



Citrix Mobile Workspaces for Education

The future landscape of education and mobility

All levels of education share the same goals: improve the learning experience, increase education outcomes and prepare students for the future. With the rapid evolution of technology, there are now more ways than ever to accomplish these goals while setting up students and educators for success.

Today's next-generation learning solutions focus on finding technologies that improve education quality, as well as increase university and employment readiness and completion. Schools need to invest in solutions that meet the diverse needs of students from varying backgrounds and support a mix of technology that is both scalable and flexible enough to meet changing demands and requirements – all while reducing costs and access barriers.

Gone are the days of education IT simply keeping the lights on; they are now taking a more student-centric approach to deliver value and drive success for students, faculty and staff. Because of this shift, we are seeing the emergence of five education IT trends that are significantly changing the way schools design their campus mobility strategies to offer improved productivity and greater opportunity. These trends are made possible through mobility solutions and virtualization, which help deliver everything students need to succeed at home, on campus, or from anywhere.

1. **Learning space redesign:** Schools are beginning to realize that computer labs filled with rows of computers no longer work for today's students. Since the average student owns three or more mobile devices,¹ they need anywhere, anytime access to resources and a space to collaborate with others. Many schools plan to decrease or completely eliminate open-use labs in the future and transform them into comfortable spaces that offer creative learning areas with

improved Wi-Fi, large-screen monitors and plenty of outlets where students can bring mobile devices and work together.

2. **Personalized student learning experiences:** Since each student is unique, learning solutions can no longer be one-size-fits-all. Educators and IT teams are being challenged to find customizable learning solutions that can change and adapt to students' varied needs. When IT implements flexible, mobile workspaces, they increase access to learning resources and reach students wherever and whenever they feel most productive and inspired.
3. **Equal learning opportunities across socioeconomic lines:** Schools are expanding and implementing new technologies to provide an equal learning experience regardless of each student's socioeconomic status. IT services and resources must be able to work anywhere and on any device – whether it's a brand-new tablet or a desktop that is several generations old. Additionally, colleges and universities are increasingly bolstering their physical environments by adding remote campus locations and offering virtual online classes to reach more students and make learning opportunities more readily available.
4. **Creating innovation around device challenges:** To provide their students with the latest technology, many schools have implemented new devices such as tablets, thin clients and 3D printers. But without the proper back-end infrastructure to support

¹Audience Survey on Technology in Higher Ed, University Business, June 2014

“Our IT team no longer has to manage schools one by one, so they can take on more strategic objectives.”

– Dr. Luz Elena Gaviria, secretary of education, Medellín, Colombia

and deliver services to these devices securely, they aren't providing the value or innovation they intended, leaving IT to question purchase decisions. As a result, education IT is tasked with addressing the opportunities enabled by device proliferation to create mobility strategies that are reshaping the way students work, learn and study.

5. **Learning continuity through**

virtualization: Every child loves a good snow day, but snow days also mean that valuable learning time is lost. In response, more schools are moving to virtual school days – not only to make up for days lost due to things like weather and flu season, but also to keep students engaged when they can't be in the classroom. With virtualization and other mobility solutions, students have access to everything they need to have a productive, fulfilling learning experience at home. Virtual school days also have the added benefit of saving schools facility and staffing costs.

Mobility challenges impact users in different ways

Student

Students in today's education environment are no longer only learning while in the classroom. They're constantly on the go and moving across devices, so it's important that resources are available 24x7. In the morning, students can be found working on a laptop at home or in a dorm room. As the day progresses, they move on campus and take notes during class or make

edits to a presentation on a tablet. And after class, they can often be found studying in a student common area or collaborating in the virtual computer lab, using a thin client.

These students – and educators – need a single mobile workspace that helps foster successful learning anytime, anywhere and on whatever device they use to improve collaboration, share ideas and make new connections.

Educator

Introducing new technology and systems into learning environments is not only expensive, but it can also prove difficult for teachers to adopt, resulting in frustration, lack of use of the solutions and ultimately the technology being returned to IT.

Educators require solutions that are flexible and user friendly for students and teachers alike – across a number of devices. This flexibility is especially important for classes that require the purchase of a powerful device or expensive software like SPSS, AutoCAD or ArcGIS. Delivering these applications through a virtual campus app store to any affordable device opens the opportunity for educators to reach more students. The benefits surpass in-class use; with mobile workspaces, teachers and students can meet for discussions or tutoring sessions online, not just during office hours or in the classroom.

