

Getting Ready for the Big One/Office Server Backup Options

Many of us have friends who worked in New Orleans before Katrina, and have heard the horror stories of law firm files and data that were irretrievably lost or inaccessible as a result of the storm. And while we have also suffered through Hurricane Elvis, most of downtown remained in tact, with electrical power and utilities remaining in place. But what if Memphis suffered an earthquake? How would your firm or office survive? What if your building is destroyed along with your servers and computers? From the shock itself, or the resulting fires that follow when gas mains are ruptured. How would you reopen for business?

This past year I have had several meetings with Natasha McCallister of the US Geological Survey (Motto: “We learn geology the morning *after* the earthquake”) to discuss earthquake preparedness for a project I am working on for the Boy Scouts. The University of Memphis hosts the Center for Earthquake Research and Information (www.ceri.memphis.edu), along with the USGS, and provides a wealth of data to help the public understand and plan for the Big One. According to Natasha, and CERI, the question of a major earthquake happening in Memphis is not “if?”, but “when.”

When Iben Browning predicted that Memphis was going to be destroyed by an earthquake in 1990, I was in the Cotton Exchange Building. I was told that since my building was mostly concrete with very little steel, a quake would cause the building to “liquefy” and simply collapse. In other words, I was toast. Now I am in the Brinkley Plaza, along with the Memphis Bar Association and several other firms. And guess what? More concrete, a little more steel, but according to the architect who just moved out, a quake will liquefy our building as well. So toast again. But I will not be alone. Any building that is not constructed with steel or wood is highly vulnerable to destruction in an earthquake. Add to that the fact that all of downtown is built on fill, along with a lot of Memphis, which will completely liquefy in a high magnitude quake, and we are looking at a very serious disaster.

But if we are “lucky” enough to have the quake hit when the building is not occupied, how do we get up and running afterwards? Currently, we take nightly and weekly backup tapes offsite to our office manager’s home. But we started wondering, how difficult will it be to restore the backup data from a tape drive if the backup system and tape drive are destroyed? A royal pain, it turns out. Many tapes only work with specific drives, so if you can’t find a similar tape drive to reload your data, you are out of luck. And how many of us have recorded in a safe place the name, model number and technical data of our tape drive to even be able to order another one? If we want the ability to get up and running promptly, a tape drive is probably not the best solution under our disaster scenario. So we are looking at other options.

Jeff Germany has suggested that we look at the fiber optics platform of Memphis Networkx as a backup solution. Jeff leases broadband space from the Bartlett based company, which allows Jeff to place a backup server at the corporate office. He runs a real time backup with synchronized hard drives, so that whatever is on his server at the office is duplicated at the Memphis Networkx location. According to Natasha at the USGS, the site is not prone to liquefaction, and most likely would survive any earthquake. Unlike a tape system, Jeff could tie into his backup server by internet

immediately, and be up and running with all of his data. Or, if the fiber optic network or internet is down, Jeff could physically retrieve the server, and set up elsewhere.

We are also looking at Packrat (www.packratus.com), which also allows for full backup and replication. The nice thing about Packrat is that the company offers the ability to restore the server to a virtual environment, which means that we could access it from wherever we are able to set up our office. Better yet, the data is replicated in Birmingham just in case the disaster is (read Big One) regional. Our current backup is about 30 gigs, and the price point for that service is \$179 monthly. Considering that our entire office is residing in our servers, that is a pretty cheap alternative to a complete data loss. There are other options to consider, such as whether to back up the entire Exchange Server, or individual mail boxes. Again, since 70-80% of my communication on various files is with email, this is a no brainer. I want complete and immediate restoration.

There are a number of local and national companies who will assist you in offsite backup. We wanted local so that we are not totally internet dependent. We can recreate our servers locally with either Packrat or the Memphis Networx system. It might be more difficult if we are working with firms located outside the state. No matter what solution you choose, make sure you are thinking about a solution and act on it. Earthquakes don't give 3 days warning like hurricanes....

Pay the man and know that the backup will be there even if 80 Monroe drops to China.