

Liquidware Labs Transforms Desktops in Education

Founded in 2009, Liquidware Labs is an industry leader, providing solutions for next-generation physical and virtual desktops, including Citrix® XenDesktop and XenApp, Microsoft® Windows and VMware® Horizon View. Our solutions are used by Education organizations to provide new efficiencies as well as meet budget and online learning requirements.

Delivering “Follow-Me” Desktops and Printing

Education organizations today require “follow-me” workspaces in order to free students from the constraints of desk-bound learning resources. Students can access personalized workspaces from wherever they login – anywhere on or off-campus – and from their own devices. ProfileUnity is a sophisticated User Environment Management (UEM) solution that decouples user profiles and user-authored data from the Windows OS, stores them independently in central storage in order to be utilized upon login, regardless of the platform, location, or end point device. Triggers and context-aware filters can fine tune the automated mapping of printers and other peripherals so users have seamless access to work resources even as they move from location to location.

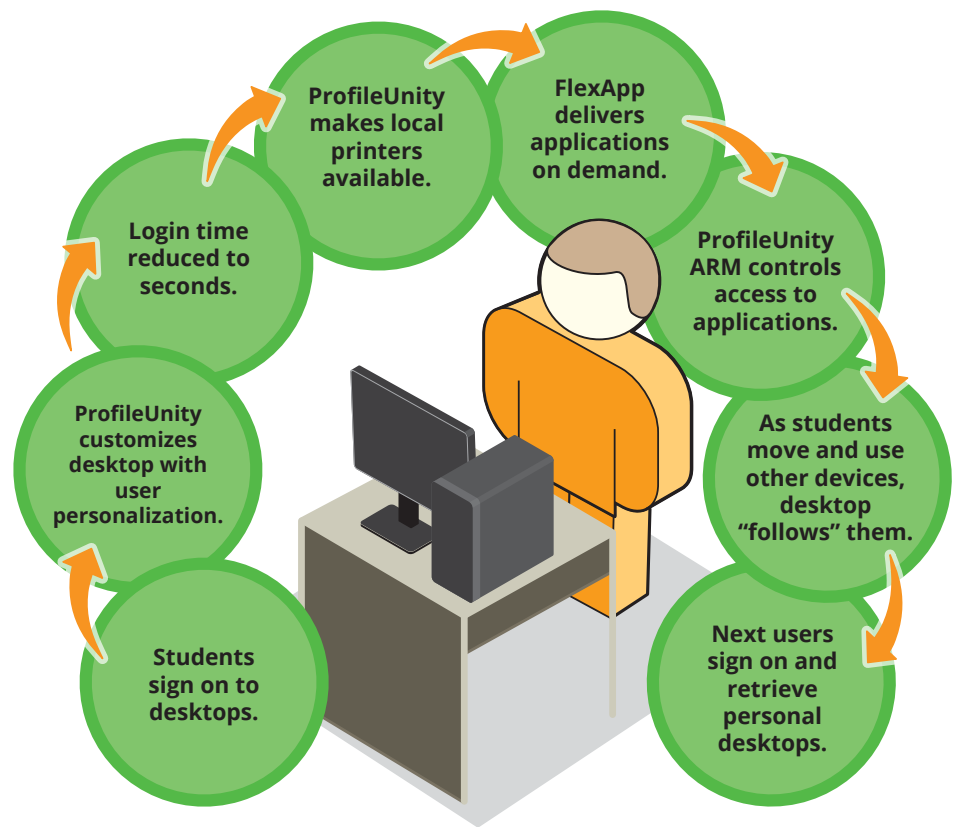
Accelerating The Login Process Down to Seconds

Education not only needs flexible follow-me desktops, but requires near instantaneous access to them. If login times expand to unacceptable durations, the root cause of problems must be corrected immediately. Liquidware Labs Stratusphere UX provides a specialized “login breakdown analysis” that provides vital and granular visibility into the events that run during the machine boot and the login process.

Once the analysis confirms no abnormal bottlenecks exist, Liquidware Labs ProfileUnity can be used to optimize the login process. ProfileUnity solves common problems that cause profile bloat which can bog down logins, including eliminating cached files or deleted items, or ignoring cached files application settings folders. ProfileUnity allows you to store PST and local OST files outside of the user profile. Once the profile size is reduced through automation and best practices, ProfileUnity further compresses the transfer and network storage of the optimized user profile in a ratio that is up to 50:1.

