

KRISTELIG GYMNASIUM

RENOWNED PRIVATE SCHOOL
 EMBRACES GROWTH,
 EQUIPPED WITH SCALABLE
 PC SOLUTION FROM LENOVO

Lenovo® Secure Managed Client



CUSTOMER PROFILE

Founded in 1913, Kristelig Gymnasium (KG) is a private Christian school located in Oslo, Norway. KG serves 800 students, offering six grade levels across its primary and secondary schools. It has nearly 100 faculty members, including teachers and administrative staff.

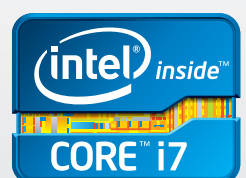
BUSINESS SITUATION

At Kristelig Gymnasium, a team of three IT administrators was responsible for overseeing the set-up, troubleshooting and maintenance of nearly 400 desktop and laptop PCs in computer labs located across three campus buildings. Recognizing that an upcoming expansion of 145 PCs would make it increasingly difficult for the current IT team to manage all of the PCs, KG's team needed a way to centralize and streamline PC fleet management so students would continue to have a positive, productive experience in the computer labs.

**NORWEGIAN HIGH SCHOOL TEST DRIVES
 ALTERNATIVE COMPUTING SOLUTION
 TO STREAMLINE PC MANAGEMENT AND
 BOLSTER STUDENT PRODUCTIVITY.**

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- **Mr. Anthony Brown**
 System Administrator at KG



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Mr. Anthony Brown
System Admin., Kristelig Gymnasium



INTRODUCTION

Kristelig Gymnasium is a renowned, private high school in Oslo, Norway. KG's mission is to foster a holistic learning environment for its 800 plus students that highlights various aspects of pedagogy including academics, the arts and community service, as well as study abroad programs, to prepare students for a university education following graduation.

SITUATION

KG had 395 desktop and laptop PCs distributed across computer labs in its three campus buildings, which were managed by three IT staff. When the school purchased new PCs, the IT team had to manually image each machine. Similarly, they had to address issues directly on each individual system by logging into them and applying necessary updates and patches. This process required a bulk of the IT team's time each day and limited their ability to focus on other priorities.

With 800 students, the school was already at 100 percent capacity but was expecting up to 150 new enrollments in the upcoming school year. KG acquired a new building to accommodate the larger student body and planned to expand its PC fleet by 145 systems, which would further stretch IT resources. Anthony Brown, system administrator at KG, recognized that action needed to be taken to identify the best managed solution to streamline PC maintenance for the IT team and ensure students have a productive experience in every computer lab.

SOLUTION

After assessing various alternative computing solutions from other vendors, Brown and his team chose to participate in a pilot program for Secure Managed Client (SMC), a Lenovo storage-based alternative computing solution. The SMC solution consists of a combination of Lenovo hardware and software, including ThinkCentre desktop PCs with Intel vPro, a centralized Lenovo Storage Array where data is remotely and securely stored, and SMC Management Software.

Brown considered several factors in making this decision. KG's IT team needed a solution that would allow them to manage the hundreds of PCs throughout campus from a central location, including delivering software updates, security patches and deploying periodic updates to curriculum materials hosted on all of the PCs.

These updates would have to be installed without disrupting the class schedule, and therefore would need to be done in a timely manner between classes, during lunch time, or before the school day began. In addition, since KG had not used a managed solution previously, it was critical for the IT team to have a technology partner who could guide them step-by-step through the installation, ramp up, staff training and pilot period.

KG participated in a two-month pilot of the Lenovo SMC solution, which involved setting up ThinkCentre M58p and M57 desktops in existing computer labs at the school. The PCs were equipped with Intel vPro technology which gave students added performance while making it easier for the IT team to manage the PCs, and Lenovo ThinkVantage Technologies like Rescue and Recovery that helped students to restore a crashed PC with the push of a button and recover projects they were working on. "Lenovo's SMC solution delivered the robustness and flexibility we were looking for to centrally manage a growing fleet of PCs," said Brown.

Working hand in hand with Lenovo Professional Services, Brown and his team completed the entire SMC installation, which included setting up the ThinkCentre desktop clients and Lenovo Storage Array - the appliance where the SMC client's data is securely stored - and training the IT team on the SMC Management Console - software that Lenovo developed to manage the Storage Array. In just one week, Lenovo and the KG IT team created a pilot fleet that could be centrally controlled, updated and managed by the IT team.

The true test of the pilot occurred once the school term began, and students started using the computer labs. The remotely managed SMC client PCs looked and functioned like traditional ThinkCentre desktops. As a result, the students required no ramp up or training time and used the PCs without hesitation or issues.

"The ThinkCentre PCs from the pilot are very powerful and perform better than our existing PCs."

- Mr. Anthony Brown
System Administrator at KG



Kristelig Gymnasium, Oslo, Norway



BENEFITS

Over the course of two months, KG's SMC solution pilot program provided a glimpse of how the school could transform its entire PC fleet into a seamless, centrally managed solution that could easily handle not just day-to-day administration and troubleshooting, but also any additional major expansions as the school continues to grow. "The Lenovo SMC pilot program helped us visualize how a managed solution could ultimately help my team to manage a large PC fleet with limited IT resources while maintaining a superior computing and learning experience for students," said Brown.

