

## Ministry of Education, Province of San Juan, Argentina

A secure cloud solution utilizing desktop virtualization and IP telephony for the ministry.



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There are no limits when NEC takes care of the clouds

➔ More about NEC Cloud Solution



Professor Maria Cristina Diaz  
Minister of Education  
Ministry of Education, Province of San Juan  
Argentina

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Gustavo Quiroga  
Project Manager  
Ministry of Education, Province of San Juan  
Argentina

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### Introduction

The Ministry of Education in San Juan, Argentina, is a government agency responsible for creating and executing policies for education excellence. The Ministry designs equitable and innovative educational programs for pre-school, primary, secondary and higher education levels. Their aim is to ensure a quality education system that contributes to the integral training of people and development of the province by formulating and implementing policies, standards and sectoral regulation.

NEC delivered a secure Cloud solution to integrate and optimize information management for the Ministry's education system. Utilizing desktop virtualization and IP telephony, this solution improves the efficiency of managing the administrative and academic processes within the educational institutions. It also provides users quick and easy access to Internet, email, file sharing via Web portals, and Voice over Internet Protocol (VoIP) telephony service.



The Ministry of Education in San Juan

## Challenges

The Ministry of Education delivers educational programs to over 40 percent of San Juan's residents, and represents half of the region's public administration staff. The Ministry had recently been re-structured to include more organisations but still had the same vertical, pyramid structure.

"Because of this, the Ministry started to be really slow in answering the numerous demands that the new provincial system had put before them. This sluggishness was shown in the inefficiency to come up with answers on time for all the teachers' administrative issues" said Professor Maria Cristina Diaz, The Minister of Education

Information management within the organization was inefficient and impeded administrators' ability to make informed decisions.

"The Ministry of Education of San Juan is an organization that manages 800 educational establishments...with around 20,000 employees. We had to reduce the property cost - we had realized through our experience up until now that if you put in a computer, there's a very high related cost." Gustavo Quiroga, Project Manager, Ministry of Education in San Juan

The entire system was convoluted and inconsistent - users were working on different types of computers with a variety of operating systems - and required too much maintenance. The infrastructure needed to be simplified.

The Ministry required a voice and data network solution to connect the main office with 192 schools more efficiently. To improve the accessibility of information, the Ministry first needed to re-evaluate and streamline its administrative processes, then design a new information management system to support the updated processes.

Improving security was also a priority for the Ministry. They wanted to integrate biometric access control to secure data processing and development areas. Addressing these issues with the outdated client-server architecture and expanding the functionality of the IT infrastructure would have negative impact to response times and services to the users.

## Solution



Image of San Juan school

In response to the Ministry of Education's unique needs, NEC delivered a secure cloud solution utilizing its desktop virtualization solution (Virtual PC Center: VPCC) and IP telephony (UNIVERGE) - all based securely in the data center. As the first virtualization project for the Ministry, there were natural concerns about such a large-scale integration project and new software. "From my point of view, NEC does things differently to the rest of their competitors - the people that I worked with really understood our operation - the difference is in their human resources. NEC's staff was committed to a smooth collaboration with our IT personnel. We felt very comfortable with their work," said Gustavo Quiroga, Project

Manager, Ministry of Education in San Juan. "From the beginning, we wanted a close working relationship with NEC. It was so close at times that it was difficult to distinguish between internal resources and NEC!"

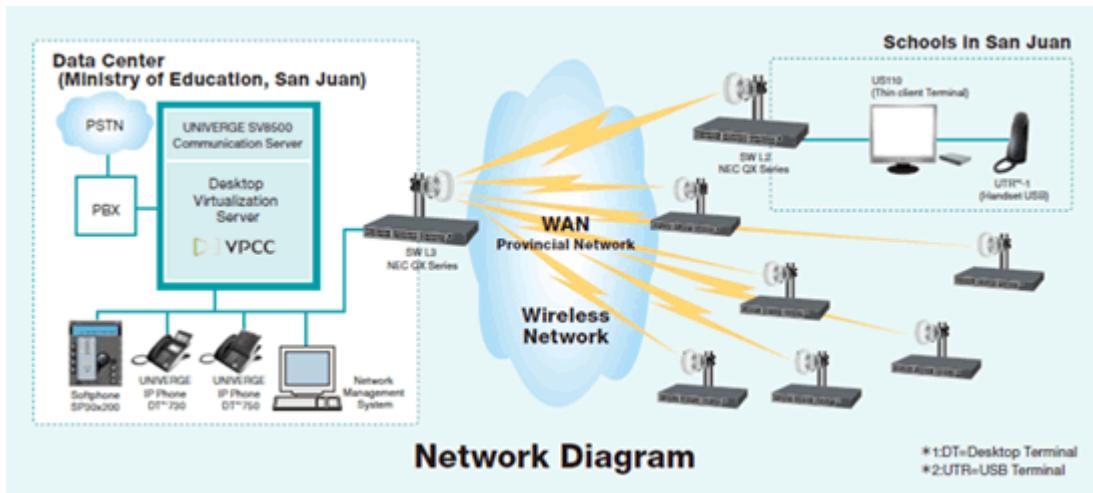
This secure cloud solution, customized for the Ministry of Education, delivers the security and cost-savings of DaaS (Desktop as a Service), SaaS (Software as a Service) and PaaS (Platform as a Service) methodologies through the data center.

