

Selecting the Best Data Center for Disaster Recovery

Choosing a facility designed to securely house a company's computer systems, networking, and other technology components is a crucial decision. Companies of all sizes depend on the stability and reliability of IT infrastructure to operate successfully. Even one moment of network disruption can wreak havoc on a company's revenue and customer relationships. According to the Ponemon Institute, the average cost per minute of downtime is \$8,851. A robust and comprehensive disaster recovery plan ensures business operations will run smoothly in case of disaster. These plans limit the crippling effects of disasters, including human error and natural occurrences such as hurricanes, flooding, or earthquakes.

Many large companies spend two to four percent of their dedicated IT budgets on disaster recovery planning. This investment helps avoid additional losses to the business associated with IT infrastructure failure. An important component to this investment is the data center, which serves to house core network and infrastructure operations and providing space for the people that run the organization. Careful assessment of ten key data center elements in planning for disaster recovery will ensure that time and money was well spent when it matters.

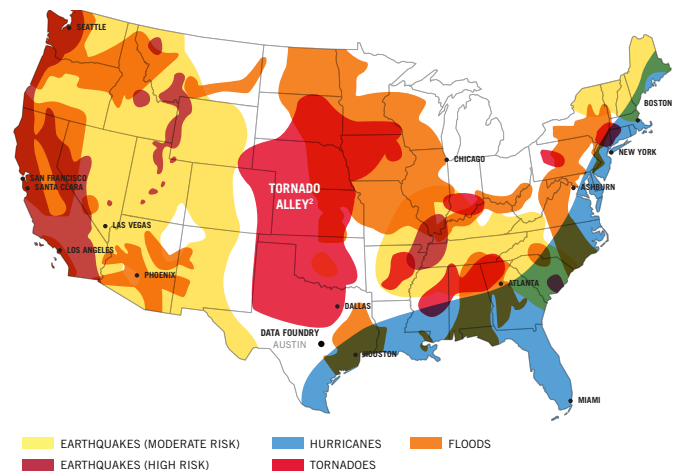
1. LOCATION

A data center located in an optimal environment will keep the facility running with minimal down time and low operating costs. Optimal environments have a low risk of natural disasters, favorable business climates, and a rich technology talent pool. The best locations for data centers are in the central and southwestern United States, according to a 2010 study by the Boyd Company. Coastal regions and high-profile metropolitan areas are typically avoided as the risk of hurricanes and the threat of terrorism is high, respectively.

Austin, Phoenix, Dallas, Atlanta, and Raleigh-Durham are the some of the most popular data center cities. These cities have rich fiber options, which provide for carrier-neutral network access, and favorable business climates, often characterized by the availability of incentives, such as cheaper taxes and rates from local governments and utilities. Other factors that make a location optimal include price and reliability of power.

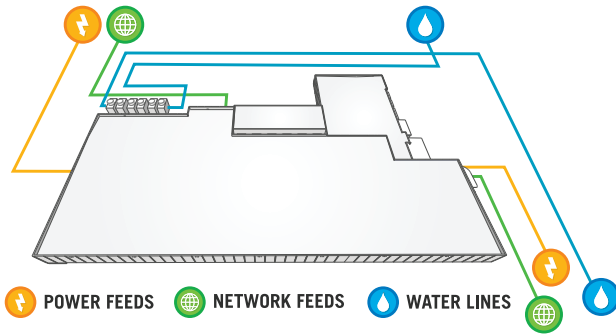
2. BUILDING CONSTRUCTION

Check the building specifications of the data centers you consider based on location. For instance, if the data center is located within a region where hurricanes can make landfall or a region that is prone to tornadoes, check the building's wind rating. Hurricane Katrina, one of the strongest storms to impact the U.S., had sustained winds during landfall of 125 mph. The vast majority of tornadoes have wind speeds not exceeding 112 mph. A wind rating of 185 mph and over is a good standard. Also, check the building's location relative to flood plains and the height of the foundation.



3. REDUNDANT UTILITIES

Data centers with a reliable infrastructure have redundancy built into the primary power, water, and network utilities. The mechanical plant within a data center includes power, electrical, and cooling systems, which keep it operating smoothly 24x7x365. Ideally, a data center not only has diverse power feeds, but feeds that originate from more than one substation. Data centers should also have diverse water utility feeds and multiple generators to ensure backup power is available in case of a utility outage. At the network level, data centers should be designed with dual entrances for all providers and carriers, which further increase reliability and uptime.



