

CASE STUDY: ROGER WILLIAMS UNIVERSITY

Samsung Display Technologies Support Vision for Affordable Excellence in Higher Education

Roger Williams
University

OVERVIEW

Customer Need

At Roger Williams University (RWU) in Bristol, R.I., on-site computer offerings in the School of Architecture, Art and Historic Preservation (SAAHP) were limited, with nearly 500 students competing for 58 high-end computers powerful enough to run architectural design software. At the School of Continuing Studies (SCS) in Providence, adult learners were hampered in their ability to collaborate. RWU sought a technology solution that would live up to its new Affordable Excellence initiative, a commitment aimed at reducing student costs and debt, while enhancing educational value.

Samsung Solution

RWU partnered with Samsung to install 100 27-inch LED monitors at SAAHP, providing anywhere, anytime access to university-provided software applications via a new rCloud server. The success of that pilot spurred RWU to roll out 275 additional Samsung monitors – one for each student workstation – together with 65-inch interactive whiteboards in open meeting areas. The SCS program also deployed Samsung technology in creating a Collaborative Learning Lab that served as a hub for greater interaction among their adult learners.

Results

Samsung display technology, combined with the rCloud server, has provided students a computing infrastructure that exceeds many professional settings. Rendering times for architectural designs have reduced dramatically and students no longer need to purchase high-end notebook PCs and software. Printing costs have plummeted as students can review their work on large screens, while reclaiming space from computer labs has enabled RWU to create new classrooms, thus avoiding an expensive capital expansion. The university has bold plans to take the technology campus-wide.



THE CUSTOMER

Roger Williams University

The campus of Roger Williams University (RWU) in Bristol, R.I., is located on 130 acres overlooking Mount Hope Bay, close to the quaint homes and antique shops emblematic of New England. Students pursue liberal arts and professional training amid the beauty of what once was a dairy farm – but beneath that pastoral charm lies a bold, progressive sensibility.

In 2012, RWU President Donald Farish addressed – head-on – concerns that many Americans have about higher education: steep tuition, growing student debt and viable workforce preparation. Farish said, “Colleges educate for life, for self-improvement and self-awareness, but it’s not what people in a tough job market really want to hear.”

In response, RWU unveiled the “Affordable Excellence” initiative, starting with both a tuition freeze for undergraduate students, and a price guarantee that locked in tuition costs for four years. The university also made a commitment to transforming on-campus instructional technology to mirror – or at times exceed – the professional environment students would experience after graduation. Students were encouraged to choose both a major and minor – at least one of which would have practical application in the workplace, while increased emphasis was placed on internships, hands-on research and community-based project work that would provide real-world experience in planning, collaborating and meeting deadlines.

Given the tuition freeze and guarantee, Farish and his administration were committed to finding new revenue sources to fund this visionary plan. What they didn’t know was that a different challenge altogether would soon point them to an innovative solution.



THE CUSTOMER NEED

Powerful computing solutions to boost collaboration and build connections

Like many other schools offering technology-intensive programs, RWU’s School of Architecture, Art and Historic Preservation (SAAHP) faced significant challenges in delivering up-to-the-minute student computing infrastructure. SAAHP had just 58 high-end computers capable of running architectural software, but nearly 500 students competing for them. Students who brought their personal devices had software compatibility issues, faculty were forced to hop between studio spaces and computer labs to interact with students, and studio collaboration – critical to successful architects and designers – was waning.

“Students were literally guarding the machines during 10-hour rendering projects in the computer labs. Or, they were working in isolation from their residence hall or apartment,” explained Andrew Workman, provost and senior vice president for academic affairs.

In nearby Providence, RWU’s School of Continuing Studies had a challenge of its own. The campus enrolls close to 1,000 students over the course of a year – a third of them active military personnel stationed in places like Afghanistan, Iraq or Germany. According to Interim Dean Jamie Scurry, their problem was two-fold. Local students and faculty needed a learning space with computer technology that would allow them to collaborate and engage, while distance learners had

difficulty accessing the course materials they needed.

“For students at certain military stations, we had to burn CDs and send them across the world,” recalled Scurry. “By the time students got them, the course was almost done. It was very difficult for those students to engage and connect meaningfully with their professors and fellow students.”

Both of these challenges were a roadblock to the Affordable Excellence initiative and, most importantly, to learning.