As with all good solutions NEC did not stop with the information technology. "One of the three main pillars was to understand and modify the administrative processes where appropriate" Quiroga stated. "We also needed to develop software to improve those processes and to put the appropriate connectivity in place to make the processes agile and responsive."

Each school is networked seamlessly with the Ministry of Education and its management offices via NEC's UNIVERGE SV8500 Communications Server. This open standards application server can support voice, unified communications and mobility solutions for tens of thousands of users.

At the core is the NEC Education Management Suite (EMS) software. The EMS software serves as a

tool to improve the efficiency of existing processes. It provides students, teachers, principals, administrative staff and parents an efficient solution to support the advancement of education. Based on customized applications, administrative and educational processes can now rely on new tools for maximizing computers and the Internet for educational purposes.



[Zoom](#)

The NEC secure cloud solution ensures that the applications for government standards, accounting and payroll, document scanning, scholarships, biometric identification, training, the website and email are always available.

"There are very few companies, let alone government bodies that boast such advanced technology which is allowing teachers to do their jobs more effectively today. Within 15 months all schools will have the system, I am pleased to say" said Gustavo Quiroga

To improve data security and minimize maintenance, all back-end hardware and software is housed securely in the data center. This DaaS, SaaS and PaaS approach eliminates downtime and reduces the capital investments of locally maintained data centers.

Data security was also improved by integrating biometric access control between the Ministry of Education and the management units. The system tracks time and attendance to secure the data processing center and development areas.

Replacing the myriad of PCs throughout the organization with a desktop virtualization solution ensures a secure computing platform and simplifies management of the workstations. The US110 thin client terminal provides rich PC-quality high-speed video and audio without the hands-on maintenance of typical PCs.



Fabián Rossi  
IT Program Manager  
NEC Argentina

"The deployment, following exacting Project Management Institute (PMI) methodologies, took one year," commented Fabian Rossi, IT Program Manager of NEC Argentina. "We planned the deployment to coincide precisely with the relocation of the Ministry of Education to its new Civic Center. We wanted to manage the deployment efficiently to ensure our client maximized their investment."

Due to the scope of the project, the deployment was handled in stages.

"The deployment was successful. We were pleased that each phase was completed on schedule," admitted Gustavo Quiroga.

"Problems are natural for the deployment of such a large infrastructure change, but they were resolved appropriately for our situation. I have been very satisfied with the service and performance of NEC."

Because of the ease of management, the Ministry will maintain the system with existing internal resources. Gustavo Quiroga added,

"The IT managers have expanded their knowledge of cloud environments, such as virtualization, thanks to NEC's training and working side-by-side daily during the implementation of the project. "

## Results

NEC delivered an end-to-end network solution for 400 workstations to 192 schools and administrative offices. Streamlining processes and the infrastructure reduced maintenance costs significantly and simplified management of information technology (IT). A desktop virtualization solution improves the performance and maintenance of PCs, while lowering the cost of ownership. Better integration and mobility of work is possible with the virtual workstations.

"We were able to increase the number of desktops available significantly," said Gustavo Quiroga. "We were surprised that although the number of users had increased, the number of end-user support requests decreased considerably. Management is much easier now. "



Teachers learning to operate thin clients

"The goal of the project was to enhance response time, improve management transparency and enrich services to the community," added Gustavo Quiroga. "We are now able to do all of that efficiently. We also offer valuable information analysis tools to management for better decision-making. "

Currently, the Ministry of Education is considering extending the voice and data network to incorporate approximately 350 other schools. This project expansion will integrate thin clients and telephones for the rest of schools of the province. Or as Gustavo Quiroga put it: We are laying down the foundations for a completely new type of education here, the fact that each classroom is online means we can implement distance learning, virtual classrooms, virtual chalkboards without any problems."

Professor Maria Cristina Diaz, the Minister for Education believes the future is bright: "This incorporation of new technologies opens infinite possibilities for the educational process, because it's not only about improving our educational offering in quantity- this is not only creating more schools, more sections, designating more teachers but also incorporating new paradigms for transmitting knowledge through new technologies."

It seems the future is bright for the bright young people of San Juan District thanks to the NEC Cloud solution.

## About

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## Related Links

- ▶ [NEC Cloud Solution](#)
- ▶ [More about IP Telephony](#)
- ▶ [More about Thin Client](#)
- ▶ [More about Education Management Suite \(EMS\)](#)

## More case studies

- ▶ [The O2](#)
- ▶ [The Peninsula Shanghai](#)

## Customer profile

Ministry of Education, Province of San Juan, Argentina

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