

# How multi-domain operations accelerate modernization

Open-architecture frameworks are the key to faster innovation and better decision-making



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**T**RUE MODERNIZATION requires a fundamental shift in how the government constructs its core systems, from IT to weapons to command and control. Agencies must switch from old-school, bespoke, closed architectures to the more agile, open, nonproprietary frameworks that enable rapid, iterative improvements. Open architectures also enable agencies to prioritize interoperability and data sharing between systems in an approach known as multi-domain operations.

By design, multi-domain operations must involve a broad range of partners to achieve the desired mission outcomes, particularly as threats continue to rapidly evolve. Making such a shift allows military and civilian agencies to far more rapidly add new capabilities to individual systems. The approach also enhances agencies' ability to partner with industry to harness the power of cross-domain, cross-agency and even cross-company digital synergies.

When agencies start to share data across systems and with one another, the government will realize far greater benefits than the sum of those parts.

## A BIDIRECTIONAL SYSTEM THAT CLOSES THE DECISION GAP

As one example of multi-domain operations, Leidos created the Edge to Cloud (E2C) ecosystem to improve decision-making and thereby improve government activities and mission outcomes. E2C is a dynamic ecosystem that brings the power of cloud computing to users who operate in austere or disconnected environments. Furthermore, E2C is bidirectional. It enables data collection and compute operations to be conducted where data is collected, and it also transports data back to other systems for broader distribution.

E2C is the compute equivalent of an electrical grid that facilitates real-time data sharing, processing and analysis at the edge while also enabling that information to move around the ecosystem seamlessly and efficiently. It puts information in the hands of the people who need it when they need it and in a digestible format.

This is especially important for the U.S. military because adversaries are often led by authoritarian governments with vertically integrated militaries and industry. Those systems may stifle innovation, but they can enable faster decisions, putting the U.S. at a disadvantage despite our better tools and resources. We need to improve how we process and share data to close that decision gap.

## PARTNERING TO DELIVER SECURE, SCALABLE SOLUTIONS

To help agencies make the most of their data, Leidos collaborates with a broad range of partners. We work with like-minded businesses such as Amazon Web Services, Intel, Guardtime Federal and HashiCorp to build secure, scalable solutions that attack archaic approaches and break down stovepipes to enhance the speed of operations. Other industries have recognized the value

of having a partner like Leidos, and we are excited to work with anyone who is committed to getting the best solutions into the field so that military and civilian agencies can complete their missions in a more safe, secure and efficient manner. Ultimately, the goal is to remove proprietary barriers and drive much-needed innovation to our government customers.

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Source: iStock



We're fully committed to partnering with agencies so we can deliver the trusted open-architecture, nonproprietary frameworks that our nation needs. Those solutions are crucial for maintaining our national advantage in terms of technology. If we take two or three years to modernize a specific and stovepiped system, then

we're going to fall behind our adversaries. However, if we can leverage what we see across the commercial world and embrace best-of-breed practices for modernizing military and civilian systems, then it's to the advantage of all users across the nation. ■

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