

Speed and Scale, **Delivered**

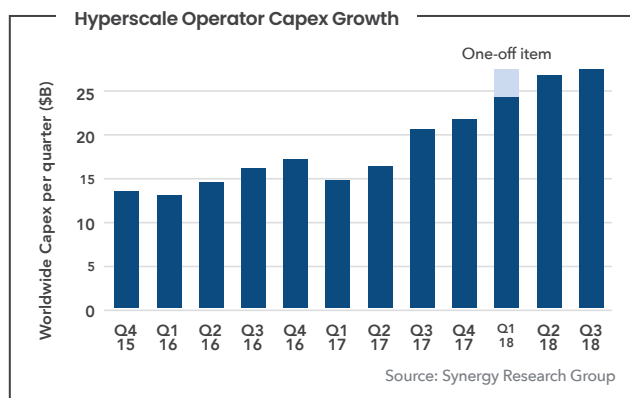
CASE STUDY



Hyperscalers, platform and cloud providers, and enterprises deploying high-density compute typically require large-scale infrastructure deployments and specific timelines, fast-tracked to meet immediate business expansion needs. These organizations generally deploy their required power capacity in a high-density environment, but also want scalability options. To support the flexibility of their ever-changing IT roadmap, Aligned employs an advanced supply chain methodology in building data centers, ensuring that these companies are able to achieve the necessary speed-to-market and scale with minimal exposure to a variety of risk factors.

BACKGROUND

For companies focused on maintaining existing or expanding into new markets, predicting usage and growth models is fast becoming a complex challenge. Connected by high-capacity private networks with end-user access via cloud on-ramps and next-generation internet exchange (IX) platforms, these organizations are increasing investments in existing sites, adjacent land parcels and established data center markets. However, unprecedented growth and scalability demands are outpacing what they can produce in their existing data centers.



CHALLENGES

Hyperscalers, platform and cloud providers, and enterprises using high-density computing face multiple risk factors when planning new data center deployments. Chief among these are financial risk and ensuring on-time project delivery. Staffing concerns and equipment quality issues that can lead to downstream operational liabilities are also at stake in platform delivery. Simply put, power and cooling equipment must arrive on time and be operational according to specified design parameters. Troubleshooting infrastructure in the field extends project timelines and inflates overall cost.

Additionally, new locations are becoming more difficult to predict even as access to green energy resources and the ability to accommodate exponential platform growth are becoming business critical.

Supply Chain



SOLUTION

To ensure on-time delivery and mitigate financial and other risks to customers, Aligned employs an advanced supply chain methodology to data center builds that is founded on four main pillars:

I. Standardization

Aligned's inventory program is one of the major pillars that we employ in both the mechanical and electrical supply chains. We provide electrical inventory in the form of a standardized kit that encompasses medium-voltage power distribution all the way down to the Power Distribution Unit (PDU). On the mechanical side, we provide a complete cooling inventory program from heat rejection to heat absorption. A byproduct of standardization, having inventory is the number one risk mitigator when it comes to delivering on time.

II. Scalability

Our technology is incrementally scalable, which allows customers to deploy infrastructure where and when they need it, and reconfigure quickly and seamlessly (and usually within the same footprint) as their requirements change.

III. Prefabrication

Aligned prefabricates power and cooling equipment for fast, easy and efficient deployment and scalability. From construction to production, our equipment is factory built and tested. We take the installation of the most critical equipment out of the field and bring it into the factory. Compared to on-site assembly, prefabricated components accelerate project timelines and reduce cost. At any given point in time, Aligned vendors hold an approximately 50 MW, auto-replenished pool of available inventory, ready for immediate deployment and comprised of prefabricated, factory-built and tested power and cooling equipment.

IV. Simplicity

Leveraging proven technologies and partners, Aligned's intelligent infrastructure allows the delivery of data centers as a utility, providing customers with a simple and repeatable model for expansion in new or existing markets.

RESULTS

By employing this advanced supply chain methodology, Aligned provides adaptable infrastructure that enables customers to deploy quickly and have the ability to scale in place as their businesses grow.

Aligned can provision initial deployments of 2 to 20+ MWs of capacity, and scale beyond in as little as 12 weeks. Additionally, our advanced supply chain methodology enables scalability within the same footprint for years. This allows customers to truly future-proof their IT environments in the wake of unpredictable usage and growth models that are becoming table stakes due to dynamic and increasing business demands.

Aligned's future-proof wholesale colocation and custom, build-to-scale data center solutions can support power densities up to 50 kW per rack, while maintaining industry-leading Power Usage Effectiveness (PUE). Reliable and sustainable, Aligned provides 100% uptime SLA in Tier III certified data centers, while our efficient platform saves up to 80% energy and 85% water.

Macquarie Infrastructure Partners

Aligned received a strategic investment from Macquarie Infrastructure Partners, an investment fund managed by Macquarie Infrastructure and Real Assets (MIRA). MIRA is a division of Macquarie Asset Management,

the asset management arm of Macquarie Group, a diversified financial group providing clients with asset management, banking, advisory and risk and capital solutions across debt, equity and commodities. As of its most recent reporting date (March 31, 2018), MIRA had assets under management of ~\$US119 billion invested in ~148 portfolio businesses, ~300 properties and ~4.5 million hectares of farmland, including ~5GW of renewable power generation projects.

Macquarie is one of the founding members of the Climate Finance Leadership Initiative (CFLI), convening six influential financial sector leaders to help facilitate the private financing objectives included in the landmark Paris Agreement. Macquarie CEO Shemara Wikramanayake is also a founding commissioner of the UN's Global Commission on Adaptation. In April 2017 a Macquarie-led consortium invested in the Green Investment Bank creating one of Europe's largest teams of green energy investment specialists.

ABOUT Aligned

To learn more about Aligned and its colocation and build-to-scale solutions to cloud, enterprise, and managed service providers, visit www.aligneddc.com or email sales@aligneddc.com.