“Virtualization allows us to more effectively use IT to support the university’s educational mission by allowing our users to get access to resources wherever they are and from whatever device they choose.”

– Sue Workman, associate vice president of support, Indiana University

Ninety-four percent of higher education leaders agree that students today should be able to remotely access all the information, data and software they need, on any device, at any time and with a consistent user experience.²

IT leader

The job of the IT leader is centered on finding solutions that are easy to manage, cost-effective, flexible and adaptive to change. For educational organizations, it’s also important to utilize systems that are scalable across many different campuses, which might include remote campuses, off-campus environments and even exchange programs around the globe. To overcome this challenge, IT must become more agile.

Allowing IT to have a meaningful business impact, mobile workspaces increase efficiencies by enabling IT staff to manage issues and environments from anywhere. Their new, innovative way of thinking not only saves money, but also transforms the business of their schools.

School leaders

Depending on the type of school, an educational business leader or department head is tasked with a multitude of different priorities. For example, larger institutions place a high priority on providing cutting-edge technology and services to stay competitive and to help attract and retain top students, educators, researchers and applicants. These organizations are designing, planning and implementing innovative technology solutions and services that are fun and engaging in environments that will sustain the interest of these individuals.

On the other hand, leaders at primary schools, community colleges and technical schools tend to be more connected with the local community and focused on student graduation and job placement. To help achieve these goals, leaders want to ensure that students get access on devices they can afford, while also providing on-campus resources that are flexible for students who work or have families.

Bring technology innovation to education with Citrix solutions

Citrix solutions for education can empower mobility, improve education outcomes and achieve next-generation learning. With Citrix, educators and schools are able to reach students wherever they may be learning, on whatever device they use to improve performance, satisfaction and graduation rates.

- Anywhere access – Deliver secure, anytime access to instructional, collaborative, research and administrative resources anytime, on and off campus.
- Lower costs – Reduce desktop and mobile infrastructure costs by managing complex, multi-campus environments under united IT control.
- Bring your own device (BYOD) – Empower BYOD and utilize any device to make educational resources readily available to students, educators and staff.
- Data security – Protect the privacy of students and secure research data while maintaining compliance, providing high availability and simplifying learning continuity.

²Audience Survey on Technology in Higher Education, University Business, June 2014.

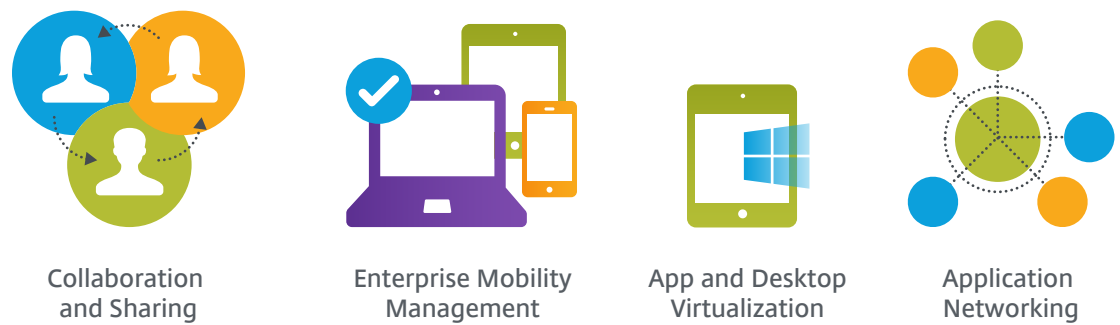


Figure 1: Citrix Mobile Workspaces enable learning on the go.

Citrix Mobile Workspaces can help solve challenges for schools and educational environments by providing a portable, always on, always connected working environment that follows students no matter where they go, on any device, over any network. Citrix meets changing education requirements with the industry's leading mobile workspace solution, enabling IT to securely deliver all apps – Windows, web, software-as-a-service (SaaS), mobile – data and services to any device, over any network, to empower students and educators to learn and work the way they choose.

Collaboration and sharing

- **ShareFile** – Files – even large images and videos, presentations and other memory-intensive items – can be shared easily and securely among students, educators and researchers wherever they may be. Secure storage and sync for files across all devices provides a convenient, efficient and user-friendly experience.
- **GoToMeeting** – With this face-to-face video collaboration tool, students can work together – even when they aren't physically together. In addition, GoToMeeting allows teachers to host virtual or distant office hours and tutoring sessions and enables students to take virtual field trips.
- **Podio** – This social project management tool is simple enough for students and teachers to set up project teams and study groups, but robust enough for IT and business teams to use for project management.

