

Case study

Mesa Community College

HP meets goals for student access and cost with All-in-One PCs



Industry

Higher education

Objective

Enhance student access to educational resources within budgetary constraints of a community college environment

Approach

Deploy HP Compaq Elite All-in-One Business PC on campus and HP ProBooks when mobility is needed

IT matters

- Replace aging, disparate PCs with durable standardized models
- Replace fragmented localized software with a single robust computer image
- Enhance the ability to deliver both classroom and online education
- Simplify and streamline IT management

Business matters

- Enhance teaching and learning through improved access to technology
- Deliver uncompromising educational excellence within budget constraints of a community college
- Support collaborative, experience-based, multi-disciplinary learning



“HP solutions such as the All-in-One Business PCs and HP ProBook notebook PCs enable us to cost-effectively enhance student access to vital educational tools.”

—Shouan Pan, president, Mesa Community College, Mesa, Ariz.



A Maricopa Community College

For more than 45 years, Mesa Community College (MCC) in Mesa, Ariz., has provided students of Arizona a rich diversity of high quality educational services delivered by award-winning faculty. With two campuses, five affiliate locations, and more than 180 programs, degrees and certificates offered, MCC serves more than 40,000 students annually. As a public institution, MCC operates within a finite budget. As a vital community resource, the college wants the best for students who rely on MCC to prepare them for career and life success. To meet these twin challenges, MCC turned to one of its longstanding solutions providers, HP.

HP recommends Windows.

The leaders at Mesa Community College understand that for the best possible educational experience, students need not only excellent instruction but also ready access to the tools they need to study and learn effectively.

The college standardized for most use cases on HP Compaq Elite All-in-One Business PCs to enhance student access to educational resources. When mobility is needed as well as compute power, MCC deploys the HP ProBook 6570b notebook PC.

“Our organizational mission is to provide the best flexible and responsive learning opportunities for students. But as a community college, we must work within financial constraints,” says Shouan Pan, MCC president. “HP solutions enable us to standardize cost-effectively across campus on high-quality PCs that improve access, enhance how we teach, and support faculty with robust productivity tools.”

Aging, inconsistent technology ups costs

The new PCs replace a computer infrastructure that was aging, costly, high maintenance and unable to meet student access needs. In the past, MCC had a tendency to purchase multiple models and brands of computers. These devices were now between 5 and 10 years old. Maintenance costs were excessive because of high failure rates and because the devices were disparate in hardware type and in onboard software. Their energy inefficiency was misaligned with MCC’s sustainability strategy. This combination created problems for the IT department and for students and staff. Users needed multiple log-in passwords for various applications. Access was limited, as the particular program a student might need would be available only on certain computers in rooms open only at certain times of day—a particularly inconvenient barrier for community college students, who often commute to campus while juggling job and family responsibilities.

“The enterprise had grown disjointed with disparate hardware, software and log-ins,” says Sasan Pouretezadi, MCC vice president of information technology. “To solve this problem, we aimed to standardize the hardware platform; deploy a single computer image unifying application access; and streamline authentication. All of this would improve service to end users while driving down IT costs.”

MCC chooses HP for breadth and depth of offerings

The Maricopa County Community College District, of which MCC is the largest institution, has multiple approved PC vendors, including HP. For its PC refresh, MCC chose HP both for the advantages of the specific hardware solutions and for the overall quality of the relationship.

“HP brought us the significant resources of a large company with innovative products, high quality, fast delivery of large quantities, and all at the affordable pricing we needed,” says Jeff Darbut, MCC vice president of administrative services. “This strong combination of HP advantages presented a compelling and valuable solution.”

MCC also uses HP servers and HP printers. For its datacenters, the college recently purchased 10 HP ProLiant DL380p Generation8 Servers, on which it is virtualizing file, print, database and other campus application services. Four of the 10 servers will be located at a disaster recovery site for better uptime and localized services. The college complements its HP servers with 9TB of HP P6000 EVA Storage. In addition, the majority of printers are from HP. “With its reliable solutions and excellent service, HP plays a pivotal role in the day-to-day operations of MCC,” says IT VP Pouretezadi.

HP Elite AiOs provide durable, sleek design

In choosing a new PC platform, MCC aimed to satisfy a number of requirements. It sought to standardize for simplicity while meeting the varying needs of faculty, staff and student users. The devices needed to be powerful to run demanding applications for courses ranging from interior design to veterinary technology. They needed to be rugged to stand up to heavy student use, and energy efficient to meet the college’s environmental goals. Even appearance was important, since students expect slick design as well as reliable high function.

The answer was the HP Elite series, the most durable, precision-engineered, ruggedly tested PCs HP offers. MCC recently finished deploying 1,000 HP Compaq 8200 Elite All-in-One Business PCs throughout the college, including the Computing Commons at the Southern & Dobson campus, and classrooms and computer labs on both main campuses.

HP AiO common tool for classroom, online hybrid learning

HP recommends Windows.

“The devices are far more powerful than the systems we are replacing,” Poureetezadi says. “The all-in-one form factor eliminates clutter, giving users a more flexible and ergonomically comfortable work environment, while the large 23-inch diagonal display makes it easier to multitask for greater productivity.” Over the next two years MCC plans to deploy another 1,000 HP AiOs to classrooms, labs and instructor stations. It started in the fall with HP Compaq Elite 8300 All-in-One Business PCs. “A key feature is robust video output, which will make it easier for instructors to use the computer stations that connect to audiovisual equipment in the classrooms,”

“The HP Elite All-in-One Business PC uses less space and less power with fewer cords to manage. The setup costs are small, and students are really taken with its state-of-the-art appearance.”

