CLOUD PROVIDES STUDENT ACCESS TO KEY APPS, NO MATTER THE DEVICE

Peter Anderson and the Tri–C IT team successfully migrated student email to the cloud last winter, with help from CDW.

Cuyahoga Community College moves messaging, productivity and collaboration to the cloud with Office 365 ProPlus and Exchange Online.

At a Glance

ORGANIZATION: Cuyahoga Community College

LOCATION: Four main campuses, seven auxiliary sites in Cleveland and surrounding communities in Cuyahoga County, Ohio

TOTAL EMPLOYEES: 3,404 (including adjunct and part–time staff)

I.T. STAFF: 55

Cuyahoga Community College provides high–quality, affordable educational programs and services to Northeast Ohio residents, serving more than 60,000 students annually through degree and certificate programs. Tri–C is Ohio's oldest and largest community college.

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Over the course of just a few weeks last winter, the IT staff at Cleveland's Cuyahoga Community College (Tri-C) migrated 90,000 student email accounts running locally on Microsoft Exchange 2003 to Exchange 2010 Online. The undertaking was no small feat, but with help from its partners, Tri-C's vault to the cloud for messaging, productivity and collaboration applications has translated into improved access to services for students and will enable the college to meet its growing mobile needs for the future, says Peter Anderson, director of network services.

"We knew we couldn't continue with our on-premises email security and email hosting. We could maintain the same level of service locally, but to increase the level of services and save money, we had to move to the cloud," Anderson says.

The oldest and largest community college in Ohio, Tri-C comprises four main campuses and 11 sites in Cleveland and surrounding Cuyahoga County communities and registers about 30,000 students each semester. Because it serves working adults, who take courses as their schedules permit, the college maintains student accounts and provides access to resources even during gaps in students' active enrollment.

Cloud-hosted and cloud-delivered applications offer institutions such as Tri-C much needed agility that's difficult to match through onsite solutions, says Elizabeth Herbert, vice president and principal analyst at Forrester Research. Applications that require frequent upgrades tend to be an excellent fit for the Software as a Service (SaaS) model, along with mobile apps and collaboration tools.

"Cloud apps are much more responsive and can be updated quickly," she says. "If someone has an idea for a useful feature or modification, it can be rolled out today to the students or faculty."

Built on the most up-to-date architectures, cloud applications often have built-in mobile access or can be reached easily through a web browser, Herbert says. "That's huge in education — the users are students who are more likely than anyone to use a mobile app as their primary mode of communication."

Streamlined for Service

The first step in Tri-C's project was choosing a cloud provider. An IT-led committee took some time to compare the available options, even though the college already had a "close relationship" with Microsoft, Anderson says.

"Microsoft's cloud offerings have evolved very well over time. We compared them against the alternatives, and Microsoft came out ahead," he says. Office 365 ProPlus and Exchange Online "turned out to offer all the things we wanted and integration with all the things we have, such as our Exchange for employees," which is still located on-premises.

Tri-C's academic calendar dictated the timetable for the email upgrade and cloud migration. In order to avoid

54%

Percentage of college students who use a mobile device in a typical day

SOURCE: Harris Poll, "2014 Student Mobile Device Survey," September 2014

disrupting the student experience during the semester, work couldn't begin before students left for the holiday break in December. The new technology had to be ready to go live by the beginning of January, in time for the start of the spring semester enrollment rush.

With help from CDW and Microsoft, the IT staff met the migration deadline, and when Tri-C students returned to class, they enjoyed access to email accounts with exponentially greater space than they had before the vacation, as well as access to that email from mobile devices.

The speed and success of the project were the result of extensive preparation in consultation with Microsoft and CDW, Anderson says. "We knew what we wanted to do, but it took a lot of meetings last year to decide how to create a way to move everyone at once."

The Tri-C IT department recruited an Office 365 ProPlus pilot group that included students, faculty and staff so that their feedback could help shape the project. IT staff also performed a comprehensive assessment of all the information and systems involved.

"You have to pick the right window to do the project, and to do that, you have to discover what you've got, which means knowing the size and the use of the data you're transferring," he says.

Planning for Success

CDW Senior Microsoft Unified Communications Engineer James DeSantis and other consultants helped the college to create a detailed design for the project, Anderson says. DeSantis also offered valuable advice as the college selected directory synchronization technology to ensure identities were shared between systems. In addition to streamlining the design to fit Tri-C's time frame, CDW expedited access to Microsoft and negotiated to allow the college to exceed usual limits on the number of accounts that could be migrated each day. CDW provided scripts that would have taken much more time to create had the college IT staff been required to write them in-house, Anderson says.

The key to good IT project design is making sure everyone involved knows what's to be accomplished and why, DeSantis advises. From there, in-house IT staff and partners need to inventory all the potential issues arising from the particular environment and circumstances, so that the design can accommodate them.

"I always encourage customers to look beyond the bottom line and evaluate their needs and

Avoiding Stormy Weather

Applications from the cloud, such as Office 365 ProPlus, can offer important benefits, including increased mobile access, reduced maintenance, potential cost savings, agility and scalability. Still, organizations should pay close attention to certain key issues to ensure that their leap into the cloud goes smoothly, advises CDW Senior Microsoft Unified Communications Engineer James DeSantis.

- Use redundant Internet service providers for campuses and other key locations. The local ISP can be a point of failure that trumps the high availability of cloud services.

