

## Data Storage Option Pros and Cons for Your Mobile Video System

One of the first steps you'll need to take when outfitting your fleet with mobile video solutions is to figure out what kind of video data storage you want to use.

Hard disk drives (HDD), solid-state drives (SSD) and SD cards each have their pros and cons, and this list will help you determine which option is best for you and your fleet.

	HDD	SDD	SD Card
Cost	Lowest cost per gigabyte (GB)	Highest cost overall	Lowest cost overall
Capacity	Largest	Large	Limited to 1 TB
Size	Large	Smaller than HDDs	Smallest overall
Read/Write Speeds	Slow	Fastest	Slowest
Moving Parts?	Yes	No	No
Easily Removable?	No	No	Yes

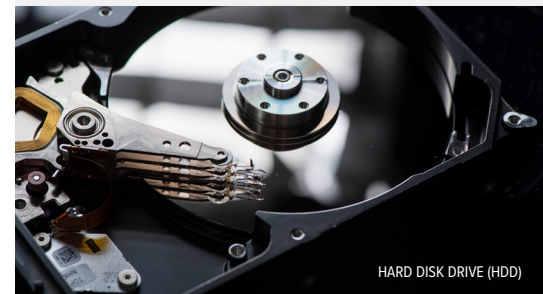
### Cost of Data Storage Options

SSDs have the highest cost overall, and SD cards are the cheapest. What's great about HDDs is they offer the lowest cost per gigabyte. For instance, you could get a 2 terabyte HDD for \$50, but a 2 TB SSD could cost you as much as \$200. While there are options for SD cards that can hold 1TB — anywhere from \$150 to \$200 — a 128-gigabyte SD card will run you about \$30.

### Capacity of Data Storage Options

Both HDDs and SDDs can hold a lot of video data, but HDDs can hold the most. The largest HDDs can hold around 20 TB, while the largest SSDs cap out around 8 TB. You'll most likely never need 20 TB of storage space for your fleet, as a 2 TB SSD can record a minimum of 18 weeks' worth of video data using three cameras recording eight hours a day for five days per week. SD cards are more suitable for data less than 1 TB.

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HARD DISK DRIVE (HDD)



SOLID-STATE DRIVE (SSD)



SD CARD



## Size of Data Storage Options

HDDs are the physically largest option, followed by SSDs and SD cards. HDDs generally come in 3.5-inch sizes (measuring 4 inches wide, 5.8 inches long and 0.8 inches thick), while most SSDs come in 2.5-inch sizes (2.8-by-4-by-0.4) SD cards measure 32 millimeters by 24 millimeters, making them the best option if space is limited.

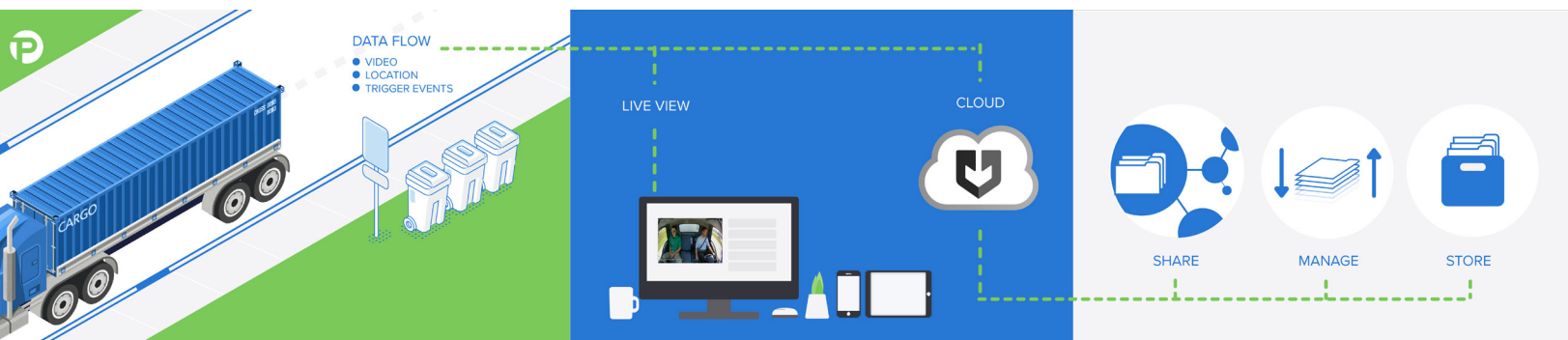
## Read/Write Speeds of Data Storage Options

SSDs feature the best read/write speeds of the three options, making them a quality candidate when dealing with large amounts of mobile video data. SD cards are the slowest overall but also aren't meant for large amounts of video data.

## Do Data Storage Options Feature Moving Parts?

HDDs are mechanical, storing and retrieving data using magnetic storage and one or more rapidly rotating disks, like how a vinyl record player works. The other two options store and retrieve data using flash memory, which means no moving parts. Because of their mechanical nature, HDDs are not good options in harsh environments that feature bumpy roads and harsh turns and stops.

SSDs, on the other hand, are shock-resistant and can handle those situations. SD cards, while not as durable as SSDs, still work better in harsh environments than HDDs.



## Are the Data Storage Options Easily Removable?

SD cards are the easiest to remove, generally requiring only a push of a button to take out of the DVR. They are the best option if you want to manually transfer data from the DVR to a computer or network. Some SSDs require only a couple of screws to remove, but HDDs often require many screws and fasteners to keep in place since any vibration can ruin the device. Since it takes more effort to remove both SSDs and HDDs, they are generally better for transferring files over Wi-Fi or a 4G connection.

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## Which Data Storage Option Should You Pick?

There are a lot of things to consider when selecting which data storage option is best for you. HDDs can hold the most amount of data and have the lowest cost per GB, but they aren't great in harsh environments and can be hard to remove. SSDs feature the fastest read/write speeds while still offering large capacities, but they have the highest upfront cost of the three options. SD cards are the easiest to remove from a DVR but have storage capacity limitations and offer the slowest read/write speeds.

### About Pro-Vision

Founded in 2003, Pro-Vision is a leading video technology solutions provider trusted by thousands of organizations in 58 countries. Pro-Vision solutions include vehicle video recording systems, body-worn cameras, data management and cloud-based storage solutions. Pro-Vision's transit, law enforcement and commercial partners utilize these solutions to enhance safety, increase productivity and protect critical assets.



PRO·VISION VIDEO SYSTEMS

8625 Byron Commerce Dr. SW • Byron Center, MI 49315 • USA

p: 616.583.1520 • [marketing@provisionusa.com](mailto:marketing@provisionusa.com)