CDW-G ITES-3H Thin Client Solutions

August 2016

Thin clients are back in vogue, and this time it's not just hype. Federal Agencies today are giving thin-client computing a closer look because they are constantly bombarded by daily security threats, overburdened by help-desk requests and hamstrung by the high cost of purchasing and managing PCs.

Thin-client computing, much like the old days of mainframe computers, utilizes data centers to power the computing functions and store all applications and data. As a result, data is more secure, hardware and software is more easily managed and updated, money is saved.

Ideal for the Government

Thin client solutions are ideally suited for the Federal Government users because the technology is affordable, easy to manage, and secure.

Dell Wyse Datacenter for Government solutions are a recommended fit for ITES-3H requirements. Dell Wyse solutions support multi-section operation, allowing multiple users to simultaneously use a single thin client, therefore reducing costs. Our commitment to the success of the thin client initiative is demonstrated by our entire ITES-3H offering which includes several thin client brand options, which will meet the varied needs of the Army and other Federal Agencies.

Dell Wyse Thin Clients

Dell develops and maintains solutions for desktop virtualization that are validated through over 100,000 hours of testing. These solutions are based on open architectures and are scalable for any number of users.

Dell Wyse Datacenter for Government

The Dell Wyse Datacenter for Government solution ensures full, dual-factor identification, incorporates the best security solutions in the industry, and offers a refined management interface. Dell regularly updates this solution with improvements such as load-balancing, multi-level security interfaces, and improved graphics capabilities.

The timeline and resources for the development and maintenance of custom thin client configurations for large (≥500 users) or small (≤500 users) will be largely dependent on the degree of customization of the standard Dell configuration.

Operating Systems:

Linux

- Supports unified communications platforms such as Lync (Skype for Business) and VXME
- Supports local Linux applications
- Good peripheral support
- Flexible management options via Wyse WDM & INI File management
- Based on Open Source
- Supports both ARM and x86

ThinOS

- Unified Communications– Skype for Business (Lync)
- Bluetooth Support
- Inherently Virus Immune and extremely secure
- Little-to-no management overhead
- Easy-to-deploy & works of out of the box
- Instant ON with rich multimedia
- Limited peripheral support
- No local application support
- Supports ARM and x86

Windows Embedded

- Supports unified communications platforms such as Lync (Skype for Business)
- Flexible management options via Wyse WDM &WCM
- Based on Microsoft Windows OS
- Supports x86 architecture only
- Secure from the desktop to the data center
- Wyse thin clients are far more secure than PCs with an extremely small attack surface
- Can be locked down as single purpose endpoints
- Support a wide range of user authentication methods
- Apps and content are protected in the data center
- Great to use Wyse thin clients deliver a fast, rich, familiar Windows® user experience:
- Windows® user interface for VDI, local internet, and local apps
- Connectivity to a broad range of Windows® applications and peripherals
- Power to drive rich, fluid graphics locally or via VDI protocols:
- Microsoft® RemoteFX, Citrix® HDX Highly scalable and easy to manage Management software that scales as you grow from just a few to tens of thousands of thin clients
- Wyse Device Manager – easy, remote management and monitoring; no need to ever visit endpoints
- Cloud Client Manager – off-premises management and support of thin clients and select mobile devices
- Wyse Configuration Manager – automatic, server-less configuration management
- Manage with your existing Microsoft® System Center Configuration Manager 2012 SP1
- Wyse thin clients - Wyse offers a variety of hardware form factors with dual or quad core options compatible with Windows Embedded 7, Windows Embedded 8 Standard and Win10 IoT. Catering for your budget, application, and performance needs.

Zero Clients:

Wyse 5030 (formerly known as the P25). Compact, strong, and flexible, the Wyse 5030 PCoIP zero client for VMware delivers outstanding performance. Its dedicated hardware PCoIP engine delivers the highest level of display performance available for advanced applications, including CAD, 3D solids modeling, video editing and more. Extremely compact and energy efficient, the Wyse 5030 PCoIP zero client is a fully functional VMware Horizon end point that delivers a true PC-like experience with support for dual displays. The Wyse 5030 offers the full benefits of an efficient and secure centralized computing environment, like multiple display support, multimedia playback, HD audio and four USB peripheral ports. The Wyse 5030 PCoIP zero client for VMware draws under 8 watts of power, – creating cooler, quieter working environments.

