U.S. Department of Defense: Defense Logistics Agency (DLA) achieves unmatched agility through telework and BYOD strategy

Redefining the concept of government workforce mobility
“At DLA, work is defined as an activity—not a location.”

—Mr. Joshua Lashbrook, Chief Technology Officer, Defense Logistics Agency

Introduction

The Defense Logistics Agency (DLA), an agency within the U.S. Department of Defense, has always taken a strategic approach to using information technology (IT) for achieving its mission. However, its goal of becoming a high-performing agency ran head-on into shrinking budgets and sequestration constraints. To improve its agility in the event of an emergency or catastrophic events, DLA adopted a telework, and later, a Home Use computing program. As the Agency’s CTO, Mr. Lashbrook establishes the technical vision and leads all aspects of DLA’s technical IT development. He is responsible for ensuring cost reduction and providing value-added cost management analysis for the DLA and J6 leadership. By leveraging prior investments, virtualizing critical functionality, and standardizing its IT infrastructure, DLA enabled a mobile workforce capable of working anywhere. As a result, the agency avoided major new equipment costs, reduced licensing costs, increased security, simplified IT management and improved the end-user experience.

Agency overview

DLA provides a full spectrum of logistics, acquisition, and technical services to the U.S. Army, Navy, Air Force, Marine Corps and other military agencies. These services require the agency to source and provide virtually all consumable items that America’s military forces need to operate—from food, fuel, and energy, to uniforms, medical supplies, spare parts, construction and barrier equipment. To source and provision supplies, DLA manages nine supply chains and more than five million items across four continents worldwide.

The challenge: Organic growth creates new demands

The DLA’s IT department is essential to its mission, supporting approximately 28,000 end users across multiple locations worldwide every day. In 2005, DLA began evaluating application virtualization technology with future flexibility in mind. After a comprehensive review, Citrix emerged as the superlative choice for DLA’s requirements to deliver applications-as-a-service to employees in seven field locations. Over the next five years, these deployments grew independently of one another, with each site implementing its own equipment and software versions. By 2010, there were disparate versions, configurations, architectures and license/support contracts for this part of DLA’s IT infrastructure.

Redefining work defines a new direction for IT

Meanwhile, DLA recognized that to further improve its performance, it needed to adopt IT strategies that support agility, reduce costs, simplify management and improve users’ overall experience:
• Support Continuity of Operations Program (COOP) through a telework strategy: DLA wanted to enable employees to work effectively during routine telework, weather emergencies or pandemics. Improving mobility included enabling employees’ and contractors’ access from their own personal devices. By redefining work as an activity instead of a location, DLA could dramatically improve agency agility.

• Reduce costs by supporting Bring Your Own Device (BYOD) policies: DLA could reduce end-user hardware costs and improve employee mobility by avoiding the purchase of expensive desktop, laptop systems and government-furnished workstations and instead move to lower-cost thin-client and zero-client devices. Virtual (shared) applications would simultaneously reduce the costs associated with dedicated applications and software licenses.

• Simplify management: Managing diverse devices, configurations, software versions and implementations was time-consuming and expensive. DLA planned to standardize its IT infrastructure across every location. Standardization would greatly simplify management, support and implementation. At the same time, IT consolidated disparate software licensing and support contracts into one enterprise agreement. Consolidation reduced licensing costs through pre-negotiated discounts, centralized license procurement and saved time by eliminating the need to execute multiple contracts.

• Improve the user experience: Standardization and consolidation would also enable DLA to implement processes that simplified employee access to applications, tools and resources and enabled them to work anywhere, on any device with the same user experience.

The first step: Telework through the Home Use Initiative

In 2009, well before the Federal Telework Enhancement Act, DLA adopted a telework philosophy that established work as an activity, instead of as a physical location. This policy meant that users would be able to access applications, data and network resources wherever they worked. This telework policy demanded a robust technology solution that would allow users to remotely and securely connect to unclassified DLA networks. DLA employees connected with government-furnished equipment (GFE) laptops from home, thus helping to ensure mission continuity during routine telework, weather emergencies and possible pandemic activities. This included granting secure remote access to datacenter-hosted resources as well as with traditional VPN access from GFE devices.

In 2012, the DLA announced a Home Use program for employees allowing users to access DLA applications from non-GFE, such as home computers and laptops. In addition to improving convenience for employees, the Home Use program plan would reduce the agency’s costs associated with issuing multiple machines to employees and providing government-furnished equipment to contractors.

