

Video, images, audio, cell phone and HDD content along with other forms of digital media make great evidence when used properly. Video in particular is a powerful tool that helps reduce the need for trials and increases plea agreements and convictions. That's the good news. The bad news is Digital Media Evidence (DME) has increased exponentially in the last 5 years and there is no reason to believe that the growth will slow down or stabilize. Managing all the DME when processing cases is certainly a challenge that everyone involved in Law Enforcement and the Justice System is aware of, but the ugly subject that has not received the same level of attention is the need to store DME long term per the legal system's requirements. An even less discussed subject is the migration away from the current storage methods used (secondary devices), such as VHS, LTO, DVD/Blue-ray, Thumb drives, and HDD/SDD.

The legislation and rules regarding video specifically vary from state to state, but in general there is a holding period of 30 days or so for all video; 2+ years for video that has been flagged as "incident or investigation," and if the case goes to trial, the retention period of DME can be up to 50 years. While many companies have been focused on creating a better system for the present, archiving hasn't received the same amount of attention; and with this new realization of exponential growth, the subject of archiving is only becoming more and more prevalent and in need of a solution.

Most see the stress and challenges of archiving as both a human pain point and a physical obstacle. The human stressor comes from the overwhelming amount of time IT and Records Management staff keeps awake at night trying to juggle "What can I keep, what do I have to delete, and how do I know?" The physical obstacle of archiving is "How do departments archive all the different forms of content from all the devices

that created it?" A proprietary archive solution is a dangerous game because if the archive solution provider goes out of business, is acquired, or simply ends support of a product, your archive is no longer functional. Archives must be completely open systems that support both the DME and the Metadata in an open format whenever possible. That way if something happens to a software or hardware provider, you are not held hostage to one particular platform. The two challenges above are large pain points, but there is a third...Legacy archiving.

For many years DME has been created and stored on many different devices and forms of media. Who doesn't have an evidence and storage locker full of DVDs, CDs, LTO Tape, Thumb Drives, and yes, even VHS tapes? In some cases, there is storage on servers with many Windows folders with a home-grown naming convention to organize the cases and data because that was what the organization could do at the time. The DME in these formats are unstructured and at risk. If the evidence is lost or cannot be found due to the nature of being unstructured, it is a serious issue with the courts and "heads will roll." Unstructured Data in law enforcement is generally evidence files that either do not have a pre-defined data model or are not organized in a pre-defined manner. Unstructured files and data are typically text-heavy, but may contain data such as dates, numbers, GPS information, and file types as well. Structured Data is evidence files that have been organized into a formatted database, so that the elements can be made addressable for more effective processing, indexing, searching, authentication, and analysis. A data structure is a repository that organizes information for these tasks to assure DME is kept secure and searchable.

Ingesting, indexing, authenticating, and securing the DME off of legacy products is a challenge that many organizations are simply ignoring for fear of the work, the cost, and the storage challenge. It may not be today, but someday soon there will be a critical event or loss of evidence that will trigger a wholesale panic over Archived DME.

Some Quick "Un-Fun" Facts:

- 1. VHS Tapes life expectancy is 10-25 years, with optimal conditions
- 2. DVD-RWs life expectancy is up to 30 years, with optimal conditions
- 3. CD-RWs life expectancy is 20-100 years, with optimal conditions
- 4. USB Flash Drives life expectancy is about 10 years, or between 10,000 to 100,000 write/erase cycles, depending on the memory technology used, with <u>optimal</u> conditions
- 5. Optimal conditions are ...
 - a. Stored vertically
 - b. Kept in a low dust area
 - c. Kept in a cool, dry (low humidity) climate-controlled area with minimal light
 - d. Stored in individual cases



Some good news for all is that there are solutions available that are more affordable and more automated than traditional, standalone DEMS offerings. The key questions to answer when investigating your organizations readiness for Archiving are:

- 1. What is my total current volume of archived DME?
- 2. Is my data unstructured or structured?
- 3. What is my projected annual growth rate?
- 4. What software will I use in an open format (data and media) to safely secure my archive?
- 5. How will I properly ingest evidence off old technology like CDs, DVDs or Tape?
- 6. What storage platforms are available for short term, long term, and cold storage archiving.
- 7. If I need to create open formats of DME, how can I convert to standard video that will be viewable 30 years from now?

Dynamic Workflow Solutions (DWS) has part of the solution with an open archiving platform called **DWS Digital Evidence Archiver (DEA)**. **DEA** is a pure software product that creates archive ready, structured media and metadata in a completely open platform. As a software only solution, and an open platform, organizations can use whatever storage and distribution technology they want. If there are already large on-prem servers and storage, **DEA** will work on that platform with no modifications or infrastructure costs. If Cloud is preferred, **DEA** will work seamlessly there as well, and the customer can choose their provider and negotiate their own contracts. Free Pilots or Proof of Concept inquiries are welcome.

To contact DWS about DEA, CLICK HERE

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