Wyse 7030 (formerly known as the P45) PCoIP zero client delivers workstation-level performance for VMware® Horizon, VMware Horizon® DaaS®, and Amazon WorkSpaces. Its dedicated hardware PCoIP engine delivers the highest level of display performance available for advanced applications, including CAD, 3D solids modeling and video editing with support for up to 4 digital displays

Wyse 5050 All-in-One (AIO) PCoIP Zero Client for VMware.
Secure and Simple to Install and Use – Effortless deployment with a simple one-cord design and out-of-box automatic setup. The Wyse 5050 AIO PCoIP zero client can be managed with the Teradici Mgmt Console or WDM 5.7. Wyse zero clients are extremely secure with zero attack surface for viruses and malware.

Best-in-class Design: 23.6” LED monitor with class-leading resolution allows you to maximize your productivity without cluttering your workspace. Sleek design and built-in power supply create an incredibly small footprint. 6 USB ports, 4 of which are on the side of the chassis for convenient access. Rotating and detachable base allows you to position the 5050 however you’d like.

Robust Functionality and Performance: PCoIP engines deliver an exceptional level of display performance for advanced applications, including CAD/CAM, 3D solids modeling, video editing and more. The Wyse 5000 series PCoIP zero clients provide rich multimedia, high-resolution 3D

graphics, HD media, and full USB peripheral interoperability locally over a LAN – or remotely over a WAN. Highly energy efficient, the Wyse 5050 AIO PCoIP zero client is a fully functional VMware endpoint that delivers a true PC-like experience.

Thin Clients:

Wyse 7040 - The most powerful thin client from Dell, the Wyse 7040 is a high-powered, ultra-secure thin client. Equipped with 6th generation Intel® compatible with both data center hosted and client-side virtual desktop environments, including AFRl's SecureView. The Wyse 7040 is compliant with all relevant U.S. Federal security certifications including OPAL compliant hard-drive options, VPAT/Section 508, NIST BIOS, Energy-Star and EPEAT. Wyse enhanced Windows Embedded Standard 7P OS provides additional security features such as BitLocker. The Wyse 7040 offers a high level of connectivity including dual NICs, 6 x USB3.0 ports and an optional second network port, with either copper or fiber SFP interface. USB and wired network interfaces can be configured at a highly granular level, allowing individual customer requirements to be met. The Wyse 7040 devices are highly manageable through vPRO features and Wyse Device Manager (WDM), Microsoft System Center Configuration Manager (SCCM) and Dell Command Configure (DCC). Supported by existing Dell best-in-class management tools such as WDM and DCC means that IT has access to rich management functionality for the Wyse 7040, including OS and BIOS imaging and BIOS configuration and password changes.

Dell Wyse 7040 thin client Specifications:

Operating system: Windows Embedded Standard 7P (Windows 10 IoT Enterprise Ready and upgradable to TPM 2.0 from 1.2)
CPU: 6th Generation Intel® Core™ i5 - 6500TE processor, 6th Generation Intel® Core™ i7-6700TE processor
Memory: 4GB, 8GB, or 16GB RAM DDR4
Storage: 128GB (Flash Media) / 256GB (Flash Media) / 500GB (hybrid) HD (both OPAL compliant)
I/O peripheral support: 6 x USB 3.0 ports, Display Port, HDMI Port, Ethernet, SFP (Fiber or Copper)
Networking: 100 Mb / 1Gb Ethernet, 100 Mb / 1Gb SFP (Copper or Fiber SFP Module)
Resolution: 1 monitor at UHD 4K (3840 x 2160) or 3 monitors at 2560 x 1600 resolution
Audio: Composite audio jack: 1/8-inch mini, 16-bit stereo / internal mono speaker, audio out jack
Dimensions: 7.16 in (182mm) x 7.01 in (178.2mm) x 1.41 in (36mm)
Weight: 3.12lbs (1.41 kg)
Mountings: Optional VESA mounting bracket for mounting to flat surfaces, such as walls
Security: Trusted Platform Module (TPM) 1.2 Upgradeable to 2.0, VPAT / Section 508 certified, NIST BIOS, Kensington Lock, OPAL Compliant hard-drive options
Power: Worldwide auto-sensing 100-240 VAC, 50/60 Hz 65W, 19V DC Energy Star V.5.2 Phase V external and EuP compliant power adapter
Temperature range: Operating (vertical position): 41° to 95° F (5° to 35° C)
Humidity: 20% to 80% condensing. 10% to 95% non-condensing
Warranty: Three-year limited hardware warranty with ProSupport (optional)
Support and deployment: Complete services portfolio including Deployment Services, ProSupport and Accidental Damage service.

