



Colocation buyer's guide

Aligned Energy's Phoenix Data Center

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Data center colocation in Phoenix, Arizona

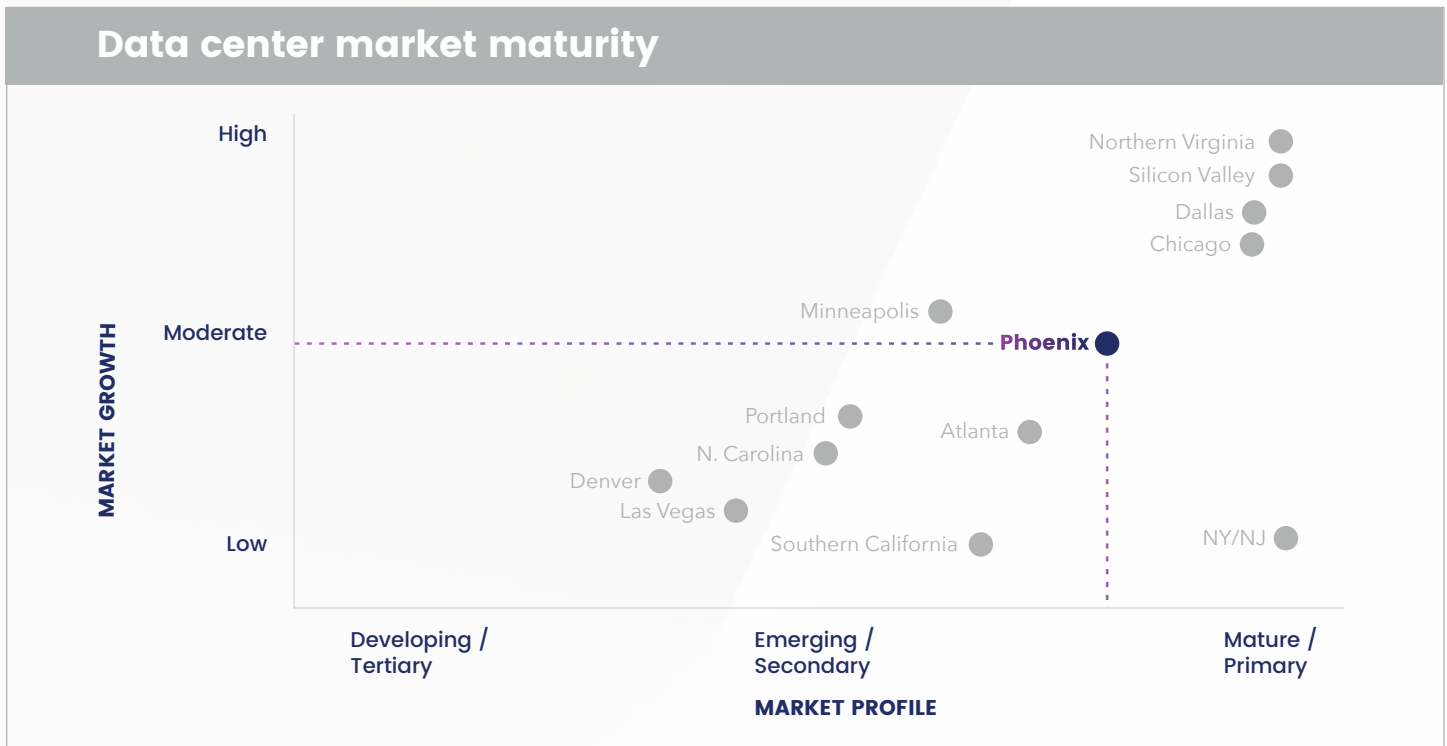
Demand for Phoenix data center space comes in large part from West coast companies looking to move to a lower cost, less disaster-prone location without increasing latency significantly. The largest user base in Phoenix is the technology industry, though there is strong demand in the banking & financial services and retail & ecommerce industries as well. As the Greater Phoenix Economic Council (GPEC) explains it, "With an abundance of skilled talent, creative spaces and an inclusive culture, the region's ecosystem supports emerging technology companies as they establish their operations and go to scale."

"Market trends demonstrate an increased absorption by cloud and Software-as-a-Service (SaaS) companies," writes the real estate services firm JLL in its 2016/17 data center outlook report. "This trend has been a result of the migration by enterprises away from traditional data center build-outs as they transition their infrastructure and software needs toward a public or private cloud environment."

