

XCubeNXT

Media Editing Solution



Main Challenge



Throughput

In the realm of media editing, throughput holds significant importance. Enhanced throughput facilitates operational efficiency by expediting data access.



Workload

Media editing is a heavy workload job. Devices need to be stable and powerful to meet the requirement of the workflow.



Capacity

The capacity requirement from multimedia is elevated. Therefore, choosing an expandable high capacity is a paramount issue in enhancing media editing tasks.

Preface

In the realm of media editing, the performance of storage plays a pivotal role in shaping the landscape of creative endeavors. As digital content creation grows exponentially, high-resolution images, videos, and complex project files need a robust enough storage device. Efficient storage solutions not only streamline the workflow but contribute to the overall productivity of media professionals. With the ever-expanding size of multimedia files, managing and accessing vast amounts of data swiftly becomes paramount. Efficient storage ensures seamless collaboration and project management simultaneously. As the demand for more prosperous and complex media content escalates, QSAN is devoting to providing storage solutions that fit every type of workload from the SMB to enterprise level. Especially in media editing, we optimize the performance in multi-media applications continuously.

Key Advantages of XCubeNXT Series

- **Outstanding Performance**
- **Thin Provisioning / Data Reduction**
- **High Bandwidth**
- **Easy Management**
- **Multi-Protocol Support**
- **PB-Level Expansion**

Performance Test Procedure

We conduct a comprehensive general throughput test to evaluate the overall performance of XCubeNXT system. This test measures key factors that impact media editing, such as data transfer speeds and system responsiveness. Through this analysis, we ensure that XCubeNXT can handle diverse workloads efficiently and deliver optimal performance across various applications.

Additionally, we perform a competitor comparison test to assess our system's capabilities in the demanding field of 4K ProRes editing. This evaluation highlights XCubeNXT's performance against leading competitors, focusing on data transfer speeds and responsiveness. By showcasing the system's superior efficiency and reliability in handling high-resolution video editing, we demonstrate its unparalleled suitability for professional media editing tasks.

- **General Throughput Test**

Conducting a comprehensive general throughput test is essential to evaluate the system's overall performance. This test measures and reveals key factors that impact media editing. By analyzing data transfer speeds and system responsiveness, we ensure that our XCubeNXT can handle diverse workloads efficiently and deliver optimal performance across various applications.

- **Competitor Comparison**

To assess our system's capabilities in the demanding field of 4K ProRes editing, we conduct a competitor comparison test. This evaluation highlights our system's performance against leading competitors, focusing on data transfer speeds and responsiveness. By showcasing how our XCubeNXT excels in handling high-resolution video editing, we demonstrate its superior efficiency and reliability for professional media editing tasks.

General Throughput Test

Model : XN8124D

Connection: 4 x 2-port 32 GbE Fibre Channel HBA

Result :

	128K Sequence Read	128K Sequence Write	4K Random Read IOPS	4K Random Write IOPS
Block	16,693MB/s	8,210 MB/s	516,400	207,800
File	16,494 MB/s	8,187 MB/s	511,200	206,000

XCubeNXT series takes advantage of the sequence read comes out to 16 GB/s and goes excellent IOPS up to 516,400 times throughput to meet the performance requirement. This factor significantly shows the advantage of XN8124D can put with the heavy workload in media editing field.

Competitor Comparison

	4K ProRes* Streams	
	Count	Throughput
QSAN XN8124D	39	7,600 MB/s
Competitor	37	7,400 MB/s

Test Environment

Host : Model : GIGABYTE_R181-2A0 CPU : Intel® Xeon® Platinum 8176M Memory : 256GB Network: Mellanox 10G network card

Storage : Model : XN8124D Connection : 4 port 25 Gbe iSCSI HBA*4

*Codec & Frame Rate: ProRes 3840*2160 @60fps

XCubeNXT 8100 series dual controller model performs unparalleled throughput in the 4K ProRes test in higher video counts. In practical use, XCubeNXT can reach over 7GB/s throughput ensuring operation fluency.

Competitor Comparison

	4K ProRes* Streams	
	Count	Throughput
QSAN XN8124S	21	4,100 MB/s
Competitor	20	4,000 MB/s

Test Environment

Host : Model : GIGABYTE_R181-2A0 CPU : Intel® Xeon® Platinum 8176M Memory : 256GB Network : Mellanox 10G network card

Storage : Model : XN8124S Connection : 4 port 25 Gbe iSCSI HBA*4

*Codec & Frame Rate: ProRes 3840*2160 @60fps

XCubeNXT 8100 series single controller model also performs robustly in the media editing environment. It suits the medium-large scale of media editing tasks while ensuring the best ROI.

Conclusion

In summary, the performance report highlights the exceptional capabilities of the XCubeNXT storage system. Over the specified period, it has consistently demonstrated efficiency, reliability, and resilience in managing data storage and media editing tasks. Notable improvements include reduced response times, enhanced throughput, and increased overall system stability.

Proactive measures to optimize performance, such as addressing potential bottlenecks and ensuring scalability, have been crucial to these positive outcomes. For organizations in the media editing field, the XCubeNXT provides a reliable outcome. Its tailored enhancements instill confidence in its ability to support complex data environments and deliver superior performance.

The XCubeNXT is an invaluable asset for any organization seeking efficient, reliable, and scalable data solutions for multi-media processing. Its ability to handle demanding workflows and maintain robust stability underscores its role as a best choice data management solution.