Wyse 7000 Series Mobile Thin Client

Server OS	SUSE Linux, WES7, WES7P
Processor	Dual core AMD G-T56N 1.6GHz
Memory	7452-X50M: 2GB Flash / 2GB RAM DDR3 7490-X90M7, X90M7P: 16GB Flash / 2GB RAM DDR3 7402-X00M: 120GB SSD/ 2GB RAM DDR3
I/O Peripheral Support	1 x DisplayPort 1 x VGA port 1 x USB 2.0 ports 2 x USB 3.0 ports Media card reader
Networking	10/100/1000 Base-T Gigabit Ethernet 802.11 a/b/g/n internal wireless
Display	14" 1366x768 LED backlight
Audio	Output: 1/8-inch mini jack, full 16 bit stereo Input: 1/8-inch mini jack, 8 bit microphone
Dimensions	29 x 342 x 239 mm (1.14 x 13.45 x 9.42 in)
Shipping Weight	1.72 kg (3.8 lb)

Wyse 5000 Series Dual Core AMD Specifications

Server OS	Wyse ThinOS, ThinOS w/PCoIP, SUSE Linux, WES7, WE8S
Processor	AMD G-Series T48E Dual Core 1.4GHz
Memory	5010 Zero Client for Citrix: 8GB Flash / 2GB RAM DDR3 5010 Cloud Desktop: 0GB Flash / 2GB RAM DDR3 5010 Thin Client (ThinOS): 8GB Flash / 2GB RAM DDR3 5010 Thin Client (Linux): 8GB Flash / 2GB RAM DDR3 5010 Thin Client (WES): 16GB Flash / 4GB RAM DDR3
I/O Peripheral Support	1 x DisplayPort 1 x DVI-I port, DVI to VGA (DB-15) adapter included 4 x USB 2.0 ports
Networking	10/100/1000 Base-T Gigabit Ethernet Optional 802.11 a/b/g/n internal wireless Optional Fiber SFP
Display	DisplayPort: up to 2560 x 1600 @ 60Hz; color depth: 32 bpp DVI-I: up to 1920 x 1200 @ 60Hz; color depth: 32 bpp Dual: up to 1920 x 1200 @ 60Hz; color depth: 32 bpp
Audio	Output: 1/8-inch mini jack, full 16 bit stereo Input: 1/8-inch mini jack, 8 bit microphone
Dimensions	170 x 40 x 185 mm (6.7 x 1.6 x 7.3 in)
Shipping Weight	0.93 kg (2.05 lb)

Wyse 5000 Series Quad Core Specifications

Server OS	SUSE Linux, WES7, WES7P, WE8S, Windows 10 IoT Enterprise
Processor	Quad core AMD G-Series SoC 1.5GHz
Memory	5020 Cloud Desktop: 0GB Flash / 2GB RAM DDR3 5020 Thin Client (Linux): 8GB Flash / 2GB RAM DDR3 5020 Thin Client (WES7): 16GB Flash / 4GB RAM DDR3 5020 Thin Client (WE8S/Win10IoT): 32GB Flash / 4GB RAM DDR3
I/O Peripheral Support	1 x DisplayPort 1 x DVI-I port, DVI to VGA (DB-15) adapter included 4 x USB 2.0 ports 2 x USB 3.0 ports
Networking	10/100/1000 Base-T Gigabit Ethernet Optional 802.11 a/b/g/n internal wireless
Display	DisplayPort: up to 2560 x 1600 @ 60Hz; color depth 32 bpp DVI-I: up to 1920 x 1200 @ 60Hz; color depth: 32 bpp Dual: up to 1920 x 1200 @ 60Hz; color depth: 32 bpp
Audio	Output: 1/8-inch mini jack, full 16 bit stereo Input: 1/8-inch mini jack, 8 bit microphone
Dimensions	170 x 40 x 185 mm (6.7 x 1.6 x 7.3 in)
Shipping Weight	0.93 kg (2.05 lb)

