FRESNO UNIFIED SCHOOL DISTRICT
HP Mini-Notebook PC bring down cost, footprint of classroom computers

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Fresno Unified School District

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—Kurt Madden, Chief Technology Officer, Fresno Unified School District

HP customer case study: HP Mini-Note PC match up to wish list of ideal classroom PC

Industry: Education

HP recommends Windows Vista® Business

Objective:
Improve computer access in the classroom, while reducing the PC's footprint so that the notebook can stay on the students' desktops
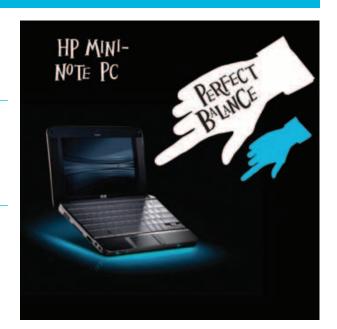
Approach:
Fresno Unified School District in partnership with Western Blue is deploying close to 10,000 HP 2133 Mini-Note PCs to provide select classrooms with a 2:1 or 1:1 experience

IT improvements:
• Improved reliability of classroom technology
• Cost efficiency stretches technology budget to serve more students
• Wireless network supports specialized software downloads, teacher websites, student storage

Business benefits:
• Number of computers increased in select classrooms
• Freedom to pursue individual research projects online
• Small footprint allows Mini-Note to share desktop space with books, papers
• Ability to work collaboratively in classrooms
• Teachers able to move from "sage on the stage" to coach/guide/mentor

Fresno Unified School District in California didn't think it could afford to equip all its classrooms in a 1:1 program. But working with HP, it has come up with a new solution that brings both the cost and the footprint of technology down to size. It's deploying some 10,000 HP 2133 Mini-Note PCs in select classrooms, giving many students throughout the district a 1:1 or 2:1 student-to-computer experience in the classroom.

"The HP Mini-Note is small enough to fit on students' desks without taking over the desk top, and powerful enough to give students and teachers the tools they need to learn and explore," notes Kurt Madden, Chief Technology Officer for the district. "We think it strikes the best balance of size, price and capability for computing in the classroom."

Serving low-income students with low-cost technology

Fresno Unified is a large, urban school district serving some 75,000 students in the Fresno area. It also faces budget challenges. Many of its students are from low-income families and qualify for free/reduced lunch pricing.

The district has a longstanding relationship with HP. Its data center is filled with HP ProLiant DL380 and DL580 servers and ProLiant C-class blade servers, an ESL Tape Library, HP ProCurve switches and other products. "We feel like HP has involved us so that we know what they're doing and where they're going and that helps us predict our future in technology. HP has been a great partner in helping us keep up with what's going on technologically for classroom education," Madden says.

So it was natural for Fresno Unified representatives to sit down with HP people more than a year ago to give their input on the ideal classroom PC. "We talked about having a notebook that was smaller so it would fit on student desks more easily, one that didn't need a CD or DVD drive, but would have USB ports, Wi-Fi and Bluetooth®,[1] a keyboard that was small but still nearly full scale," recalls Madden. "And we needed it to be pretty rugged."

Well, as the saying goes, ask and ye shall receive. The new HP 2133 Mini-Note PC delivers on virtually all of Fresno Unified's vision. It's much smaller than most notebook PCs, weighing just 2.6 pounds and boasting an 8.9-inch diagonal display. But its keyboard is still 92 percent of full size. It has a scratch-resistant display;

HP 3D Drive Guard, which shuts down the hard drive upon sudden motion or shock; and HP DuraKeys, a clear coating over the keyboard that protects the finish. And all at a very affordable price

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Kurt Madden, Chief Technology Officer, Fresno Unified School District

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"It's expensive for a school district like ours to equip even a single classroom," Madden says. "To get notebooks into the hands of students in a mass deployment, the price point is important and HP has given us a cost effective product that makes the technology feasible. It's a quality product and gives us what we need in the classroom."

Prior to the arrival of the HP Mini-Note PC, Fresno had an average of four older PCs in each classroom. Students needed to take turns using the technology, or schedule time in one of the district's few computer labs. Technology was in the schools, but few students really got the opportunity to use it.

Dramatic changes in the classroom

Madden expects the Mini-Note to change learning in a dramatic way. In a small pilot program with notebooks, "we saw that students who were able to

use the notebooks became more engaged, more excited about what they were doing in the classroom," he says.

Plans call for deployment on a 2:1 basis in select classrooms throughout the district, where teachers with a strong interest in classroom technology have applied to get the new notebooks and outlined plans for their use.

Fresno Unified worked with Western Blue, an HP Platinum partner and integrator, to acquire, image, asset tag, develop an e-commerce site, finance and deploy the Mini-Notes. Western Blue also worked with HP to extend educational pricing on HP notebooks to families interested in making a purchase for their home. "With HP's help, the school technology program is benefiting not just our school, but it's benefiting our entire community," says Pat Pendergast of Western Blue.

Madden expects use of the Mini-Note PCs to transform the classroom dynamic. "You'll see notebooks open, students working on individual projects, and teachers walking around helping students. Teachers, instead of being the 'sage on the stage', will become the 'guide on the side.' They won't always have to stand in front of the class and lecture, but will be able to move around the classroom more to coach, guide and mentor."

As an example, he cites the state-required fourth grade project on a California Mission. Each student selects a Mission, studies it and in the past, has written a paper. "We have already seen that turn into a PowerPoint presentation with pictures or perhaps video, that they present at the school open house or to other students."

Our goal is that over the course of a student's entire K-12 journey in the Fresno schools, their best work will be digitally saved and gathered together into a portfolio. "At the end, they'll have a DVD of their best work, their ideas, and a history of their years in school here," Madden says. "It may be an even better way for parents to store boxes of finger paintings and papers and report cards."

Form factor fits classroom needs
Madden says the Mini-Note's diminutive size makes it a better fit for the classroom. With the Mini-Note, Madden says, there's room for both traditional materials and the notebook on the student's desk.

In addition, Madden is hoping the Mini-Note PCs can be used for an entire school day without having to be recharged, when equipped with the extended battery. Putting the notebooks to "sleep" whenever they're not being used should extend the battery to fill the entire school day,[2] he says. The district is working on a plan for developing charging stations for the notebooks to be stored in overnight.

HP recommends
Windows Vista®
Business

The district also expects students will use the built-in camera to take videos or still images to support their personal learning projects. In addition, students can import images from external media using one of the USB ports.

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The district has invested in a substantial upgrade of its internal network—to 100 gigabits for elementary and middle schools, and 500 gigabits in the high schools—to support the deployment of Mini-Note PCs. There is also more than 140 terabytes of storage.

With a Microsoft® infrastructure, it allows the district to push out specialized software for only those classes that need it, rather than including it in the base software image. In addition, teachers will each have their own website and distribute assignments, handouts and other materials using a Microsoft SharePoint collaborative portal. "It will allow them to store files, pictures and video. Students can create blogs and wikis and all the other things that Web 2.0 provides," Madden says.

Teachers are as excited about the new Mini-Note PCs as the students. Madden says the district's professional development efforts have focused on translating a traditionally paper-based curriculum to take advantage of digital resources. "What we found is that teachers often don't need to be trained on how to use the computer itself. They're very inventive. I've been visiting classrooms where it's just amazing what they come up with—the innovative ways they can weave the technology into their lessons. Technology just changes all the rules."

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