

Tablet PC provides Bishop Hartley students  
24x7 access to studies



“I see the future with Tablet PCs in every  
classroom, with every student and every  
teacher.”

— Kenneth Collura, Director of Technology,  
Diocese of Columbus



Located on the east side of Columbus, Ohio, Bishop Hartley High School is a private Catholic school and a mirror image of the entire city. The 47-year-old school has more than 600 students comprising a diverse collection of races and socioeconomic classes.

As the regional training center for the schools of the Diocese of Columbus, which includes 44 elementary schools and 11 high schools, Bishop Hartley is the first school in the diocese to use HP Compaq Tablet tc1100 and tc1000 PCs to help fulfill the diocese's stated goal of empowering students to "mature spiritually, morally, intellectually, physically and socially."

### **Achieving true mobility**

While Bishop Hartley has always been a technically savvy learning institution, Kenneth Collura, the Diocesan Technology Director, believed that greater mobility would enhance the students' opportunities to learn.

"To be completely mobile, you need to be able to take the device with you very easily," Collura said. "While there are some notebooks that could fit our mobility and classroom space requirements, I never like to walk into a classroom where kids open up these computers and all you're doing is talking to the back of a laptop's screen. You don't see their faces or eyes. The kids are trying to type – and their typing skills vary greatly."

Collura considered computers that allowed handwriting a key to student mobility. At the COMDEX 2000 conference I realized the industry was really going to take another shot at handwriting recognition through the Tablet PC. So I started beefing up Bishop Hartley's IT infrastructure and getting our wireless capabilities upgraded in anticipation of the product."

In addition, Collura methodically moved Bishop Hartley teachers from desktops to laptops, de-emphasized computer labs, brought in HP mobile carts that were first equipped with wireless notebooks, now with HP Compaq tc1000 Tablet PCs, and moved to network printing. He also developed an intranet through which homework documents could be shared.

"I moved both the students and teachers along in baby steps so that when the Tablet PC came out, it would not be a big culture shock for either group," Collura said. "This was all designed to prepare them for the whole idea of mobility and true one-to-one, 24x7 access."

### **HP Compaq Tablet PCs enable innovative tools**

Today the HP Compaq Tablet PC is firmly entrenched as a learning tool at Bishop Hartley. All juniors and seniors have their own HP Compaq tc1100 Tablet PC; teachers have a tc4200 Tablet PC; and underclassmen have access to tc1000 Tablet PC s on mobile HP carts. Collura emphasized that these units were purchased with technology and grant funds without using tuition dollars.

A campus-wide wireless network facilitates all manner of communication – from basic web browsing and email to content sharing between teacher and students, and even turning in homework assignments.

Collura said one of the best attributes of the HP Compaq Tablet PC is that it provides students the freedom to learn their lessons where they work and study, 24x7. Students carry fewer supplies with them – notebooks, paper and pencils – because the Tablet PC covers their needs.

"Students just get their HP Compaq Tablet PC and textbooks together and it's all there in a convenient, compact fashion," he said. In fact, students often don't even have to bring their textbooks to class; the teacher simply broadcasts the pages necessary for the day's lesson. "There are no more 25-pound book bags to lug around. Students just need to keep track of their Tablet PC. Period."



But hardware alone isn't a solution. In addition to standard software packages for word processing, web browsing and the like, Collura has equipped students and teachers with educational software that facilitates learning.

Two packages stand out: DyKnow Monitor and DyKnow Vision. Monitor enables teachers to see what students see on their screens, watch student progress and identify meaningful work to share with the class. Without putting students on the spot, teachers can quickly assess how well concepts are being understood by viewing their work. "It also lets teachers block out certain programs and allow certain programs, so if the class is using the Internet and Microsoft Word, for example, those are the only applications the students can access. They're not busy instant messaging each other," said Collura.

Vision captures everything the teacher writes or types during a lecture, so the students have automatic note-taking capability. And, they can add their own notes as well. The teacher can broadcast an image, PowerPoint slide, an embedded web page, or any other content to each student's Tablet PC.

Bishop Hartley also purchased for the students a three-year warranty on the new products and a padded carrying case to transport their Tablet PC. "But as far as ruggedness and reliability goes, the HP Compaq Tablet PC has been very, very satisfactory."

