



Size Does Matter

Phoenix ONE offers nation's largest commercial data center

not all data centers are created equal.” i/o Data Centers’ motto based on the most-recognized phrase of the U.S Constitution took on new meaning when the company recently opened the doors of its new 538,000-square-foot Phoenix ONE facility. The new data center claimed its own place in U.S. tech history as the largest commercially available data center in the nation.

“Phoenix is an ideal location for a data center of this magnitude because of its abundant power supply, outstanding network access and lack of natural disasters,” says Anthony Wanger, i/o Data Centers president and founder. The company also moved its headquarters to the 31-acre campus.

Phoenix ONE is home to one of the largest, highest-powered data centers commercially available, and includes a private electric-utility substation. The substation will eventually be expanded from 40 megawatts of power to 120 megawatts.

But if you think the power grid is in for a big hit, think again. Going green was foremost when the former bottling site of LeNature’s Beverages was refurbished to become the center. The intent was to reduce the facility’s overall carbon footprint.

For example, a top priority for any data center is to keep things cool (even in an Arizona summer). The facility’s design maintains the coldest water, however, with the least amount of energy consumption combined with high-efficiency heat exchanges. Working together, they leverage free cooling bypass and outside air temperature to cool chilled water. The center also uses ultrasonic humidification with its sealed cabinets to reduce energy consumption by 200 percent.

Also, there is a pressurized floor plenum that separates cold air supply from warm air return. At the heart of this efficiency is use of raised floors created by Tate Access Floors. Workers installed 180,000 square feet in each of the first two phases with the final 100,000 square feet scheduled for completion by Sept 1.

The use of raised access floors with under-floor service distribution allows the center to handle high heat loads in the most energy-efficient way. Cool air can be supplied closer to the server racks along with various integration strategies to accommodate lower fan speeds and higher temperatures while taking advantage of displacement ventilation. In turn, there is a cut in operating costs, along with facility and maintenance costs.

Sustainable energy will be at work, too. A bank of solar panels generating up to 4.5 megawatts of electricity will help supply the needed power.

The center also has access to dozens of telecommunications, Internet and other carriers because of its location next to one of the largest joint fiber trenches in the country. However, Phoenix ONE will remain carrier and network neutral, and will not charge cross-connect fees. This means customers are free to choose the best carriers for their needs.

Such access is a plus for other corporate clients doing business in the remaining 80,000 square feet used for office space. “Because of the success we had with our Scottsdale ONE facility, we were able to pre-sell some space at this new facility,” Wanger says.

The 125,000-square-foot Scottsdale ONE is the site of the original data center and former headquarters. It’s still very much part of the company, which plans to add two “pods” to accommodate growth from both new and existing customers.

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