JLL calls Phoenix a "user-favorable market" that "provides competitive pricing and flexibility as new supply is delivered." The real estate firm called out Aligned Data Centers' new facility specifically, saying that new contiguous space will be available in Phoenix when the first phase of our 550,000 square-foot, 62 MW full build data center opens. And a trend that aligns well with our offering, "tenants are beginning to prioritize flexibility for expansion or reduction in square footage and power density," according to JLL.

"Demand remains solid in the Phoenix market. It is seeing steady overall growth compared with many other top North American markets. There has been demand from West Coast, Midwest & East Coast companies for wholesale space to support secondary & disaster-recovery deployments, & this will likely continue in the future, though it's not uncommon for an enterprise customer to locate its primary data center in the Phoenix market."

451 Research



In short, Phoenix is a great place for data center colocation. It's why we chose Phoenix as the strategic location for our second data center - because it is one of the strongest data center markets and tech hubs in the United States.

Colocation customers' success hinges on the ability to ensure 100% uptime, while quickly and seamlessly adapting as circumstances change. That's why we've created a colocation solution specifically designed to meet and exceed critical industry standards for reliability, availability, security, and efficiency. Our adaptive data center grows with you - size to your requirements today, provision capacity on demand as your needs evolve.

Aligned Energy colocation Phoenix highlights

Holistic view of footprint-level, rack-level, cooling system, and power system performance and utilization that enables better decision making

- › 100% uptime SLA
- › Contiguous and variable standard and high density power (up to 50 kW per rack)
- › Guaranteed 1.15 PUE
- › Designed to Tier III standards
- › 1.5 MW ready to provision today, with multiple MW's of additional capacity deliverable in less than 12 weeks
- › Client portal included with colocation footprint; premium options available
- › Easy to do business with, while offering outstanding customer support

5 Facts about the phoenix data center market

Here are 5 reasons why we chose Phoenix, why experts like JLL and CBRE call it a top data center market, and you might want to consider it too.

1. Extremely low risk from natural disasters

Phoenix's geographical location gives it a low risk of earthquakes, tsunamis, hurricanes and wildfires, according to data from the National Oceanic and Atmospheric Administration, University of Miami, and U.S. Geological Survey. Phoenix offers less risk of downtime and greater physical security for your infrastructure.

2. It's a great place to do business

The cost of doing business in Phoenix is below the national average, according to PriceWaterhouseCoopers. Greater Phoenix scores below the national average in cost of living categories such as groceries, housing, utilities, transportation and healthcare. The Greater Phoenix Economic Council (GPEC) points to the lure of affordable and diverse housing and low personal income and property taxes.

3. 20-Year exemption from sales tax can mean millions in savings

Because Aligned Energy's Phoenix facility is a "sustainable redevelopment project" our colocation tenants receive a 20 year sales tax exemption on IT equipment so long as they contract for 500 kW (or more) per month for 2+ years. The savings is significant - millions of dollars in many cases.

4. Reliable, affordable power supply

Arizona public utilities generate power from a variety of stable sources and, according to the U.S. Energy Information Association, charge substantially less per kWh than other Western states. According to JLL, the average power rate in Phoenix dropped from 6.5 cents per kWh in 2012 to 6.24 cents per kWh in 2016.

5. Connectivity is strong

Internet connectivity is robust with a heavy concentration of top-tier telecommunication providers. According to the Ookla Net Index, Internet speed and mobile networks in Phoenix are among the country's fastest. Plus, a high concentration of network providers engenders competition, and gives you options.

“Companies view Phoenix as viable consideration for data center requirements because of the short latency to California while decreasing power and tax costs.”

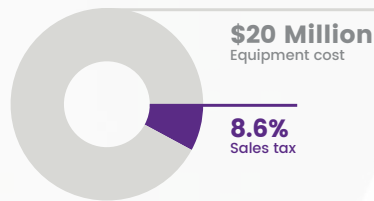
**JLL North America
Data Center Outlook, 2017**

The 20-year sales tax exemption: what you need to know

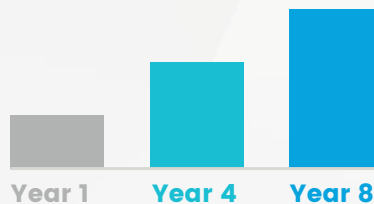
In Arizona, qualified data center owners, operators, and tenants are exempt from state, county and local Transaction Privilege Tax (TPT) and Use Tax (i.e., sales taxes) for purchases of data center equipment. Aligned Data Centers in Phoenix is qualified, so customers that contract with us for at least 500 kW per month for 2+ years will get the sales tax exemption - for 20 years.

