

G2M Research Presentation

▶ Flash Memory Summit 2019

Wednesday August 8, 2019

Highlights: 2019 NVMe™ Ecosystem Snapshot

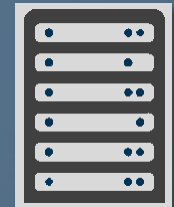
NVMe has become the dominant interface for Enterprise SSDs



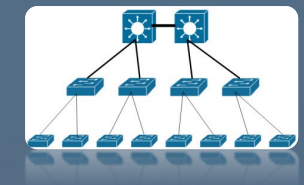
Every major All-Flash Array (AFA) company now offers NVMe and/or NVMe-oF based AFAs



NVMe AFA companies up by 55%, and NVMe AFA models/series up by 48%



The # of NVMe-oF adapter models has DECREASED by 42% since the spring of 2018 (model consolidation)



NVMe Market Size and Health – 2019 (vs Spring 2018)

1

NVMe SSDs: 41 companies (+18), 143 models (+47)

2

NVMe Servers: 17 companies (+4), 122 models (+29)

3

NVMe AFAs: 17 companies (+6), 31 models (+10)

4

NVMe Appliances: 8 companies (0), 23 models (+2)

5

NVMe-oF Adapters: 10 companies (+2), 60 models (-43)

6

NVMe-oF Accelerated Adapters: 6 companies (0)

G2M Research Predictions for NVMe and NVMe-oF

▶ NVMe SSDs Gain Ubiquity in New AFA/SOFS Deployments in Next 2-4 Years

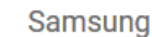
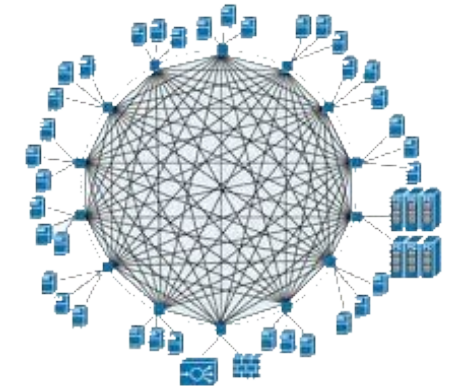
- Cloud, Enterprise, and Gaming Markets
- SATA SSDs for HDD replacement, legacy AFAs

▶ NVMe over Fabric (NVMe-oF) eventually becomes leading transport for AFAs, SOFS

- NVMe-oF AFAs from major players paces adoption
- Ethernet will be the predominant NVMe-oF fabric
- NVMe-oRoCE vs NVMe/TCP?
- Standard NICs/RNICs vs FPGA/SoC?

▶ NVMe SSDs will migrate away from HDD “shapes”

- M.2, EDSFF will start to eat into U.2 market share next year (2020)



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