CASE STUDY: PARADISE VALLEY UNIFIED SCHOOL DISTRICT

Samsung Chromebooks and Tablets Provide PV Schools Freedom to Go 1:1

OVERVIEW

Customer Need
Paradise Valley Unified School District is a technologically progressive school district in Arizona. After being granted a $40.1 million bond and budget override to update its outdated computer fleet, the district decentralized its procurement process to allow schools autonomy to choose their own devices. To fulfill its mission of modernizing the learning environment and moving to a 1:1 computing environment, the district sought updated and cost-effective computing devices.

Samsung Solution
Samsung presented PV Schools with a range of device options, from easy-to-manage Chromebooks and Chromeboxes, to Android-based tablets including the Samsung GALAXY Note 10.1 with advanced handwriting and drawing functionality. The Samsung technology has proved a popular choice with many of the district’s schools, with approximately 4,000 devices rolled out during the 2012/13 school year and projections for this to triple in the following 18 months.

Results
While not yet a 1:1 district, PV Schools now expects to near that goal over the next four years by granting schools autonomy to choose a range of computing devices. With the new technology already in the classroom, the district has seen improved teaching methods from faculty and is establishing a modernized learning environment for its students. Additionally, the Samsung technology is helping PV Schools prepare for the upcoming Partnership for Assessment of Readiness for College and Careers (PARCC) online testing, which begins in 2015.
Paradise Valley Unified School District

Located in northern Phoenix and Scottsdale, Arizona, Paradise Valley Unified School District is a large urban and suburban district with roughly 34,000 students spread over 45 school sites. Historically, the district has been progressive in incorporating technology into the classroom and everyday learning.

“When we poll our students, principals, teachers and parents, the integration of technology is important to extremely important to them,” said Jeff Billings, director of information technology for PV Schools. “They’re telling us to get devices into the schools because they want them.”

With a mission to modernize learning for its students and eventually move to a 1:1 computing environment, the district needed updated, flexible and cost-effective devices. To achieve that goal, the district was granted a $208.9 million bond and budget override, with $40.1 million allotted for technology procurement. PV Schools knew that every school would have different device needs and that a one-size-fits-all solution wouldn’t be ideal. Instead, the district decentralized its technology procurement process to allow schools autonomy to choose which devices best suited their needs.

“Our superintendent wants us to cultivate world-class thinkers, so we had to do some world-class thinking too [about our procurement process],” said Billings. “We decentralized the decision-making for the devices, meaning we put it in the hands of the individual schools. We said we would embrace any and all devices, so go for what you want.”

To meet these different criteria, schools were given a list of recommended devices to choose from, spanning all major operating systems and a variety of form-factors.

“We were limping along with the old machines,” said J.J. Stratton, librarian and media specialist at PV Schools’ North Canyon High School. “Less and less was working.” But in giving schools autonomy, schools could decide which devices best suited their individual needs. “[Now] we can make that decision for ourselves,” Stratton said.

PV Schools’ decision to grant schools autonomy to select their preferred computing technology was instantly embraced across the district. Leadership teams at each school were drawn to the ability to choose devices that best fit the individual needs and desires of each respective site, rather than having the district decide for them.

“I had 76 visits with administrative, education and parent leadership at the schools,” Billings said, regarding the process of changing how district technology was procured. “And in the 13 years I’ve been here, the conversations were richer and deeper than they’ve ever been.”

Some of those discussions included determining exactly what each school needed for its students. For students between kindergarten and third grade, tablets seemed a natural selection because of the devices’ touchscreens and ease of use. For older students, a physical keyboard was required due to Common Core writing assessments and PARCC online standardized testing, which all students are required to sit starting in 2015.

THE CUSTOMER

Paradise Valley Unified School District

THE CUSTOMER NEED

Freedom of choice and a modernized learning environment
THE SAMSUNG SOLUTION
Cost effective, cloud-based Chrome devices and intuitive tablets

The PV Schools leadership teams wanted updated, flexible and cost-effective devices. Also, because the district currently uses Google Apps for Education for learning and administrative functions, the teams wanted devices that were interoperable with the processes already in place. After a series of workshops that explained and demonstrated each recommended device, leadership teams overwhelmingly chose Samsung Chromebooks, Chromeboxes and Android-based tablets.

With their fast boot time, cloud-based functionality and long battery life, the Chromebooks offer a cost-effective mobile computing solution that enables technology access to as many students as possible. Students can either use Chromebooks for individual computing or the devices can be transported in a cart for a mobile lab environment. Because of this flexibility, “Chromebooks were way far out on the curve,” said Billings.

