Archbishop Mitty High School's network overhaul facilitated a one-to-one tablet program rollout that lets students, faculty and staff do everything electronically. The days of lost paper assignments, forms and test materials are history.

**At a Glance**

**ORGANIZATION:** Archbishop Mitty High School  
**HEADQUARTERS:** San Jose, Calif.  
**STUDENTS:** 1,720

**DESCRIPTION:** Archbishop Mitty High School is the Catholic, coeducational, college preparatory school managed by the Diocese of San Jose. The school develops young adults through the synthesis of faith and reason, the formation of Catholic values and preparation for life in a global society.
Making Archbishop Mitty High School a digital learning environment didn’t happen overnight. It required a back-end wired and wireless infrastructure, web-based learning management software and access to the latest tablets.

But the Catholic school’s one-to-one tablet program — which took paper out of the equation so effectively that it reduced the school’s copier output by 4.5 million pages during the 2012–2013 school year — also required judicious planning.

Director of Information Technology Eric Anderson traces the San Jose, Calif., school’s digital learning journey to 2007. “At that point, school officials knew they wanted a one-to-one program” that used tablets, he explains. “But we weren’t sure how it would come to fruition.”

So Archbishop Mitty’s four-person IT staff devised a three-year technology plan that would set the school on a path toward one-to-one. Their first move was to increase Internet bandwidth from 3 megabits per second to 20Mbps by purchasing a larger bandwidth pipe through the school’s Internet service provider, Anderson says.

In 2008, they began working to upgrade Archbishop Mitty’s wireless capabilities. A Cisco Systems infrastructure that once supported just 100 devices had to be fortified to handle a tablet for each of the school’s 1,700 students, as well as the expanding requirements of the faculty, Anderson continues.

Around the same time, they formed the Spectrum Committee, which included one teacher from each of the school’s nine academic departments. Members were selected based on their interest in technology and their reputation in the classroom. From their initial meetings emerged a learning management system (LMS) based on Moodle source code that was adapted specifically for Archbishop Mitty.

Dubbed myMitty, the LMS is meant to function as “a one-stop shop where all learning happens,” Anderson explains. “Students can download their learning materials from myMitty and submit homework online.”

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— Director of Information Technology Eric Anderson

Bringing It Home

The transition to tablets was intentionally methodical, Anderson recalls, noting that he waited until all of the school’s courses were integrated into myMitty before beginning the rollout. “I knew the success of this program depended on us being ready with the learning management system right out of the gate,” he says.

In 2010, the school required each teacher to develop one course for myMitty. As faculty worked to familiarize themselves with the LMS, Anderson introduced the tablets to students in phases. Archbishop Mitty’s first pilot of 32 tablets launched in April 2010. A second pilot during the 2011–2012 school year put two sets of 30 tablets in classrooms and another 30 tablets into students’ hands so they could experiment with the devices at home.

By spring 2012, teachers were comfortable with myMitty and ready to begin using it with students. But making the one-to-one program work would require a high-quality network, so Anderson turned to CDW-G, a subsidiary of CDW, for assistance with the configuration. (One of CDW-G’s specialties is helping school districts with their technology projects.) The goal: to have the upgraded network ready in time for the start of the 2012–2013 school year.

“I felt that we made the right decision going with Cisco equipment, but we weren’t making the progress we had hoped for” with its deployment, Anderson says. “CDW-G is very knowledgeable about the entire Cisco ecosystem, and I knew that having a robust network infrastructure would be critical to the success of any technology plan.” For that, he adds, the school’s IT team needed some help.

According to Ignacio “Nacho” Vega, a network solution architect for CDW, the school was running a flat network, in which all traffic traveled on a single virtual LAN.

Following a tour of the high school and a spectrum analysis, the CDW team determined that segmenting the network into 30 VLANs would be more efficient, Vega explains. There are now separate subnets for students and teachers, for example, as well as one to support the
Tablet-Infused Learning

Members of the Spectrum Committee who worked to set up myMitty, Archbishop Mitty High School’s learning management system, have established a blog that offers a variety of ideas on how to use tablets and digital content in the classroom.

In a spring 2013 Technology @ Mitty post, French teacher Rose Lopez posted a video on how to use InfuseLearning, a student response system that lets teachers quickly assess student progress as they would with traditional handheld clicker devices — but virtually.

Students can easily access InfuseLearning from their tablets by signing on with their classroom number and first names, Lopez explains. Once students answer a question, the teacher can see how much time each student took to offer a response and follow up, if needed.

Teachers also can use the tool to import images, which can then be used to facilitate discussion or complete an exercise. Lopez can post a map of Europe, for example, and ask students to identify France. She sees students’ responses immediately and can readily determine whether everyone knows the country’s location.

“I also do this with verb conjugations,” Lopez continues. “I post common mistakes so students can learn from them.”

Other recent blog posts cover video editing techniques, setting up timer applications and using a tablet as a whiteboard or document camera.

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$15

The average price of an e-textbook; paper textbooks average $75 apiece

SOURCE: Archbishop Mitty High School
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— Director of Information Technology
Eric Anderson

she can see when students did the work and how long it took them to complete it.

“One of my students came to me and asked how she could improve her grade,” Lopez explains. “When I looked at her history in myMitty, I found that she was completing assignments in half the time, compared with the other students. I just recommended that she slow down.” Before the LMS, she adds, such feedback wouldn't have been possible.

The tablets also made it possible for Archbishop Mitty to transition to electronic textbooks. Lopez says the e-books — especially those dedicated to science — feature a number of interactive exercises that help keep students engaged.

“Many of the interactive features we see in the science textbooks aren’t available for the languages yet, which is why I supplement a lot with my own video and audio exercises,” she says. “The tablets make it easy for me to do that.”

Currently, about 60 percent of the textbooks in use at Archbishop Mitty are digitized. Anderson says the school wants to phase them in gradually, to ensure that, as learning tools, the digital editions are equivalent to or better than their paper counterparts.

“As a school, we are still in a period of transition as we get these devices into the hands of more students,” Anderson says. “Some of the seniors are a bit hesitant, but the freshmen are very excited. I can't wait to see where we'll be when more of the classes start their high school careers with the tablets.”