“We always look ahead to our future needs,” said Lashbrook. “During this initial implementation, we also planned to create detailed documentation for our application, web and monitoring server administrators so that we had consistent upgrade and change management policies in place to simplify ongoing management.”
The solution: Partnering to move forward

With budget sequestration looming and a number of projects to complete, the DLA sought increased partnership with Citrix. Lashbrook wanted to know “how can we get more out of our existing investment? How can you help us meet our goals more efficiently?” The Citrix team responded by helping DLA take its implementation to a new level of effectiveness while creating a strong foundation for supporting its upcoming mobility objectives.

The benefits: Gains across every objective

The Citrix team began by helping DLA review and consolidate its existing Citrix deployments. Part of this process was consolidating the existing virtual application deployments and upgrading to a Citrix XenDesktop® enterprise license. The license consolidation effectively transformed existing telework solutions into virtual desktop solutions; enabled DLA to avoid purchasing new physical desktop systems in the future; and delivered measurable administrative, application performance, security and mobility gains. At the same time, DLA gained access to a suite of desktop and app virtualization capabilities to move its mission forward.

Consolidation simplifies management and access

Consolidating its existing implementations dramatically simplified network management and access. By using XenDesktop to centralize applications in the datacenter, IT can manage a single instance of each application in an application hub. This approach eliminates having to manually install applications on every PC, which saves time and reduces management costs. XenDesktop capabilities complemented the agency’s existing virtual private network (VPN) and ESX infrastructures. Throughout the refresh process, Citrix assisted DLA staff by providing support workshops and whiteboarding sessions to help simplify stages of architecture, planning and implementation.

Simplifying user access while improving reliability and security

DLA employees gained a single point of access to the applications and data they need with the same application, and data experience that they enjoy when connected to the local network. Through the use of XenDesktop, access requests are routed to the closest datacenter and each user connection is optimized for the user’s role, application privileges and device. They are automatically and seamlessly reconnected when they change locations or devices or lose connectivity, reducing frustration and improving productivity. DLA is also able to leverage a single platform for remote access, helping to consolidate infrastructure for several remote-access use cases including accessing virtual apps and desktops as well as traditional VPN capabilities for over 28,000 users.

Citrix NetScaler® appliances provide the secure, hardened gateway for access into the network. These appliances ensure FIPS-encrypted connectivity, advanced access control, policy-based CAC authentication, session monitoring and VPN to enable access even from untrusted networks—providing additional layers of protection for DLA’s secure data. NetScaler helps DLA automatically route users
to the optimal datacenter or an operational datacenter in the event of a disaster or network problem. This built-in capability helps ensure high availability and supports the agency’s business continuity plan. NetScaler security certifications meet federal requirements, including Joint Interoperability Test Command (JITC), Common Criteria and Federal Information Processing Standard (FIPS) 140-2 Level 2 compliance.

Supporting mobility to enable BYOD

DLA is currently operating its VDI pilot implementation, using XenDesktop capabilities for hoteling workspaces. XenDesktop transforms Windows desktops and applications into a secure on-demand service available to any user, anywhere, on any device. With XenDesktop, IT can deliver individual Windows or full virtual desktops to PCs, Macs, tablets, smartphones, laptops and thin clients with a high-definition user experience. Instead of juggling thousands of static desktop images, IT can manage and update the OS and apps once, from one location, and then deliver desktops and apps that are customized to meet the performance, security and mobility requirements of each worker. XenDesktop has also achieved Common Criteria Certification to help DLA address mandated security accreditations. DLA is currently only using VDI on desktops, laptops and thin clients.

Mission accomplished

Citrix solutions enable DLA to cost-effectively achieve its goals:

- **Enhance telework policy thru BYOD**: Citrix delivers secure remote access to applications and desktops instantly to users anywhere, from both GFE and registered “home-use” devices.

- **Enable COOP**: Employees can work effectively anywhere during routine telework, weather emergencies, pandemics or other emergency situations.

- **Enhance security**: Citrix FIPS-compliant hardened appliances enable trusted VPN and HDX-only access and control, even over untrusted networks.

- **Simplify licensing and reduce costs**: An enterprise licensing agreement consolidated software license and support agreements, saving time and reducing costs.

