UBM Tech

E-PAPER

NOVEMBER 2014

The Anywhere, Anytime College Experience

Schools today need to ensure that students can access the information they need, whenever they need it, from whatever device they choose.

vmware | carahsoft

The college campus of 2015 is shaping up to be much different from the one that served students at the turn of the 21st century. Back then, students relied heavily on PCs, but Internet access was spotty and there was no such thing as a wireless campus. For access to expensive computer software and resources, students spent a lot of time in campus-provided computer labs, which eventually became part of campus-wide networks.

Today, students typically arrive on campus with multiple mobile Internet-connected devices. According to a 2013 Educause report on higher education,[1] nearly 90% of students own laptops, 76% own smartphones (up 12% since 2012), and 31% own tablets (up 15% since 2012). The report found that 58% of students own three or more Internet-capable devices.

And students want to use those devices wherever they happen to be, at any time, and for any purpose. The Student Mobile Device Survey of 2014, sponsored by Pearson and conducted by Harris Interactive, found that college students feel a strong need to be connected to the Internet to do schoolwork in a variety of locations.

At the same time, campuses are cash-strapped and looking for ways to stretch their budgets. Space is also at a premium on many campuses as they expand their enrollment to accept larger numbers of students.

As colleges compete for the best students, they are looking for ways to cater to the needs of those students. Today, that means ensuring that students can access the information they need, whenever they need it, from whatever device they choose.

CASE IN POINT: EASTERN WASHINGTON UNIVERSITY

Eastern Washington University has experienced the benefits of anytime, anywhere, any device computing firsthand.

A few years ago, the university launched its Virtual Labs program using VMware technology, with the goal of providing students, faculty, and staff with anytime, anywhere access to course-related software. Designed as a supplement to its physical computer labs, the Virtual Labs program delivered on its promise, allowing students to access course-related software from either their own devices or campus computers via a web browser or the VMware View client. IT staffers are able to deploy new applications and updates quickly and easily, and the university saves money on staff overtime.

It also means finding a way to deal with the realities of the bring-your-own-device (BYOD) phenomenon. Despite its benefits, BYOD also has created challenges for a university's IT department, including:

- A high number of help desk calls
- Difficulty printing from mobile devices
- An inconsistent user experience
- Incompatible applications and updates

[1]https://net.educause.edu/ir/library/pdf/HR2013.pdf

- Controlling access to sensitive information
- A student experience limited by the power of a device

All of this has led to a change in the way administrators view technology and how they deliver services to students and faculty. That means doing what it takes to enable students to use their devices of choice effectively to complete their work. At the same time, the BYOD trend has led to a downsizing or outright elimination of legacy computer labs due to aging equipment, cost, and space, as well as the ability of students to access the same information on their own devices.

The demand for virtual lab resources in higher education continues to increase because they provide 24/7 access to computing power.

From Physical to Virtual

Many colleges and universities are getting ahead of the game and replacing or supplementing physical computer labs with virtual computer labs – resources typically found in campus computer labs that are accessible anytime via a PC or mobile device through a virtual desktop. These virtual labs provide always-on access to often-used resources such as Microsoft Office, SPSS, and Adobe Reader, as well as course-specific software. With virtual desktops, all of the processing is done in the datacenter, eliminating the need for high-performance workstations. Virtual labs can also be configured to support remote, networked printing.

With a virtual lab powered by virtual desktops, students are no longer limited to working in a computer lab that has the specific applications they need. They can work when they want because they are no longer constrained by the hours of a physical computer lab. The IT department also benefits by being able to support more students with less staff, saving time and money. IT staff can troubleshoot and deploy new applications quickly without having to wait until a school break. This model allows the IT department to make software available to students that may not be available on campus computers if departmental requests arrive too late to be included in a scheduled update.

The demand for virtual lab resources in higher education continues to increase over time because these resources provide the 24/7 access to computing power and software that today's students expect, according to a report from Educause's Center for Analysis and Research.[2]

How the VMware Digital Backpack Solution Can Help

Regardless of how a university or college's IT department wants to enable student access to applications and data, VMware's Digital Backpack solution offers an answer. The idea of the "digital backpack" is to allow students to take all of their digital content with them, wherever they go. It gives universities and colleges a choice of how they want to deliver the IT environment, either as a secure Windows desktop, as a native application for their device of choice, or as a combination of the two.

[2]http://www.educause.edu/library/resources/invisible-computer-lab

For a consistent Windows desktop experience, VMware Horizon, built on the VMware vSphere virtualization platform, ensures that students get exactly the same experience as their classmates by providing the same virtual desktop with the same applications and settings, regardless of the devices they choose to use. Furthermore, all data stays in the data center, improving security.

Legacy App Support

VMware Horizon also supports location-aware printing, which means that students can print documents from their own devices on a local printer on campus. It also provides full support for legacy applications using ThinApp, an agentless application virtualization solution for streamlining application delivery. Most importantly for the IT department, VMware Horizon allows the IT staff to deliver new applications during the school year in minutes, and upgrade and patch applications overnight.

For IT departments that value delivering a native experience for their users, VMware offers AirWatch by VMware, where students can access course applications natively as apps. AirWatch by VMware supports all mobile devices across campuses.

The solution also supports multiple operating systems and mobile deployment models. Its multi-tenant and scalable architecture means that different departments or schools within a college or university can maintain the visibility and control they need and ensure that only qualified users can access specific applications and course materials.

These capabilities allow students and faculty to access the applications and data they need from the devices of their choice while ensuring that the college or university's mobile and security policies are enforced. At the same time, the AirWatch solution allows universities to manage only the portion of a student's device dedicated to school-related activities, preserving students' privacy on other areas of their devices.

In addition to preserving student privacy and enforcing security, AirWatch saves students time and hassle. For example, IT staff can configure student profiles within the AirWatch administrative console to provide students and faculty access to campus resources before they arrive on campus. The user can receive a link to download the AirWatch application, which then configures the device with the appropriate VPN and WiFi settings, as well as access to applications and content the user needs.

Summary

As technology advances and students remain on the cutting edge, colleges and universities have no choice but to keep up. While the changes in culture, strategy, and technology take some adjustment, the advances also ultimately benefit the institutions and their staff by improving efficiency, enhancing security, and bolstering management capabilities.

VMware is the leader in delivering software-defined enterprise and hybrid cloud solutions that enable government and education organizations to transform, modernize, and secure IT in support of operational and mission requirements. Government and education organizations throughout the United States rely on VMware to help transform the way they build, deliver, and consume IT resources in an evolutionary manner that is based on their unique requirements. (2013 revenue: $5.21 billion, > 500,000 customers and 75,000 partners.) Visit www.vmware.com.