This is yet another reason why Phoenix is a top-ten data center market. To get the details, see our blog post on Arizona's 20-Year Exemption from Sales Tax Can Mean Millions in Savings.

No sales tax exemption
\$21.7 Million
Total equipment cost



With sales tax exemption
\$5.1 Million
Accumulated savings



“The cost savings we’ll achieve, combined with Aligned Energy’s advanced heat removal technology, transformative pricing model as well as their highly-experienced management team, makes them the perfect partner for the long haul.”

Cyberverse / IT Service Provider

Aligned Energy— adaptive data centers for dynamic it

Why Aligned Energy

- > **Scalable.** We can provision 1.5 MW today with multiple MW of capacity delivered in less than 12 weeks
- > **Future-proof.** Our technologies are here for you today and tomorrow, with power densities up to 50 kW per rack and guaranteed 1.15 PUE
- > **Reliable.** We're highly reliable - offering a 100% Uptime SLA in Tier III certified centers
- > **Sustainable.** Our efficient platform saves up to 85% water and up to 80% energy
- > **Easy to do business with.** Flexible, adaptable and easy to do business with - all while offering outstanding customer support

“For enterprise users evaluating their data center requirements in 2017, the evolution of pricing models & contract terms should be a key consideration in any strategic decision.”

**Pat Lynch / Managing Director
of CBRE Data Center Solutions**

Phoenix data center specs at a glance

2500 W Union Hills Drive Phoenix, Az 85027

- > 55 Acre site
- > 550,000 square feet
- > 62 MW critical capacity today (120 MW at full build)

Power & cooling

- > Up to 50 kW rack contiguous, day one
- > 2.25 MW concurrently maintainable UPS block

Utility

- > Dedicated substations with five diverse points of entry

Network

- > Level 3
- > Zayo
- > SRP
- > Cyberverser
- > Cox
- > CenturyLink

Compliance

- > SSAE SOC Type 1
- > PCI DSS
- > HIPAA and HITECH
- > NIST 800-53

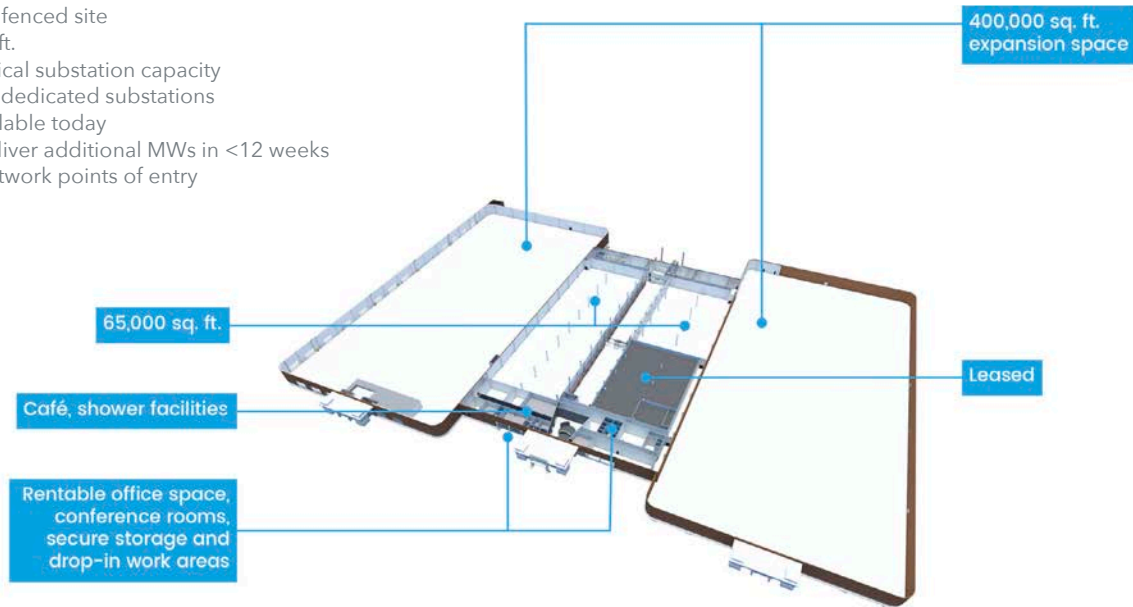
Phoenix, AZ Data Center

Colocation site specifications



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- > 55 acre fully fenced site
- > 550,000 sq. ft.
- > 120 MW critical substation capacity
- > Diverse and dedicated substations
- > 1.5 MW available today
- > Ability to deliver additional MWs in <12 weeks
- > 5 diverse network points of entry



