

COLOCATION

Server Hosting and Managed Services



1-877-4-PHXNET

<http://www.phoenixnetworks.net>

Phoenix Networks and Design

21 February 2006

Colocation Checklist

PHOENIX NETWORKS AND DESIGN



How does the competition stack up?

Phoenix Networks encourages prospective clients to look at the competition. This is because Phoenix Networks is confident that not only do we surpass the industry standard, we surpass our competition.

The following is a checklist of things you should consider when selecting a colocation facility and managed services partner.

PHOENIX NETWORKS

No interruptions to power or connectivity since opening of facility (1995)?	<input checked="" type="checkbox"/>			
Operates under 50% utilization for bandwidth?	<input checked="" type="checkbox"/>			
Operates under 50% utilization for power?	<input checked="" type="checkbox"/>			
Same power-grid priority access to power as hospitals, fire, and police?	<input checked="" type="checkbox"/>			
Dual power feeds from both APS and SRP?	<input checked="" type="checkbox"/>			
Dual automatic power transfer switches?	<input checked="" type="checkbox"/>			
Diesel generator backup system with redundant local fuel supply contracts?	<input checked="" type="checkbox"/>			
Dual facility redundancy (Two independent facilities linked by active fiber)	<input checked="" type="checkbox"/>			
Fully redundant water chillers, blowers, and pumps? (N+1 on all devices)	<input checked="" type="checkbox"/>			
Fully redundant uninterruptible power supplies?	<input checked="" type="checkbox"/>			
Completely redundant network equipment? (Routing, Termination, etc)	<input checked="" type="checkbox"/>			
Completely redundant active incoming fiber from all carriers?	<input checked="" type="checkbox"/>			
Inergen Fire Suppression System with Incipient Detection and Dry-Pipe?	<input checked="" type="checkbox"/>			
24/7/365 Onsite Professional Security Guards	<input checked="" type="checkbox"/>			
24/7/365 Access to your equipment with 30 min advanced notice?	<input checked="" type="checkbox"/>			
24/7/365 Onsite Trained Staff and Managed Services?	<input checked="" type="checkbox"/>			
High Resolution CCD Security Cameras from 2 Angles at all locations?	<input checked="" type="checkbox"/>			
Direct access to 6 Active IP Carriers included in bandwidth fee?	<input checked="" type="checkbox"/>			
100mbps burstable, upgradeable to 1gbps without advanced notice	<input checked="" type="checkbox"/>			
Entire floor/facility secured by HID or Biometric access to employees only?	<input checked="" type="checkbox"/>			
Smart routing for fastest delivery of packets?	<input checked="" type="checkbox"/>			
Assured business continuity? (No pending litigation)	<input checked="" type="checkbox"/>			

Phoenix Networks and Design can return results for your company. As a complete information technology solutions provider, we can provide colocation that is guaranteed to ensure availability.

Your business relies on a good server and internet provider. PhoenixNetworks has partnered with the world renowned company PureGig to offer colocation services. This is premium, guaranteed bandwidth in a secure colocation facility in Phoenix, Arizona. These servers power websites and ecommerce systems which help your business grow. Using state of the art, redundant fiber and facilities, our premium colocation is the best in Phoenix, Arizona.

Using Tier-1 Colocation Providers, our co-location services can be tailored to your needs, ranging from 1U to Full Cabinets. The network has been built to ensure the fastest, most reliable Internet connectivity available. Our use of multiple paths to the Internet results in the fastest packet delivery to users and allows us to route around problem points in the event of unexpected congestion.

Key Points to Consider:

Arizona is one of the few states that are not prone to natural disasters. Arizona does not experience hurricanes, earthquakes, tornadoes, and etc... Because of this Arizona is one of the nation's fastest growing disaster recovery and co-location states.

PureGig has been in business since 1995 and has not experienced a power outage or network interruption of any kind.

PureGig operates a high availability datacenter with full redundancy of power. This includes:

- Dual transfer switches,
- Dual power feeds,
- Four uninterruptible power supplies,
- Diesel generator backup,
- Fully redundant chiller cooling system and towers
- Environmental Sampling, Fire Detection and Supression surpassing VESDA type systems. A combination of Inergen or FM200 and dry-pipe ensures the highest in safety.

PureGig's Generators have 48 or more hours of diesel fuel onsite with redundant local contracts to replenish the fuel supply. Our Generators are exercised weekly and preventive maintenance is preformed monthly. PureGig resides on two different power grids from two different independent power providers. Furthermore, the building sits on the same grid as hospitals and other critical infrastructure systems to ensure that in a power shortage, our building will never lose power.

Why Phoenix Networks?

For Servers and Network Equipment

Phoenix Networks offers our expertise in researching and developing custom tailored solutions for your company's specific applications and needs. From the selection of a datacenter, whether it be our own or not, to the recommendation of servers and equipment, Phoenix Networks provides a complete solution to your server hosting and colocation needs.

Additionally, in order to support our customers, Phoenix Networks offers installation and managed services for equipment in or out of our datacenter. This remote hands work allows Phoenix Networks to offer an unprecedented amount of flexibility for managed services.

Specific offerings include: hardware configuration, purchasing, implementation, software configuration, management, monitoring, upgrades, installation, troubleshooting, and optimization.