- Pay attention to message size limits when migrating messaging applications to the cloud. Office 365 has a message limit of 25 megabytes, while local application limits vary widely, ranging from as little as 10MB to as much as 100MB. Messages over the limit can be truncated or left behind completely. There are tools to help get around limits, but the IT staff has to know it needs them.

- Closely monitor outages in cloud applications in order to notify users promptly.

CDW Microsoft Field Solution Architect Alan Sacco adds that many institutions and other organizations overlook the importance of effective technology to synchronize accounts over multiple devices and enable single sign-on to all applications and systems.

"No matter how useful an application may be, people just don't use it as much if it's awkward to get into," he says.

specific situation," DeSantis says. "Just because an application comes from the cloud doesn't mean it's good. It's good only if it helps your organization achieve its goals."

Tri-C's complex IT environment — a large number of users, wide range of devices, third-party applications, extensive proprietary scripting and requirements for business continuity and disaster recovery — added challenges to the project, says CDW Microsoft Field Solution Architect Alan Sacco.

"The value we try to add is in helping the college to create a design that accounts for all the variables," Sacco says. "As partners, we're tasked with helping them make the most of all the resources they have and tightening things up so there's no wasted effort."

Once the planning and preparation were done, the execution of the project was grueling. Still, everything went
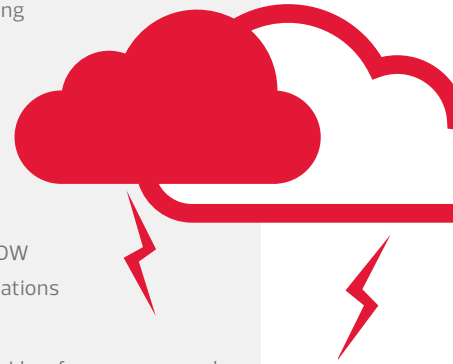
off with few glitches overall, Anderson says. "There were many, many long nights, but only a few short weeks for the migration," he says. "At a certain point all there was to do was to watch the scripts fly from very talented people, get up in the middle of the night to monitor their speeds, and then do a lot of testing before anything went live."

Spreading the Word

Part of the preparation for the email migration and adoption of Office 365 ProPlus had been educating students, staff and the help desk, Anderson says. Tri-C put out the word in a series of email blasts that explained the changes. Judging by the low number of email-related help desk calls after the rollout, the information campaign worked.

"We had a lot fewer email help tickets than we expected," Anderson says. "No actual problems or bugs, but some glitches that came from a user's very specific environment. The students loved the email, and that was just the beginning."

When Tri-C moved to Exchange 2010 in the cloud, student email boxes grew from 100 megabytes to 5 gigabytes, which meant that older messages didn't disappear, as they had with on-premises Exchange 2003. But it was Office 365 ProPlus that sparked the greatest response from students, says Anderson.

Each student subscription license covers five devices; provides access to Office 365 ProPlus, both for PCs (Office 2013 ProPlus base applications) and Macs (Office 2011 for Mac base applications); and offers Office Mobile for iPhone and Android devices. The mobile application suites include Word Mobile, Excel Mobile and PowerPoint Mobile, along with OneNote and Lync Mobile as separate downloads. Office ProPlus guarantees that each student will have anytime, anywhere access to the most up-to-date versions of each application.

"We got a lot of feedback from students after the Office 365 ProPlus rollout, thanking us," Anderson says. "That was a huge win for us, and for the students, because it works on so many devices with full compatibility."

Potential Savings and Real Value

While many organizations turn to cloud services to save money, Forrester's Herbert cautions that they should take a close look at the numbers if cost-cutting is the main driver of a shift to the cloud. Economies of scale and other savings can be realized, but cloud-based services are not necessarily cheaper in the long run. The agility and scalability inherent in cloud services frequently are more compelling reasons to choose them over locally run applications, Herbert says.

Microsoft's offer of free student licenses for Office 365 ProPlus has significantly changed the financial equation for schools, CDW's DeSantis says.

"If a school wants to use Office, then it's a no-brainer," he says. "There will be migration costs, but maintenance costs go away, and your staff never has to manage a patch again."

Anderson says migrating to Microsoft Exchange Online Protection from on-premises email security technologies translated immediately into "huge savings."

"The move will definitely be saving us money in the future, but there's no doubt that, at minimum, we now provide much higher value to students for no extra cost — and value to the students is our priority."

New Challenges

Migrating email to the cloud and adopting Office 365 ProPlus for productivity and collaboration have reduced the workload overall for Anderson and his team, but also created some new issues, he says. The IT staff wrote automated scripts to create and monitor student licenses, but oversight was still required to ensure the college has enough licenses available. A cloud outage or change in service levels means IT will need to get the word out to users quickly. And the wealth of services available through Office 365 ProPlus potentially opens the door to user missteps, Anderson says.

"We have to go into the admin consoles and check to see that people aren't putting things out in the cloud that they probably aren't aware other people can see," he says.

The Exchange migration and adoption of Office 365 ProPlus were the college's first use of Microsoft as a cloud provider, but Tri-C has used hosted services for several years, says Anderson. The IT staff is also exploring Microsoft Azure as a potential development platform.

"Any time we look at a new application, we choose a model we think will work best for us, hosted from the cloud or on-premises, and we've chosen the hosted model many times," Anderson says. "It's just part of our business process now, although this project may help us to choose the cloud more quickly because it went so well."

Photography by Callie Lipkin

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