

# UDO ARCHIVE APPLIANCE VS. DVD



**UDO ARCHIVE**  
APPLIANCE



*Plasmon's UDO Archive Appliance leverages the Performance of RAID with the Longevity and Authenticity of UDO (Ultra Density Optical) in a fully-integrated, all-in-one network-attached storage solution!*

## **Tiered Storage Architecture**

The design philosophy behind the UDO Archive Appliance is to apply technology strengths where they can be leveraged the most. This is achieved through the use of tiered storage that employs appropriate technologies at the different stages in the archive. Using a NAS server interface, the UDO Archive Appliance appears as a standard network attached file system. This allows image capture and content management applications to be quickly certified with the UDO Archive Appliance without the need to implement a proprietary interface.

## **UDO versus DVD**

Today, DVD is delivered as a bare, non-cartridged, media which presents a significant risk to data in high duty cycle professional environments. The handling of DVD media puts it at risk of contamination or damage, which could result in the inability to access data. Even within a library where the physical handling of media is kept to a minimum, there is still a risk of contamination or damage. Customers using DVD in a production environment should develop operational strategies that minimize the handling of bare DVD media and may consider making redundant copies of media to be stored off-line in the event of media damage. These types of considerations do not come into play with cartridged UDO optical media.

## **Optical Media Quality**

Due to the success of DVD on the computer desktop, dozens of DVD media production facilities have sprung up all over the world. Competition for DVD media sales is very intense; driving down cost and quality. In addition to quality concerns, some DVD media has been optimized to operate with specific drive manufacturers making the media inappropriate for other drive types. Plasmon has tested DVD media from many manufacturers and has found a startling range in quality and compatibility.

## **Performance / Data Verification**

The two primary DVD formats for data recording are DVD-R and DVD-RAM. DVD-R is a write once, sequential recording format without drive based write verification. This is very similar to CD mastering. This means that you must manually verify that the data has been correctly written to the media. If there was an error in writing, you must start the write process again with a new piece of media. While the overall write performance for DVD-R is adequate, there is significant additional overhead if the write process is to be properly verified.

By contrast, UDO media provides dynamic write operations with full write verification. UDO provides superior performance to DVD, greater flexibility and a level of write verification essential to enterprise storage environments.

## **Product Roadmap / Future Compatibility**

DVD media is currently available with 9.4GB media capacity. Limitations with current drive technology means that this capacity will not increase until a new generation of Blue-ray based drives is available. While development work is underway by several manufacturers, it may be years before next generation DVD products are available and it's likely that these products will be optimized for consumer based applications and not data storage (as we've seen in the past).

Unlike UDO, a multiple generation roadmap for Blu-ray DVD is unclear. Assuming product development will be driven largely by the demands of the consumer market, it's impossible to say whether the media capacity will increase in line with the demands of the data storage market. If not, the product will rapidly fall behind on capacity, performance and TCO. To date, there are no published roadmaps for Blu-ray DVD products.

Future media form factor compatibility for UDO is not in question. UDO uses that same ISO standard cartridge format as previous generations of 5.25 inch MO. Through mixed media library configurations, customers can upgrade their existing G-Series Plasmon libraries and protect their initial library investment.

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