In search of a solution, SAAHP Dean Stephen White and Greg Laramie, the assistant dean, visited prominent architecture firms in Boston and New York to gather input on where the profession was going in terms of technology. What they arrived at was a cloud-based approach with central servers and robust processing power that students could access through virtual desktop infrastructure. “This has been implemented in only a few places in the profession or in higher education to date,” explained Dean White. “But we knew that this could provide our students with broad access to high-quality computing – giving them a competitive advantage as they entered the profession, and also put us well ahead of other universities.”

THE SAMSUNG SOLUTION

A vision of collaboration powered by the cloud

With the decision to invest in a new virtual desktop infrastructure – which became known as the rCloud – RWU now needed to identify the right mix of technology for students to interface with the cloud and create the collaborative learning environment they had been seeking.

In 2012, working in close collaboration with its IT department, RWU launched a pilot program at SAAHP with the installation of 100 27-inch Samsung LED monitors in high-demand student studio spaces, allowing connection of personal devices and access to vital applications like AutoCAD, Revit and Adobe Creative Suite via the rCloud server. The new plan balanced central university infrastructure and software, with a bring-your-own device strategy.

It was an instant hit. Upon implementation of the new solutions, the struggle for computers vanished, rendering times decreased dramatically, and students and faculty could complete their work together in one room. “Students are now able to work with ease independently as well as collaboratively – it’s difficult to describe just how positive the impact has been on student learning,” Dean White said.

Based on the success of the SAAHP pilot, RWU and Samsung partnered to explore opportunities to further expand the program. In fall 2013, the Samsung Design Studio was created, adding 275 additional energy-efficient Samsung LED monitors at student workstations, eight zero-client cloud displays, and nine 65-inch interactive whiteboards in collaborative learning spaces for presentations, reviews and group discussions.

The new technology encouraged students to spend more time in the studio and created a more dynamic environment. “The monitors have been great in making it possible to connect to the cloud and be at your desk,” said Kristen Wiegel, a third-year architecture student. “We use the interactive whiteboards regularly; for example, to draw wall sections in detail to understand how buildings are put together.”

Faculty and students alike appreciate the technology for easy reviewing. Wiegel said, “Now that we use digital presentations, we rarely have to print out drawings. It’s a lot easier for faculty to translate what’s going on with the project.”

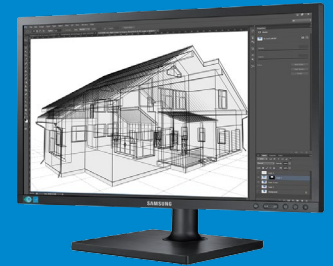
Graduate architecture student Alexander Morris agreed: “It’s great for viewing animations that show a walk-through of your drawing, and the interactive whiteboards are perfect for group projects. You can draw over PDFs or change layouts and even make design decisions.”

At the School of Continuing Studies, meanwhile, the new Samsung Collaborative Learning Lab was also launched in fall 2013. Featuring 21 zero-client cloud displays for student use and delivery of online courses, the lab – along with a second collaborative learning space equipped with a 65-inch interactive whiteboard – encourages students to spend more time at the school and stimulates greater interaction. And with presentations and other course-based materials now on the cloud, military and other distance-learning students can access what they need to be more active participants in their courses.

QUICK PROFILE

As used by Roger Williams University

SAMSUNG SC650 SERIES LED MONITOR



SCREEN SIZE: 27" Wide

DISPLAY TYPE: MVA, LED backlight

RESOLUTION: 1920 x 1080

ASPECT RATIO: 16:9

BRIGHTNESS: 300 cd/m2

CONTRAST RATIO (TYPICAL/DYNAMIC): 5000:1 / Mega Infinity

VIEWING ANGLE: 178°

COLOR SUPPORT: 16.7M

PRODUCT DIMENSIONS (WITHOUT STAND): 25.2" x 14.9" x 2.2"