Dell's Dynamic Reference Architecture

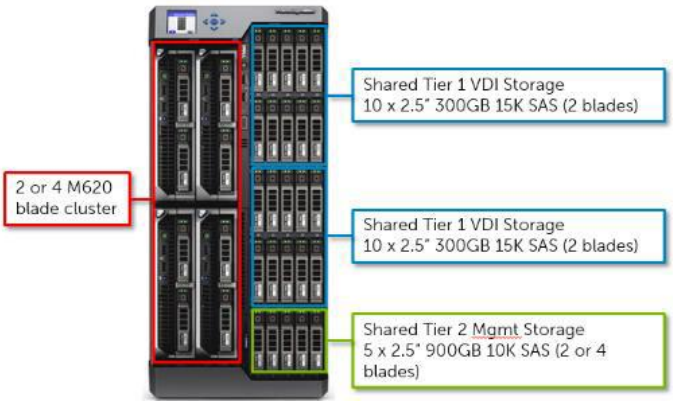
Dell has developed two reference architectures: one designed to accommodate the needs of less-sophisticated deployments or smaller (less than 500 users) organizations, and one designed to accommodate the needs of more complex deployments, or larger (more than 500 users) organizations. Referred to, respectively, as DWD Simplified and DWD Enterprise.

Features	DWD Simplified (Less Than 500 Users)	DWD Enterprise (More Than 500 Users)
Advanced Image Management	No	Yes
High Availability Option (HA)	Basic (Failover)	Enterprise grade
Dynamic Motion	No	Optional
Application Streaming	No	Optional
Application Virtualization	No	Yes
Shared Storage	Optional	Yes
Persistent and Non Persistent Desktops	Yes	Yes
Integrated Profile Persistence	Basic	Basic
Converged Architecture	Yes (Dell Appliance for Wyse – Citrix only)	Yes (Dell XC, VSAN, etc)

DWD Simplified (VRTX)

DWD Simplified offers the fastest implementation time utilizing the fewest resources. A flexible Simplified Appliance utilizing VRTX that can scale from a handful of users to over 500 users as a rack or under-the-desk appliance.

VRTX takes about four hours to set up by one person and can be administered remotely or on site. Customers can provide for high availability simply by adding an additional, redundant server. These systems include three years of Dell's highest level of client support, reducing pressure to on customers to have large or sophisticated IT staffs to oversee the solution. It is ideal for geographically separated units, small agencies with under 500 users, and customers who do not have a robust IT staff.



DWD Enterprise

A typical DWD Enterprise thin client deployment requires additional components beyond those required for a typical DWD Simplified deployment. The DWD Enterprise Integrated Solution stack (ISS) can scale up to 50,000 users. For ease of development and deployment, Dell has designed a bundled offering that allows customers to buy a fully-configured, cabled, and software-loaded rack ready to roll into a data center. For custom deployments, the solution can be modified to suit the needs of each individual organization. The following is an overview of key differentiators.

Provisioning Servers. These management servers control the dynamic provisioning and de-allocation of virtual desktops. Typically, a minimum of two provisioning servers are required for high-availability.
Delivery Controllers. These servers manage and broker the end-user connections to the virtual desktops. Typically, a minimum of two delivery controllers/connection brokers is required for high-availability.
Virtual Desktop Hosts. These are the servers that run the virtual desktop workload, and the number of these depends on their capacity and the sizing guidelines of the thin client solution.
Load Balancers. A minimum of two load balancers are typically placed in front of the delivery controllers to evenly distribute the desktop workload.
Shared Storage SAN. Shared storage is required to create a centralized storage resource pool for the running virtual desktops,

so that in the event of a server failure, a different VM host can pick up the desktop state from the SAN and run the desktops.

High-Speed Interconnects. Typically, for performance reasons, high-speed interconnects are used among these components.

Implementation & Migration

The engineering efforts required to implement a zero/thin client solution and migrate clients will vary depending on the size and complexity of the implementation. The level of engineering and project management effort is driven in large part by the need to pull data from existing client devices to the data center.

If data migration is a requirement, Dell's managed deployment teams work with the customer to create requirements for the migration, including security considerations and disposition of legacy equipment. The requirements are built into a project plan and associated schedule that include the resource requirements for completing the implementation and migration on time.

If data migration is not a requirement, Dell's managed deployment team deploys thin or zero clients and recovers old systems with ease. Given the lack of complexity, the resources required will be a function of schedule: more resources reduce the project timeline. If desired, our Asset Recovery Services (ARS) team can destroy and certify the destruction of hard drives, while recycling other components without compromising security.

Thin Client Development and Maintenance

CDW•G, through its stable of solution architects and through the supplementation of Dell Wyse engineers, can easily facilitate the development and maintenance of the two thin client configuration scenarios. Dell Wyse configurations will meet the needs of both a 500-plus user system, as well as an environment of less than 500 users. CDW•G will also develop and maintain additional thin client configurations for customers looking for different standards or requirements. We understand the technical, physical and marketing issues of an organizational shift to a thin client environment. We also recognize the importance of such a shift for the Army—the increased security, lowered ownership costs, better standardization and greater flexibility.

