

**SUCCESS STORY:**

# Philippines Department of Education

## Challenges

The Philippines Department of Education sought to expand computer access for public schools and training institutions nationwide, but cost, maintenance and energy consumption were all barriers to deploying traditional PCs.

## Solution

The department rolled out *NComputing* virtual desktops in 3077 schools across the country, with 5000 PCs powering 29,400 work stations – a ratio of 1:6.

## Results

- The Philippines reduced its initial computing investment and will continue to benefit from lower costs when it's time to replace host devices.
- The *NComputing* infrastructure requires approximately 75 percent less support and maintenance.
- Desktop virtualization costs just one-sixth that of a traditional computing infrastructure.
- Schools cut their power consumption by 90 percent.

## NComputing brings eLearning to more than 3000 schools in the Philippines

*Through its revolutionary and affordable desktop virtualization technology, NComputing enables one-to-one computing access for students and teachers in 3077 public schools and technical-vocational high schools of the Philippines.*



### Goal: one-to-one computing access

As part of its Computerization Project, the Philippines Department of Education wanted to modernize the learning environment in its public schools nationwide. To achieve this goal, the department initiated a bidding process to evaluate the best and most economical solution to set up low-cost and energy-efficient computer labs and classrooms. The department also aimed to find a solution that would be ideal to maintain for schools in rural and remote parts of the country.

### One-sixth the cost of personal computers

After evaluating various solutions, the Department of Education chose *NComputing's* revolutionary shared computing solution. The Philippines rolled out a combination of the **X350**, a kit with three thin client access devices that connect via a PCI slot, and the **U170**, which provides a USB port to enable connection to the shared PC.

Through its local distributor MustardSeed Corp., *NComputing* and provincial partners deployed the access devices in 3,077 schools nationwide: 1,642 public elementary schools in Luzon, 1,194 in Visayas and Mindanao, and 240 technical-vocational high schools. Since all *NComputing* devices offer plug-and-play functionality, the entire deployment was complete in just six months. The department implemented a total of 29,400 thin client access devices with 5,000 host PCs. Each access device cost PHP 4,000, around one-sixth the cost of a regular PC.

## Deployment Architecture Virtual Desktops

29,400 *NComputing* X350 and U170 virtual desktop devices across 3077 Philippines schools

## Host to User Ratio

Six devices per host

## Desktop Virtualization Software

vSpace

## Technology at a huge savings

In most of the Philippines public school labs, the *NComputing* devices have enabled one host system (CPU) to power six workstations simultaneously. Instead of five PCs, the schools only need one for every six users.

By reducing the number of PCs required, *NComputing's* virtualization technology helped cut down hardware costs significantly, as well as lower the maintenance and electric power consumption costs to a fraction of what they would be otherwise.

Apart from upfront hardware savings, the *NComputing* solution delivers additional benefits for the country's school system:

- **90 percent less power consumption:** The access devices use as little as 1 watt of electricity each, so a system of one host PC with 10 access devices attached to it consumes only around 550 watts total, as opposed to 5,500 watts consumed by 11 computers.
- **Up to 75 percent fewer operational issues:** With fewer PCs, schools reduce the number of maintenance issues. If a host PC breaks down, a school can just move the access devices to another PC while the broken one is being repaired – meaning end users experience no down time. When it's time to upgrade, it's a smaller number of host computers.

## eLearning for more Filipino children

The *NComputing*-powered e-classrooms have completely changed the teaching-learning environment in the public schools of the Philippines. The new digital learning centers have paved the way for a more pleasant, interactive and engaging experience for both teachers and students. Schools and the Department of Education are happy with the result.

"They are overwhelmed by it," said MustardSeed's Judith Adao about how the teachers and students received the new computers.

"We are proud that *NComputing's* technology has contributed to the modernization of the IT educational infrastructure in thousands of schools in Philippines," said Manish Sharma, *NComputing's* Vice President for Asia Pacific. "*NComputing* is highly confident that the technology will enable more Filipino children to take advantage of computer education and have a much better environment than before. We are also confident that our track record with other educational institutions around Asia Pacific would prove that we are the solution of choice for academia."