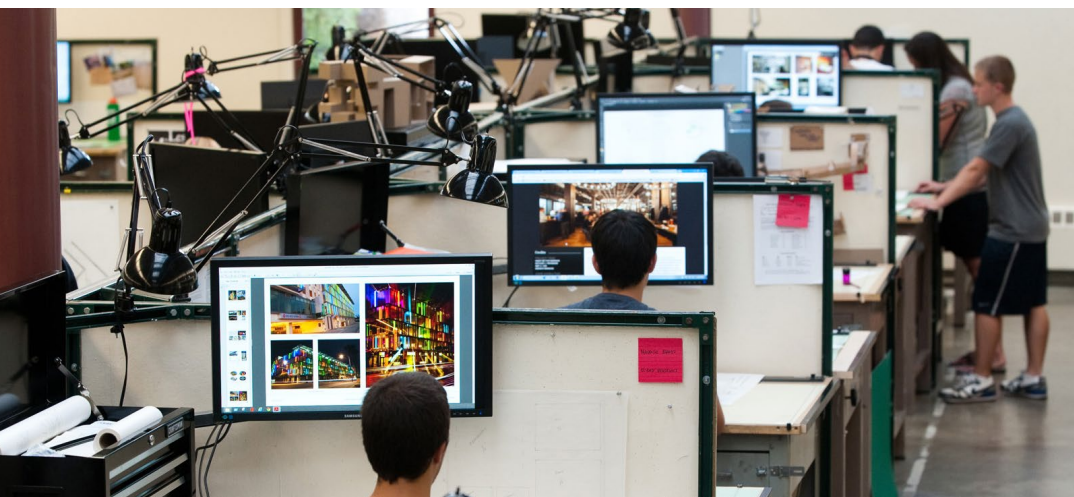
SAMSUNG INTERACTIVE WHITEBOARD SOLUTION



DISPLAY: 65-inch MD Series Direct-lit LED LCD Display

OPTIONAL TOUCH: CY-TE65 Touch Overlay supporting 6-point touch

SOFTWARE: MagicIWB for presentations, Microsoft Office applications, handwriting-to-text conversion



THE RESULTS

Samsung technologies reinvigorate learning and give students cutting-edge skills

The implementation of Samsung display technology – combined with the rCloud – has dramatically enhanced student computing access. “Students no longer have to leave their desks for the computer labs to gain access to high-powered processing,” said Dean White. “All the software is available on their virtual desktop and everyone is using the same platform. Computing access has increased almost 10 times and there is no impediment to collaboration.”

The result is an improvement in studio morale. As grad student Morris explained, “We share and bounce ideas off of each other. It’s important to have that collaborative aspect, because that’s the reality at professional architecture firms.”

Leadership appreciates the new affordability for architecture students. “Suddenly the idea of affordability really opened up because we realized that, with the rCloud computing, students didn’t have to buy expensive laptops to run our applications – a \$500 device would do,” said President Farish. “They wouldn’t have to spend \$7,000 to \$8,000 in software over the course of their education. We’d actually be able to save them money and give them a better learning experience.”

At the Continuing Studies campus, Dean Scurry said her students no longer feel like solo entities. Wherever they are located, they can feel part of a cohesive team with whom they’re working to achieve goals. “The Samsung Collaborative Learning Lab is a key component of the culture we are building here, centered around engagement and collaboration. It’s given students greater pride in their learning experience.”

“Technology isn’t just about shiny things. It’s about using learning to be better at what you do – about tearing down the walls that create a classroom,” she added. “It can bring together a student who’s sitting on an aircraft carrier and a student who’s sitting in Providence in a way that’s meaningful, authentic and engaging.”

The transformation piloted by these two programs is not yet complete. Plans are afoot to expand it to the entire university by 2015-2016. Provost Workman said, “What’s wonderful is that the quality can just continually improve. We can very inexpensively continue to upgrade.” Additionally, printing costs for SAAHP appear likely to be more than halved, as

students are now able to review work in progress on the large monitors and interactive whiteboards. Through further repurposing of campus computer labs as general classrooms and expanding the bring-your-own device strategy, the university will also be able to avert the prospect of constructing a new academic building – at the cost of anywhere from \$10 million to \$20 million – to accommodate future enrollment.

Farish said, “This is the first time we’ve been in a position of saving this kind of money by using technology. But, clearly, this is not just about money – the quality of the outcome is enormous for our students.”

“Students are getting cutting-edge skills that are now more advanced – in many cases beyond that of their employers. They’ll have technological expertise that we believe will lead to them being preferentially hired,” concluded Farish. “The Samsung technology works both in terms of cost and in preparing students well to lead in their careers. It fits perfectly into our commitment to Affordable Excellence.”



THE NEW
BUSINESS
EXPERIENCE

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