CASE STUDY

TRUENAS® HIGH AVAILABILITY STORAGE MAKES THE CUT WITH 1STAVEMACHINE

Brooklyn, New York
www.1stavemachine.com
Film / Production / Editing

Summary

Challenge: Decentralized Infrastructure & Low Performance
Solution: TrueNAS
Use Case: Centralized Redundant Storage

Benefits

• TCO Savings
• Increased Performance
• Productivity Gains
THE STORAGE CHALLENGE

1stAveMachine, a New York-based media and entertainment production company, used traditional Linux servers distributed across multiple departments to store their vital film footage. Unfortunately, this decentralized IT infrastructure created data silos that were inaccessible to many of the production staff across multiple departments. 1stAveMachine first tried to solve this problem with a Nexenta software-only storage solution on a server built in-house. However, it quickly became evident that Nexenta was not a good option due to its costly pricing structure.

After several frustrating experiences trying to use the Nexenta hardware compatibility list and difficulty sourcing compatible parts, 1stAveMachine decided to search for a better solution.

1stAveMachine still had an undeployed server they had built to use with Nexenta but were unsure if it could be used with a new software solution. 1stAveMachine knew they liked the features of the Zettabyte File System (ZFS) from previous experience, but there were a limited number of operating systems utilizing ZFS.

1stAveMachine tested NAS4Free but determined it did not have the features needed to serve as their core storage platform. After that, 1stAveMachine decided to give FreeNAS, the world’s #1 software-defined storage OS, a try on their pre-built storage servers. While qualifying FreeNAS as part of their storage solution, 1stAveMachine was blown away by the extensive documentation and helpfulness of the FreeNAS community and decided to dig deeper.

“We came to iXsystems when we had some questions on FreeNAS and were very impressed with the response. The people at iXsystems went above and beyond the expected level of knowledge and service to help us. It was then that we realized TrueNAS was the enterprise solution we had been looking for.”

- Chris Caravella, Chief Engineer
“Box to box performance is exponentially better. It used to take a few days for replication to finish, but now it tops out right around a day. I can also use the management console anywhere on the network making administration a snap.”

- Chris Caravella

UPGRADING TO TRUENAS STORAGE

1stAveMachine reached out to iXsystems, the developers of FreeNAS, with questions during the qualification process. The experienced storage experts at iXsystems quickly answered 1stAveMachine’s questions and informed them about TrueNAS unified storage solutions that could consolidate the company’s decentralized IT infrastructure. 1stAveMachine learned that TrueNAS builds on the stability of FreeNAS and the ZFS file system with additional features like fibre channel support, high availability, enclosure management, and enterprise customer support.

1stAveMachine decided to purchase a TrueNAS high availability solution with two expansion shelves and have seamlessly integrated it with a FreeNAS server that serves as a replication target. Their TrueNAS has 160 terabytes (TB) of disk space configured in a mirrored configuration, giving 1stAveMachine over 80 TB of usable storage.

Each storage controller on the TrueNAS high availability system has a 10GbE fiber SFP+ connection networked to a 24-port 10GbE switch, which then connects to four stacked 1GbE switches. The TrueNAS system is also able to utilize the 10GbE switch for backup and replication with closed access and a 1GbE switch for client access.

1stAveMachine found that TrueNAS eliminated performance issues that were seen with other storage solutions during post-production editing. Pairing TrueNAS with high-speed read and write caches from iXsystems, 1stAveMachine achieves a higher level of performance than they had seen with the Nexenta storage solution. In fact, the production staff can easily saturate their 1GbE connection with about 110 MB/s of read and write performance.

TrueNAS provides the thirty-five member production staff at 1stAveMachine with a storage solution that unifies their IT infrastructure and helps prevent a proliferation of walled-off data silos across departments. With TrueNAS, 1stAveMachine can perform a variety of actions with ease, including editing directly on the server and exchanging raw files of all sizes. Their users can access TrueNAS storage via the SMB protocol from Mac and Windows clients, making project collaboration easier than ever. Using their existing 10GbE fabric for backup and replication with TrueNAS, 1stAveMachine has seen their backup times cut in half.
TrueNAS comes with industry-leading storage support from iXsystems that allows 1stAveMachine to spend their time on editing film projects instead of worrying about limited documentation and challenging compatibility issues. The support team works closely with the FreeNAS and TrueNAS developers to provide 1stAveMachine with a team of dedicated storage experts if they need help.

**TRUENAS DELIVERS RESULTS FOR 1STAVEMACHINE**

1stAveMachine needed a stable, unified, ZFS-based storage solution that could serve their growing studio and store their vital film project footage. After testing and eliminating several storage solutions that couldn’t keep up with their intensive workload, 1stAveMachine discovered FreeNAS, which performed beyond their expectations.

1stAveMachine turned to the ZFS specialists at iXsystems when they had questions about FreeNAS and learned about TrueNAS enterprise storage solutions that could unify their non-centralized IT infrastructure while scaling with their company to meet increasing post-production demands. 1stAveMachine then decided to implement a TrueNAS storage appliance that seamlessly integrated with their FreeNAS replication server. 1stAveMachine now enjoys unprecedented performance and stability, cutting their backup times in half. On top of all this, iXsystems includes enterprise storage support with every TrueNAS unit, allowing 1stAveMachine to call the ZFS experts at iXsystems in the event that they need help.

**ABOUT 1STAVEMACHINE**

1stAveMachine is a collective of international directors, artists, and designers headquartered in Brooklyn, New York. Since 2004, 1stAveMachine has been a beacon for creative ideas, working to entertain audiences and touch on human emotion with top quality video production.

1stAveMachine works to engage their audience with new perspectives and deliver media that gives them a reason to think and remember the message. Rooted in a culture of collaboration, 1stAveMachine works with agencies and brands to build the most stand out, creative ideas. Since its inception, 1stAveMachine has expanded and diversified, while producing award winning videos and remaining committed to presenting a singular vision for stories to share.
ABOUT IXSYSTEMS

iXsystems is a pioneer in building innovative storage solutions and enterprise servers for a global marketplace based on open technology. With decades of expertise, many contributions to Open Source communities and stewardship of leading Open Source projects, iXsystems has become the leader in innovative storage and server solutions for the global open technology market.

Headquartered in Silicon Valley since its founding in 1996, thousands have come to rely on iXsystems’ approach to doing business. Our consultative approach, dedication to customer support, and contributions to open source has never wavered and builds the foundation for a new era powered by open technology.

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