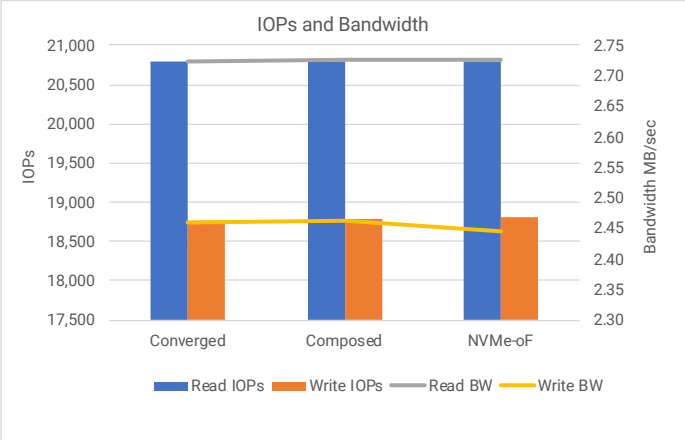
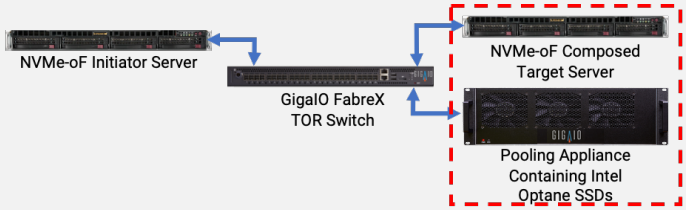
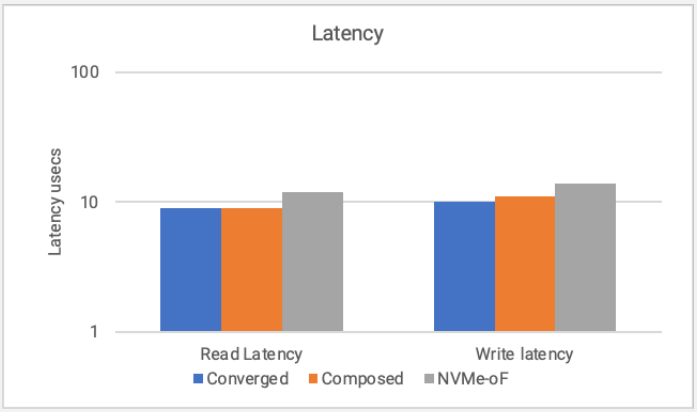
For the First Time Intel Optane NVMe-oF Performance Identical to DAS storage



Configuration





FabreX™ Native PCIe Delivers DAS Performance with the Flexibility and Scalability of NAS

Converged configuration – The converged configuration is a 1U server with a single Intel™ Optane™ Memory card inside the server connected through the internal PCIe bus.

Composed configuration – GigaIO composed architecture is a single 1U server connected to the FabreX PCIe Network fabric. The FabreX system uses a single storage pooling appliance with an identical Optane drive as the converged configuration.

NVMe-oF target configuration – The NVMe-oF configuration uses a second 1U server connected to the FabreX switch. This second server is now composed as the NVMe-oF target server.

Results Summary – The benchmark is FIO with a block size of 128KB. This benchmark measured IOPs, bandwidth, and latency.

Performance Summary Table

	IOPs		Bandwidth (MB/sec)		Latency (usecs)	
	Read	Write	Read	Write	Read	Write
Converged	20,787	18,768	2.7	2.5	9	10
Composed	20,803	18,793	2.7	2.5	9	11
NVMe-oF	20,805	18,812	2.7	2.4	12	14

The charts and the table above show that performance for composed and NVMe-oF configurations versus converged is the same.

GigaIO FabreX with Intel Optane SSD either composed, or over NVMe-oF, delivers DAS performance with the flexibility and sharing scalability of NAS – performance without compromise.

GigaIO FabreX is a Rack-Scale composable infrastructure solution that delivers the unlimited flexibility and agility of the cloud, at a fraction of the cost. Benefits include:

Improved system agility by disaggregating system resources on the fly and creating shared resource pools that can then be dynamically composed in real-time.

Slashed Total Cost of Ownership by enabling device sharing which increases resource utilization and eliminates over provisioning, resulting in reduced CapEx and OpEx.

Simplified and automated system set-up, administration and serviceability with freedom of choice for management tools from powerful CLI and Redfish APIs to ready-to-run, off-the-shelf enterprise-class orchestration software.

Seamless support for any PCIe-compliant device including servers, CPUs, memory, 3D-XPoint, storage, GPUs, FPGAs, specialty ASICS and NICs.

Blazing system performance with industry leading PCIe latency and bandwidth throughout the rack and beyond. As PCIe resources are added they immediately benefit from the native PCIe performance as all data transfers and buffers are completely eliminated.

Visit www.gigaio.com to discover more about GigaIO and FabreX, the industry's only pure PCIe Network Fabric.