

Transforming education IT with user virtualization



Solution overview

Today's education organizations face many unique challenges as they race to meet demands from students and faculty while maintaining security requirements



Leading organizations are focusing on leveraging virtualization to address consumerization challenges, improved efficiency, and to align more closely with business goals. They are relying on their IT departments to help them cut costs while enhancing services.

The combination of the increasingly complex campus ecosystem, demanding users (students and faculty), regulatory compliance, and introduction of cloud computing, is placing extraordinary pressure on IT departments to deliver operational excellence with limited budgets and staffing resources. Additionally, preparing an outdated IT infrastructure to support the implementation of new instructional applications and the latest user devices are proving to be a monumental task for many colleges and universities.

By focusing on the needs of the user directly, rather than a desktop or device, user virtualization provides education IT multiple solutions to meet today's challenges as well as opportunities to improve the student and instructor experience and increase operational efficiencies.

Today's education industry challenges

The rapid change in the current learning landscape is unprecedented. Key challenges include:

- Meeting regulatory compliance and security demands
- Delivering high-quality student and faculty experience
- Ensuring availability of mission-critical student and instructor desktops and applications
- Driving IT operational excellence while lowering costs

As intimidating as these challenges may be, they present an opportunity to profoundly change the way IT works within the educational institution. User virtualization, when integrated into a campus' desktop and application delivery system can help meet these challenges head on.

What is user virtualization?

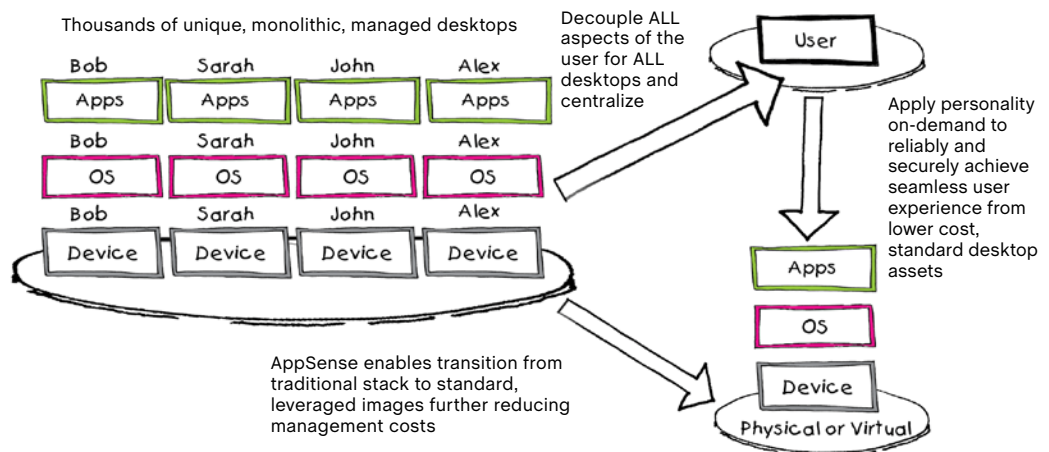
User virtualization ushers in a new era for education IT, by decoupling users from devices, enabling users to work with whichever devices and applications will maximize their productivity, and fundamentally changing the economics of IT.

Isolating user data enables IT to precisely administer users by device, location, or application. The user experience remains secure, predictable, and personalized, with bullet-proof reliability. IT can give users complete freedom of choice to use whichever devices suit them, and deploy a user-specific desktop to any device in any location at any time.

About AppSense

We are the leading provider of user virtualization technology to enterprise organizations. User virtualization is a way of managing user-specific information independent of the desktop, and applying this information into any desktop (local install, virtualized, published, streamed etc) on-demand. This enables IT to standardize the desktop build, automate desktop and application delivery, and migrate users to new desktops – all while ensuring the user experience is seamless, personal, predictable and easily manageable.

The evolution to componentized desktops:



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User virtualization key benefits for education

✓ Meeting regulatory compliance and security demands

User virtualization solutions enable education institutions to adhere to industry regulatory and compliance standards by ensuring that information is protected with appropriate safeguards in place. IT can selectively restrict user access to applications and log actions of staff and students as well as lock-down users to prevent them from being able to print, save, or otherwise access information outside the approved exam environment.