- **Improve user satisfaction**: In addition to simplifying sign-on and use, DLA telework and Home Use programs enhance employee recruitment and retention.
Agency-wide access from anywhere

Today the DLA’s Home Use program is available to all DLA employees worldwide. In fact, DLA has one of the highest percentages of teleworkers in the federal government, according to an Office of Personnel Management (OPM) report to Congress. The agency participated in the 2012 Telework Week with more than 7,000 employees teleworking during March 5–9. The DLA Energy group led the agency in 2012 Telework Week participation with 88 percent of eligible employees teleworking.

The new virtualized workstation approach follows the user from work to home, and users can access their applications and resources using work or personal computers. Employees can access the network remotely from anywhere through a single URL, making it easy to be productive wherever they are. When logging into the URL, users connect with single-sign-on using their government-issued Common Access Card (CAC). Cross-site and cross-domain implementation has delivered access to the Citrix capabilities for approximately 28,000 DLA employees, including field sites that do not have local Citrix implementations.

Cost savings and streamlined management

By using its buying power, the DLA was able to consolidate disparate license, maintenance and support contracts into enterprise contracts, resulting in significant cost savings through economies of scale and reducing or eliminating redundant implementations. Consolidated licensing also saves considerable time in executing annual contracts and helps ensure appropriate, continuous coverage.

Other cost reductions will be achieved by avoiding the purchase of desktop systems, manually refreshing laptops and simplifying software image management. Even for non-office staff, such as warehouse teams, virtual applications and desktops are published to onsite kiosks, potentially reducing end-user hardware costs.

Enhancing recruitment and retention

Work schedules that allow telework are also a tremendous incentive for potential employees. The DLA mission comes first, but family-friendly programs attract people to work for the agency. Making it easier for employees to balance family and work-life obligations are viewed as an important part of being a good employer.
Achieving the ultimate goal—agility

The telework and Home Use programs are helping the DLA achieve its ultimate goal—creating a highly agile workforce that can support the agency’s mission anytime, anywhere. Telework has become a critical component of DLA’s continuity of operations plans, because it helps the agency remain operational during events that would otherwise close government buildings. Network connectivity, stored data, processes and procedures, and client information can survive centralized disruption or destruction and be revived quickly through the agency’s Continuity of Operations Plan and corresponding off-site network.

The DLA Home Use Program won the Mobile Work Exchange Tele-Vision 2013 Award for the “Greatest Growth in Mobile IT.”

Infrastructure improvements made to support the Home Use program also prepared the DLA for a planned, comprehensive BYOD project implementation in 2014-2015. Lashbrook says that if all of the virtualization components that the DLA has available today had been available in 2005–2009, he would have planned implementation differently.

“If you’re looking to implement a remote access program, just plan and execute the whole program at once,” he said. “Deploy XenDesktop and mobility together because it will greatly reduce the administration required of your team. Because we were early adopters, we did it in a phased approach, but it would be less painful to do it all at once.”

Next steps

Following Department of Defense policies and guidance, DLA is moving forward with its BYOD plan and toward replacing laptops and thick clients with thin and zero clients. The agency also helped provide guidance to Citrix in the development of CAC integration for the Citrix Receiver™ for Android. Receiver coordinates the delivery of desktops, applications and data with detailed knowledge of device characteristics, such as screen dimensions, input methods, local storage, and location services. Applications and data accessed by the Receiver client are kept separate from the user’s other applications and data, reducing the chance of data contamination and loss. This has helped DLA move forward with adopting a secure mobility strategy while eliminating any data-at-rest concerns with Commercial Mobile Devices (CMDs).

Eventually, DLA employees will enjoy universal access to desktops, apps and data with any device—personal or issued by the agency. DLA plans to consolidate datacenters in the future, and cloud-based solutions will support that goal. Data sharing and data synchronization will follow users automatically.

“Citrix is helping us make work an activity, not a location,” says Lashbrook. “By expanding our telework and mobility capabilities, we are meeting our agility and cost-savings goals at the same time.”

For more information on telework, BYOD and mobility for federal government, visit www.citrix.com/USgovernment.
About Citrix

Citrix (NASDAQ:CTXS) is the cloud company that enables mobile workstyles—empowering people to work and collaborate from anywhere, easily and securely. With market-leading solutions for mobility, desktop virtualization, cloud networking, cloud platforms, collaboration and data sharing, Citrix helps organizations achieve the speed and agility necessary to succeed in a mobile world. Citrix products are in use at more than 260,000 organizations and by over 100 million users globally. Annual revenue in 2012 was $2.59 billion. Learn more at www.citrix.com.

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