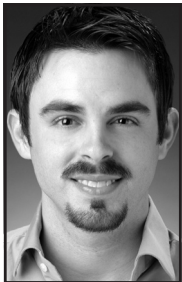




Best practices for locating data centers makes S.A. a hot spot

BY BRANDON BERNHARD

Constructing a data center to house and protect millions of dollars worth of business critical data (and equipment) is no simple endeavor. It requires careful planning and thorough investigation of many variables.



Bernhard

San Antonio has recently become a preferred location for data center construction. Why here? And what are the determining factors that dictate a good location for a data center build? There are several data center best practices that directly correlate to San Antonio's recent popularity as the data center destination.

Power

While there are technologies available to address power consumption (such as consolidation through virtualization), power expenses are still a major hindrance for most data centers. With the rising cost of energy and the recent emergence of government regulation in the data center, organizations must strategize their deployments and power is a priority. In a study conducted by Berkeley National Laboratory, data centers consumed an estimated 12 billion kilowatt hours of electrical power in the year 2000 and by 2005 had exceeded 23 billion kilowatts. This amounts to a jump from \$1.2 billion to over \$2.3 billion in a span of five years (at the national average cost per kWh \$0.10). San Antonio, through our municipally owned utility provider CPS Energy, is the lowest cost power utility in the state of Texas. In a recent study conducted by The Boyd Co., San Antonio ranked sixth among 60 U.S. cities surveyed comparing geographical operating cost. One of the major differentiators in the study was the average cost of electricity and heating and

cooling costs (for a data center of 100 people in a 100,000-square-foot facility). New York (the highest cost city on the survey) had an estimated cost of \$1,348,225 annually whereas San Antonio performed at \$388,112 — quite close to the lowest cost city, Sioux Falls, S.D., at \$321,705.

Real Estate

A major consideration when evaluating whether to relocate data centers or construct one is the cost of real estate. Experts say it costs roughly \$1,000 to \$2,000 per square foot to build a fully equipped data center in the United States. Prior to making an investment of that size, choosing a location that has a steady economic record and is somewhat resilient to national economic conditions is an important factor. Of course, finding reasonably priced and properly zoned space is also crucial. Forbes recently published its "Top 10 Recession Proof Cities" and San Antonio was listed No. 2 citing median home price growth of 7.9 percent and growth in commercial construction at 6.3 percent despite a national economic and real estate slump. San Antonio also ranked fifth on the Forbes list for best place to buy a home due to low median property prices and business-friendly tax environment which sustains jobs and tax revenue.

Natural disasters

When considering risk factors connected to property, examining natural disasters in that region is a no-brainer. Catastrophic events such as hurricanes, earthquakes, landslides, tornadoes, etc., can be the single largest threat to business continuity, so securing a location that is somewhat impervious to these occurrences is a good strategy. San Antonio is a natural fit. With the exception of the occasional flood or tornado, we are far enough from the coastline to be less affected by hurricanes, and are not prone to most other forms of natural disasters.

Skilled labor

There are plenty of cities in the U.S. that have low-cost real estate and power, and are also sheltered from major forms of natural catastrophes. But before you set up shop in Idaho, consider the need for an existing skilled tech labor force in the region. San Antonio is home to UTSA (one of the fastest growing universities in the state), University of the Incarnate Word (which has a prominent Information Systems program), several military bases, as well as other colleges which are all good sources for skilled tech labor.

Mexican food

This sounds ridiculous, but it's a proven statistic that tech industry laborers prefer Mexican food. San Antonio is as well-known for having the best Mexican food in the country as it is for the Alamo. This coincides with gaining and retaining a happy pool of tech labor.

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■ Tips for setting up a data center:

Go local. Employ local vendors for products and services rather than outsourcing directly to external corporations. This helps promote economic growth and can save companies money. San Antonio has no shortage of HUB and minority-owned businesses in various industries that satisfy corporate spending mandates and offer tax incentives.

Go gray. This is not a typo. Both Microsoft and Stream Realty's data centers are "LEEDing" (Leadership in Energy and Environmental Design) by example using SAWS recycled or "gray" water program, which is both an affordable and environmentally conscious way to cool the data center. As it turns out, our dirty San Antonio River water serves a great purpose, Mark Cuban!

Get involved. Join local industry groups such as the recently formed AFCOM to converse and share ideas with like-minded tech professionals.

— **Brandon Bernhard**