ProfileUnity can execute policies based on Microsoft AD criteria and by more than 300 context aware filters combinations. The solution performs only a single master lookup when authenticating policies against Microsoft AD, and is significantly faster. ProfileUnity includes a robust ADMX import capability to replace AD policies thus significantly speeding up logins for the majority of users.

ProfileUnity’s “Portability” feature module can set portions of the profile to load silently after login. This feature can be used with ProfileUnity’s exclusive ProfileDisk technology to easily handles large profiles, such as those containing Microsoft Office 365 offline cached mode data.



Safeguarding User-Authored Data

It is critical for Education organizations to ensure all student work and research IP is saved to central storage and does not remain on local devices. Microsoft's best data storage practices requires that user-authored data be directed to networked file shares. ProfileUnity includes an innovative built-in feature to automate migrations of user-authored data automatically in the background. Built-in throttling lets administrators select a data transfer speed that will not impact network performance, so data can be trickled up to the new location over time. Once the migration is complete, users can access data from the redirected folder location, and subsequently save to that location seamlessly. The data can be backed up and recovered through standard processes.

Boosting Desktop Security

Education organizations must preserve a high standard of security in order to keep enormous amounts of student personal data private.

Liquidware Labs solutions – used together – helps Education organizations meet US-CERT recommendations to protect their computer networks from malware and ransomware attacks as follows:

- ProfileUnity can restrict users' ability (permissions) to install and run unwanted software applications, and can apply the principle of "Least Privilege" to all systems and services which can additionally stop malware from running or limit its capability to spread through a network.
- ProfileUnity supports centralized backup of user-authored data, thereby enabling a sophisticated data backup and recovery plan for all critical information through standard backup and recovery solutions.
- According the US-CERT, application whitelisting and blacklisting is one of the best means for preventing malware or ransomware from compromising IT systems. Stratusphere UX can be used to perform an application inventory to be the basis of an application whitelist. Once the base whitelist is established, ProfileUnity features to manage whitelisting and blacklisting allows only the specified applications to run.
- FlexApp supports centralized storage and management of applications, thus greatly simplifying maintenance and helping administrators ensure that OS and all software is up-to-date with the latest patches. Vulnerable applications and operating systems are the target of most attacks. Ensuring these are patched with the latest updates greatly reduces the number of exploitable entry points available to attackers.

Simplifying Desktop Image and Application Management

Education organizations have an onerous task of tracking and maintaining all the applications used by their diverse staff. Many are looking for alternatives to managing hundreds of desktop images. Liquidware Labs Stratusphere UX can be used to perform an application inventory as a first step to designing an application delivery strategy that matches applications with the most efficient delivery approach as follows:

- Deploy the application within the base image
- Virtualize the application either through isolation or through streaming or publishing the application
- Deliver the application through an application layering solution such as Liquidware Labs FlexApp

FlexApp Application Layering is proving to be boon to Education organizations. This solution "redirects" application installations onto virtual disks that look "native" to Windows OS when attached to the endpoint. FlexApp solves the problem of maintaining desktop images for every user group. Administrators need only to create a limited number of master images. Other applications used by specific program, group or individuals can be "layered" on top of the master image and delivered on demand.

FlexApp has demonstrated support for a wide variety of software applications, even those with dependencies on other applications or plugins. The ability to add new applications in minutes on-the-fly as faculty add or change them is a valuable advantage for administrators, who would normally need to schedule application additions or updates during downtime hours.

Delivering High Performance and High Availability

Education IT infrastructures and desktop environments must be always available to students, faculty and staff. Liquidware Labs Stratusphere is a unique, purpose-built, desktop user experience assessment, monitoring and diagnostics solution. When used for assessments, Stratusphere can ensure that desktop images and desktop environment infrastructure are properly designed.

With Stratusphere UX, Education IT staff can proactively monitor ALL desktops in the environment, regardless of platform, and provide support to first-tier desktop administration staff, triage trouble tickets and more effectively identify, route and elevate looming issues before they become system-wide nightmares by:

- Providing detailed analysis of a single user, single machine or single application view
- Executing a cursory diagnostic analysis (Health Check) to help quickly route trouble calls to appropriate IT teams
- Leveraging the Stratusphere UX API – a point and click GUI API builder to extract information from Stratusphere UX and repurpose it in other more commonly used formats or systems monitoring solutions.



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