

viaForensics Leverages NexentaStor to Extract Evidence Through Virtualization



Key Highlights

Industry: Forensics, Law Enforcement

Challenge:

- Explosive growth in data to be managed
- Very large file size, ranging from 8GB to 1TB
- Needed data disaster recovery solution

Solution: NexentaStor with VMDC Plug-in

Benefits:

- Multi-protocol server access
- Hybrid storage pooling
- Certified VMware ready
- File compression and deduplication result in lower carbon footprint

Business Overview

viaForensics is an innovative digital forensics, security, and e-discovery firm providing services to corporations, law firms, and law enforcement/government agencies. The company's areas of focus include computer and mobile forensics, threat and fraud protection, and forensics training. viaForensics is the leading expert on iPhone and Android forensics and have developed a suite of unique services to serve the security and e-discovery needs of organizations.

viaForensics' services allow them not only to detect data loss, security breaches, criminal activity, or employee abuses, but also to uncover critical internal vulnerabilities within systems before incidents occur.

Challenges

Massive Data Increase: Digital forensics relies upon information intelligence and data analysis. The company accommodates an ever increasing amount of data so that digital forensics users need

to regularly expand storage capacity. Costly legacy solutions have a "data silo" approach to storing and managing data that does not meet flexibility and scalability requirements.

Accessibility and Security: Data is the core of the digital forensics industry. As such, it is important that all information is stored correctly and is highly available and accessible to all user agencies. Legacy storage can be unreliable and can limit information accesses, as well as how and from where agencies can access it.

Data Integrity: Stored data, over time, has a loss of integrity. Legacy vendors run back-end processes to scrub data, check for errors, and correct them when they can. Over large data sets, like those used in digital forensics, data scrubbing processes must look at massive amounts of data, which can have a significant impact on the performance of systems and data availability.

“We have to slice and dice (large disk images) many ways, many times. This is the reason why we went with NexentaStor.”

—Andrew Hoog, CIO, viaForensics

Solution Overview

NexentaStor is the leading hardware independent storage solution built upon ZFS technology. For the first time, customers can go beyond proprietary consolidation to a Nexenta solution. Further, the Nexenta solution offers data integrity features far superior to mass-storage, Linux-based, and many enterprise storage vendor solutions. When looking for a storage solution, viaForensics needed a product that offered the following:

Evidence Hosting: viaForensics' Digital Vault for evidence is securely shared via NFS—primarily to Ubuntu stations—thanks to the power of NexentaStor.

VMware Readiness: Much of viaForensics' evidence is extracted using VMware. As such, viaForensics needed a storage solution that functioned well in a virtual environment.

NexentaStor is officially certified by VMware to be VMware Ready, so viaForensics can be sure that NexentaStor works effectively in a virtual setting.

For its VMware setup, viaForensics has ESXi running multiple servers—shared via iSCSI (VMFS)—with direct iSCSI sharing to various servers for additional data storage.

Reliable Backup: viaForensics' Digital Vault contains evidence extracted from a myriad of electronic devices. Its evidence is critical not only to the company, but also to a variety of law enforcement agencies. If viaForensics loses its data in a local or regional disaster, major investigations and legal cases would be undermined due to missing or corrupted digital evidence. It is critically important to reliably back up this data, and viaForensics has chosen NexentaStor as its primary source for backup and replication.

Very Large File Size: viaForensics works with large disk images ranging from 8GB to 1TB. These disk images then are broken down into smaller parts and inspected for pertinent evidence.

When asked why viaForensics selected to use NexentaStor to deal with large files, Andrew Hoog (CIO, viaForensics) had this to say: “We have to slice and dice [large disk images] many ways, many times. This is the reason why we went with NexentaStor.”

To handle big files like these, viaForensics installed a 10 Gigabit network infrastructure to speed up copies for backup and—as a result of NexentaStor's Auto-Sync capabilities—replication and backup are easier than ever!

Business Benefits

viaForensics now has a virtual environment that provides high-level security, data retention, and recovery. Compliance requirements are met easily. In addition, the Nexenta solution provided:

- Safe, reliable extraction of large amounts of data.
- Simultaneous access to files by multiple clients on multiple devices in multiple locations.
- Easy deduplication, storage, and backup for large files
- Overall system costs dropped dramatically

Moving forward, viaForensics has the flexibility to increase its storage capacity as needed. It now can handle files of any size with the knowledge that all its information is secure—today and into the future.



Nexenta Systems is the leading supplier of enterprise-class OpenStorage solutions. Its flagship software-only platform, NexentaStor, delivers high-performance, ultra-scalable, cloud- and virtualization-optimized storage solutions.

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