These value added services are unique to Phoenix Networks and provides our customers yet another level of security and reliability. Phoenix Networks allows companies to consult with only one firm to obtain a complete solution: from design to maintenance. Our customers feel at ease knowing that professionals are always looking out for their equipment, and their interests.

Industry Standard Billing Practices

Billing is done by industry standards: on the 95th percentile, polled at 5 minute intervals for the entire month. Every customer is capable of bursting to 100 Mbps, and upon request that can be upgraded to 1 Gbps (gigE) burstable. There is no limit to the amount of data transferred (unmetered). We may offer discounts and exceptions for customers who purchase large amounts of bandwidth, or sign yearly commitments.

Our Connection

Local Carriers

We also have partnerships with local carriers that can provide the best prices on last-mile access to our Internet bandwidth customers. These partners include:

- Qwest Telecommunications
- Time Warner Telecom
- AT&T Local Services
- MCI Local Services
- Electric Lightwave
- Mountain Telecommunications Inc. (MTI)
- Atlanta Gas & Light (AGL)
- Limelight Metro Networks
- AboveNet (MFN)

IP Carriers

To provide these enhanced services, we have partnered with the leaders in IP networking to give our customers the fastest and most reliable access to the Internet. Below is a list of our carrier partners, followed by the connections we have to their networks:

- Qwest – two GigE connections
- UUNet – one OC-12c & 2 GigE Connections
- Level3 – four GigE connections
- AT&T – two GigE connections
- Global Crossing – two GigE connections
- Bi-Coastal Priv.Peering – one GigE connection

All of these providers enter our facility on independent and diverse fiber rings ensuring that traffic flow will not be interrupted should one ring fail. By utilizing several providers, our customers will always have access to the fastest networks and the most redundant services for guaranteed uptime.

Our Facility

Infrastructure

Our network is backed by exceptional service and performance level agreements and can handle traffic spikes for specified bandwidth and burstable capabilities. Dual (Gigabit) Ethernet drops are available to cabinets. Our private network and firewalls are continuously watched by our 24x7 monitoring tools and use industry standard intrusion detection technologies.

Provisioning

Our Gigabit Ethernet-based infrastructure offers the lowest turnaround time in the industry for new connections, changes and upgrades. To ensure quality packet delivery, we operate our network at a peak utilization rate of 55 percent (whereas most carriers operate at 65 percent to 85 percent capacity.) As a result, customers have the ability to burst whenever necessary.

Routing

Using the highest industry quality equipment, our network is powered by Juniper, Foundry Networks, and Cisco equipment. This ensures the speedy routing and delivery of all content using SmartRouting, which can detect network congestion and delays and automatically re-route packets to ensure the fastest service available.

Network Security

As the number of companies using the Internet increases, so does the need for security. Firewalls and intrusion detection have been woven into the fabric of our network, and all collocation customers are assigned their own virtual local area networks (VLANs), creating a virtual barricade between users.

We offer advanced security options that include:

- Wire-Speed ACLS (Access-Lists)
- Network IDS (Intrusion Detection systems)
- Virtual Private Networks

Power

The facility provides a superior power system that features continuous, redundant and protected AC power, built to N+1 redundancy. The redundant power in our Data Centers enables your servers and equipment to run uninterrupted, even in the event of a significant power outage. Automatic Transfer Switches (ATS) and bypass/isolation switches provide this N+1 redundancy for dual power source

capability. As part of our redundant infrastructure, we provide emergency generators with 24 hours of fuel reserves, and a contract agreement for the continual delivery of fuel.

In addition, we offer optional remotely manageable power ports, using a Web interface (or telnet client); customers can power-cycle the power port(s) used by their equipment.

Cooling

The facility's climate control is comprised of multiple Liebert HVAC Cooling Systems, configured to N+1 to ensure the highest availability.

Security/Facility

Only employees have unescorted access to the Data Center 24x7. State-of-the-art palm scanners must be passed at all entry points and each cabinet is individually keyed. All customers who wish to access the data center rooms must be escorted by an employee.

The facility is manned 24/7, and is monitored by strategically placed video surveillance. By placing cameras throughout the facility, each visitor is monitored from at least 2 different angles at all times. This surveillance is stored off-site for additional security. The building and complex itself is guarded at all times by at least three third-party security guards. The Arizona Department of Social Security and Welfare resides in this building, so security requirements further match our own.

Access to the floor that the facilities reside on is granted only to employees through the use of a secure access RFID system installed in the elevators. This ensures that only visitors who are escorted by PureGig employees may obtain access to the facility.

Fire Suppression

PureGig has an advanced fire detection and suppression system, based on a combination of Inergen and dry pipe, pre-action fire suppression sprinklers. This pre-action double interlock dry system is the industry standard. Smoke and high temperature heat detectors eliminate the accidental dispensing of water. There are environmental monitors that sample the air throughout the facility and can detect anomalies in the air and alert staff to the situation.

Redundancy

Everything at our facilities maintains a level of redundancy. PureGig may be the only facility that offers Dual Facilities. Not only do we have a redundant, secure facility, we have two of them. Physically separated, and equally powerful and secure, PureGig maintains two separate facilities. By channeling fiber to both of the privately owned facilities, PureGig continues to surpass the industry standard.

From the fiber in the ground, to the routers, to the power, cooling, surveillance, and fire suppression, even to the facilities, there is redundancy.