

POWER PROFILE

Customer: Aligned

Location:

Plano, TX

Customer Business Issue:

Standby power, firming

Solution:

3516C diesel generator sets (56)

Cat® Dealer:

HOLT Cat



Aligned is an infrastructure technology company that offers sustainable and adaptable colocation and build-to-scale solutions for cloud, enterprise, and managed service providers.

POWER NEED

Last year's sudden and unforeseen COVID-19 crisis revealed what was already becoming obvious—technology has infiltrated almost all aspects of daily life, creating more and more data that needs to be processed and stored, optimally in a purpose-built data center.

When the global pandemic hit, almost instantly a massive number of workers around the world were working from home and needed to stay productive. Patients could no longer visit their doctors in person, so telemedicine use exploded. Students started taking virtual classes that were never anticipated, while social media use greatly increased because of social distancing requirements. Physical retail locations were forced to close as reliance on e-commerce continued its upward trend.

Meanwhile, it is becoming increasingly time-consuming and expensive to manage data in-house. More companies are outsourcing their data operations to third-party providers that specialize in data center operations. Colocation data centers are especially popular because they provide physical space, power, and cooling systems for servers and connections to local communication networks.

As data centers continue to proliferate, one company experiencing rapid growth is Aligned. Based in Plano, Tex., Aligned's employee roster has doubled from two years ago, with further growth anticipated this year and next.

With locations in Dallas, Phoenix, Salt Lake City and Ashburn, Va., Aligned is an infrastructure technology company that offers sustainable and adaptable colocation and build-to-scale solutions for cloud, enterprise, and managed service providers.

As a result of the pandemic, the company saw an exponential increase in leasing activity, enabling Aligned to achieve its growth target for 2020 within a 60-day period, according to CEO Andrew Schaap.

"Customers who bought from us a year ago thought they had enough capacity for the next three to five years of growth, maybe even 10 years of growth," Schaap says. "And three months later they ended up coming back to us and doubling their capacity. One of our clients bought from us three more times. They basically tripled the size of their deployment due to continued massive growth of their infrastructure, which means they need more capacity inside of our facilities."

Beyond the more visible technologies that are required to run applications that people find on their phones and other devices, there is an enormous unseen realm of business-to-business applications that collect massive amounts of data, such as the building management system at Aligned's headquarters. And all of this data needs to be housed somewhere.

"It's a very diverse group of clients in our facilities," Schaap says. "We have Fortune 100 companies sitting next to companies that you've likely never heard of. And they're big companies that are publicly traded, but not household names because they're involved in business-to-business support functions. And they're experiencing massive growth in their businesses due to the acceleration of everything being pushed online—everything is being digitized."

SOLUTION

Due to the mission critical nature of data centers, which must guarantee 100 percent uptime and reliability to clients 24/7, Aligned's explosive growth necessitated rapid procurement and installation of 56 generator sets within a five-month period at its locations across the country.

Last year, Aligned called on HOLT Power Systems to deliver the 3516C diesel generator sets within a short time frame. The Cat® dealer's role is to procure the generator sets, while also providing packaging that includes the fuel tank, emissions aftertreatment system and the generator enclosure.

The generators provide backup power in the event grid power is lost, or during times when transmission reserves on the utility grid are depleted and power sags.

"You need to have some type of backup energy when renewable energy sources such as solar and wind experience a decline," Schaap says. "And Caterpillar is one of these partners that we rely on to help fill in that gap."

An emphasis on sustainability has worked to Aligned's advantage. The company currently matches 100 percent of its IT load with renewable energy across the entire data center portfolio. Additionally, Aligned has a goal of matching 100 percent of its annual energy consumption with zero-carbon renewable energy by 2024.

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“Green is sustainability, but green is also total cost of ownership,” Schaap told the *Dallas Business Journal*. “Aligned has a wonderful story when it comes to the cost of ownership, being highly efficient in the way we deploy and in the way we operate, which lowers the total cost of ownership.”

Aligned’s client base is very conscientious about what constitutes sustainability, Schaap adds.

“They’re thinking about it all the time and being held to high standards on their own sustainability goals, so we become a component of their overall sustainable strategy and story,” he says. “And our focus has been received incredibly well. We think being green is good for our bottom line, and also good for our customers and our partners.”

RESULTS

Having enough inventory on hand was critical for the average 12-week turnaround from generator delivery to installation and commissioning, according to Tom Angotti, power systems manager for HOLT Cat. Another key element is that all of the Cat generators are the same model, which enables standardization of packaging, as well as parts and service support, Angotti said.

Growing demand, due in large part to the pandemic and accelerated digital transformation, called for additional generators outside of Aligned’s original forecast—delivered and installed within a short time frame.

“We had a couple of very large transactions hit last year, and had to call the Cat team to order more generators to accommodate that growth,” Schaap said. “Basically, we needed them to help us out on short notice and be especially nimble. It’s really a testament to the relationship and the supply chain strength that we have in a partner like Caterpillar.”

Adds Israel Segura, director of procurement for Aligned: “I’d love to say that we saw this coming, but a lot of these weren’t ordered until probably April or May and today they’re all fully installed and commissioned, whether it’s in Utah, Ashburn, or Phoenix.”

Given that Aligned’s data centers are spread across the country, they rely on the Cat dealer network to perform preventive maintenance and technical support on an as needed basis.

“Whether it’s HOLT Cat, Empire Southwest or Carter, Caterpillar has a local dealer that’s typically there within the same day,” Segura says. “Our operations folks have the phone numbers of the technicians, so typically within an hour we’re going to have a full report in terms of what’s going on and a technician will come out to rectify any potential issue.”

The rapid deployment and installation of such a large number of generator sets was made possible by the partnership between Aligned and HOLT Power Systems. Schaap recalls an initial meeting in 2018 where 10 representatives from Holt and Caterpillar showed up, which signaled a high level of commitment.

“The whole Cat team has the same vision that I do, which is business built on a foundation of great technology and great infrastructure that is executed by great people,” he says.

“In our world, everything is mission critical, so what we are engaged in depends upon establishing higher degrees of trust,” Schaap says. “You can have great technology and great infrastructure, but if you don’t have great people, you’ll get some wins. But eventually you always have hurdles—things that happen in the course of a day or a year. When something like a global pandemic hits, what do you do?”

“Things will happen, so you have to have good people that stand behind their product and say ‘We’re going to work with you as a partner and do whatever it takes,’” Schaap continues. “The Cat product speaks for itself, but the reason we chose them was because of the high level of commitment from their people.”

“Across the board, I couldn’t be more thrilled with the partnership, the products and how we work together as a team.”



To guarantee 100 percent uptime and reliability to clients 24/7, Aligned’s explosive growth necessitated rapid procurement and installation of 56 generator sets within a five-month period.