

# UNLEASH DATA-DRIVEN APPLICATIONS! DEPLOY COMPUTATIONAL STORAGE TODAY.

The CSS 1000 Series easily integrate into x86 Linux server/storage environments and derive their blazing performance by bringing heavy duty compute engines to the data. Its in-system hardware acceleration crushes compute and storage I/O bottlenecks to deliver increased transactions and reduced application run-time.

## ScaleFlux CSS 1000 Series

Form Factor

- PCIe AIC & U.2 Drive

Flash Capacity

- 1.6TB, 3.2TB, 6.4TB, 7.68TB

Interface

- Low-latency flash storage I/O device
- (Ext3/4, ZFS, XFS, etc.) and all block storage applications
- Easy-to-use APIs/Libraries for Compute Acceleration integration

Compute Engines

- GZIP Compression, Erasure Coding (RS), KV-Store
- AES-128/256, SHA-3, ... and others are also available

Tuning

- FTL/FM & Compute Engine parameters can be adjusted to fine tune performance
- Performance throttling based on temperature or power consumption

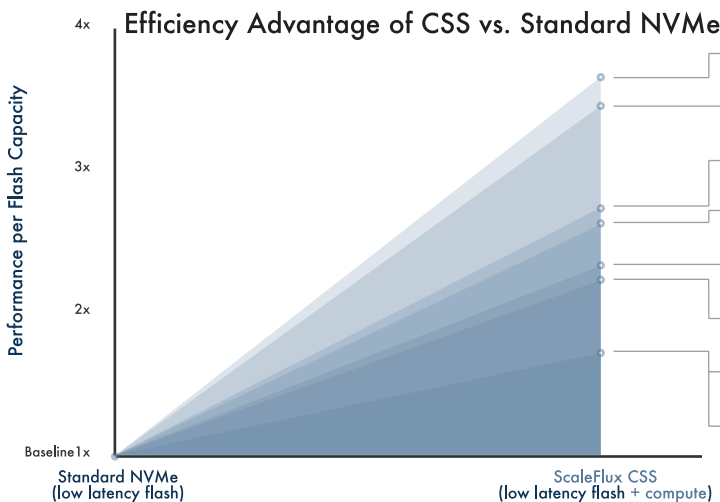
Reliability



- End-to-end data protection and ECC
- Integrated LDPC error protection and Flash die RAID
- Complete data protection for unplanned power loss

Applications

- Database / KV-Store
- Big Data
- Content Delivery
- Search
- Hyper-converged
- Mobile Edge Computing
- Data Mining / Warehouse
- HPC
- Cloud
- AI / Machine Learning

Algorithmically Complex Compute  Low Latency Flash 



Application	Benchmark	Standard NVMe		ScaleFlux CSS		Efficiency Advantage
		Performance	Capacity	Performance	Capacity	
 MySQL	SysBench	514 TPS	75GB	1872 TPS	76GB	3.6x
 PostgreSQL	pgbench (50% KV/W)	722 TPS	33GB	2404 TPS	31GB	3.5x
 KEROSPIKE	ACT	109,500 TPS	1.6TB	300,000 TPS	1.6TB	2.7x
 HBASE	YCSB Load	39k OPs	45GB	110k OPs	49GB	2.6x
 VITESSE DATA	TPCH (avg query time)	154 sec (lower is better)	360GB	75 sec (lower is better)	317GB	2.3x
 RocksDB	RDB Random Write	8726 sec (lower is better)	1.6TB	3956 sec (lower is better)	1.6TB	2.2x
 Hadoop	Teragen & Terasort	4655 sec (lower is better)	72TB HDD	2801 sec (lower is better)	72TB HDD (+1.6TB CSS)	1.7x
 Spark	Teragen & Terasort	2663 sec (lower is better)	1.6TB	1595 sec (lower is better)	1.6TB	1.7x

See more applications and analysis at [www.scaleflux.com/applicationvalue.html](http://www.scaleflux.com/applicationvalue.html)

Schedule a proof of concept today.  [info@scaleflux.com](mailto:info@scaleflux.com)