### **Better learning**

Collura says the HP Compaq Tablet PC project has met its objectives. "One of the biggest benefits to education is that teachers can now concentrate on content rather than delivery," he said. Teachers spend less time writing on a blackboard and more time interacting with students. "There's no more wondering, 'can the kid in the back row read what's on the blackboard?' 'Am I speaking too fast?' 'Did I lose somebody?' All of those things are delivery questions and are addressed by the Tablet PC."

Students quickly learn how the Tablet PC can be most effective for their own learning needs. Collura likes to tell the story of a student who was failing an English course until, one day, he decided to read a short story into the Audio Notes Recorder on his Tablet PC. Then he listened to the story. His English grade soon improved dramatically. "That student is what we call an audio learner," said Collura. "The HP Compaq Tablet PC is his key to success in the classroom."

The Tablet PC is also enabling entirely new types of learning. In a social studies class, for example, students are participating in a simulation of international politics along with other students all over the world. They study world events and take on the roles of world leaders. "Then at some point, they stop studying history and make their own history," Collura said. "They negotiate with one another, reach agreements, and issue press releases. It's



fascinating to see students get so wrapped up in the project that they're spending their free moments all day long sending emails back and forth, strategizing and negotiating."

The bottom line, Collura said, is that technology is serving the individual needs of individual students. They can choose to learn where they want, when they want and the way they want.

Students aren't the only ones who benefit from the Tablet PCs. "While they were reluctant at the beginning, teachers are now ecstatic about the devices," Collura said. "There are no more papers to carry home and grade. No more eye strain. Just normal grading done electronically. The teachers can grade tests and papers on-screen, save them electronically and send them back to the students via e-mail."

One day a math teacher called in to say she was sick and couldn't come in. So she arranged to use Skype, an internet telephony program, and deliver her lecture over the wireless network, complete with interactive handwritten notes.

### **What's next?**

Collura believes the Tablet PC will play a profound role in education. "I see a future with Tablet PCs in every classroom, with every student and every teacher," he said. "The key is you have the student being able to use a computer 24x7 without needing anything else."

The Diocese has already expanded use of Tablet PCs to Bishop Watterson High School, and Collura hopes to see its use spread throughout the 55-school Diocese in the coming years.

Collura said the Tablet PC also promises to remove the stigma for special needs children. "If a student needs to have a test read to him, he can use a headset and have

## Challenge

- Implement a wireless, mobile, paperless infrastructure for students based on intuitive technology, available to students 24x7 from any location.
- Enable teachers to use the most innovative, collaborative classroom tools and programs
- Provide a learning platform that facilitates individualized instruction

## Solution

- HP Compaq tc1100 and tc1000 Tablet PCs
- HP LaserJet 4si, 5si printers
- Compaq mobile carts
- HP Scanners
- DyKnow Vision and DyKnow Monitor software

## Results

- Increase in students' enthusiasm for learning
- Improved student organizational skills
- Greater concentration on content over delivery
- 24x7 access to work

it read to him. If a child is visually impaired, you can simply increase the font size. It's very important for children to fit in and not be separated, and the Tablet PC can help achieve that."

### Why HP?

As a technology director with long-term interest in the Tablet PC concept, Collura looked at a number of beta versions before selecting the HP Compaq Tablet PC from HP.

"I've seen virtually every tablet out there," he said. "HP Compaq Tablet PCs have, in my opinion, the best form factor, the best screen, best stylus, and they're the most rugged. I have purchased hardware from just about every company out there, and I always select the best product that serves a particular need. Lately, that has been HP – hands down. HP is producing the best products at the best price, and I've found they have the best service people and field reps out there.

"In the past 25 years, this is the first time that I've only had one computer – and it's an HP Compaq Tablet PC. I just love this product!"

## At a glance

- **Customer:** Bishop Hartley High School
- **Location:** Columbus, Ohio
- **Founded:** 1958
- **Telephone:** 614.237.5421 x230
- **URL:** [www.cdeducation.org/schools/bh/](http://www.cdeducation.org/schools/bh/)
- **Primary mission:** Located in East Columbus, Ohio, Bishop Hartley is a four-year, comprehensive, Diocesan Roman Catholic high school for young men and women. While more than 95 percent of its students follow the Diocesan college preparatory course of study, Bishop Hartley also offers a course of study for students who do not plan on pursuing a post-secondary education.

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