Small Private College in Australia Makes Big Commitment to Facilitate Student Learning Through VDI

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- Glen Lockman, ICT Manager Trinity College

Organization:

Trinity College
Colac, Victoria, Australia

Virtual Desktop Users:

770

Products:

ProfileUnity™

Overview

Founded in 1888, Trinity College in Colac, Victoria, Australia, offers junior, middle and senior school curricula to approximately 770 students from Years 7 through 12. The College's students attend classes in modern, well-resourced facilities, utilising curricula, computer learning labs and extracurricular activities that cater to students' individual needs and interests. In 2013, the College continued its agenda of expansion and improvement with the completion of a new building and the start of the construction of a new wing to provide additional classrooms, associated learning areas and staff facilities. As part of its commitment to advancing the quality of education for its students, Trinity College was a very early adopter of VMware Horizon View and desktop virtualization. As with many other academic institutions, Trinity College wanted to equip its students with access to coursework and resources outside of the classroom as well as optimize learning during scheduled class periods. The College also wanted to extract the most value out of its investments in computing resources.

Fortunately, Trinity College had Glen Lockman, ICT Manager and virtualization veteran, at the helm of its VDI initiative

Lockman had experience delivering desktops over the network dating as far back as early Citrix MetaFrame sessions. As Network Manager for the College, Lockman had also been deeply involved with its transition to server virtualization over the 2007-2008 time period. Because Lockman's background covered extensive Citrix and VMware expertise, he was confident he had the know-how to launch a desktop virtualization project as early as 2009, making Trinity College an extremely early VDI adopter. As a result, the College's VMware View deployment reads like a desktop virtualization history lesson as it traces the ups and downs of the technology and its advances over the past five years.

The Challenge

"Basically we needed to deal with logon boot storms when numbers of students were trying to access resources all at the same time during classroom changes.

"For sure, our early implementation had its limitations," said Lockman. "We saw immediately that storage IOPS was an issue, as was the RDP protocol. They both limited virtual desktop performance," said Lockman. Lockman added that using roaming profiles and folder redirection in early stages contributed to classroom login times as long as five minutes – clearly unacceptable levels that cut into classroom periods.

The Solution

Based on the recommendation of an outside consultant, Lockman evaluated Liquidware ProfileUnity to replace Roaming Profiles. System refinements that began with ProfileUnity continued on when Lockman introduced non-persistent desktop architectures into their environment, which not only improved performance, but was more manageable than the persistent mode. Subsequently Lockman also upgraded the RDP protocol with Teradici PCoIP and upgraded storage resources to a Fujitsu Fibre Channel SAN.

The Results

The changes described above brought Trinity's logon times down to just under two minutes. However, with a recent upgrade from Windows XP to Windows 7 along with an upgrade to the latest version of ProfileUnity, logon times were reduced to less than 45 seconds.

"I can still distinctly remember walking into a classroom where the students were logging in expecting the usual long wait, and when they were in almost immediately, they could not believe it. It seemed like magic to them," said Lockman.

The IT staff also use ProfileUnity for printer assignments, ensuring that printers are available to students based on their profiles, curricula and location. "For us, students missing their printer assignments was the top help desk call that we would get.

Using ProfileUnity, all users' printer preferences are assigned in a portability setting that follows them, so that the printers they prefer always show up for them," said Lockman. "It's saved us no end of time."

The FlexApp feature, too, has changed the way Lockman is able to provision applications. He had two recent incidents where faculty asked for an application update in tight turnaround timeframes. The first was an urgent situation in which an instructor discovered during class that Internet Explorer could not support the exercise he wanted to deliver, and needed his students to get instant access to Firefox. Using FlexApp, Lockman was able to deliver the FireFox browser within minutes to students during the class period. The second incident involved an instructor who requested that free app Geogebra be made available to his classroom for an exercise the next day. This task was a breeze for Lockman with FlexApp.

"In both cases, FlexApp DIA let me deliver the application to the students quickly with no problem. I was literally able to upload the application they needed and push it out within five minutes. All students needed to do was log in, and they had access to the application. That would never have happened in the past. I would have needed at least a day to get a new application deployed, and major upgrades would have to have been scheduled weeks in advance."

The College's VDI initiative also significantly improved students' at-home online learning experiences. Before virtual desktops, the College offered Terminal Services sessions, but the experience was so poor that students did not want to use it. Now, students are able to have a consistent, quality session to support homework and outside projects.

"Speaking from long experience, I would tell anyone that virtual desktops are a major computing advancement offering a wealth of benefits, but you have to make the commitment to get it right," said Lockman. "It's all about looking for the best solutions to enhance your environment. Our use of ProfileUnity illustrates this perfectly. We started out replacing roaming profiles, but extended the solution to handle printer assignments and then tapped FlexApp to help provision applications. We are looking forward to extracting even more value from this solution as we continue to scale.