Remote, Centralized Management Reduces IT Desk-side Visits

Lenovo's SMC solution on ThinkCentre desktops with Intel vPro technology enabled KG's IT team to remotely manage, diagnose and repair PC hardware and software, reducing their number of desk-side visits each day during the pilot. In addition, courses at KG such as science, history and social studies require students to complete coursework using software programs that are hosted on the schools PCs in the computer lab. Without a remotely managed solution, installing software updates for these programs typically required a five to ten point checklist that must be administered individually on each PC. Using SMC, Anthony and his team recognized that they could create one image and deploy it automatically across the entire fleet. They could potentially save themselves hours of work and ensure that students have the latest tools they need to deliver great work.

Time Saved Boosts IT Staff and Student Productivity

Being able to deliver patches, drivers and application updates behind the scenes in minutes rather than hours also means that the IT team doesn't need to carefully schedule them across multiple lunch periods or use personal time before and after school hours and on weekends to ensure lab activity is not disrupted. This time saved also frees the IT team to focus on other critical issues. As Brown noted, "We saw that a remote management solution like Lenovo's SMC solution could allow our IT team to be everywhere at once and still have time to focus on other priorities." SMC also increases productivity for students and teachers since they do not lose time waiting in line to use PCs while others are updated.

SMC Clients Deliver Full PC Experience without End User Training

As the SMC solution utilizes standard ThinkCentre PCs as clients, KG students were able to immediately use the Lenovo PCs in the SMC environment as well as familiar applications without having to learn a new operating environment. "The students who used the ThinkCentre PC clients noticed little difference in their experience," remarked Brown. "It was like they were working on a full Windows PC, but really they were accessing data and applications hosted on the remote Storage Array." Students and faculty had the same quality computing experience even while the IT team managed the systems behind-the-scenes to conduct necessary repairs and updates without impacting access to PCs.

When the pilot was completed, KG was able to easily convert the SMC clients back into traditional ThinkCentre PCs to have a fully functioning desktop PC that, in fact, performed better than their current fleet. "The flexibility to easily convert a client into a traditional PC made the SMC pilot highly attractive," said Brown. "The ThinkCentre PCs from the pilot are very powerful and perform better than our existing PCs."

Scalable, Robust Solution Bodes Well for Smooth Future Expansions

"The Lenovo pilot gave us hope that as the school continues to grow, we can effectively manage more PCs and the related upkeep to provide students a superior learning experience," said Brown. SMC provides the robustness to handle a rapidly expanding educational institution like KG that would likely add more PCs to the fleet each year without any additions to the IT staff. The solution can be customized to run specific course programs while ensuring all PCs have the latest security tools, and it also offers IT teams easy, remote, fleet-wide management with the ability to customize groups of PCs within the fleet if needed. "The fact that Lenovo's SMC solution was specifically designed for large fleets like those in an enterprise environment or in our case, a growing school, was appealing to us," said Brown.

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The IT team at KG



Improved PC Maintenance and Energy Efficiency Contribute to Low Total Cost of Ownership

The Lenovo SMC solution sets the stage for a low total cost of PC ownership, as seen through a low investment cost as well as improvements in PC maintenance, data storage and protection and energy efficiency. "We are always operating on a limited budget, so cost savings is key," said Brown. Since SMC is a storage-based solution, the only upfront cost required is the purchase of hard-drive less ThinkCentre desktops.

In addition, the SMC solution alleviates day-to-day maintenance on individual PCs in the computer labs, allowing the IT staff to manage more PCs more efficiently with the same small team. Self help tools unique to Lenovo PCs called ThinkVantage Technologies also help students perform functions that typically require IT support. With ThinkVantage Rescue and Recovery, students can reboot desktops themselves if a system crashes, and ensure data is not lost, versus calling their IT team for assistance.

The SMC solution also helps customers conserve power, using an estimated 60 watts per PC, compared with a comparable server-based computing solution that typically uses 130 to 140 watts per PC. Combined with ThinkVantage tools like Power Manager, which control electricity consumption remotely to turn the PCs into energysipping systems, and reduced desk-side visits, the SMC solution delivers a lower total cost of ownership over time than a fleet of traditional PCs without a managed solution.

LOOKING AHEAD

The SMC solution pilot program helped demonstrate that a remote management solution designed for enterprises is applicable in school environments like that of KG's where the IT team is faced with a growing fleet and limited support staff. Having piloted a remote management system, Anthony Brown and his team feel they have a better grasp of the options available to them to help handle day-to-day PC maintenance as well as KG's future growth.

ABOUT LENOVO

Lenovo (HKSE: 992) (ADR: LNVGY) is dedicated to building exceptionally engineered personal computers. Lenovo's business model is built on innovation, operational efficiency and customer satisfaction as well as a focus on investment in emerging markets. Formed by Lenovo Group's acquisition of the former IBM Personal Computing Division, the company develops, manufactures and markets reliable, high-quality, secure and easy-to-use technology products and services worldwide. Lenovo has major research centers in Yamato, Japan; Beijing, Shanghai and Shenzhen, China; and Raleigh, North Carolina.

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