From security to storefront, improving the DoD information network

Maintaining and modernizing the Department of Defense's (DoD) worldwide data network is critical to keeping DoD information and users safe in an increasingly hostile world. With more than 3 million users, many sharing both classified and unclassified information, security is critical.

The Defense Information Systems Agency (DISA), with support from Leidos, is spearheading this effort under the Global Information Grid Services Management Operation (GSM-O) program, a $4.6-billion contract to modernize DoD communications and networks.
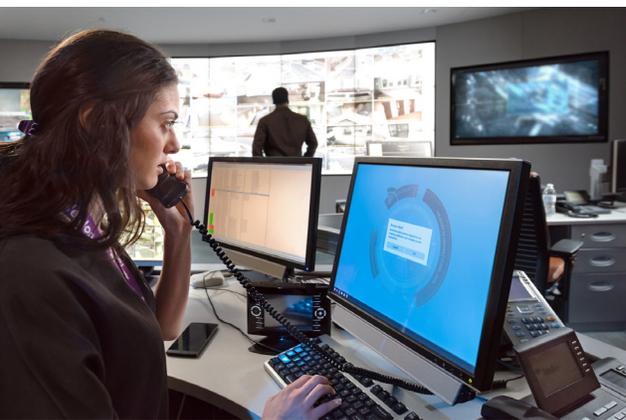
Four years into the seven-year program, DISA has achieved major milestones, including the implementation of one of the world's largest security gateways, the Joint Regional Security Stack (JRSS). JRSS is a suite of equipment that performs firewall functions, intrusion detection and prevention, enterprise management, virtual routing and forwarding, and provides a host of other network security capabilities. A second milestone is the convergence of network operations to simplify all future management and modernization efforts. Leidos helped DISA to consolidate operations center support from around the globe into a single, virtual network operations center supported by staff based in two locations.

Finally, a key visual achievement of DISA and GSM-O is the modernization of the DISA Storefront (DSF), which now provides the user base with a "one stop shopping" type of experience. Using the storefront, any authorized user with a DoD Common Access Card (CAC) or PKI can purchase network connections, mobile devices and communication services while ensuring that DISA can maintain a full understanding of its customer network and device orders.

SECURITY AS A CORNERSTONE

JRSS handles all network transmissions between internet access points and end-user devices. Before JRSS, each military command handled their own stack, which was sometimes further broken down by geography, commands or other organizational separations. First started in the Army, the idea was to combine every base, command and outpost under a unified security stack so that the entire network could be managed, supported and protected as one entity.

The hundreds of network security services and stacks that the DoD maintains at each of the local base, camp, and post station networks will be consolidated into one of up to 48 regional security stacks. Consolidating network security services under such a plan is a complex process. Each organization's network within the DoD has been built according to their specific needs and requirements. To compensate for the varied characteristics and capabilities being moved into the joint stack, the supporting hardware is extremely robust. Each of the planned regional stacks will be comprised of racks of hardware consisting of everything needed for network operations.

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OPTIMIZING THE DOD INFORMATION NETWORK OPERATIONS

In order to provide optimal IT infrastructure and support to the entire DoDIN, DISA sought to transform its regional DISA Network Centers into a converged always-on Network Operations Center capability that could serve the entire DoD community.

When the project began, DoD networks were serviced by regional hubs situated around the world. Having dispersed and independent teams can lead to problems such as inconsistent service, processes, and duplicate costs. To address these issues and create a new DISA network operations capability, DISA teamed with Leidos. The team consolidated all disparate processes and established a single set of tools, processes and procedures that would serve the whole DoD once the network centers converged. There is now one unified team dedicated to servicing DoD networks. The DISA Network Center consolidation has already demonstrated its benefits to the DoD community including faster incident resolution time and higher availability.

The plan is to continue to improve operations through additional automation and modern technologies such as Software Defined Networks. This will improve response time, security, and continue to make DISA more agile, affirming the organization's drive to embrace innovation.

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A BRAND NEW FACE: THE DISA STOREFRONT

DISA recognized there was a significant opportunity to improve the way its customers acquired telecom and network services by revitalizing the DISA Direct Order Entry (DDOE) system. The ambitious modernization project required an across-the-board upgrade of the user interface to bring DDOE in line with modern e-commerce sites commonly found in the private sector.

Most orders placed through the legacy system had to be completed by an engineer using many freeform text entry fields. Customers had to know precise details about their existing network to complete a simple order for a new product or service. The complexity and manual nature of the system led to order errors and difficulty in determining prices and best value options.

With the new DISA Storefront implemented by DISA and Leidos, users are asked fewer questions with few freeform text entries. New service request forms are designed to ask questions that require knowledge of their business needs, but not as much technical information. In addition, the team is working towards incorporating pricing into the ordering process. Not only will fixed costs be given, but the site will also support Rough Order of Magnitude (ROM) estimates based on a project's level of complexity and cost to complete. This will help to speed approval for larger deployments and aid in budgetary planning for purchasers.

Plans are in the works to extend integration with both financial and operational systems, giving users the power to track things like data usage or how much each product or service costs an agency. The storefront will also add a click-to-ticket program where users can submit tickets and get help for products and services they have purchased through the site. The goal is to make the DISA Storefront a full-service ordering and e-commerce site that represents the modern service ordering experience users have come to expect.