- **GoToAssist** – With unlimited live end-user support, campus IT professionals and consultants can quickly deliver live and unattended technical assistance with powerful remote support software.

App and desktop virtualization powered by XenDesktop and XenApp

Educational institutions can centralize the management and delivery of Microsoft Windows apps, as well as student and staff desktops, with a high-definition, seamless experience across locations, devices and networks.

XenApp and XenDesktop allow IT to virtualize applications and desktops to ensure optimal convenience and productivity wherever students, teachers, researchers and administrators work, even if it's off-campus. Apps and associated data remain in the data center, helping support compliance, data protection and student privacy while also offering 24x7 access.

Education mobility management powered by XenMobile

Students and staff can securely access mobile, web, SaaS and Windows apps and data on any mobile device through an app store with single sign-on. Educators, parents and IT can ensure that mobile devices in the classroom are being used appropriately. New students, visiting professors and substitute teachers can be provisioned with the resources they need and deprovisioned in just minutes when the work is complete.

App networking and cloud orchestration powered by NetScaler, CloudPlatform and CloudPortal

IT can optimize, secure and control the delivery of education apps, cloud services, virtual desktops and mobile services through a single management framework that helps IT manage compliance, information governance and data protection. Build, manage and deliver highly scalable and efficient private, public and hybrid infrastructure-as-a-service (IaaS) clouds.

Citrix solutions advance educational institutions around the world

One of the largest public universities in the U.S., the [University of South Florida](#) supports more than 47,000 students across three institutions. [The university partners with Citrix to implement a mobile strategy](#) that would better support the needs of today's on- and off-campus students, saving nearly \$300,000 each year.

As the largest Brazilian university, [the University of Sao Paulo needed a solution to support widely dispersed, remote locations](#). Citrix helps the university build a university-wide cloud to provide on-demand, centrally managed virtual data centers that are flexible and secure, with high availability.

[Highbury College](#) has been a Top Ten college in England for the last five years. Initially, the college used a traditional PC-based infrastructure, but as technology evolved, the college needed something innovative yet cost effective. To avoid the underutilization of expensive software, [Highbury College partners with Citrix](#) for solutions that offered virtual desktops and applications from any device, at any time.

As schools and universities continue to advance, we're seeing a shift from traditional infrastructure to collaborative, end-to-end solutions for highly productive learning experiences. And with these changes come greater flexibility and accessibility, as well as saving money and decreasing troubleshooting and downtime.

Citrix provides the top mobility solutions for education institutions when it comes to making the right technology available for students, educators and administrators, no matter where they are or when they need it. Learn more about Citrix solutions for education at www.citrix.com/education.

Corporate Headquarters
Fort Lauderdale, FL, USA

Silicon Valley Headquarters
Santa Clara, CA, USA

EMEA Headquarters
Schaffhausen, Switzerland

India Development Center
Bangalore, India

Online Division Headquarters
Santa Barbara, CA, USA

Pacific Headquarters
Hong Kong, China

Latin America Headquarters
Coral Gables, FL, USA

UK Development Center
Chalfont, United Kingdom



About Citrix

Citrix (NASDAQ:CTXS) is a leader in mobile workspaces, providing virtualization, mobility management, networking and cloud services to enable new ways to work better. Citrix solutions power business mobility through secure, personal workspaces that provide people with instant access to apps, desktops, data and communications on any device, over any network and cloud. This year Citrix is celebrating 25 years of innovation, making IT simpler and people more productive. With annual revenue in 2013 of \$2.9 billion, Citrix solutions are in use at more than 330,000 organizations and by over 100 million users globally. Learn more at www.citrix.com.

Copyright © 2015 Citrix Systems, Inc. All rights reserved. Citrix, XenApp, XenDesktop, XenMobile, ShareFile, GoToMeeting, Podio, GoToTraining, GoToAssist, NetScaler, CloudPlatform and CloudPortal are trademarks of Citrix Systems, Inc. and/or one of its subsidiaries, and may be registered with in the U.S. and other countries. Other product and company names mentioned herein may be trademarks of their respective companies.