



ATTO Technology Benchmark Report for Huawei M&E Solution

Huawei Technologies Co., Ltd.
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Change History

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1.0	2012-04-28	Initial draft	Wang Si	

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About This Document

This document details the solutions of the T serials storage system with ATTO FC HBA, and aims to prove that the S5000T is able to interoperate with ATTO's hardware & software products from the aspects of basic service function, advanced service function, reliability, and maintainability. It also helps readers to better understand the M&E solution.



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1 Overview

1.1 Overview

As a leading provider of network security and storage appliance solutions to customers worldwide, Huawei Technologies Co. Ltd. are excited to work closely with ATTO, who has been providing high-performance storage connectivity products for years, to ensure interoperability and easy integration for our customers. With prolific experiences in medium and storage area, Huawei will help customers get an effective, reliable, low cost solution to stimulate their business with unique competitive advantage.

Media & Entertainment companies are eager to take advantage of the latest technology innovations that will accelerate workflows, improve working efficiency, and increase the business value of their media assets. Huawei is playing an important role in their ability conduct their business within a secure and reliable network, while boosting their capability in managing, storing, and accessing rapidly growing amounts of data from media assets. Huawei has accomplished significant technological breakthroughs and incorporated the latest technologies to deliver outstanding performance, and high reliability across many applications including broadcast, post-production, animation, and other media and entertainment applications.

The Oceanspace T Series SAN storage system combined with ATTO 8Gb Celerity HBAs and sharing software (like StorNext/XSAN) is able to meet the requirements of real-time, high throughput and sustained stable bandwidth for post-production workflows.

