for the 15th Wing, which provides airlift capacity to Pacific Air Forces. (US Indo-Pacific Command photo)

“When a customer asks for capacity in the Atlantic, we’re not entertaining 2.5 or 10 gig capacity. We’re automatically entertaining a 100G capacity. And, by the way, here’s the latest and greatest cable system from Google that provides new diversity and redundancy that you never had before. We automatically bring that to the table when we’re working with the customer.”

Network transformation for all DoD

In this overview of some of Lumen’s capabilities, it is clear that the company is much more than a transport

provider. It is DISA’s global mission partner chosen to modernize and transform its networks so the agency can meet the needs of multi-domain operations and the near-peer competition. It is also a trusted partner for organizations of all sizes and mission needs looking for transformative capabilities.

“Lumen operates globally and we support DISA’s mission globally,” said Barnett. “In addition to supporting warfighters, the depth and breadth of our capabilities enable every aspect of Defense Department operations. From logistics, to training, to back-office functions. The Army, Air Force, and intelligence

community (IC) all have network backbones. They all must be connected to meet the coming challenges.

Lumen can play a central role in connecting not just DISA, but all of the networks inside of the Defense Department and IC to move beyond the status quo and do what needs to be done for data dominance and assured connectivity.