General

Renovated	2016
Campus	55 Acres
Total Building SF	Full build: 550,000 sq. ft.
Total Data Hall SF	Full build: ~300,000 sq. ft.
Building Construction	Concrete slab-on-grade and structured steel
Structure	Three interconnected multi-tenant buildings ASCE7 occupancy category IV. Data Hall FM-120 and Office FM-90 roof lift ratings Wind importance factor of 1.15
Loading Dock	Three bays with delivery platform and equipment trap
Office Space	Dedicated office space for rent: on-net and UPS-backed Shared: conference rooms and drop-in office pods
Storage	Space available for rent
Access	24/7/365
PUE	Guaranteed 1.15
Design	Built to Tier III facility and design standards
Reliability SLA	100% Uptime SLA

Telecom

Points of Entry	Five diverse conduit entrances
Carrier Neutral	Multiple carriers
Carriers	CenturyLink, Level(3), Cox, SRP, Zayo, Cyberverse
Meet-me-rooms	Three diverse MMRs

Power

Utility Power	Diverse and dedicated substations: 62MW Phase 1 expandable to 120MW
UPS	2.25 MW concurrently maintainable UPS blocks
Generators	N+4 power generation using N+1 "4-engine" blocks
Distribution	Redundant A+B distribution
Power Metering	Revenue-grade, transparent/real-time metered at the PDU and rack level

Phoenix, AZ Data Center

Colocation site specifications



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Security & compliance

Facility Perimeter	8' Impasse steel security fencing with laser intrusion detection
Entrance	Five layer security design; Motorized gates
Access Gates	Card reader access
On-site Security	24x7x365 with security guards
Facility-wide Features	Multiple check-points: mantraps, dual-authentication (biometrics and RFID badge readers) Event driven IP video surveillance and visual light-based alerts
Compliance	Service Organization Controls (SOC) 2, Type 1 PCI DSS HIPAA and HITECH NIST 800-53 for Colocation Services

Fire protection

Zones	Separately zoned data halls
Smoke Detection	VESDA (Very Early Smoke Detection Apparatus)
Sprinkler System	Dual interlock pre-action (data halls - MMR - critical equipment)

Cooling

System	Our hot aisle containment strategy absorbs heat at its source - supporting standard and high power densities and allowing you to scale vertically and horizontally - without stranding capacity.
Reliability	Configurable to client needs (i.e. N, N+1, 2N)

Sustainability

Water	Uses up to 85% less water
Power	Uses up to 80% less power

Arizona data center sales tax exemption

Because Aligned Energy's Phoenix facility is a "sustainable redevelopment project" our colocation tenants receive a 20 year sales tax exemption on IT equipment so long as they contract for 500 kW (or more) per month for 2+ years.

Learn more

Phoenix colocation market resources

- › [JLL, 2017 Data Center Outlook North America](#) (PDF)
- › [JLL, Phoenix real estate trends and resources](#)
- › [CBRE, 2017 Real Estate Outlook](#) (PDF) - data center section begins on page 35
- › Greater Phoenix Economic Council (GPEC), [Market Intelligence Overview for Phoenix](#) (PDF)
- › Arizona Commerce Authority, [Information on Arizona's Computer Data Center Tax Incentive](#)
- › [Aligned Energy's Phoenix data center](#)

Explore colocation at Aligned Energy's Phoenix data center

Schedule a conversation with one of our sales engineers

Call **800.232.2817**
or email sales@alignedenergy.com

About Aligned Energy

Aligned Energy is an infrastructure technology company that offers colocation and build-to-scale data center solutions to cloud, enterprise, and service providers. Our intelligent infrastructure allows us to deliver data centers like a utility—accessible and consumable as needed. By reducing the energy, water, and space needed to operate, our technology innovations offer businesses a competitive advantage by improving reliability and their bottom-line, while helping secure the health of the planet.

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