



## Lemon Grove School District Sets the Standard for Educational Innovation



*"In the education business, it's all about getting the most bang for your buck. With the Wyse thin-client solution, we are able to reach nearly twice as many students. And teachers no longer have to play the dual role of IT person and educator."*

**Darryl LaGace**

**Director of Information Services**

**Lemon Grove School District**

### **Lemon Grove School District, Lemon Grove, California**

Ten years ago, Lemon Grove was a sleepy school district of underperforming schools in a community of retirees and working-class families six miles east of San Diego, California. Today, it is a national model of technology innovation and educational excellence with award-winning schools and high-achieving students. The six elementary and two middle schools serve 4,600 students in a community of 26,000 residents.

Every classroom buzzes with excited and engaged students. Amid a national shortage of qualified teachers, Lemon Grove has no problem recruiting teachers to join their team. Wyse® Winterm™ thin clients are the technology foundation: they connect students, teachers, and parents to rich resources and online lessons at school, at home, and throughout the town.

### **Classroom Management and the PC Challenge**

Under the leadership of Darryl LaGace, Director of Information Services, the district established a wireless WAN to connect schools to the district office and began deploying personal computers into classrooms. Barbara Allen, Director of the LemonLINK Project, led a district-wide curriculum and professional development program for all teachers.

But LaGace and Allen quickly discovered that PCs caused more chaos than order. The 1:4 ratio of computer to students did not give teachers enough resources to keep all students occupied and engaged. Yet, a desired 1:2 ratio in classrooms was not feasible with PCs due to their high purchase price and ongoing cost of ownership. LaGace and Allen evaluated their instructional needs and looked for the computing device with the lowest price and the best fit.

### Solution Architecture

- Wyse Products
  - Wyse® Winterm™ thin clients
  - Wyse™ Rapport® management software
- User Applications
  - Microsoft® Office XP
- Network used
  - wireless fiber optic WAN with microwave links
- Servers
  - 35 servers running Microsoft® Windows® XP and Citrix® MetaFrame®

"Everyone was sold on the biggest, most expensive, over-powered and under-used computer," said LaGace. "What we discovered was that thin clients meet the needs for 90 percent of what teachers and students do."

### A Better Solution: Wyse Winterm Terminals and Rapport Management

In 1999, Lemon Grove became the first school district in the country to establish a district-wide server-centric computing system with two students per thin client in every classroom. LaGace and his staff of four technicians support a server farm of Citrix® MetaFrame® application servers and thousands of Wyse Winterm terminals. The district generates revenue by providing ISP services and support to the fire department, a senior center, the community recreation center, and even city hall. The district keeps current with software upgrades despite fluctuating budgets thanks to the cost savings, revenues, and the centralized update process inherent in the network-centric model.

According to LaGace: "We are very selective about partners, and Wyse has been right by our side. What we have been able to deliver today is huge. We are out on the edge. Wyse's interest has validated what teachers are doing in the classroom and that makes them feel really special."

As teachers depend on computing access for everyday instruction, they have come to rely on Wyse Winterm thin clients. The devices have no moving parts to break down or open slots for curious students to obstruct. Using Wyse™ Rapport® software, the IT department manages the terminals remotely as needed. Approximately 90 percent of calls to the help desk are addressed immediately over the phone, keeping the number of IT staff low without sacrificing support.

### Creative Adoption

When teachers no longer have to be technical experts or maintain equipment in their classrooms, they become creative in adopting technology to support instruction. Each year, Allen led a cohort of teachers through curriculum development and technology training. She encouraged them as they developed new ways of targeting curriculum standards and providing drill-down support for students who were challenged.

"We had leaders of the pack who created intranet sites and identified how to deliver instruction," she said. "They were willing to share the solution throughout schools and across the district. We hadn't had that in our original plan, but as teachers became innovative with their instructional delivery, we shared these ideas across the district."

New federal regulations in the No Child Left Behind (NCLB) Law require districts to track individual student progress and show yearly improvement. With data and resources centralized, Lemon Grove already provides teachers with benchmarks based on state standards for student achievement. Teachers can make instructional decisions throughout the year to help students improve and surpass state and federal standards.



### **The Critical Connection from Home to School**

To break down the barrier between school and home access to technology, Lemon Grove developed rental and purchase programs for families to obtain a Wyse Winterm thin client with a high-speed modem. When students log in from home, they have the same secure, filtered desktop that they have at school, with appropriate applications and resources.

Low-income families with students below grade-level in reading or math qualify for the home terminal at no cost. The district finds that these students become more engaged in the classroom because they have the opportunity for extra study with difficult subjects. Parents use the device to learn about their child's progress and for their own learning.

### **Abundant Access Transforms Learning**

Through transformation of instruction and learning, Lemon Grove schools have become recognized for excellence. In 2001, six Lemon Grove schools were eligible for the California governor's awards program and three of the four Title I schools in the district were declared High Achieving Title I Schools by the State of California. (Only 15 out of 590 schools in San Diego County received the recognition.)

"One of the reasons for our success is abundant access," said Allen. "Computing access affords us an opportunity to deliver instruction with rich resources. Students can log on and understand what is going on in class that day or week, because all of our lessons are delivered online. They are in control of their own learning. And that motivational factor has a lot to do with the improvement."

Both Allen and LaGace continue to look forward, creating new applications, testing new devices, and setting higher standards. They challenge teachers, students, parents, and the community to look beyond the conventional way of conducting a classroom to a more effective way of achieving their goals. As a result, students throughout the Lemon Grove School District have more access to more resources and their teachers have discovered a way to motivate and improve student learning.

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