CDW•G Technical Resources

Army Benefit	CDW•G Resource	Function
Army can chose from multiple vendor offerings mitigating risk of reliance on a single platform which does not effectively serve all thin-client users	CDW•G Server Specialist	Presents best-of-breed server solutions with built in redundancy and computing power to ensure the network suffers no degradation
Migration efforts will have the proper networking solution assessment and solutions, allowing a faster and more reliable move to a thin-client environment.	CDW•G LAN-WAN Networking Specialists	Provides network design options that are interoperable with thin- and thick-client networking needs.

The Army will feel confident that its current data will be migrated to the new network and the network will be scalable to future needs.	CDW•G Data Storage Specialist	Review current and projected data needs to ensure Server or Network attached storage serves the current and anticipated needs of the Army Unit. Designs solutions to migrate data formerly on workstations to NAS or SAN storage.
The breadth of knowledge of the account manager and single point of contact ensures that the Army unit will have many vendor choices and can maintain a common standard configuration helping to reduce system administration costs	CDW•G Dedicated Account Manager (AM)	Recommends the peripherals some end users will need as they lose the built-in capabilities on their thick-client workstations
The Army will save money by moving applications to the server, making it easier to install and administer software. Further, by understanding the intricacies of software licensing, the Army will save money.	CDW•G Software Specialists	Help the Army Unit to assess its current software needs and make cost-effective recommendations based on the new network and new remote access requirements.
The Army will have a secure network, reducing security risks before, during and after thin-client implementation.	CDW•G Security Specialists	Assesses the ITES buyer's need for security especially in a mixed thin- and thick- client network.
The Army can be confident that there is no degradation of streaming audio or video within the new network.	CDW•G Bandwidth Experts	Determines the need for increased bandwidth for streaming audio and video applications, VOIP and other requirements, recommends solutions.
The Army will have multiple brands to chose, through one supplier, reducing acquisition time and overall cost.	CDW•G Manufacturer Partners	Will work with all of the above groups and the Army to provide best-of-breed solutions.

Minimized Support & Talent Costs

Traditional PCs require large support teams and are costly to maintain. According to IDC (a leading technology research firm), a $1,000 box PC will require $2,000-$3,000 per year in support costs. Over a 4-year PC lifespan, this basic support will cost an organization $8,000-$12,000 per computer. For most organizations, the IT staff ends up fighting daily "brushfires" instead of focusing on more critical issues. Even when the needed funds are available, organizations still find it to be a major challenge to attract, train, and retain qualified technicians. Centralized computing minimizes support costs due to the aforementioned improvements in security, availability and manageability.

Centralized Management

IT staff can manage the computing infrastructure in one central location: the data center. IT departments can use management software to remotely manage user settings and give rights to desktops and applications. The IT department also doesn't have to worry about backing up each user's hard drive. It's done on the server side.

Theoretically, in a PC environment, IT administrators can use management software that automatically sends software updates to users' PCs. Because thin clients have no moving parts, help-desk support doesn't have to regularly visit employees' desks to troubleshoot potential hardware problems on the computer. But if a thin-client device breaks down, they simply

install another one or the device can re-image itself with a pre-designated Army image. Users log in and they're up and running again. Gone are the days of reconfiguring a new computer by installing or re-installing the operating system, software drivers and applications. Accordingly, IT staff productivity is increased by 78%, while user downtime is cut by 88%.

Strong Manufacturer Partners

CDW•G offers thin client solutions from multiple vendors and has the technical support structure in place to help the Army choose the most appropriate solution for its existing and future infrastructure. The table below depicts the existing in-house resources from CDW•G and how they will aid the migration process of the thin clients being implemented into the Army environment.

Timeline

Products: Proposed products are commercial, off-the-shelf (COTS) products that require little to no modification for inclusion in an Army thin client solution. When modification is required, this is typically performed in our Enterprise Configuration Center with minimal to no delay to shipment times.

Full Solution Implementation: The engineering efforts section below provides the breakdown of how a full scale thin client solution implementation will run. From performing a needs and site assessment to decommissioning old equipment, CDW•G can provide a full products and services solution. These solutions are ready for delivery now; the CDW•G team is currently implementing similar solutions for customer across the globe; thus, no need to account for 'ramp-up' time to deliver full thin client migration solutions.

