A tale of three universities: Increasing access, engagement and learning

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Three universities collaborated and designed a mobility strategy utilizing Citrix solutions to modernize their IT platforms – and they are transforming the way students learn and do research with on-demand IT services.

USF

University of South Florida
- XenApp adopted in 2009 as "USF App Gateway"
- Main campus: Tampa
- Enrollment: 42,000

UF

University of Florida
- XenApp adopted in 2012 as "UFApps"
- Main campus: Gainesville
- Enrollment: 52,000

University of Central Florida
- XenApp adopted in 2015 as "UCF Apps"
- Main campus: Orlando
- Enrollment: 60,000

Embracing the future of IT mobility and access

In higher education, IT administrators are grappling with rapidly changing student needs and usage habits – often with one foot firmly planted in an obsolete IT paradigm. The old model of maintaining dedicated computer labs on campus is giving way to demand for increased mobility and access to applications across many device types, but shrinking budgets and limited staff resources make the transition difficult.

Fortunately, some campus leaders are looking ahead and embracing fresh solutions. Together with Citrix, three public universities in Florida have developed solutions that fit their unique needs. They have implemented their own virtual app stores, virtualized labs and key software resources, ensuring that students and faculty can access these systems on their own terms – using the devices of their choice, when and where they want to work.

By learning from one another, these universities are empowering their academic communities, promoting adoption, streamlining IT systems, freeing up institutional resources and increasing student engagement and learning. In doing so, they have also realized unexpected benefits.

Challenges
- Providing today's students with the technology, apps, data and resources they need to be successful on the technology they already own and are comfortable with
- Determining which solutions will best deliver the services and experiences they are looking for, while ensuring that they are flexible, cost-effective and easy to expand
- Uniting an entire university around one project that would benefit all students and faculty

Solution

Leveraging the flexibility of Citrix XenApp, XenDesktop, Receiver and NetScaler, each university developed solutions that fit their needs, making applications available to students and faculty anywhere, anytime and on any device. By approaching the process collaboratively, they also benefited from each other's development and internal marketing strategies, ensuring better-than-expected rollouts and strong adoption by campus stakeholders.

An ideal adoption experience

Large-scale improvements in information architecture are notoriously hard for large organizations to manage – especially resource-limited universities, where the regular turnover of incoming and graduating students can make adoption and use a challenge. However, these institutions worked together with Citrix and experienced overwhelming success thanks to streamlined technical processes, effective marketing strategies and a well-planned match between system capabilities and audience needs.

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

A new data stream

1. University servers house important applications and desktops, all in one place with XenApp and XenDesktop.

2. Applications stream directly to user devices through Citrix Receiver – no matter the device type – without requiring local installation of software.

3. Users interact with applications exactly as they would if programs were installed locally, saving work to their own hard drives, to institution servers or even to the cloud.

4. Users can tap into applications anytime, anywhere, and they enjoy better-than-installed application performance speeds with NetScaler.

Prior to the Citrix rollout, one worry shared by all three IT teams was that students would adopt XenApp too quickly, given their average enrollment of 50,000 students, which could overload their modest servers. However, the system flood never happened, in part because the flexibility and scalability of XenApp and NetScaler facilitated around-the-clock distribution of use rather than the feared spikes and dips. The University of South Florida's Jason Hair says implementation went smoothly enough that he and his team were asked to jump ahead of schedule and add an additional pilot group almost immediately.

"Our pilot went live with all of the students in the College of Engineering in early 2010," he says. "By the beginning of 2011, we had all 47,000 students at the University of South Florida and went ahead and added faculty and staff in as well."

These early successes were due in part to smart internal marketing by each university. And they didn't have to go it alone: Citrix worked closely with each team, visiting campus and assembling a multimedia rollout strategy that included print, video and social media. Knowing that initial buy-in would be critical, each university was aggressive in reaching students and faculty in ways that would resonate with them. They branded their Citrix storefronts to look like customized campus app stores, and named them accordingly.

The University of Central Florida targeted faculty in particular, knowing that if professors integrated these tools, which they branded as "UCF Apps," into their syllabi, student awareness would grow instantly.

"That Faculty Champions piece was huge for us," says JP Peters, IT Director at the University of Central Florida. He and his team discovered they were leveraging a natural symbiosis between their main audience members. "Our faculty could really get things going right off the bat, which encouraged student adoption; that, in turn, led to increased faculty adoption."

Seizing unforeseen learning benefits

Starting in spring 2012, the University of Central Florida's IT modernization process allowed campus leaders to transform what had been a 200-seat computer lab into an innovative new learning space. They created a versatile new hub that facilitated peer connections and made collaboration on group projects easier, while still accommodating students who wanted to work solo on their own devices. In higher education, these flexible learning spaces, which curricular experts say produce valuable informal connections and unscripted academic opportunities, are becoming increasingly important as learning tools and selling points for prospective college families.

IT Director Craig Froehlich says UCF Apps was fundamental to this transformation. "UCF Apps really ended up being the perfect complement for that, because students could have the software they needed right on their own device."

As more institutions leverage the simplification afforded by XenApp, new side benefits like this will become even more common, and everyone – students, institutions and tuition-paying families – will benefit.

"One of the early student responses that made us feel great was that 'UFApps is what sets UF apart from other universities.'"

- Jameson Johnston, IT Manager, University of Florida

"We actually worked really closely with USF and UF, and talked through their projects. We learned a lot from their experiences to move forward."

- JP Peters, IT Director, College of Sciences, University of Central Florida

Leaning into the future

At a time when most colleges and universities are tenuously dipping their toes into the vast capabilities afforded by the cloud and virtualization, these Florida institutions are diving in. They are currently developing new ways to leverage the immense benefits of these IT solutions while easing the burden on expensive, aging onsite server space.

Additionally, the University of Florida has already created an innovative link between their XenApp environment and their onsite supercomputer, called HiPerGator, which the university says has created a tenfold improvement in computing power. Faculty members and researchers have been able to interface with the system more intuitively, harnessing the immense raw power of the supercomputer while using the application and XenApp interface they are familiar with. This could create, among other things, new efficiencies for getting new, lifesaving drugs to market.

Developments like these confirm what university administrators had hoped all along: Their XenApp deployments are much more than ways to "catch up" technologically. Instead, they allow organizations to embrace the future at a time when others can only look ahead warily.

Applications in action

The range of applications available for use with XenApp is essentially limitless. The most sought-after programs that interface with XenApp seamlessly include:

- AutoCAD
- ArcGIS
- SPSS
- Adobe Suite

And dozens of others can be added on-the-fly according to user needs.

Advice from experience

- Device OS and browser updates are in the users' hands, not your organization's hands – so educate your users about the need to stay current and compliant. Establish the expectation early to ensure seamless use.

- On the front end, consider any documentation you'll want to provide for users (Citrix Receiver installations for different device and operating system types, for example), and budget the time and resources to ensure adoption.

- Consider storage locations in your initial build (e.g., Where are files actually going?). Think server-mapped vs. local hard drives vs. cloud. Each option requires a slightly different approach, though all are valuable.

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