2 Huawei M&E Solution

2.1 Topology

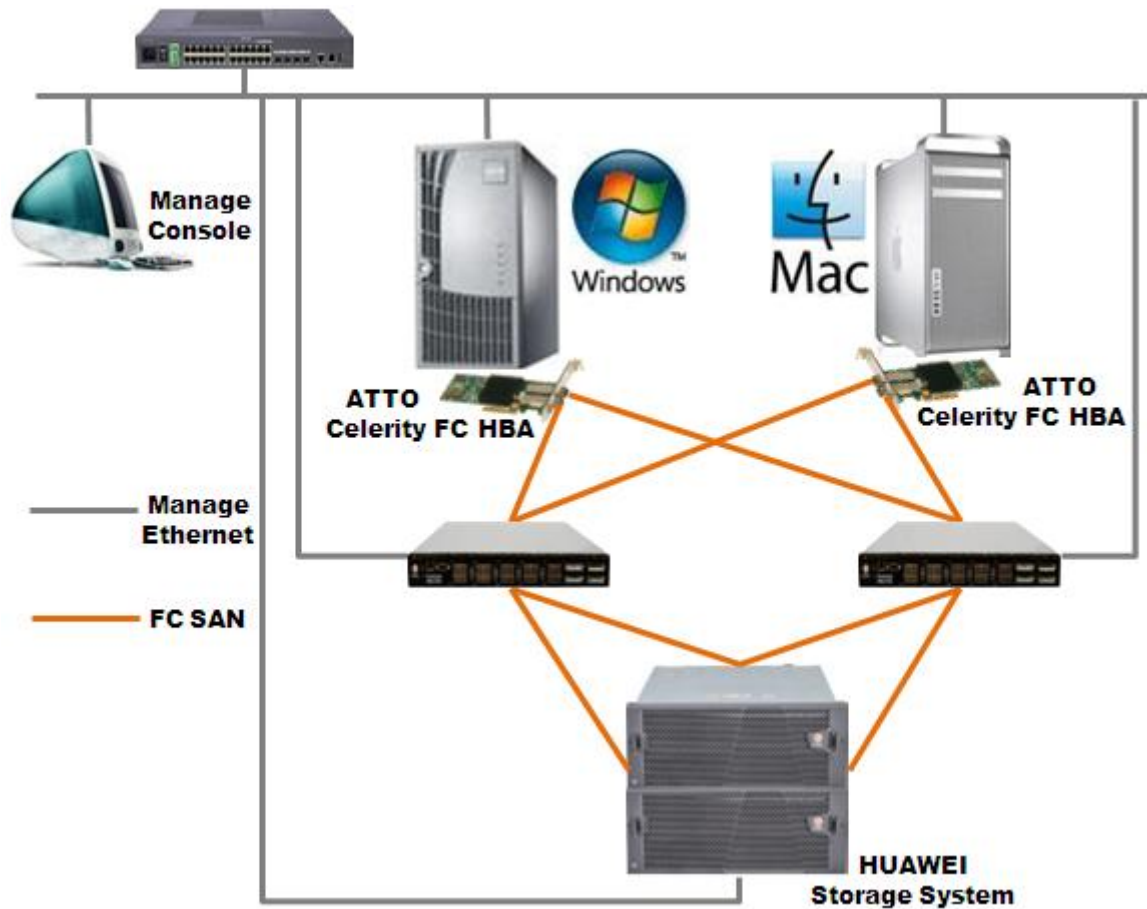


Figure 2-1 Huawei/Stornext/ATTO Topology

2.2 Key Features

- **High Performance**
 1. Low latency: Optimized performance tuning, real-time workflow acclamation.
 2. Sustained and stable bandwidth with FC SAN connection.
 3. Efficient performance with dual networks: Data flow with FC connectivity, control flow with GE connectivity.
- **High Scalability**
 4. TurboModule feature: Hot swap/flexible modules.
 5. Capacity on demand: Expand capacity or performance easily.
- **High Availability**
 1. No single point of failure: Redundant core components.
 2. Data protection suites: Data coffer, RAID6, pre-copy.

Table 2-1 Multi-stream support with Huawei T-Series

Video Format	Data Rate (MB/s)	Number of Streams		
		S5500T	S5600T	S6800T
Uncompressed SD 8bit	20	125	240	300
Uncompressed SD 10bit	27	92	180	220
HD – Uncompressed 10-bit 1080i @ 30 fps	166	15	30	34
HD film DPX 1920*1080 @ 30 fps, RGB 4:4:4, 10bit	249	11	21	24
2K – 10bit RGB/full frame DPX	305	9	15	18
4K – Uncompressed 10-bit DPX	1210	1	3	4

3 ATTO Celerity 8Gb FC HBAs Test

3.1 Performance and Stability Test

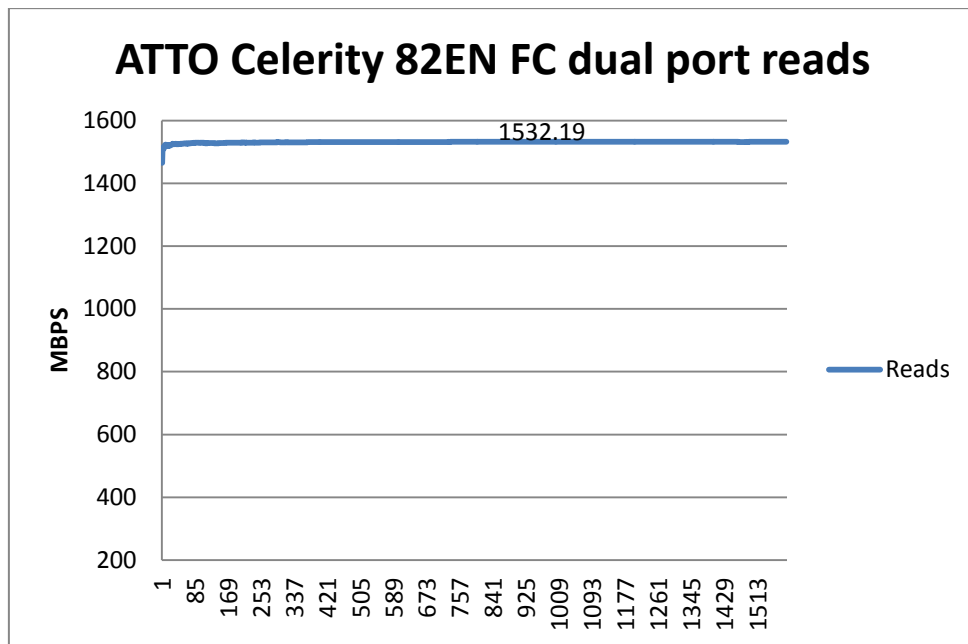


Figure 3-1 ATTO Celerity 82EN FC dual ports reads long time test (with StorNext)

