



The Impact of Low-Resolution Companion Files of Video File Assets: Reducing Costs and Improving Efficiency for Long-Term Retention Requirements

The continual growth of digital video files as business-critical corporate assets—whether they are video surveillance assets or post-production videos from the entertainment industry—is requiring CTOs, CIOs, and IT professionals to find more efficient and cost-effective ways of utilizing and managing all available storage resources.

According to IDC research, companies are increasing their file-based storage by 40% to 120% per year and place a high priority on increasing the efficiency and reliability of their management processes for file-based assets. These new requirements are the result of the advent of digital video and the increasing popularity of computer based video creation and editing. Because video files are often very large, the need for ever more storage is increasing rapidly. However, increasing storage is only half of the solution. Being able to store large numbers of video files is useful only if you can find what you need in a timely manner. Unfortunately, uploading and searching through large video files is time consuming and CPU intensive.

Video technicians and on-set operators have customarily handled all video content in its original high-resolution format. However, the rapid growth in video file-based assets is exposing the weaknesses of working with original, high resolution files as well as the weakness of existing IT storage management practices. Whether utilizing dispersed file servers in support of different workgroups or consolidated NAS/SAN systems, companies are still struggling to control video file growth. The economic impact on enterprises arises when the requirements for video assets, such as digital delivery of video content or video surveillance, make it necessary to avoid disruptions that would drive down employee productivity, jeopardize revenue streams, and increase the burden on IT staff. A significant economic impact is related to the long-term retention of video files that create a growing performance and cost mismatch.

Managing long-term retention policies is becoming increasingly critical. CTOs, CIOs, and IT executives acknowledge that the problem is even greater at companies in sectors such as media and web services that deliver content to customers that must economically support access to the latest available information as well as to the older, less frequently accessed files. Other market segments, such as e-Discovery and financial regulation make long-term retention and access of seldom used files a significant management task. Many IT staff members now recognize that 90% of the file data being stored at any given time do not require the access performance or data protection levels associated with high-end NAS systems.

Executives are now seeing new revenue streams from re-purposing their video assets. Working effectively and realizing efficient workflows across departments requires proper asset management and handling of associated metadata, facilitating rapid and easy access to the video content.

The Solution

What is needed is a comprehensive video lifecycle management solution that will not overload the network and that will scale easily within any size organization. The alternative to retrieving full-resolution video files is to keep low-resolution companion files online while originals are stored safely offline. The creation of preview quality, low-resolution companion files is fast becoming a management best practice for controlling storage requirements of high-quality video assets. In contrast to the time and CPU intensive work of finding what you need and editing broadcast-quality, high-res video within a static infrastructure, low resolution companion files in a dynamic IT system enable you to find the video content you need quickly and easily. IT professionals can see increased cost savings, as well as improvements in their workflows, by transferring a significant portion of their usual daily video processes to the low-res world.

SoleraTec's Phoenix digital video lifecycle management solution has low-resolution video component processing built-in. It can create low resolution companion files from original, high-res video files as they are ingested into the Phoenix Federated Information Repository. These companion files remain associated with the high resolution originals from which they were generated. These files are grouped together into a collection that can be easily managed through migration and replication policies.

The Phoenix Information Repository delivers video lifecycle management that is policy based, dynamically managed, and extremely scalable, providing organizations with the tools to efficiently manage their ever-growing quantity of video data. Phoenix also provides an easy, efficient method to locate and retrieve video when it is needed for playback.

The availability of low resolution video files that are associated with their original high resolution version can benefit multiple departments inside and outside of the organization. Certain functions that required access to video monitors or tape machines can now be done in less technical areas of a facility that are connected to the network.

Organizations need to manage data assets throughout their lifecycle, from creation to long-term retention, to final disposition. The inability to automatically, non-disruptively, migrate and replicate digital assets from high-performance disk-based storage to lower-cost storage leads to excessive spending on systems that are costly to acquire and administer. Therefore, to more reliably and cost-effectively manage their assets, organizations are implementing the multi-tiered storage management capabilities found within the Phoenix solution.

The ability to deploy and consistently manage a wide range of disk-based storage tiers with different performance, capacity, availability, and cost structures, integrating seamlessly with tape-based or optical-based storage tiers that support offline, long-term, fully-managed storage needs, all without user disruption and without requiring wholesale replacement of existing storage resources, is central to the Phoenix video lifecycle management solution. Phoenix provides a common set of scalable and highly available data migration, replication, data protection, and overall lifecycle management tools across available storage tiers.

Utilizing Phoenix with multi-tiered storage management policies in place, an organization will have the ability to retain a significantly large collection of low-res companion video files on primary high-performance hard disk. Utilizing these low resolution companion files, an organization can maintain up to 50 times more video files on high-performance hard disk than it could without low resolution companion files. While remaining under full management and tracking control, high resolution originals can be moved off onto less expensive removable media such as LTO digital tape or Blu-ray optical media. This provides for better management of the overall assets, better utilization of a company's storage resources, and lower total cost of ownership.

This provides the organizations that incorporate Phoenix into their environments with the ability to significantly increase the effective utilization of installed storage resources without jeopardizing performance or information availability. Phoenix also reduces the IT management time needed to properly manage and access necessary digital assets. Phoenix's cost-saving capabilities make it easy to automatically migrate and replicate assets between tiers of storage based on file age, type, or other criteria. And Phoenix's ability to provide simplified video asset file searches based on an extensible metadata infrastructure makes it one of the easiest search and retrieval solutions available.

About SoleraTec

SoleraTec is a leading developer of archive, storage, asset and video lifecycle management software for corporate customers. SoleraTec leverages a heritage of nearly a decade and a half to deliver a level of quality, sophistication, and technological advancement that has established it as one of the premier data protection solution providers in the industry. SoleraTec works through OEM, dealer, and integrator relationships to deliver complete data protection solutions. The company was established in 1997 by a team of industry veterans with experience deploying data protection, HSM, and storage lifecycle management solutions to some of the largest companies around the world.

SoleraTec™

www.SoleraTec.com • Tel: (760) 743-7200 • Email: Info@SoleraTec.com

SoleraTec Headquarters: 2430 Auto Park Way, Suite 205, Escondido, CA 92029

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