The Samsung Chromeboxes are compact and offer more ports than the Chromebooks, including an Ethernet port so they can be hardwired if necessary. While Chromebooks might be more suited for mobility, Chromeboxes work best in lab environments where students are coming in and out of one room, similar to what will occur during the upcoming PARCC testing. Despite the differences in form-factor, Chromeboxes and Chromebooks are identical in terms of operational functionality, due to both devices being cloud based. If students log in on a Chromebox, they would still find the same customized settings they had established on a Chromebook, and vice versa. Also, because the devices can be centrally updated and maintained, they offer a lower total cost of ownership than traditional laptops or desktops.

“Not only are Chromeboxes and Chromebooks the wave of the future, because of everything moving to the cloud, there’s also the financial factor. For the cost of one traditional laptop, I can buy four Chromebooks. For the cost of one desktop PC, I can buy four Chromeboxes,” said Stratton.

Many district schools also chose Android-based tablets, including the Samsung GALAXY Note 10.1 with the S Pen which provides advanced handwriting and drawing functionality. The tablets were mostly deployed to younger grades for writing lessons and learning with games, and to staff members for administrative use.

In the initial deployment during the 2012/13 school year, PV Schools adopted nearly 4,000 Samsung devices total, with hopes to increase this number to 14,000 over the next 18 months – bringing the district that much closer to its 1:1 computing and other learning goals.

Quick Profile: As used by PV Schools

SAMSUNG CHROMEBOOK

DISPLAY: 11.6-inches; 1366x768 resolution; 200nit brightness
WEIGHT: 2.43 lbs.
BATTERY LIFE: Up to 7 hours
PROCESSOR: Samsung Exynos 5250
MEMORY: 2GB
STORAGE: 16GB SSD
PORTS: 1 USB 3.0, 1 USB 2.0, combo headphone/mic jack, secure digital memory slot
SPEAKER: 1.5W speaker X 2
KEYBOARD: Full-size Chrome keyboard

SAMSUNG GALAXY NOTE 10.1

OPERATING SYSTEM: Android™ 4.1, Jelly Bean
DISPLAY: 10.1-inch WXGA (1280 x 800) touchscreen
PROCESSOR: 1.4GHz, quad-core
CAMERA: Rear (5MP); Front (1.9MP)
SPECIAL FEATURES: Multiscreen; Video Pop-Up Play; Drag and Drop; Handwriting Recognition
The decentralized procurement process and subsequent adoption of Samsung devices has brought the district closer to its 1:1 computing goal. While PV Schools is currently at a 2:1 student-to-device ratio, this includes older and outdated machines. When only considering new devices, the district is roughly 6:1, but on track to become 1:1 by the end of the four-year bond and budget override. With the addition of updated devices, district schools are creating modernized learning environments that were not possible before.

“I’m seeing more teachers think outside the box, and think of ways they can use the technology as a means to an end, whereas they used to think of it as, ‘Oh, that’s just one more thing on my plate,’” said Stratton. “Teachers are using more and more Web 2.0 tools, meaning they are going out and finding what they need on the Internet that doesn’t require a certain type of hardware or software. They’ve gotten better about planning lessons around that.”

In one case, English Language Learner (ELL) students at North Canyon used Samsung Chromeboxes to create “book trailers” — essentially 30 second movie trailers but for books. Students worked in the cloud to find images, video, music and text to create their projects. “They didn’t need any software, they didn’t need any extensive technology skills, they did it totally online, on a Chromebox,” Stratton said.

Along with this modernized learning environment, PV Schools’ technology infrastructure is now prepared for upcoming PARCC online testing.

“We’re using Chromeboxes in a lab kind of model,” Billings said. “We move the kids in to take the test, move them out, move the next kids in to take the test and PARCC’s taken care of. When you get to the production of taking tests, the Chromeboxes are phenomenal.”

But besides transforming learning for its students, and adding an appropriate fleet of devices to administer new statewide standardized assessments, what is the end goal for PV Schools and its new technology?

“When you start reaching that tipping point of ubiquitous computing, where everybody is grabbing for it like they grab for a pencil in the old days, then the pedagogy and the practices and the workflow are also ubiquitous,” said Billings. “I want to get to the point where instead of grabbing a pencil we grab a computer, and I think the more access you have, the closer you’ll get to that point. [Because of our procurement process], in the next couple of years we have the capability to be a 1:1 district, not just a 1:1 school.”