

Non-Persistence Pays Off

MnSCU Improves VDI Performance and Desktop Disaster Recovery Using ProfileUnity to Migrate to Nonpersistent Virtual Desktops

"The more we looked into non-persistent virtual desktops, the more we liked ProfileUnity. It came highly recommended as the most flexible solution for managing a nonpersistent virtual desktop environment."

*—Matt Heldstab
Lead Virtual Systems Engineer, MnSCU*

Organization:

Minnesota State Colleges
and Universities System

Virtual Desktop Users:

250+

Products:

ProfileUnity™

Overview

The Minnesota State Colleges and Universities System (MnSCU) serves approximately 410,000 students and is the fifth largest system supporting two- and four-year postsecondary institutions in the U.S. MnSCU first began using virtual desktops in 2009, and today its virtual desktop infrastructure supports approximately 200 staff members at its administrative headquarters in St. Paul, including about 40 software developers. Over the years, the organization has continued to upgrade its virtual desktop environment, and the current iteration features zero-client desktops running VMware Horizon View 5.3.

The Challenge

The MnSCU System Office was an early adopter of virtual desktops and initially launched persistent virtual desktops. However, over time, MnSCU IT staff realized that using persistent virtual desktops – although satisfactory initially when the implementation was less complex – was now a drawback as the individual persistent disks grew in size over time. They also realized that persistent desktops did not provide either the resiliency or disaster recovery options required to take their environment to the next level. The staff began investigating what actions needed to be taken to make a move to a nonpersistent VM pool architecture with managing user profiles outside of the VMs. They saw several challenges associated with the cutover, so they began to search for a solution that would not only help them ease the migration from persistent virtual desktops to a non-persistent mode but also allow them to manage user profiles and the user desktop environment seamlessly after the migration.

The Solution

After looking over several options that had been recommended to them, MnSCU IT staff focused on ProfileUnity from Liquidware and determined that this solution provided the full spectrum of functionality the organization required to both support the migration but, more importantly, to manage the new environment on an ongoing basis, and even optimize it over time.

“We looked at other tools, but they would have required us to give up too much control over how we wanted to manage our desktops,” said Matt Heldstab, lead virtual systems engineer at MnSCU.

According to Heldstab, it was the all-encompassing feature set of ProfileUnity that made the selection easy for MnSCU. The solution supports the migration of existing virtual or physical desktops onto a next-generation platform – seamlessly taking persistent physical desktops to virtual mode or moving from an existing OS to a newer version OS. It also automates most of the process, which is a tremendous time saver for systems staff. ProfileUnity harvests all user settings to build a universal user profile that can span older to newer versions of Windows operating systems and the gamut of virtual desktop platforms including Citrix and VMware. The solution collects user preference settings, application settings and user-authored data, which makes the data mapping process easy. That was an important consideration for Heldstab and the MnSCU IT staff, who had seen an increase in data mapping problems with its persistent virtual desktop environment.

Another key function that was absolutely critical, according to Heldstab, was ProfileUnity’s ability to perform a cleanup of the existing file before the final conversion. It then compresses the user profiles (ratios as high as 50:1 have been attained) to minimize storage requirements.

Because the migration is performed in the background with network throttling, users can continue to work on their desktops while data is being migrated to new network folders so migrations could be conducted during normal working hours when MnSCU IT department was fully staffed up, and they were on the spot to troubleshoot any issues immediately.

After it performs the migration, ProfileUnity offers sophisticated features for managing user profiles and the user environment, including context aware filters, AD integration and Application and User Rights Management features. FlexApp, a major application layering feature in ProfileUnity, enables users to install their own applications and enables MnSCU IT staff to deploy layered departmental applications, thus allowing them to reduce the number of master images that needed to be maintained.

With ProfileUnity, MnSCU desktop users gain a certain level of freedom to personalize their desktops, but administrators can control how far these customizations can go, so that group policy is still applied and adhered to across all desktops. In addition, ProfileUnity significantly reduces user login times on virtual desktops while providing a user experience on par with physical desktops.

The Results

“Transitioning from a persistent to a nonpersistent desktop environment is one of the toughest jobs you have to tackle with a virtual desktop deployment. There is so much information you need to capture before the desktop can be replicated on another VM,” said Heldstab. “ProfileUnity made it possible to give us the granular control to allow all aspects of the user’s persona to be leveraged when a user logs in to another non-persistent desktop. Even if it couldn’t capture some settings initially, it pointed us to where to look and provided tools so we could do it ourselves.”

The new environment has met the performance goals that motivated MnSCU to convert from persistent to non-persistent virtual desktops. “Now we are able to back up our user personas, something that has been a major issue in the past.” Heldstab said. MnSCU is also getting more value from its IT systems. Software developers can share tools and collaborate more easily in the updated non-persistent environment, and the IT staff is seeing much fewer data-mapping problems with its applications. “We could see that non-persistent virtual desktops were the way to go,” said Heldstab. “And the more we looked into them, the more we liked ProfileUnity. It came highly recommended as the solution that was most flexible for managing a non-persistent virtual desktop environment, and it has proved that to us in production.”



HQ 3600 Mansell Road Suite 200 | Alpharetta, GA 30022

866.914.9667 | Liquidware.com | info@Liquidware.com

©2018 Liquidware Labs, Inc. All rights reserved. Liquidware, Liquidware Labs, ProfileUnity, FlexApp, Stratusphere UX, ProfileDisk, PackageOnce, ProfileBridge, and FastPackaging are all trademarks of Liquidware Labs, Inc. All other marks mentioned herein may be trademarks of their respective companies.