Market Segment: Data Center

POWER PROFILE

IO Data Centers

At 538,000 square feet (50,000 square meters) IO Data Centers' Phoenix facility is ranked among the 10 largest data centers in the world by Data Center Knowledge. To meet customer need, the facility is expanding, adding another 180,000 square feet (16,700 square meters) of usable, raised-floor data center space.

CUSTOMER
IO Data Centers

LOCATION
Phoenix, Arizona

CUSTOMER BUSINESS ISSUE
Back-up power for mission-critical data center

SOLUTION
58 MW of Cat® 3516 generator sets

27 MW of Cat uninterruptible power supply (UPS) systems

Cat paralleling switchgear

CAT DEALER
Empire Power Systems

POWER NEED
IO designs, engineers and delivers data center infrastructure for the world's largest enterprises, governments and service providers. The company owns and operates data centers for hundreds of customers, and has leveraged this experience to build a next-generation Data Center 2.0 technology platform. IO, founded five years ago, is a privately held company headquartered in Phoenix, Arizona.

IO Data Centers' Phoenix facility is ranked among the 10 largest data centers in the world by Data Center Knowledge. The center occupies 538,000 square feet (50,000 square meters) and is located at the company's headquarters. To accommodate growth, the company is expanding at the site to include another 180,000 square feet (16,700 square meters) of usable, raised-floor data center space.

Company management attributes this growth to a keen awareness of the future landscape of data center solutions, its customers and their business needs. "We design and build data centers based on what our customers' needs are. We don't build speculatively," said Andreas Zoll, vice president of engineering and development for IO. "We are in a mission-critical industry and we have a proven track record of success."

SOLUTION
To ensure its back-up power systems are reliable, and to meet on-going growth needs, IO selected Cat® dealer Empire Power Systems to provide back-up power system solutions for its data centers in Phoenix and Scottsdale, Arizona.

The IO Phoenix site is currently served by a dedicated, on-site substation expandable to 120 MW. Empire Power Systems has deployed and supports more than 27 MW of uninterruptible power supply (UPS) systems and 58 MW of Cat 3516 back-up generators. The generator sets feed into Cat paralleling switchgear. Upon completion, full build-out will consist of additional paralleled Cat generator sets, as well as additional Cat flywheel UPS systems.

"The selection of Cat products boiled down to reliability and availability," Zoll noted. "In our work, we can never afford to lose power to our facility. If something goes wrong with an engine generator, or if we need a spare part on Christmas Day or the day after Thanksgiving, we want to be teamed up with a company that has a large global footprint, and that has a very good stock of parts in its service center to respond to what is needed right away. This is the major reason that we are so closely partnered with Empire," he said. "We benefit from that level of service, where we need it and when we need it."

RESULTS
With all the expansion it is experiencing, IO Data Centers has a service agreement with Empire Power Systems, and relies on the Cat service team to keep its generator sets run-ready.

"When you look at Empire here in the Southwest, it's really an ideal company with which to partner," Zoll said. "Empire has an enormous footprint here in Phoenix, and the staff members who are installing and servicing the equipment are very

knowledgeable. From Caterpillar to Empire Power Systems representatives, they provide the complete package of quality products and quality service."

Doug Gooch, Empire's account manager for IO Data Centers, said his team takes its responsibility very seriously.

"We look at IO as if it were a prime power application — it can't have power go down, not for a moment," he stated. "Power integrity is fundamental to IO and its customers and we do everything possible to keep IO ready at all times."

Fortunately, IO Data Centers has never experienced a power outage. But Zoll takes comfort knowing that IO's infrastructure is supported by the Cat team's expertise.

"At IO, if we know someone has a proven track record for providing high-level, quality service, we like to work with them over and over," he said. "We have that situation with Empire. We completely trust their ability to provide parts, service and maintenance that ensure the reliability of our power system."

For more information, please visit www.catelectricpowerinfo.com/pp.

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