

#### www.desertdatarecovery.com

2711 E Indian School Rd, Ground Floor Phoenix AZ 85016 602 686 2622 service@desertdatarecovery.com

Professional IT companies and Computer Stores will receive a 15% REFERRAL FEE on the below prices. We can collect the drive from your businesses location, or you can drop it off at our office in NE Phoenix.

#### **Desert Data Recovery Equipment:**

We use state of the art data recovery hardware and software to give our clients the best chance of recovering data from hard drives without the use of a clean room. We use a PC-3000 UDMA which allows us to test circuit boards. and re-write ROM and System Area firmware. There is simply no other data recovery product as good on the market.

We also use a DeepSpar Disk Imager (DDI) to scan damaged drives sector by sector. This gives us the ability to change how we read damaged sectors by using algorithms such as longer read times. This allows us to get back as much data as possible for your clients.



**RAID Arrays (SATA Drives):** 

Virus attack

RAID Arrays fall into the same pricing categories as above. We charge per drive for recovery as each drive still needs to be imaged and the recovery of a RAID is much more complex. As an example a 4 x 1TB RAID 5 is 4 x \$495 = \$1,980 for a logical recovery.

#### **RAID Arrays (SCSI Drives):**

RAID SCSI Drives will be quoted after the evaluation period.



\$750 0 – 950GB 1TB - 2TB**\$850**\* **OVER 2TB \$950**\* \*Plus Parts (will never exceed \$250) **DRIVES WITH PHYSICAL FAILURES** (Require clean room work) **Example of Common Physical Failure:**  Failed read-write heads Drive was dropped • Drive is clicking, beeping or squealing • Drive not recognized by the BIOS

We also reserve the right to quote for recoveries that fall into the following categories:

- Full drive or SmartWare encryption
- Drive has been to another data recovery lab
- Drive is physically damaged (fire, water etc.)
- SCSI Drives



### **Desert Data Recovery Tip Sheet**

#### **Clicking Drive:**

The most common cause of a clicking drive is damaged read-write heads. Usually due to the drive being dropped or knocked over. However sometimes read-write heads will fail due to wear and tear. The actual clicking sound is the read-write heads searching for firmware on the drive, not being able to read it, and returning to their stops (parking area). Occasionally this clicking can also be caused by the corruption of firmware stored on the PCB or System Area of the drive. We test for this corruption during our initial free evaluation. Therefore about 80-90% of clicking drives do need a clean room to have the read-write heads exchanged. However there is a chance it could be corruption. Your client will never get charged for clean room services if we can get the data back by logical means.

#### Blue Screen (BSoD):

Once all other reasons for the BSoD have been ruled out, then we can assume its hard drive failure. From a data recovery standpoint, it's normally associated with OS damage, bad sectors or firmware corruption.

#### No Operating System Found (or reboots):

As with BSoD, in data recovery this is an indication that the boot sector on the drive has been corrupted or has sector damage.



#### **Drive Won't Mount:**

Again this usually indicates firmware corruption or bad sectors. You may see the drive in the BIOS, but if the drive reports an incorrect drive size or ID, then more than likely you are looking at firmware corruption. If the drive can be seen by the OS and the partitions are reporting as 'Unallocated Space', then it is corruption but is usually recoverable.

#### **Drive Not Spinning:**

If the drive is not spinning, it is either an electrical issue such as the motor not receiving power, or it could mean the motor has seized. There is also a phenomenon called 'stiction' where the read-write heads are physically stuck to the platters. Both these failures need clean room work.

#### Grinding:

It won't come as a surprise to you that grinding sounds are not good. It usually means the read-write heads have crashed onto the platters and are scoring the platter surface. Scoring the platters can make a drive unrecoverable, but there is a chance other non-scored platters may have recoverable data on them.

#### **Reformatted Drives:**

It is possible to recover data from partitions that have been reformatted. We always strive to get the data back including the folder structure by rebuilding the file tables (MFT, FAT etc), however occasionally the only way to get the clients data back is with a RAW recovery of files.

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## Questions to Ask the Client:

#### How Did the Drive Fail?

This information can be invaluable when diagnosing a failure. Getting a list of error messages, BSoD, noises, clients actions etc. can help a lot.

## What OS Was Used and How Many Partitions (if known)?

All OS store data in different ways. So having this information can help speed up the data recovery process.

#### What Critical Files Need to be Recovered?

The main goal is to get ALL the clients data back. However if a drive is mechanically failing, then we can target those critical files before trying to recover the rest of the data.

#### Spare Drive to Download Data?

After we have recovered data, we need a drive to download the data onto. Ask you clients if they have one. We can of course source one if we need to. It is not good practice to put data back on a failed or failing drive. It's asking for trouble.

# Have any Data Recovery Programs Been Used?

Almost all 'off the shelf' data recovery programs fail. The main reason is because they use the OS to read data. As an example, Windows allows 600ms to read a sector, if it takes longer than that, then the read will fail and more than likely the program with freeze (or Windows will). If the program does work (in the case of deleted files) then they give the user a choice of where they want to save their data. Most users see empty space in Windows Explorer as empty space on a drive and save data back to the drive they are trying to recover. This overwrites any data they may have been able to recover.