Security continues to maintain a spot near the top of the education industry's IT challenges. While students and faculty are well aware of the need to avoid non-approved applications and other executable files, IT departments are all too familiar with the consequences of such unintentional introductions. User virtualization allows students and instructors the flexibility and freedom to access the web and applications while protecting the network from unauthorized executables.

By dynamically delivering security settings based on parameters such as location, device and user group, a high level of security is achieved in a very mobile campus environment, allowing IT to provide continued, seamless and remote access to systems and data, while adhering to regulatory and compliance standards.

✓ Delivering high-quality student and faculty experience

User virtualization enables a consistent and seamless experience across a range of desktop and application delivery mechanisms, regardless of the device or location. This enables IT to deliver instructional applications and e-assessments to every device within and even beyond the physical campus facilities and provide improved, predictable and responsive access to instructors and students.

User virtualization also improves logon times and enables faster application launches. IT can provide an optimized, responsive and high performance environment by streaming the user personality on-demand and across platforms. Better application performance consequently leads to improved staff and student experience and productivity.

Furthermore, by dynamically delivering security settings based on parameters such as location, device and user groups, students can now easily and securely access applications and data to serve their learning needs in a mobile and, at times, remote environment.

“By introducing user virtualization, the IT team was able to deliver a user experience that was persistent and consistent, such that the users can customize their environment and those customizations are persistent across virtual desktops and across virtualized applications.”

University of Colorado

✓ Ensuring availability of mission-critical student and instructor desktops and apps

Given the nature of the services provided by learning institutions and the demands of students and faculty for mobility, access and convenience, there is increasing dependency on the continuous availability of IT systems. User virtualization can serve as a strategic tool by enabling business continuity in the midst of disruptive events. IT is enabled to transition to a backup Disaster Recovery desktop infrastructure while preserving the instructor and student desktop experience and applications. This results in zero downtime or productivity loss.

Further, IT can deliver significant helpdesk efficiencies through tighter change control, self-healing of many common user personality issues, and fast recovery from other issues through user personality snapshot/rollback capabilities. The ability to standardize the desktop and apply user personality on-demand also greatly reduces the traditional downtime associated with OS migration and PC hardware replacement.

✓ Driving IT operational excellence while lowering costs

User virtualization accelerates the implementation of new instructional applications and migration to Windows 7 initiatives to help colleges and universities with the timely deployment of these systems. It also enables IT to handle daily operational challenges such as continuous publishing of desktops for testing environments and management of computer labs in a fast and simple manner.

All this while helping IT to implement industry best practices that transform existing infrastructure optimization levels toward a more dynamic, core infrastructure model whose benefits include:

- Improved logon times and faster application launches
- Optimized resource utilization and user experience on shared server-based computing infrastructure Lower storage costs for virtual desktop

- infrastructure deployments through a personalized experience standardized, non-persistent desktop images
- Increased responsiveness to security configuration changes and vulnerabilities

Finally, user virtualization enables a user-centric view to devices, thereby removing the burden of per-device, per-desktop management. By managing the user independently of the device or platform, large complex IT projects can be implemented faster and easier, at significantly lower costs and with much better results.

“The process has eliminated the need to expand the virtual machine environment even in the face of dramatic growth in demand for assessments. Without this ability we would have been looking at buying additional licenses and servers as the program and number of assessments grew. It simply would have not been scalable.”

University of Bradford

Conclusion

User virtualization facilitates the move towards a more secure, well-managed, and dynamic core infrastructure model with:

- Significantly less user-related complexity
- Precise control over every user even as the desktop environment becomes more dynamic
- Bullet-proof reliability and predictable user experience
- Freedom of choice as new devices and technologies become available

This reduces overall IT cost and risk, eliminates complexity introduced by higher education institutions' increased dependency on cloud-delivered services and the explosion of computing devices, and improves IT resource utilization and responsiveness to make IT a strategic asset - one that drives innovation and aligns to changing business needs.