PAVILION

PAVILION DATA
STAC Summit 2020

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Chief Field Technology Officer &
WW VP of Business Development

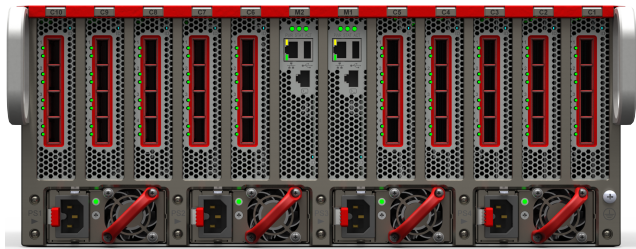# We are about…

Consistent

Predictable

Scalable

Enabling Best in Class Performance Density

High Performance

With ULTRA Low Latency

We help your applications run faster, perform more consistently and scale larger

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Alot has happened since STAC Fall 2019

COMPLETED

COMING SOON

GPFS Buffered Write performance increased of over 50%

33% Read Bandwidth Increase to 120GBs

200Gb Ethernet and Infiniband

NFSv4.1 support

Fast Object – S3 Support

NVMe-oF RDMA Windows Driver

T10 DIF Support

NFS v4.1 for ESXi 6.7

Plus much more…

Syslog Streaming/Grafana

NVMe-oF RDMA on ESXi 7.0
1 of 2 vendors currently supported

vSphere Plug-in

(Not STAC Benchmark)

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Proven Performance via STAC benchmarks

Outperformed all publicly disclosed results in **4 of 17** mean-response time benchmarks:

- STAC-M3.β1.100T.STATS-UI.TIME
- STAC-M3.β1.50T.STATS-UI.TIME
- STAC-M3.β1.10T.STATS-UI.TIME
- STAC-M3.β1.10T.STATS-AGG.TIME

Faster in **8 of 17** mean-response time benchmarks than all other solutions using kdb+ and flash arrays, including the benchmarks above plus:

- STAC-M3.β1.100T.VWAB-12D-NO.TIME
- STAC-M3.β1.10T.VOLCURV.TIME
- STAC-M3.β1.1T.MOHIBID.TIME
- STAC-M3.β1.1T.STATS-UI.TIME

https://stacresearch.com/news/2019/10/14/KDB190927

4RU + 20 controller + 40 x100 GbE/EDR Ports + 1PB Unified Platform (Block, File and Object*)

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How did we do that in a 4RU box

We started with a NETWORK switch and designed a STORAGE solution around it!
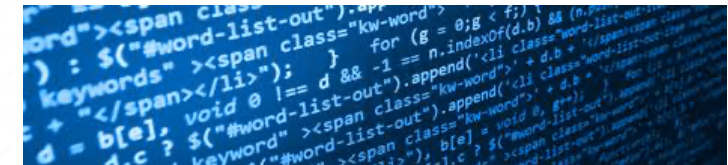
Hyperparralized modular HARDWARE Design
specifically OPTIMIZED for NVMe

2 to 20 - INDEPENDENT Controllers

9 to 72 - NVMe Drives

Pavilion^{OS}

4RU

+

Software SPECIFICALLY designed
for NVMe and NVMe-oF

4 to 40 - 100 GbE/GDR Ports

NVMe-oF, NFS, iSCSI & S3
Block, File and/or Object*

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The Result…. The Hyperparallel Flash Array

Unprecedented 10x Performance Density

At Typical ALL Flash Array Prices!!

Supporting…
- BLOCK, FILE and/or OBJECT
- Ethernet OR InfiniBand
- NVMe-oF, iSCSI, NFS, S3

Enterprise Grade
Serviceability

Reliability & Data Mgt
(Thin Provisioning, Snapshots, RAID, Encryption)
No Agents: 100% Standards Based, No Host S/W
Field Upgradable Hot Plug x86 Components

Blazing
Performance

20M Random READ IOPS
5M Random WRITE IOPS
120 GB/sec READ
90 GB/sec WRITE
100μSec READ & 40μSec WRITE Latency

(Not STAC Benchmark)

Class-Leading
Density

Rack Scale **4U**
20 Independent Controllers
72 NVMe Drives
14TB to 1PB Usable Capacity
40 x 100GbE/EDR Ports

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Best in Class Performance Density – *Any way you measure it*

Density per **SINGLE RU**

Controllers per RU
4

100 GbE/EDR Ports per RU
10

20 Controllers
40 x 100 GbE/EDR
72 NVMe Drives (1PB usable*)
20M Random READ IOPS
5M Random WRITE IOPS
120 GB/sec READ
90 GB/sec WRITE
100μSec READ & **40μSec** WRITE LATENCY

(Not STAC Benchmark)

4 RU with RAID 6

Up to 1PB* usable

Read Bandwidth per RU
30 GBs

Write Bandwidth per RU
23 GBs

Read IOPS Per RU
5,000,000

TB's per RU
250*

Write IOPS Per RU
1,250,000

Watts Per RU
800

Drives per RU
18

If you are running…

Talk to us!

We help your applications run faster, perform more consistently and scale larger

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