



United States Department of Defense

DoD finds the solution that fits the mixed world of Windows and Linux in an easy to use and secure virtual desktop solution

“We found the VERDE VDI engineers to be easily approachable, responsive and open to input. Requests for additional features were implemented in a timely manner, allowing us to evolve and offer mission critical capabilities and options to our users. What could have been a complex and difficult project has been relatively simple and pain free because we chose the right desktop virtualization vendor.”

– U.S. Department of Defense representative, Military*

As the nation’s top government agency responsible for the security and safety of the nation’s citizens, the U.S. Department of Defense faces extraordinary challenges when it comes to day-to-day IT operations. With security, performance, ease of use, and affordability as top priorities, the DoD needed a desktop virtualization solution that could support both Linux and Windows desktops across multiple locations, all within a high security computing environment. After an extensive evaluation of all available solutions on the market, including Citrix, Red Hat and VMware, VERDE VDI was the only solution able to meet all of the requirements of the U.S. Department of Defense.

Executive Summary

Whether providing military training, technical skills or personnel services, security and efficiency reign supreme at U.S. military bases. The highly-classified environment must pass stringent security scans and reviews based on DISA, STIGS, SECSCN, SCAP and follow Information Assurance best practices as established by the National Security Agency.

Like many organizations, the DoD works on a code of efficiency, As such, the IT organization knew it needed to simplify desktop management across its environment. This included reducing manpower costs, cutting licensing and hardware expenses, and re-utilizing decommissioned equipment. But it also knew it had to do it without compromising security and performance.

The DoD saw VDI as the answer and sought a comprehensive solution that could automate deployment and configuration, ensure a consistent user experience across geographically dispersed environments, and support multiple operating systems while addressing top security challenges.

After evaluating all available products including Citrix, RedHat and VMware, the DoD selected VERDE VDI because it was the only solution that could support both Linux and Windows desktops across highly diversified branch locations. They were surprised to find that, in addition to meeting their stringent security and performance requirements, the VERDE VDI solution was also half the cost of lesser VDI offerings and exponentially easier to deploy.

The Organization

As one of America’s oldest and largest government agencies, The Department of Defense is not only in charge of the military, which encompasses Army, Navy and Air Force, but also employs a civilian force of thousands. With more than 1.4 million men and women on active duty, and 718,000 civilian personnel, the DoD is the nation’s largest employer. The Defense Department manages an inventory of installations and facilities to keep Americans safe. The Department’s physical plant is huge by any standard, consisting of more than several hundred thousand individual buildings, structures and offices located at more than 5,000 different locations or sites.

“VERDE VDI helps us reduce capital expenses by providing support for Windows thin clients running virtual Linux desktops. In addition, by enabling our department to move desktops into the secure data center and isolate access based on need or clearance level, the solution significantly improves security.”

– U.S. Department of Defense representative, Military*

The Challenge

The Department of Defense faced the following challenges:

- **Distributed Branch Offices:** While DoD users are dispersed across thousands of locations, the IT team is not. As a result, virtual desktops must run at local LAN speeds to ensure a consistent user experience, however all management must be handled by a single core team of administrators.
- **Support for Linux Desktops:** The DoD is one of the single largest install bases of Linux, therefore any VDI solution has to support multiple distributions of Linux, Red Hat and Ubuntu as well as a mix of Linux and Windows desktops.
- **Stringent Security and Isolation:** All DoD IT organizations follow Information Assurance best practices established by the National Security Agency, and pass rigorous security scans and reviews based on DISA STIGS, SECSCN, SCAP, and other security tools. A VDI solution must require minimal adjustments to pass the tests and should also be able to isolate desktops to certain networks to control security concerns.
- **Total Cost of Ownership:** Cost was another challenge, as all organizations would like to do more with less. A VDI solution must provide the ability to add more server capacity and expand to additional branches without affecting current manpower resources.

The Solution

The DoD selected **VERDE VDI** after evaluating multiple solutions including Citrix, which was already installed, and VMware. The **VERDE VDI** solution was up and running in just over one week -- less than half the time it took to get Citrix and VMware working -- and was the only solution that could deploy Linux virtual desktops, providing sound and video. Since deployment, the system has experienced 100% uptime due to built-in CM availability.

VERDE VDI, which is built on KVM, is inherently more secure than competitive solutions that use alternative hypervisors. The DoD frequently utilizes **VERDE VDI** security features, including Desktop Policies, to control the size (CPU/RAM) of user desktops. Session Settings allow the DoD to isolate different networking requirements to correct Gold Images, while Branch technology is instrumental in ensuring remote locations have a consistent desktop experience managed from a centralized team of admins – allowing for an additional level of security and control over sensitive data. For example, IT can control Session and Desktop policies from a single console and easily see all users, IP and hostnames of all running sessions.

While **VERDE VDI** met all of DoD’s technical requirements, it was also up to 50% more affordable than competitive solutions. In addition to lower licensing and maintenance costs, **VERDE VDI** requires less hardware, uses StorageOptimizer™ to optimize the Read and Write IOPS using local attached storage, and requires fewer administrators to maintain the infrastructure and support end users. The Department of Defense is able to re-utilize decommissioned equipment for VDI processes, automate deployment and configuration and reduce overall costs.

*Identity withheld for security reasons.

