Introducing Data Backup
for small businesses
Data: It’s Your Business

The bits and bytes come from everywhere: Customers and clients, financial records, intellectual property, inventory—the list is endless. You need to protect the data your business counts on.

Computers crash, wind up in the wrong hands, or are drowned in floods—natural or plumbing-induced. What kind of disruption could you withstand? Your livelihood just may depend on you having a solid backup routine—and the ability to recover—in place.

CRU® has been helping people safely back up and transport data since the mid-1980s. We have some ideas that will securely and efficiently take care of your data assets.
3, 2, 1: Backup

Protecting and securing your business data is as simple as following the **3-2-1 backup** rule:

- Make **3** copies of your important data
- on **2** different types of media (hard disk, SSD, thumb drives, DVD, or Blu-ray disks)
- with **1** of those backups stored at a different location

**Bottom line:**
create a backup process and follow it.
Where to Begin

Design a backup system that allows room for growth. How much disk space you need depends on how much data you generate. Think on the order of a year's worth of new data, although the amount of space most business backups require usually isn’t as much as you think.

For example, even though every computer might have a 500 GB hard drive, those drives are not full. Each computer likely has the same business software installed on it. Deduplication and compression features in your backup software can eliminate multiple backed up copies of software applications; most documents, such as spreadsheets, can squeeze down to very small backup files.

Establish policies on where your business data resides. Are you okay with that data staying on laptops and individual workstations, or would you rather your employees use a centralized disk share for their work? (If you’re using a central disk share, create a mirror or other type of backup for that shared drive.)
Identify what data needs to be backed up, where that data resides, how to back it up, and where the offsite copies go. You likely have information spread across laptops, workstations, and servers. Don’t overlook important items that may be offsite with an employee.

**Establish a Routine or Process**

If your backups are not automated, make sure everyone knows where to copy their files and how often to do it. Hourly? Daily? Weekly? What’s the last moment in time you might need to restore from? Less critical data or unchanging may not need a daily backup.

You’ll also need to set a reminder to verify and rotate your backups to make sure your offsite disks are updated.
Assign an Owner

Make sure there’s someone in charge of your regular backups (is it you?), and that someone can fill in during vacations. Verify that the person in charge understands the tasks involved and their importance to the organization. It doesn’t have to be an IT person either, depending on how complex your environment is.

Backup technologies are fairly easy to set up and use, but if you don’t have the time or knowledge, look for a reputable IT professional to help. Some basic tools include backup software and a hard drive enclosure (or two). Network backup devices are now available that will automate a lot of this for you. If your needs are simple, backup utilities bundled with your OS may suffice, such as Windows® 7 Backup and Restore, Windows 8 File History, or Mac OS X Time Machine.

Look for storage enclosures that allow drives to be removed and swapped easily. You may want to encrypt your data, which will make it extremely difficult for someone to see your data if disks are lost or stolen.

Get the Right Tools
Validation

Regularly verify that your backups will do what you need when you need. Make sure you can recover data, or even boot up, from your local and offsite backup disks.

Why You Want Deduplication and Compression

Two DataHarbor backup scenarios demonstrate how data can be deduplicated and compressed to much smaller backups.
Backup, Recovery, and the Cloud

Backup isn’t just about keeping extra copies of files, it’s about being able to restore them in a timely manner, too. This is something to consider when evaluating whether a cloud backup service makes sense.

While the cloud can be convenient and may fit into your IT strategy, backing up data to local hard disk drives ensures your most important data is available to restore faster than you can get it from the cloud. (At T1 network speeds, it can take about a month of continuous file transfer to move 500 GBs of data—these days, that’s a smallish laptop disk drive.) And if you have lost your internet connection, you won’t be able to restore from the cloud.
If you decide to use cloud backup services, make sure you understand

- What you’re paying for storage space
- Bandwidth costs for uploads and downloads
- Time it takes to recover or restore files
- Where your data resides and who may have access to it
- Laws and regulations regarding where your data is stored since your data may physically reside in another country
CRU has a variety of products to help you back up your data, including the easy-to-use **CRU® DataHarbor®** networked backup appliance, which includes Microsoft® software to automatically back up to 25 PCs/Macs/laptops on a configurable schedule. The DataHarbor appliance securely encrypts its backups and includes two popular **DataPort® 10** removable drive carriers so you have a durable and rugged way to rotate and transport offsite backups.
CRU RAX® rackmount enclosures and CRU RTX® towers are available in JBOD and RAID configurations, with a variety of connection options, and offer your choice of using removable drive carriers or our TrayFree™ disk bays if you prefer to use bare drives. Both the RAX and RTX products are popular with those who want the flexibility in choosing their backup software or have quite large backup storage requirements.

Regardless of which backup devices you use, you need to start implementing a backup process, and the longer you wait to start, the more you are likely to lose when a drive fails. If you have any questions, be sure to ask your reseller, IT provider, or contact CRU.
We hope you’ve found this booklet useful, and we look forward to hearing from you.