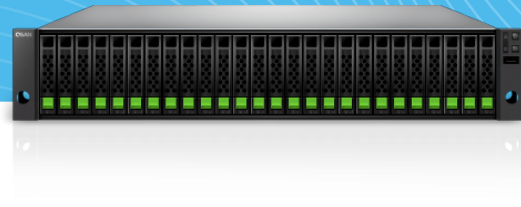# QSAN XCubeFAS XF2026D

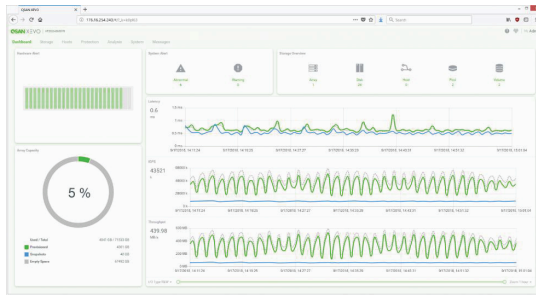## Flash For All

Small to medium enterprises require the same fast, reliable storage servers as any other large enterprise operating on a global scale, but may be working with a much smaller budget. QSAN, in its attempt to provide companies with a reliable high-performance storage solution that businesses demand, at a price that companies of any size can afford, has created the XCubeFAS XF2026D, successfully bridging the gap between affordability and top-tier storage servers.

Verified by industry-leading storage authority, StorageReview, Inc., QSAN's XCubeFAS XF2026D offers enterprise-optimized latency, reliability, and performance for data centers, virtualized environments, and enterprise applications, and an intuitive, user friendly web GUI easily operated by any level administrator.

# XEVO

XEVO was conceived on the idea that even top-tier SAN servers should be manageable and deployable in just a few simple clicks and operable by any system administrator, regardless of experience. Once the XCubeFAS XF2026D was integrated into the StorageReview lab and set up for testing, we quickly learned that QSAN's claims of easy manageability were true. Setting up storage pools, carving out volumes and presenting them to our test lab servers was simple and intuitive. Monitoring performance once the storage was operational was also simple, with each individual volume having latency, IOPS and throughput real-time graphing.
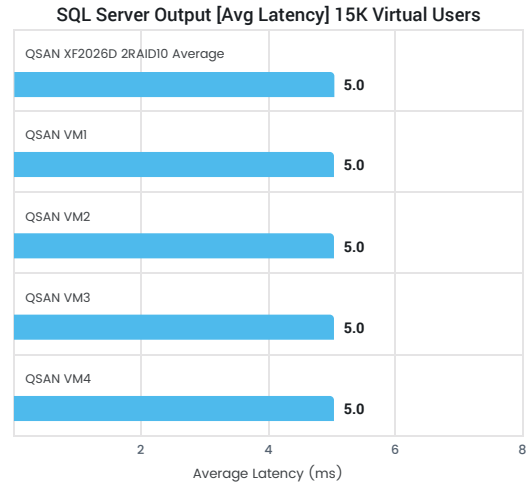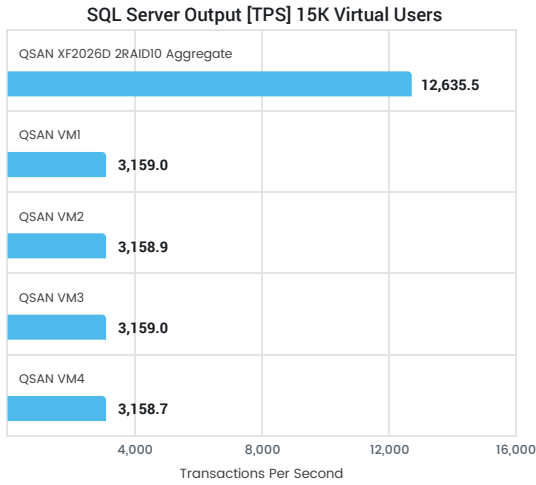
QSAN's new Operating System, XEVO, provides an easy-to-use GUI. Optimized for efficiency, the dashboard provides a quick view for hardware and system alerts, real-time performance, total used storage capacity, and a storage overview. Admins have immediate access to this critical information as soon as they open the GUI, ultimately providing an effortless management system.
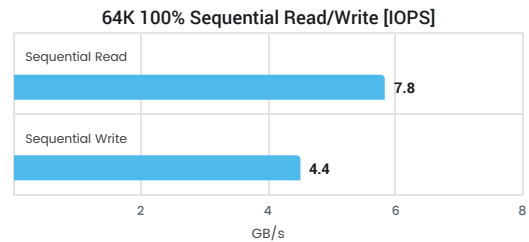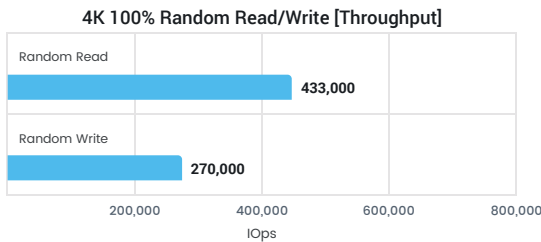
## Configuration

- x26 Toshiba PX04SV SAS 3.0 SSD
- x2 12-drive RAID10 disk groups (one pinned to each controller)
- Windows Server 2012 R2
- Storage Footprint: 600GB allocated, 500GB used
- SQL Server 2014[*1]
- Test Length: 3 hours[*2]

QSAN's XCubeFAS XF2026D segment-performance leadership is proven in real-world applications. StorageReview, Inc. conducted database performance measurements consisting of the MySQL OLTP performance via SysBench and Microsoft SQL Server OLTP performance with a simulated TPC-C workload. The XCubeFAS XF2026D shows impressive segment-based performance leadership based on the results of StorageReview's testing.

### SQL Server Output [TPS] 15K Virtual Users

| | TPS |
|---|---|
| QSAN XF2026D 2RAID10 Aggregate | 12,635.5 |
| QSAN VM1 | 3,159.0 |
| QSAN VM2 | 3,158.9 |
| QSAN VM3 | 3,159.0 |
| QSAN VM4 | 3,158.7 |

Transactions Per Second

### SQL Server Output [Avg Latency] 15K Virtual Users

| | Avg Latency |
|---|---|
| QSAN XF2026D 2RAID10 Average | 5.0 |
| QSAN VM1 | 5.0 |
| QSAN VM2 | 5.0 |
| QSAN VM3 | 5.0 |
| QSAN VM4 | 5.0 |

Average Latency (ms)

When looking at both random (4K) and sequential (64K) workloads, StorageReview, Inc.'s testing shows the QSAN XCubeFAS XF2026D is able to reach an impressive 403K IOPS in 4K Read, 270 IOPS in 4K Write, 7.8GB/s in 64K Read, and 4.4GB/s in 64K Write. These results put the XF2026D at the top of the leaderboard in its price segment.

### 4K 100% Random Read/Write [Throughput]

| | IOps |
|---|---|
| Random Read | 433,000 |
| Random Write | 270,000 |

IOps

### 64K 100% Sequential Read/Write [IOPS]

| | GB/s |
|---|---|
| Sequential Read | 7.8 |
| Sequential Write | 4.4 |

GB/s

QSAN®

For questions or additional information on QSAN's XCubeFAS XF2026D please contact us at sales@qsan.com or visit us at: www.qsan.com.

*1 SQL Server 2014 Utilizes: Database Size: 1,500 scale; Virtual Client Load: 15,000; RAM Buffer: 48GB

*2 Test length consisted of 2.5 hours preconditioning and 30 minutes sample period