

When The Hard-Drive Dies!

Joel Wachtel

Owner/Tech

Computer Troubleshooters

(845) 268-0405

Jwachtel@comptroub.com

www.ctsofspringvalley.com



When The Hard-Drive Dies!

- There are only three things guaranteed in life:
 - Death
 - Taxes
 - And your Hard-Drive WILL FAIL!



When The Hard-Drive Dies!

PCWORLD – June 2007

	Annual Failure Rate
Industry claims (Based on MTTF of 1,000,000 Hours)	.088%
Carnegie Mellon Report (typical site)	2-4%
Carnegie Mellon Report (maximum observed)	13%
Google report	3%



When The Hard-Drive Dies!

- **What Causes drives to fail?**
 - Age
 - Bad manufacturing
 - Heat (though most drives fail between 77-88 degrees!)
 - Power issues (UPS, Power purifiers, Surge protection)
 - Abuse! (Laptops)



When The Hard-Drive Dies!

Fact:

While the type of drive will effect the performance in terms of reading and writing data, the type of drive has little if any effect on reliability!



When The Hard-Drive Dies!

Fact:

There are only 2 times you can deal with a hard-drive failure:

- Before the failure!
- After the failure!



When The Hard-Drive Dies!

After the hard-drive failure

or

**“OH MY GOD! MY
DATA’S GONE!”**



When The Hard-Drive Dies!

Options!

- Restore your data from a backup!
- Recover your data via your R.A.I.D.
- Recover data from online backup service
- Use a data recovery tool.
- Call technical support!



When The Hard-Drive Dies!

Data Recovery - The Final Resort

Drive capacity	Price
0 – 9 GB	\$950.00
9.1 – 19 GB	\$1,050.00
19.1 – 60 GB	\$1,150.00
60 – 129 GB	\$1,250.00
120 – 250 GB	\$1,500.00



When The Hard-Drive Dies!

- How to avoid losing data from a hard drive failure!
- Plan for the future!
- Identify the best “Backup Solution” for your needs!



When The Hard-Drive Dies!

Common Backup Solutions

- Backup
 - Data to an external hard drive.
 - Data to a CD or DVD
 - Data to Tape (System)
 - Data Online backups



When The Hard-Drive Dies!

Uncommon Backup Solutions

R.A.I.D. (Random Array of Independent Drives)

Imaging drives



When The Hard Drive Dies!

Rule of Thumb!

Run “**check disk**” on your drive at least once a month

If you every have an error

- 1) Make a backup immediately!
- 2) Be ready to replace the drive!



When The Hard Drive Dies!

Conclusion:

The **ONLY** way to deal with a hard drive failure is to plan for it in advance!

If you have a drive failure, call a professional!



When The Hard-Drive Dies!

Joel Wachtel

Owner/Tech

Computer Troubleshooters

(845) 268-0405

Jwachtel@comptroub.com

www.ctsofspringvalley.com

