

Data Backup

Backup of operational data is critical to the contractor's business. Most everything you have is stored in your accounting system or Microsoft Office documents. You may also be storing your paper documents digitally on your server to taking advantage of the latest technology. So, what happens if the worst happens? The "worst" can come in many forms: fire, theft, sever crash, operator error. The long and short of it is you are without the data to run your business unless you have a good backup done recently.. This is where it can get very sticky. Most businesses have a backup procedure. Some are more sophisticated and fool-proof than others.

Simple Backup

The simplest scheme is to backup data folders to a CD, Zip Disk, or Flash Drive. This is a simple copy/paste and is very effective if done regularly. You can easily copy past the folder or a few files back to their original spots. There are two problems with this technique: it is not automatic and may or may not get done; and, there is no redundancy. More sophisticated schemes do backups to multiple media devices. This prevents real problems if there are physical problems with yesterday's tape, CD, etc. You simply use the one from the day before, or the day before that. So, use more than one CD, Zip Disk, or Flash Drive to overcome this.

Tape Drive and Backup Software

The next level of backup usually incorporates a Tape Drive and Backup Software. This allows the programming of the scheme and provides feedback to the whoever is in charge in the way of the right media for today, a log of errors either printed or emailed, a log of backups. We strongly recommend that you have this installed and programmed by a professional. If done incorrectly, the result can be catastrophic. We further recommend that this individual or someone else who is capable do a test restore of data on a regular basis; monthly or bi-monthly. This will assure you and them that the backups are being done as they should be.

Mirrored Drives

In addition to backup, there are what are termed "fault tolerant" services incorporated into the server software that allow multiple drives to record the same data. If one of the drives fails, the others pick up with no down time. Heavy users should look into these features if down time might be an issue. This is in addition to the tape backup. Mirrored drives do not solve the theft or fire issues.

Web-based backup

Recently, web-based services automatically backup servers and other personal computers with some pretty sophisticated software that is provide with the monthly fee. We have used Global Data Vault (www.GlobalDataVault.com) for some time and have found it pretty easy to use. The big advantage of this kind of service is that the issues of physical location of backups and redundancy are solved. You simply configure the software to backup certain files and the system takes care of the rest. You should enlist the help of someone familiar with locations of data files to make sure this is done properly and you are backing up the right stuff.

Backing up more than just Data

Data backup is critical. Backup of the operating system and programs is critical if you cannot afford the downtime required in case of fire or theft. Tape drives can back up the whole disk. CD's and other media make this a lot more difficult, if not impossible. Web-based service makes this more expensive and less practical since you will have to move an incredible amount of stuff through the Internet to the servers. The internet is fast but for movement of large amounts of data it is less practical. If you use something other than a tape drive that allows for complete system backup you will only backup and restore data. You will have to install the operating system and programs before restoring the data. This requires more time.

Costs

CD Drives that can record data cost less than \$50 and the CD's are less than 50 cents/ea. Data capacity is about 600MB

DVD Drives that can record data cost less than \$75 and the DVD's are less than \$1.00/ea. Data capacity is about 4GB.

Tape Drives cost about \$1000 installed. DAT tapes cost less than \$20/ea and have a capacity of 40GB. Decent Backup, Backup Exec, costs about \$500. You should budget an extra \$100 to have it installed and configured.

Global Data Vault costs \$500/yr for 5GB of storage and up to \$2,500/yr for 100GB of storage. Pricing is located on the website.

Recommendations

If you are price sensitive, you can probably get by with simple backup. However, don't be penny wise and pound foolish. If this scheme is not monitored by you, it will probably not have the desired result. You also have to think about where you would be without your automated systems for any significant length of time. We would have you seriously consider a web-based solution as the next level. It's relatively inexpensive and keeps you informed if backups are or are not working. Remember to get help with what to back up. If you have mission critical needs and cannot afford down time, we suggest the mirrored solution on the server plus the tape drive, backup software, and professional help. Please call us for clarification on any of the above. This is too important to leave to chance!