



Case Study – Modular Data Center Colocation Arizona State University





At a Glance

The client:

Arizona State University

83,000 students on 4 campuses

✓ The largest public university in the U.S.

15,000 students online

✓ Goal: 100,000

\$405 million in annual research

✓ Goal: \$700 million

The solution:

Colocation at IO Phoenix

One DS module at IO Phoenix

✓ OpEx model for data center deployment

Integrated DCIM software

✓ Power usage analytics to drive sustainability

Tier III certified data center

✓ 100% uptime SLA and 24x7x365 support



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– Gordon Wishon, CIO, Arizona State University



The IT Challenge: Growing Big, Growing Fast

Arizona State University is one of the fastest growing universities in the country. In the last ten years, the on-campus student population has grown 43 percent. Online enrollment grew that much last year alone. Research volumes have tripled in the last decade. And the university plans for that rapid growth to continue, targeting an on-campus population of 85,000, an online roster of 100,000, and research expenditures of \$700 million by 2020.

Growing demand for IT services

Expanding access to more students in Arizona and around the world is an important part of ASU's mission. But rapid growth puts pressure on the university's IT infrastructure and services. "As an IT organization we needed to be prepared from an infrastructure perspective, a scalability perspective, a growth perspective to meet that mission," explains Jay Steed, Assistant VP for IT Operations and Customer Support.

IT also supports ASU's world-class research. "That means providing access to high-speed networking, access to high-performance computing, access to storage to support the range of research activities that

are taking place at one of the fastest-growing research enterprises in the country," says CIO Gordon Wishon.

Decision: Renovate aging on-prem data centers, or colocate?

But four years ago when Wishon came to ASU, the university's IT infrastructure was in no condition to support that kind of growth. He explains, "We had five data centers scattered across four campuses. Not a single one was capable of supporting an institution of this scale and magnitude. The infrastructure simply wasn't up to the standard that would be expected for a world-class educational institution like ASU."

So the new CIO and his team had a decision to make: Invest the resources to renovate and then continue to run those on-premises data center facilities, or find a partner to provide world-class data center services.

The fundamental challenge, as Wishon explains it: "The scale at which we operate places great pressure on our infrastructure – in particular on our technical staff – and on our ability to keep up with demand. The demand curve continues to grow while the resource curve is generally flat. That led us to pursue creative solutions to traditional IT infrastructure needs."





The Solution: “Extending” the Campus into IO

ASU was not alone in facing a renovate-or-buy decision. Steed explains: “There are opportunities that education institutions can either take advantage of or ignore. Many are continuing to ignore cloud opportunities, hosted opportunities, and partnership opportunities. Instead of taking advantage of those opportunities, they continue to build out their own data centers and their own infrastructure, trying [and failing] to keep up with the fully redundant, fully available services that are out there for purchase.”

Not ASU. Facing a renovate-or-buy decision, the university decided to find a partner who could deliver higher quality data center services, for less money. They saw the opportunity with IO, and took it.

A better data center, just down the street

“We have a Tier III data center practically in our backyard,” explains Wishon, referring to the IO data center just four miles from ASU’s main campus. “So it was a fairly easy decision. It made great sense for us to colocate at IO rather than make the capital investment to renovate aging data centers that I couldn’t afford to maintain over the long run anyway.”

The money can be put to much better use, Steed adds. “The University needs those dollars to continue to invest in the faculty and the research and the students and the learning outcomes.”





The Result: IT is Free to Focus on the Mission

ASU considers IO a partner in technology service delivery. Wishon explains, “We do consider the IO data center to be part of the campus, part of our network infrastructure. From the perspective of our own staff it’s as if the data center was on campus. But the support, dependability, reliability, and security that IO can offer is far better than we could ever have afforded ourselves.”

With IO providing data center services, Wishon and Steed’s resources are freed to focus on their core competencies – serving the technology needs of students and faculty. “The availability of the IO data center allowed us to redirect resources to much more important tasks than flipping switches and turning dials – to working side-by-side with faculty and students,” Wishon explains.

“Because we have IO, we don’t need teams of people maintaining the HVAC and the crack units and the power,” explains Steed. “These are the types of things we don’t have to worry about, because we’ve given them to IO. When I get up in the morning I’m not concerned about whether or not my data center is going to be up and running from a facilities perspective.”

Now, Steed says, “We focus resources on actually building out new services. We want to rebuild the infrastructure and rebuild the network to allow for new growth in services as the student population grows.”

Growing big, sustainably

In growing very big, very fast, ASU has also emphasized growing sustainably. IO helps ASU improve the sustainability of its IT operations. Steed explains, “IO gives us greater visibility into our power consumption. We get monitors and tools that allow us to know more about the health of our data center. Those are tools we couldn’t have built ourselves.”





Bottom Line

Colocating at the IO data center in Phoenix, Arizona State University has been able to keep pace with tremendous growth, serving the IT needs of students and researchers on-campus and online. Just four years ago, the university's on-premises data centers were incapable of meeting the needs of a world-class educational institution. In IO, ASU found a data center services provider that could deliver higher quality service at a lower total cost – practically in the university's backyard.

No longer having to worry about the data center, the IT team at ASU can focus on what really matters: delivering sustainable IT services to serve growing student populations and expanding research programs.



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