

Sudharsan Group of Institutions

Thousands of rural students in Tamil Nadu, India get access to high performance computing

Challenges

- To setup centrally managed computer labs
- To minimize hardware acquisition and operational cost
- To reduce power consumption
- To ensure security of hardware and software

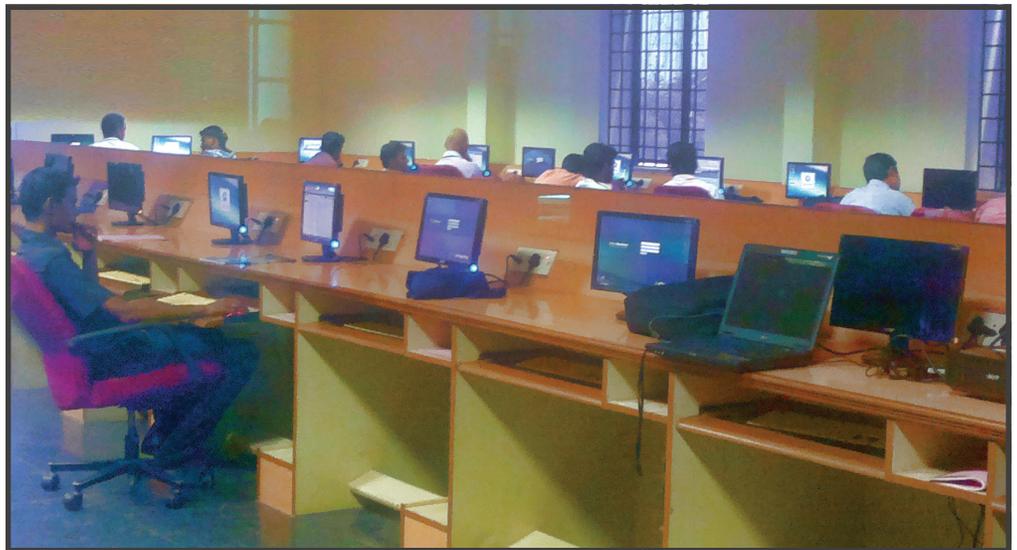
Solution

- Deployment of NComputing's N400 thin clients in Citrix VDI-in-a-Box environment

Results

- 25 percent saving in hardware acquisition cost
- 75 percent less power consumption versus legacy system
- Green labs that cause 90 percent less e-waste
- Centralized management of the IT set up; simple administration and enhanced security control
- Drastic reduction in the time and effort involved in systems maintenance, support and upgrade
- High performance computing at significantly lower cost than other VDI solutions

In its pursuit to provide the best-in-class education to students in the rural district of Pudukkotta, Tamil Nadu, Sudharsan Group of Institution recently established four high-performance computer labs by deploying NComputing N400 HDX-ready SoC Thin Clients in Citrix VDI-in-a-Box Desktop Virtualization environment.



Situated in Pudukkottai, Tamil Nadu, India, Sudharsan Group of Institution was founded in the year 2000 by the Sudharsan Educational Trust. Since inception, the institution has been consistently striving 'to be the best' and 'to give the best' to every student entering its portals.

The need for a 360-degree view of the IT set up

Key highlight of the Sudharsan campus is its computing facility named 'Sona Memorial Computer and IT Centre'. The centre is a three-level giant block with 4000sqm carpeted area. Recently, the institution set up four state-of-the-art, high performance computer labs in a client-server networked environment. Prior to this, the students worked on traditional PCs. Maintenance of these computers and providing IT support to students in this distributed and vast set up was an acute challenge for the IT team of Sudharsan. Apart from this, it was difficult to keep a check on the activities of students. Ensuring security of hardware and software was another challenge.

To address these issues and ensure centralized control over the IT infrastructure, the institution decided to opt for a desktop virtualization solution. The institution sought to find an affordable yet high performance solution that could meet the computing requirements of students pursuing higher education courses, and at the same time was quick to deploy and easy to manage on a day-to-day basis.

“The Citrix-NComputing solution has delivered the best value proposition to us at an affordable price point. There are very few colleges that will equal our computing facility in scale and quality.”

Mr V. K. Sundaram
Chairman, Sudharsan Group of Institutions

Deployment architecture

Hardware architecture:

- Two Citrix VDI-in-a-Box servers and 125 NComputing N400 thin clients.
- Both servers have 64 GB RAM, 1640 GB hard disk, 16 CPUs supporting 57 and 55 Virtual machines, respectively.

Lab Setup:

- Desktop virtualization set up in two labs to enable students to access the college intranet and other applications.

Operating system:

- Windows 7 Professional (64 Bit)

Network environment:

- 100 Mbps CAT 5e switched network.

The real benefits of going virtual

“We evaluated the requirements shared by the Sudharsan team and suggested that they deploy the most innovative, affordable and quick to deploy virtual desktop solution provided by Citrix and NComputing. The institution decided to deploy NComputing N400 Thin clients in Citrix’s VDI-in-a-box environment—a solution ideal for Small and Medium Businesses and Education. The upfront benefits that the solution offers are quite compelling,” said Mr L Ashok, Managing Director, Futurenet Technologies (I) Pvt Ltd.

* Impressive cost savings

While Sudharsan has saved over 25 percent on the hardware acquisition cost, the regular savings on operational and energy costs measure up to 90 percent as the per seat power consumption of N400 thin client access devices is less than 5 watts. Apart from this, the college is saving significantly on the power back up costs. The number of UPS (uninterrupted power supply) systems required for providing power backup in the event of power failure has also gone down considerably.

* Enriched learning for students

The new labs are being used by students for e-browsing, browsing their course content over the institutions’ intranet, and accessing language software and other applications related to their curriculum. This has made the process of teaching and learning an interactive and rich experience for both teachers and students.

* IT management, simplified!

As part of the deployment, four labs of 30 to 32 users each have been set up in a Citrix VDI-in-a-box environment. Each user is provided with a login id and password to ensure security and access control. All N400 virtual desktops are being centrally managed by the IT team of the college. “The time and effort involved in rendering IT support has got significantly reduced. The operating system and other software upgrades can be effected centrally through the two Citrix VDI-in-a-box servers that cater to these virtual machines. This has considerably simplified the maintenance and manageability of the IT set up. Besides, there are virtually no downtimes,” said Dr. M. Radhakrishnan, Principal, Sudharsan Group of Institutions.

Where nothing but only the best is sought

At Sudharsan, the pursuit for imparting the best education through the most modern facilities is continual. Today, the management team of Sudharsan Group of Institutions takes pride in the modern IT infrastructure that it has successfully deployed to provide its students access to the most modern and interactive methods of learning. Going forward, the institution plans to further add to its computing prowess by installing more N400 virtual desktops.

“Our commitment to bring affordable high quality education to this country side has set us on a glorious march towards perfection and beyond. The Citrix-NComputing solution has delivered the best value proposition to us at an affordable price point. There are very few colleges that will equal our computing facility in scale and quality. Our library and labs have everything you would expect to see in a higher education learning environment,” said Mr V. K. Sundaram, Chairman, Sudharsan Group of Institutions.