Bringing Ecosystem Partnership to the Forefront with Innovative, Flexible Solutions for Today's Challenging Workloads

Celestica™   NETLIST   VIOLIN
A StorCentric Company

Bringing Ecosystem Partnership to the Forefront with Innovative, Flexible Solutions for Today's Challenging Workloads

Benefits
- Jointly engineered enterprise storage solution
- Market-ready platform enabling 80% faster time to market
- Reduced development costs of up to 90%

Performance
- Faster application response time
- Reduced application runtime

Availability
- Superior application resiliency
- 99.9999% uptime

Simplicity
- Easier deployment
- Better response to business needs

Affordability
- Lower operating costs

Celestica, Netlist and Violin Systems collaborate to deliver a cost-effective solution with low latency, high availability, enhanced performance and IOPS.

Across almost all markets, companies are facing increasing demands for faster access and higher capacities of data storage, and with digital information projected to balloon to 163 Zettabytes by 2025[1], there is no sign of that slowing. To address the need, Celestica, Netlist and Violin Systems have collaborated to develop an all-flash storage solution that provides the flexibility, quality and reliability to become a critical element of an overall enterprise storage strategy.

The solution architecture delivers a dynamic, highly available storage infrastructure that addresses the everyday challenges faced by IT administrators and solution architects. Additionally, this joint solution integrates capabilities across both storage and network environments to improve infrastructure efficiency and agility.

Employing flash storage can allow organizations to process data in ways they never could before, undertake projects that would have been out of the question just a few short years ago, and dramatically reduce support calls for underperforming applications. Virtual Desktop Infrastructure, High-Performance Databases, and Dense Server Virtualization are just a few examples of datacenter applications that can benefit significantly from flash storage technologies.[2]

By leveraging enterprise-class hardware, storage vendors can focus on building their software on a known/supportable configuration.[3] One thing to note, however, is that all hardware is not the same. As storage workloads continue to increase they require solutions that combine quality, flexibility and performance to address the unique demands of today's markets.

[1] Campbell, Tony. (2019, 02/15) The rise of 400G changing the data center landscape. Datacenterdynamics.com. https://www.datacenterdynamics.com/en/opinions/rise-400g-changing-data-center-landscape/
[2] Violin Systems. (2020). All Budgets: Performance Workloads with VIOLIN QV2020 Storage [White paper].
[3] Violin Systems. (2020). All Budgets: Performance Workloads with VIOLIN QV2020 Storage [White paper].

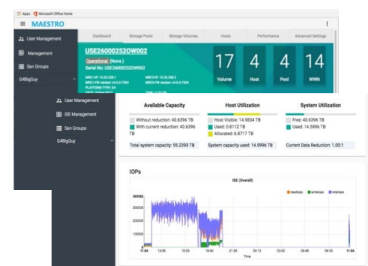## Advancing Innovation Through Ecosystem Partnership

Together, Celestica's industry-leading 2U Rackmount, NVMe Athena Platform (P2522-N24-XT-4F), Netlist's high-performance 3.84TB U.2 NVMe SSDs and Violin's leading-edge Maestro software-defined NVME extreme performance storage Operating System demonstrate the high level of performance required to solve today's most challenging and dynamic workloads. This collaboration is a clear example of how Celestica, along with our ecosystem partners, can tailor customer-centric solutions that speed up product deployments while delivering quality and performance.

Celestica's Athena is a high availability, dual-node flash storage platform that supports 24 PCIe NVMe dual ported solid state drives (SSD), giving you higher performance with extremely low latency. With thousands of platforms currently in use worldwide, Athena delivers the enterprise quality the industry has come to expect from Celestica.

Netlist, Inc. is changing the speed with which data is turned into information. The company's line of enterprise SSDs provide high-performance, capacity scalability, and feature-richness to help deliver platform and infrastructure differentiation.

Violin QV2020 easily reduces expensive technology footprint, increases security, lowers energy usage and cuts down the maintenance downtime, while solving business challenges for years to come—all at a price that makes the decision easy for everyone.

Enterprise Data Services

- Data Reduction by Volume
- High Availability
- Snapshots
- ReplicationQoS
- vCenter Plug In
- Encryption
- Management REST API
- Simple Web-based Management
- Visualization
- Monitored Telemetry
- Predictive Analytics

Product Specifications

PRODUCT SPECIFICATIONS	
Performance	<1ms LATENCY @ 500,000 IOPS
Bandwidth (max)	7.1 GB/sec
CAPACITY	
Usable (max)	(min 12 NVMe SSDs) 15 TB to 479 TB (max 24 NVMe SSDs)
Effective (max)*	60 TB to 1.7 PB
Hosts	2U Dual-Controller Active/Active 16Gb FC – 4 ports per controller 10/25Gb iSCSI
PHYSICAL	
Dimensions	• 2RU — 3.4" x 16.88" x 33" • Rail kit supports 20" to 28.5" rack depth
Weight	64 lb. / 29.1 kg (without drives)
Power & Cooling	• Two hot-swappable 2000 Watt PSUs, 12V output @ 130A (2000watts) • Auto ranging 200-240VAC, 50-60Hz input. • Current sharing C13-C14 Connectors • Operating Temperature Range 5°C to 35°C

Looking to the Future

Celestica, Netlist and Violin continue to innovate to deliver the technology of the future.

Celestica's next generation Athena platform is expected to be available in 2021. It will deliver all of the same benefits of the original Athena, and feature Dual Intel Ice Lake CPUs, Dual Broadcom PCIe-Gen4 switches, 4 PCIe slots per node and will be Redfish supported.

PCI Express Gen4 enterprise NVMe SSDs will be Netlist's next generation of drives delivered to the market in Q1'2021. Netlist will continue to build on its hardware and firmware performance leadership on Gen4 to enable enterprise applications to run faster, provide shorter response times, and improve end user productivity across a variety of markets.

Violin continues to innovate and develop new ground breaking capabilities to address the rapidly growing demands of the data storage industry. The collaboration with both Celestica and Netlist on current and future technologies will enable Violin to deliver unequaled price/performance products across the full spectrum of users and their needs.

Click here to learn more about Celestica's Athena hardware platform

For more information on Netlist's SSD drives, visit: netlist.com/nvme-ssd

Learn about Violin's QV2020 and the Maestro Operating System at: violinsystems.com