Building a data center that is fully redundant at every level can be cost-prohibitive, and some data center operators choose not to make this investment. A review of the data center system design and the provider's track record on outages, availability, and service level history is recommended. The data center provider should describe in detail ongoing maintenance for any of its critical systems and standard procedures for correcting an issue.

4. NETWORK

Network availability and the number of carrier options are crucial factors as they relate to reliability and cost. Carrier-neutral facilities have multiple carrier options that allow for optimized traffic, high levels of network redundancy, and leverage in contract negotiations with a network provider. Competitive pricing is a benefit that a carrier-neutral data center can provide to its customers.

5. SECURITY

Many levels of security at a data center can be implemented both inside and outside of a data center facility. A premium data center will incorporate multiple levels of security across both areas.

A facility with a strong outer layer of security can reduce the chance of vandalism or break-ins. The first line of defense is a barrier or fence, guarded access, and perimeter intrusion monitoring solutions. This solution, which may be integrated into the facility's access control and alarm monitoring system, can include video technology based on a virtual perimeter. Around-the-clock security at all entrances, including loading docks, provides increased protection from unauthorized access.

Internal security measures can include multiple layers of authentication to control access to the data center. Biometric options such as retina or palm scanners offer an elevated level of identification. Internal, closed-captioned video systems monitoring all entrances and key areas throughout the facility provide surveillance and archive footage of all activity. Data centers also implement features such as mantraps that consist of interlocking doors in which the first set of doors must close before the second set opens. Mantraps require measures such as pass codes, cards, or biometric scanners for further access. Since the data center houses critical information and IT infrastructures, understanding the full extent of the security measures taken at each level of the facility and campus is important.

6. STAFF

A top-notch facility will have experienced and knowledgeable staff to help with any support issue that may arise. Yet half of all data centers in the U.S. are understaffed or under-skilled, according to studies such as the Symantec's 2010 State of the Data Center. A premium data center has onsite support staff 24/7/365, not only during standard business hours. They also commonly offer "remote hands" service so customers can rely on the data center's personnel even when they are not physically there.

7. CORPORATE OWNERSHIP

The best facilities are owned and managed by a true data center operator, not a real estate company looking to flip the property or sell square footage to meet revenue quotas. The data center owner must be financially viable and have a long track record of operating all facets of the data center.

Financial stability is very important. An unstable company may require frequent configuration changes or equipment moves to offset poor planning and organization. Each change, whether planned or unplanned, can be a major inconvenience and expose businesses to downtime. Providers should have built their business on the core competencies of a successful, financially strong data center.



8. SCALABILITY

A highly scalable data center can support rapid growth of space, power, and bandwidth demands. The ideal data center will allow for fast, seamless growth, as well as the deployment of new services without requiring a major overhaul of infrastructure or disrupting customer operations.

Reconfiguring space or moving equipment can incur additional costs and increase room for error. When assessing a facility's scalability, short- and long-term growth potential should be considered, as well as the provider's ability to accommodate these needs.

9. AMENITIES

Since employees are a company's most important asset, the data center's amenities should be considered. In the event of a disaster, employees may be required to work long hours at the facility. Evaluating what is available to employees when choosing a data center will ensure that staff is in a safe and accommodating environment.

Consider features like well-lit, ample parking and access to public transit options. Proximity to hotels, restaurants, retail centers, and recreational activities should also be evaluated.

Within the data center, a full-featured break room or vending area can keep your staff comfortable, efficient, and as productive as possible. Showers are even available in some premium data centers.

A facility with a variety of amenities will ensure that staff needs are met and business operations continue remotely and independently of the company's home office.

10. DEDICATED OFFICE SPACE

A premium data center will offer dedicated office space for your company, so your staff will always have a guaranteed place to go to continue working offsite. Make sure the space is large enough to accommodate your DR team. If you plan to store equipment in your office space, make sure that it is located within a secure area of the data center, and that you can add your own customized security if your company requires it.

Final Evaluation

These ten elements can serve as a foundation for evaluating a data center that will best meet IT needs and provide for a solid disaster recovery component. The weight of these elements varies based on a company's unique business and IT infrastructure. Careful research, including input from key stakeholders in an organization, will help to determine priorities. In the final stage of data center selection, onsite tours of the facilities that make a company's short-list with these priorities in mind will further aid in decision-making.

With full consideration of these criteria, a management team can feel confident that the data center component of a disaster recovery plan can withstand any event that could threaten the business.

See why Austin, Texas is the safe and smart choice for a data center disaster recovery site. To learn more about premium data centers for disaster recovery, visit www.datafoundry.com.