



Delta Report

Tegile's New IntelliFlash HD Array

The World's Fastest High-Density Flash Array

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Tegile has been an early leader in the flash array arena since its inception in 2009. Tegile's new IntelliFlash HD high-density flash array represents not just an evolutionary step up, but rather a quantum leap forward in flash array performance and data capacity. IntelliFlash HD is an ideal hyper-consolidated storage solution for ultra-low-latency, high-frequency transactional applications where high performance and data integrity are mandatory. IntelliFlash HD raises the bar for scale-out, hyper-consolidation of flash arrays, while simultaneously lowering the price per GB to very near spinning-disk territory.

IntelliFlash HD redefines flash arrays

Utilizing SanDisk's InfiniFlash SSDs as the technology foundation, IntelliFlash HD arrays pack an incredible 512TB of raw data storage capacity in a single 3U High-Density Expansion Shelf. Individual nodes come configured with 32 CPU cores, 512GB of DRAM and 8TB of non-volatile DIMMs. Nodes are sold in pairs and each node pair can be deployed with up to seven other IntelliFlash HD node pairs in a scale-out architecture supporting a total of 16 nodes installed in 34U. With a fully-configured IntelliFlash HD 16-node deployment, total capacity reaches an incredible 6PB of raw data storage and more than 5,000,000 IOPs, all residing in a single rack. With deduplication, the 6PB of raw storage translates to at least 10PB of *effective* storage capacity.

IntelliFlash HD supports any workload

IntelliFlash HD supports a myriad of applications and uses, including collaboration platforms, transaction processing, virtual desktop and server infrastructure (where storage performance is critical to successful implementations), messaging platforms and data analytics, to name but a few. Though a careful cost-benefit analysis is traditionally the prime consideration when choosing which applications should run on high-performance flash arrays versus spinning disk arrays, the price point for IntelliFlash HD is so low that any application can benefit from running on an IntelliFlash HD hyper-consolidated storage system and the cost differential between flash and spinning disk becomes negligible.

Ease of administration

As the hyper-consolidated, hyper-converged data center becomes a reality, the traditional roles of storage admins, server admins, network admins and application admins is blurring significantly. With the continuing consolidation of administrative support tasks and jobs, ease-of-use becomes a prime consideration as siloed

admin roles morph into what will eventually be considered a virtual admin role, with vAdmin practitioners being proficient in all aspects of data center and application operations. The popularity of DevOps methodologies also underscores the tearing down of the walls that historically separated admin roles and responsibilities from developer roles and responsibilities. With this workforce transition in mind, Tegile has gone to great lengths to make IntelliFlash HD as self-managed as humanly and technically possible. With IntelliFlash nodes being based on a single operating system, a unified feature set and a consistent user experience for admins, IntelliFlash is an excellent addition to existing converged data center operations.

Storage costs with IntelliFlash HD

IntelliFlash HD boasts an average cost of less than \$1.50 per raw GB over three yearsⁱ. Once you factor-in de-duplication and compression processes, the effective price per GB is less than \$0.50 per year over three years. This price point is significantly lower than high-end, high-performance spinning-disk arrays from vendors, such as EMC or NetApp. So you can enjoy the performance advantages of flash arrays at a lower price per GB than high-end spinning disk storage arrays.

Our Take

The impressive performance, capacity and price point of Tegile's new hyper-consolidated technology makes IntelliFlash HD arrays an obvious contender in any storage array projects and implementations. We know of no other hyper-consolidated storage system that offers anything near the performance, capacity and price point found in Tegile's IntelliFlash HD arrays. With a density of 6PB of raw storage in a single 34U rack and an average cost of less than \$0.50 per GB over three years, nothing else even comes close to the IntelliFlash HD array. We believe this technology to be so overwhelmingly compelling that we can't imagine a situation where prospective customers would choose to not include IntelliFlash HD in any evaluation of storage technologies.

Please note for comparison purposes that Tegile always quotes capacities as raw storage, not effective storage that takes into account de-duplication and compression algorithms. Many storage vendors quote storage capacity in effective terms rather than raw capacity, misleading some buyers with inflated expectations. Many vendors also offer *effective* price comparisons rather than *raw* price per GB. We thus advise customers to be very careful when comparing cost and capacity specifications between competing products. When evaluating flash array capacity and cost per GB between vendors, always be careful to compare apples to apples by asking for both raw and effective storage capacity and cost estimates. ●

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