as they are not always easy to spot at first glance.

What is logical data loss?

Logical data loss occurs when a file or directory becomes corrupted or inaccessible due to some form of error. Accidental deletions, disk formatting, virus attack, power outages, and more can cause logical failures.

One common symptom of logical data loss is computer errors, such as a blue screen.

In such cases, it is important to have a reliable backup available for retrieval as soon as possible.

1. Accidental deletion

2. Disk formatting

3. Virus attack

4. Power Outages

5. Human error

6. Corrupt file system or directory structure

7. Improper shutdown/crash of computer systems due to power outages

8. Incompatibilities between different applications or programs

9. Corruption caused by disk fragmentation

10. Firmware issues, or software bug

What is physical data loss?

Physical data loss occurs when the device storing the files suffers from some form of physical damage.

This could include broken hard drives or damaged memory cards, which cause the files stored on them to become inaccessible.

1. Malfunctioning storage devices

2. Environmental factors such as fire, flood, or temperature fluctuations

3. Bend flash drives or memory cards

4. Dropped hard drive

5. Water-damaged device

6. Overheating computer

7. Any other cause of physical damage

8. Hardware failure

9. Bad sectors

10. Electronic board (PCB) failure

Physical vs Logical Data Recovery

Only experienced and certified recovery professionals can perform **physical data recovery.** This is because physical damages, and consequent physical data loss, demand a cleanroom and proper tools.

Data recovery specialists must carefully examine the damaged parts in order to identify the cause of the issue. Then the technicians will look to repair or replace them with new parts if necessary.

Physical recovery can be a lengthy process because of the complexity of certain hardware components, but it is relatively straightforward if an expert is involved.

Logical data recovery, on the other hand, is a simpler process that seeks to retrieve corrupted or inaccessible files by replacing no physical components.

However, logical data loss is more complicated to identify than its physical counterpart, as it can be silent and, sometimes, requires greater technical know-how.

Some logical data loss is easily recovered with data recovery software or even built-in Windows tools.

Yet, in both cases, regular backups are what protect the data and guarantee full recovery in case of device malfunction or damage.
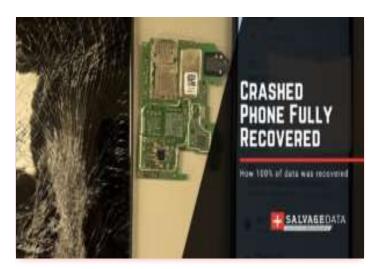
But, if you don't have any recent backup, SalvageData experts are ready 24/7 to help you salvage your lost files.

Schedule a free in-lab evaluation of your data storage device and ensure you get a secure and personalized data recovery service.

Data loss is a serious issue that should not be taken lightly. Taking action right away and addressing the problem is essential to minimize any long-term damage or loss of data. In situations where logical or physical data loss occurs, it is important to seek professional help as soon as possible to ensure that all documents are recovered safely and securely.

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