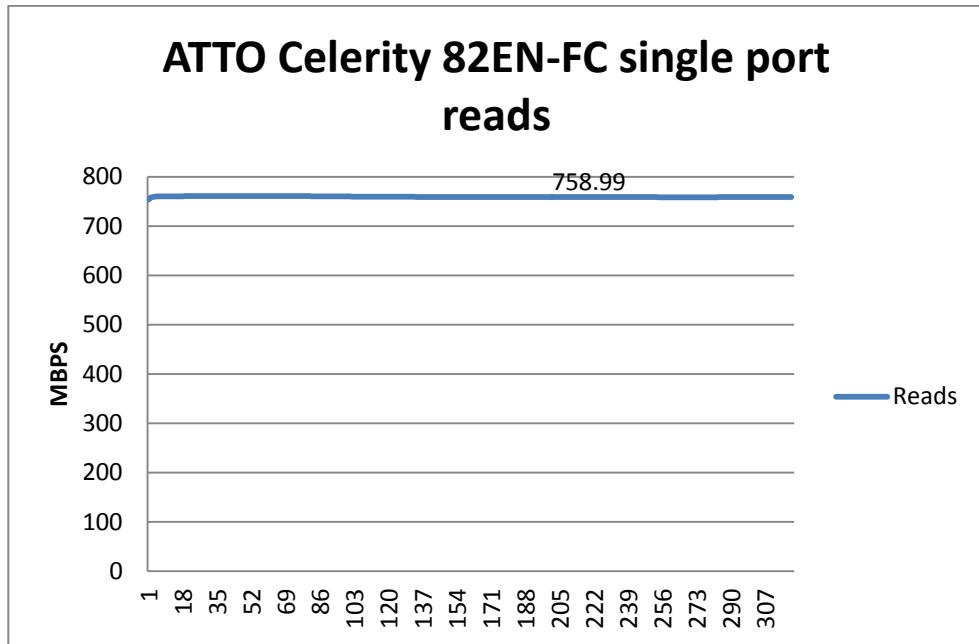


Figure 3-2 ATTO Celerity 82EN FC Single ports reads performance (with StorNext)

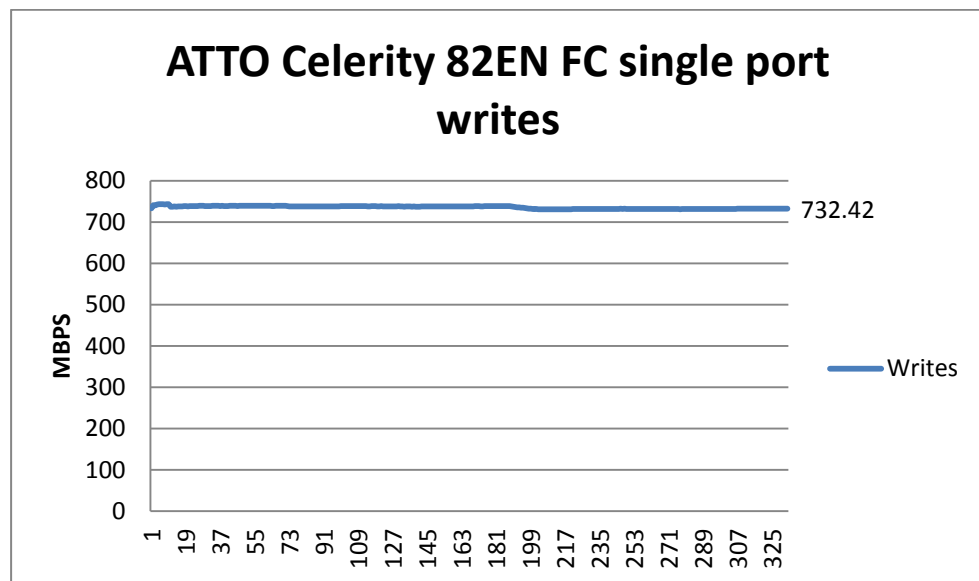


Figure 3-3 ATTO Celerity 82EN FC Single ports writes performance (with StorNext)

- **Superiority**

With long time test using the test tool "Frametest" from Autodesk, combined with StorNext, ATTO 8Gb FC HBAs performed an excellent performance both on reads and writes. For example, 82EN-FC single port can be up to 760MBPS reads, 732MBPS writes and dual ports up to 1533MBPS reads, which are nearly the limit output of the Channal speed. And the test is very stable; all the figures are nearly straight lines.