—Jeff Darbut, vice president of administrative services, Mesa Community College, Mesa, Ariz.

Poureetezadi says. For mobile power MCC chose the HP ProBook Notebook PC. “The HP ProBook allows MCC to offer an additional option,” Poureetezadi says. “We use it in classrooms and labs, and for faculty or staff who need mobility, including teachers of online courses. We chose this model because it is powerful, compact and can be used wirelessly.”

Common standards simplify access

With its hardware platform standardized, MCC implemented its vision of unified, expanded resource access. Today, MCC maintains a single computer image that includes a wide range of applications including Microsoft® Office, Adobe® Creative Suite®, IBM® SPSS®, AutoCAD, Maple, Matlab®, SolidWorks®, iTunes® and many others. “The same software is standard on every machine, so whether the student logs into a classroom device, one in a computer lab or in the library, they access the same broad set of resources,” Poureetezadi says. “Before, a user might have to remember four or five different usernames and passwords; now they have just one set; in next stages,

we’ll streamline authentication even more so they sign in just once to access all of their applications. Our goal is to create a user experience so students and faculty can focus on education with seamless technology.” Maintaining a single image—vs. different applications on different machines—also streamlines IT management, he says.

Jim Mabry, MCC’s vice president of academic affairs, works with faculty, department chairs and administrators college-wide to ensure the highest quality educational experience for students. Sometimes he walks with his peers from other colleges through the MCC library—and they ask how MCC has managed to draw so many students, so actively engaged, to the library. Mabry’s answer is that MCC has aligned its educational and technology strategies to student needs. Many MCC students, he explains, live with a digital divide. At home, they might not have modern computers, high-speed network access or even a quiet room in which to study. The college’s new PC infrastructure helps them overcome such obstacles. “Since a lot of students depend on us to provide resources they don’t have at home, it was important for us to provide as ubiquitous access as possible,” he says. “The HP AiO gives them the same computer tool everywhere, with the same look and feel, the same comprehensive software, and extended access hours.”

Another advantage is that the new infrastructure enhances MCC’s ability to offer a hybrid educational delivery model encompassing classroom and online learning. The college uses the Canvas learning management system, integrated with Google Apps for Education™, to provide a password-protected environment for course content, calendar, grade book, e-mail, discussion boards, online quizzes and other material from any Internet-connected computer. MCC offers online courses as well as classroom courses enhanced by online resource access. This multi-tiered approach delivers a flexible, collaborative learning environment that places resources where they are needed—in the cloud or on the ground.

Janice Pierson is co-chair of Applied Sciences and Technology at MCC, and she teaches classes such as interior design and sustainable built environments. The HP AiOs support experience-based styles of teaching and learning, she says. A 2.5 hour studio class, for example, might include a teacher presentation followed by a furniture-design

Customer at a glance

Hardware

- HP Compaq 8200 Elite All-in-One Business PC
- HP Compaq Elite 8300 All-in-One Business PC
- HP ProBook 6570b
- HP docking stations

HP recommends Windows.

exercise using AutoCAD. Outside of class, students enjoy easy and comprehensive access to IT resources. They have no limits to particular computers at particular times; they can go to any campus HP AiO and access any program. With these barriers down, Pierson even sees students helping one another use applications outside their main fields of study. “They’re learning software out of curiosity. That didn’t happen before,” she says. “Also, there’s a lot more collaboration, as students from multiple programs work side by side in multidisciplinary labs. It’s holistic, integrated-systems thinking that tears down silos and expands students’ horizons. It makes them feel part of a bigger whole—like they will be when they advance into careers.”

“MCC relies on HP solutions to cost-effectively improve student access to technology, enhance collaborative teaching, support faculty productivity, and stay at the cutting edge of educational excellence.”

—Shouan Pan, president, Mesa Community College, Mesa, Ariz.

It also saves money. Previously, each academic program purchased its own software. Now bulk purchasing lowers the cost per seat, reducing the impact on individual program budgets. With the money saved, the programs can purchase additional software and hire student tutors to assist their peers to master lab resources. In addition, compatibility issues have been resolved as each device has the same software image.

Lainey Prather is an MCC student studying interior design. A few years ago, she’d signed up for a class that involved the use

of computer-aided design software. But the software was challenging—and even more difficult because Prather’s home system was different than the school PCs. She dropped the course. Now she’s taken it up again and is succeeding this time. What made the difference? One, the software is readily available on every HP AiO, for extended hours. Two, a student tutor is available in the computer lab to help her learn. “Before, access was limited to certain classrooms, when they were not in use,” she says. “Now there’s plenty of availability and someone there to help me if I get stuck.”

Continuously enhancing the educational experience

Just as the new computer infrastructure eliminates silos among students, it also is moving toward integrating faculty collaboration regarding students and new forms of community engagement, says Dr. Sonya Pearson, vice president of student affairs. When back-end systems—such as billing, registration and grades—can be accessed via an unified interface, teachers gain a more complete view of students and can better advise them. “It allows us to serve the whole student rather than bits and pieces at a time,” she says. “It allows us to meet students where they are.” Likewise, system interfaces promise to enhance MCC’s links with its K-12 partners, universities, and community agencies that all work together to support student success.

As MCC advances its educational vision and strategy, it continues to rely on HP for expert guidance as well as technology solutions. A future step will be to take advantage of the Intel vPro™ Technology already embedded in the HP Elite AiOs to further simplify maintenance of campus PCs through remote management. “It’s HP from desktop to data center here,” Pouretezadi says. “MCC relies on HP and the expertise they provide in aligning technology tools to our strategic vision of educational excellence.”

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