Engineering & Marketing Efforts Make Migration Successful

Our timeline assumes 500 users and full network switchover to a thin client environment. Installations of less than 500 users will take less time. Implementation of a full thin client solution will comprise of a three phase process—as depicted below. These phases may flex to meet Army needs and other considerations (e.g., widespread locations, security challenges or testing requirements). As an example, we have provided a decelerated timeline which is incumbent on Government accessibility and workload. This sample timeline is based on work performed for current thin client customers and can be accelerated based on the size, complexity, and need of the Army customer.

Implementation Timeline for Dell Wyse Thin Client Solution (500 Users)			
	Map needs to technology	Design, test, document	Build/Deploy; migrate users
Phase:	1	2	3
Weeks:	1-3	4-9	8-16
Actions:	Perform site assessments	Establish an architecture design	Implement results of site assessment
	Determine business applications currently in use and planned use	Establish requirements and design strategies for disaster recovery, server redundancy, back up and virus protection	Address rack and power requirements
	Characterize the user population	Dedicate servers for QA and development	Address network and storage requirements
	Determine user profiles	Establish user profiles	Install systems
	Determine user interfaces	Recommend changes to the network topology	Install applications and bring to appropriate patch level
	Understand the Army Units current and future IT architecture	Address the Army's continuity requirements	Schedule change management to go live
	Inventory existing physical server and desktop infrastructure	Assess software licensing requirements and future needs	Run systems in parallel as users are migrated
	Analyze network availability bandwidth and reliability	Establish load balancing requirements for each design requirement	Migrate user base
	Determine security needs	Set up a test lab environment	Decommission old infrastructure as it removed from the network

In-House Expertise

As the Army continues to migrate to thin client solutions, there is a need for diligence and expertise. Fittingly, CDW•G team has in-house engineers and strong manufacturer partnerships to help implement new thin client networks.

CDW•G has been providing high quality implementation services and solutions for more than 30 years. Our services and solutions segment has steadily grown over this period of time—as witnessed by our national expansion and company growth. The majority of CDW•G's 500-plus engineers and technicians operate in 20 cities, providing configuration and installation services as well as cloud and managed services, security services, and warranty services. We anticipate a robust continuation of this growth as companies realize the value in upgrading to newer products and technologies—such as thin/zero client and VDI systems.

Thin Client Overview

Over the past 25 years, the "personal" computer has been widely deployed throughout the business and government/military. While the PC has been a great automation tool, it poses severe security and operational challenges. Centralized computing architectures (server-based computing is a subset of centralized computing) are designed to address the weaknesses of distributed PC computing that include weak asset security, poor system availability and manageability, space/power/heat issues, and high support costs. Centralized computing addresses these issues to deliver the following benefits:

Strong Asset Security

The very nature of critical military operations demands the highest levels of data and hardware security. Military departments in particular must be able to

navigate through both secured and unsecured networks without hesitation. These strict security demands are difficult to meet with traditional box PC infrastructures because the computer is physically located at the user's desk. With PCs, sensitive data can be downloaded in seconds, and computer viruses and illegal software are just as easy to upload. PC hardware is also susceptible to theft and corruption when housed at the work area. Centralized computing removes the data and storage devices off of the desktop and provides control over adding peripheral devices.

The primary impact of implementing a thin client solution is the reduced operating expense that it offers. Additionally, thin clients offer heightened security and control to the IT staff managing the equipment. Not only will they experience less time running routine maintenance on machines, but they will have the ability to centralize the entire IT computing process. The table below summarizes the benefits of choosing CDW•G for thin client solutions:

Army Benefit	Features of the CDW•G Dell Wyse Thin Client Solution
Lower Procurement Costs	CDW•G offers many OEM solutions, allowing the Army the choice of best-of-breed brands and the ability to create cross-brand solutions.
Lower Implementation Risk	CDW•G offers experience of prior large-scale thin client engagements.
Lower Army TCO	CDW•G thin client solutions provide longer client service life; centralized administration, greater standardization.
Lower Administration Costs	All configuration and software loading is performed at the server level.
Improved CND	End-user vulnerability is minimized as there is no software or used data stored locally.

Summary

By working with CDW•G to develop and deploy a thin client solution, the Army has access to a wide variety of thin client and VDI manufacturer partners, including Dell Wyse. Our products are supported by our extensive technical and customer support structure, and are further supplemented by manufacturer representatives to assist from general product education, through design and implementation of the thin client solution.

Contact your dedicated CDW•G Account Manager or visit www.cdwg.com/ITES-3H to discover how CDW•G can provide the best solution.