

Low-cost computing for education

Uruguay schools meet mandate to integrate computing into curriculum

Challenge

Increase computer access for students as part of a new government mandate in Uruguay while addressing maintenance, space, and funding issues.

Solution

Choose the NComputing X-series to share the excess capacity of a single PC with up to eleven students.

Impact

Allowed schools to remain under budget while increasing computer access and significantly lowering their maintenance costs.

While the small country of Uruguay may sometimes be overshadowed by its larger neighbors, Brazil and Argentina, Uruguay is a thriving country whose 3.3 million citizens enjoy a literacy rate of over 97% and value quality education for their children. Toward that end, the government recently reformed its educational system by reducing school size and redesigning curriculums. One major reform mandates computing studies for all students by incorporating computers into the educational process. Implementing this mandate has been slow going, as rolling out sufficient computing resources to provide one computer for every two students proved to be more expensive and complicated to manage than anticipated.



Taking the lead—Uruguay improves learning by increasing computer access.

Meeting the mandate

It's one thing to mandate schools to increase computer access; it's quite another to carry it out efficiently and cost-effectively. Schools immediately began evaluating their budgets and technologies that might help them achieve their goal. For many, including private school Colegio y Liceo Santo Domingo in Montevideo, the up-front purchase price was not their only concern. One educator explained: "When we were using a standard desktop PC at every station, we had lots of maintenance issues. So much so that we had to contract a separate company to support and maintain them. This became very costly."

While limited funds was a primary concern, there were two additional challenges in choosing a computing solution for the classrooms—reducing the computer's space requirement and lowering maintenance costs.

“The NComputing X-series gives us great convenience regarding maintenance. Everything worked perfectly at the very first moment. That represents a high added value to us.”

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Teaching computers to share

NComputing was able to deliver a solution that met all of these challenges—and more. NComputing’s local reseller Clinica del PC introduced the NComputing X-series virtual desktops to schools throughout the country. NComputing’s solution is based on a simple fact: today’s PCs are so powerful that the vast majority of educational applications only use a small fraction of the computer’s capacity. NComputing’s virtualization hardware and software tap this unused capacity to allow multiple students to simultaneously share a single PC. The solution is perfect for the schools: it expands PC computing access while actually reducing maintenance and electricity costs.

Each X-series kit allows up to six students to share a single computer. Add a second X-series kit to the PC to enable 11 students to share the PC. The kit includes NComputing’s vSpace™ desktop virtualization software, a PCI card, and access devices. Each access device has ports for connecting a monitor and peripherals. The X-series solution passed school requirements of saving space and reducing maintenance with flying colors. The access device is small and produces no noise, no heat, and only consumes 1 watt of electricity. All of the support, updates, and maintenance are performed on the shared computer; there is no maintenance required for the access devices. This was the winning solution that Uruguay’s schools were looking for. Schools selected and deployed NComputing in their computer labs and classrooms.

Better technology leads to happier students

Beyond the cost and maintenance improvements, the schools noticed another benefit of NComputing virtual desktops—happier students. A primary school in Montevideo used to have old desktop PCs that were slow, constantly breaking down, and could not run the latest application software. The school installed the X-series on two new PCs. The result was a modern fourteen-seat computer lab with the latest software and functionality. A teacher reports that, “The children now enjoy and look forward to doing their work in the computer lab. Before it was very slow and we were limited in the programs we could use.”

Schools that purchase the NComputing solution get an added benefit: they can put their savings to better use. Colegio y Liceo Agustin Ferreiro in Montevideo used their savings to replace bulky, energy-consuming CRT monitors with new LCD flat panels. This increased desk space and lowered electrical costs.

Long-term benefits

The Uruguay Ministry of Education has studied many different solutions for classroom computers, including low-cost laptops and PCs. It found that the NComputing solution is the most practical from cost, maintenance, and environmental perspectives. By officially mandating computer access for all children, Uruguay understands the importance of education technology not just for today, but more importantly, for tomorrow.