

Monday, 6 September 2010  
5:08 PM



## Tier1Research

### i/o breaks out of Phoenix with i/o Anywhere modular datacenters

Datacenters and Colocation

by Jason Schafer

July 26, 2010

Anyone familiar with the Phoenix area knows **i/o Data Centers** – it is the big kid on the block in the Phoenix metro area and is the clear dominator of the colocation and managed services market in Phoenix, with a little bit of wholesale flavor thrown in.

We believed that 2010 was going to turn out to be the year of the container, where enterprises and end users that were running out of datacenter space kicked the tires on datacenter 'containers,' which is to say the IT boxes from the larger server manufacturers, under what we thought were misguided assumptions that they would alleviate their datacenter constraint problems. We still believe we are going to see some container movement this year; but it's turning out that the modular datacenter arena seems to be progressing much more quickly than anticipated. We've seen modular datacenters come from folks like **BladeRoom Group**, **GreenEdge Data**, and most recently, **Colt**; and we are aware of several others that are in the works as well. **i/o Data Centers** recently disclosed its modular datacenter, which it calls **i/o Anywhere**.

For traditional datacenter builders and developers, the modular datacenter is a way to stay competitive in the market to bring datacenters online faster and more affordable to yield datacenters that are more efficient and ideally more reliable. Historic datacenter construction has taken 1-2 years (in some cases more); and this makes planning an impossibility and speculative building a necessity to keep up with demand. One of the challenges, therefore, is to be able to scale to datacenter customer needs at the speed desired/required. Additionally, for **i/o**, as its target customer is the enterprise user (not the big dogs like **Microsoft** and **Yahoo**), the company revealed that it was continually involved in conversations with customers/potential customers along the lines of 'your service is great and we'd like to expand in X market, but you're only in Phoenix so we can't.'

This is to say that **i/o** has been somewhat constrained by its own regional geography – a point that is relatively common for the smaller, secondary markets. **Peak 10** and **ViaWest**, for instance, have established a strong local presence in the markets in which they reside; and they have done phenomenally well (though keep an eye on **ViaWest** – it may not be such a small player for much longer). This is one of the side effects that datacenter prefabrication and modularity will have on the industry, which is to say that regionalization won't be as concentrated – when the datacenter is mobile and agile and can be deployed anywhere, competition grows to a national (and potentially global) scale.

#### The specs

**i/o** disclosed that the datacenter, which is not constrained by conventional ISO container 20' or 40' form factors but, instead, has more of a look/feel of the traditional datacenter, is available in sizes from 200 critical kW up to 3 critical MW (with redundancy). Everything in support of the datacenter operation is part of the overall package – including the main power generation equipment. One of the configuration options of **i/o Anywhere** is the inclusion of gas-powered turbines, which is configured as the main power source, requiring a natural gas supply. Diesel generators are used as the backup; and utility is also connected to act as a tertiary supply in normal operation or main supply in the event gas turbine engines are down for an extended overhaul period (which is a regular maintenance requirement for these engines).

**i/o** indicated that it will deliver its **i/o Anywhere** product to customer-owned locations, although it still manages the datacenter and the products and services therein (which is to say that **i/o** does not sell the modular datacenter itself as a product). The only requirements for **i/o Anywhere** that is located on a customer's site is to ensure the location is suitable real estate-wise (enough physical real estate), a minimum 50' x 50' warehouse-type environment for security and weather element protection, utility power (and/or natural gas feed), water and communication carriers. Each module houses 18 standard racks on a raised floor up to a density of 10kW per rack. **T1R** thinks this is a reasonable power density with headroom for most customers of multi-tenant environment to expand (we find that the current average densities of 5-6 kW/rack are still very common and sufficient for most users).

#### How fast?

One of the advantages of datacenter modularity is speed to market through the refinement of the build process and pre-fabrication of components. So how fast can **i/o** deliver its **Anywhere** datacenter? The firm indicated that it can have a datacenter ready to receive rack equipment within 120 days, assuming the site is properly prepared. This includes installation, start-up and commissioning/testing. **T1R** thinks this is an impressive timeline, especially considering the lead times on the more critical pieces of equipment (such as generators, gas turbine engines, switchgear, chillers, etc). This is impressive, but we remain skeptical and look forward to seeing real, in-the-field verification of this timeline. **i/o** revealed that it currently has two such projects planned – one in New Jersey (1 critical MW) and one in South Carolina (800 critical kW). We expect that these sites will be delivered well within the time period **i/o** estimates – the real test will be when the company receives little notice from customers. Then the supply chain and delivery process will truly be tested. That being said, however, **i/o** seems to have fairly significant leverage with its equipment suppliers and has seen enormous success with its existing facilities.

#### T1R take

**T1R** continues to be impressed with the innovation we're seeing on the modular datacenter front. **i/o's Anywhere** datacenter is a little different from others we've seen (**Colt's** being the most similar, though it is still quite a bit different). The difference with **i/o**, however, is that it is not turning into a supplier of datacenters where it was historically a colocation/managed services provider. Its core business remains the delivery and operation of 'always on' datacenters, and its **Anywhere** datacenter is another way for the company to spread its

wings. It will be exciting to see the product mature. We expect the national (and global) datacenter competitive landscape to heat up significantly as modular datacenters become more mainstream and less confined by geography.

© Copyright 2010, Tier1Research.com. All rights reserved.