University of Portland Drives Student Learning
with Samsung Cloud Displays

The University of Portland (UP) has about 4,000 students and 320 faculty members on its campus and offers undergraduate and graduate degrees in the arts, sciences, humanities. For the past 17 years, it has ranked as a top ten for western U.S. regional university by the influential U.S. News and World Report.

Creating a Collaborative Learning Environment

The University strives to provide the ideal collaborative learning environment for its students. "We recognized the need for more flexibility within our computing environment, especially as it applies to students," says Paul Disbury, Director of Technology Services. The IT department manages about 1,500 end-client computers (primarily desktop PCs with monitors).

Challenges of Traditional Desktop PCs

The PCs are located almost anywhere that students learn and study including classrooms, computer labs, libraries, residence halls, and lounges. The IT department had several challenges with PCs:

- **Learning Inflexibility:** Application software installed on the PC limited usage flexibility
- **Intensive Maintenance & Support:** PCs required constant attention from IT staff
- **High Electricity Use:** A desktop PC with a monitor used about 180 Watts of electricity which impacted utility bills and was not eco-friendly

Moving to the Cloud with Samsung Cloud Displays

Faced with these end-client challenges, the University's IT organization decided to build a robust VDI (Virtual Desktop Infrastructure) environment that enables the students to access all of their computing resources (courseware, applications, productivity tools) from a centralized cloud environment. "We are providing our students with anytime, anywhere, and any device computing flexibility," says Tom Ank, Senior Network Engineer. "For example, engineering students don't have to buy expensive CAD/CAM software that can only be loaded on their laptops. Instead, they can simply sign into our VDI environment and automatically use the CAD/CAM software."

Profile

Country: United States
Sector: Higher Education
Founded: 1901

Challenge

Provide always-on computing infrastructure to encourage team-based learning while reducing computing costs.

Solution

- Samsung SyncMaster Cloud displays (Model NC240 with 24" LCD display)
- VMware View™ & Microsoft App-V™ virtualization software
- Cisco UCS rack-mount servers hosting a private cloud

Impact

- Students have access to their courseware & computing throughout campus
- Significant reductions in IT support calls and maintenance/electricity costs
- Faster computer response times

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The University chose Samsung SyncMaster Cloud displays as the end-client device. The Cloud displays are a whole new class of professional-grade monitors specially designed for desktop virtualization and cloud computing. They connect directly to the network so there is no need for a separate PC or thin/zero-client at the user's desk – just the Cloud display. With Cloud displays, students, faculty and staff can access their computing resources from a slim, clutter-free and energy-efficient monitor.

Maximum Learning Flexibility and Collaboration

"Samsung Clouds are now our primary virtual end-client," says Mr. Disbury, "They take up significantly less desk space as compared to an old-fashioned desktop PC and don't make any noise, so faculty and staff love them. Since Samsung Cloud displays have large, high resolution screens, people naturally gravitate towards them as an option to a traditional desktop PC." The small footprint of the Cloud displays is also a major benefit, especially in older buildings with limited space. "In some of our older buildings, space is somewhat limited. With Samsung Clouds, we can use space more effectively – we also like the minimal cable clutter and the image quality is phenomenal," says Mr. Disbury.

"The students love the Cloud displays. Instead of old, clunky PCs with small screens, they now have new 24 inch Cloud displays. They are fast, clear, easy to use and provide instant access to their courseware and data files," says Mr. Ank.

Dramatically Lower Purchase and Support Costs

According to Mr. Ank, "Cloud displays cost about 50% less than a traditional PC and monitor so we can purchase and install more Cloud displays on the same budget. And we expect the Cloud displays to last eight-ten years, at least twice as long as desktop PCs."

Support costs are also dramatically lower with Cloud displays in several ways. First, they have no moving parts so they are highly reliable. Second, since the computing is done on powerful servers in the data center, the network traffic is reduced. "In some of our older buildings, network upgrade costs can approach a million dollars," says Mr. Ank, "With Cloud displays and VDI, we have actually been able to keep the network stabilized." Finally, IT support is dramatically reduced because most support tasks can be centrally managed by the helpdesk. "The days of troubleshooting video cards, memory, and hard drives are quickly disappearing as the Cloud displays become more prevalent," said Mr. Disbury, "In addition, we image them all centrally and simultaneously. If the user has an issue, we just ask them to log off and restart their session which solves over 90% of the problems."

Every End-Client will be a Samsung Cloud display

"The student and faculty reaction has been so positive that we plan to transition almost every end-client to a Cloud display. Administrative staff have also been very positive about Cloud displays. Administrative staff who don't yet have the Cloud displays are coming to us and asking when they can have their own "Samsung VDIs" – their name for the Cloud displays," says Mr. Ank.

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> "Samsung Cloud displays are incredibly easy to install and centrally manage. It takes us longer to take them out of the box than to install them."

Tom Ank
Senior Network Engineer

Eco-friendly Computing for a Green University

University of Portland was named one of "America's Green Colleges" by the prestigious Princeton Review. Cloud displays continue to advance the University's commitment by using 60-80% less electricity than desktop PCs with monitors.

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