Major architectural shifts are continuing to disrupt the storage market status quo, presenting challenges for incumbent vendors and opportunities for emerging vendors.

Nimble Storage was founded in 2008 on the core belief that the storage industry would experience a major transformation over the next decade, driven by two fundamental catalysts:

- First, that flash technology would require a ground-up storage system redesign, rendering incumbent disk-centric storage architectures inefficient and ineffective.
- Second, that cloud-based management with granular real-time monitoring of customer-deployed systems, combined with predictive analytics, would result in a superior support experience and dramatically simplify day-to-day IT operations for customers.

We translated these beliefs into the Nimble Storage Adaptive Flash platform, consisting of our flash-optimized storage systems and InfoSight, our cloud-based management software.

While flash and cloud-based management technology advancements underpin our vision and strategy, we also sought to build an enduring company inspired by a desire to think of our customers as an extension of the Nimble community. We firmly believe that a customer-centric community would only be possible with a steadfast commitment to making honest and credible claims, maintaining transparency in business practices and prioritizing customer support and satisfaction above all else.

“The rapid transition from incumbent storage architectures to the Adaptive Flash platform reflects the strength of our underlying value proposition.”

Suresh Vasudevan
President & CEO, Nimble Storage
Today, the Nimble Storage Adaptive Flash platform is the preferred choice for more than 6,200 customers in 50 countries around the world – a pace of customer acquisition that is unrivaled by any storage vendor founded in the last decade. Our customer base is diverse and spans over 70 of the world’s 500 largest enterprises, hundreds of global enterprises and cloud service providers, along with thousands of mid-sized enterprises.

This rapid transition from incumbent storage architectures to the Adaptive Flash platform reflects the strength of our value proposition. With the Adaptive Flash platform, our customers are able to:

- Accelerate and scale high-performance and mainstream applications, thereby accelerating business innovation, business processes and decision-making
- Protect and secure application data more effectively thus reducing business risk and ensuring business continuity
- Radically simplify IT operations, enabling IT staff to focus on strategic business initiatives rather than on administrative and maintenance-oriented tasks
- Reduce storage capital costs by 30-50% and operational costs spanning power, cooling, footprint and associated costs by 50-70%

As we look ahead, our conviction remains steadfast that the enterprise data center will continue to rapidly evolve toward leveraging flash-optimized systems to address the entire spectrum of applications, from performance-demanding applications to mainstream applications. We also firmly believe that traditional storage management will give way to cloud-based management with predictive analytics that radically simplify day-to-day operations and infrastructure management. As customers look to accelerate application deployments and simplify infrastructure management, we have partnered with industry leaders including Cisco, VMware, Microsoft, Oracle, and other key ISVs to offer Nimble Storage SmartStack integrated infrastructure solutions.

With this backdrop, we are incredibly proud to be named a Leader in the 2015 Gartner Magic Quadrant for General-Purpose Disk Arrays for our completeness of vision and ability to execute in a highly competitive storage market that includes the most respected brands in our industry. Being the youngest company and the only company founded in the last two decades to be in the Leader quadrant serves as further validation of our ability to innovate and execute in a highly competitive market.

This significant milestone provides us with the opportunity to thank our customers for the trust and confidence they place in us everyday. We also thank our partners for expanding their commitments and confidence in leading with the Nimble Adaptive Flash platform and our employees who continue to amaze everyday in their relentless pursuit of customer success. Together we are redefining the expectations of IT and setting new standards for how enterprise IT organizations can drive greater business velocity, continuity, productivity and efficiency.

If you are considering making the move to flash-based storage to realize greater business agility and responsiveness, we invite you to review the following report, which offers a comprehensive overview of vendors in the storage market along with invaluable insights to aid in making the right decision for your business today and into the future.

Suresh Vasudevan
President & CEO, Nimble Storage

Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner’s research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.
The storage vendor landscape is rapidly changing as established vendors reorganize and emerging storage vendors grow their market credibility. We outline vendor product and marketing strategies, their strengths and weaknesses, and their ability to meet the expectations of I&O leaders for GPDAs.

Market Definition/Description

General-purpose disk storage systems are designed to satisfy the storage needs of a diverse set of workloads hosted across multiple virtual or physical servers. Typical workloads may include databases, virtual server and virtual desktop (VDI) infrastructures, and applications for messaging and collaboration. This market segment includes hard-disk drive (HDD) and hybrid midrange (solid-state drive [SSD] plus HDD back-end configurations with autotiering functionality), high-end and network-attached storage (NAS) systems. Solid-state arrays (SSAs) are not included in this Magic Quadrant because Gartner has created a SSA Magic Quadrant that can provide better insights into this rapidly growing and evolving market.

Magic Quadrant

Figure 1. Magic Quadrant for General-Purpose Disk Arrays

Vendor Strengths and Cautions

AMI

American Megatrends Inc. (AMI) is a self-funded, privately held company with a 30-year history of developing hardware and software IT products. With substantive R&D scale, AMI is the leading provider of basic input/output system (BIOS) firmware, and remains well-known for its broadly distributed MegaRAID PC interface (PCI) host-based redundant array of independent disks (RAID) controllers. For the past three years, AMI has leveraged its global R&D resources to develop a credible general-purpose storage system portfolio. Its flagship StorTrends 3500i, built entirely with AMI intellectual property (IP), is a primary storage platform based on iSCSI that can be deployed as a hybrid or all-flash storage array suitable for supporting midtier mission-critical applications or as part of a tiered storage infrastructure. AMI’s worldwide market traction is focused exclusively on a channel-centric, go-to-market model. AMI reports that, as of June 2015, it has over 1,300 installed systems.

Strengths

- SSD caching and SSD tiering, in conjunction with Automatically Tuned Volumes (ATV), are three AMI-patented technologies that enhance performance and capacity optimization. In addition, a value-based hardware and software pricing model enhances StorTrends 3500i’s competitive attractiveness.
- The AMI StorAID support plan, purchased with a StorTrends storage platform, provides 24/7 technical phone and/or remote Web support, predictive failure analysis with automated email alerts to AMI support engineers, and a dedicated support engineer liaison.
- AMI’s StorTrends Dedupe Analyzer and iDATA tool are software tools that enable prospective buyers and customers to determine data reduction ratios and the amount of SSD capacity required to optimize input/output (I/O) performance.

Cautions

- Due to AMI being a private company that does not release its financials for public access, the lack of transparency regarding R&D, sales and support investments, in conjunction with lower brand awareness, could give some organizations pause in selecting AMI.
- The StorTrends 3500i does not support the Fibre Channel (FC) host interface, Red Hat KVM hypervisor or Microsoft System Center Virtual Machine Manager (SCVMM), and it does not integrate snapshots tightly with third-party backup software providers.

Source: Gartner (October 2015)
AMI’s customer support infrastructure depends on high-quality, well-trained personnel, which it may not be able to scale at the same pace, as product sales rapidly increase and AMI broadens geographical market reach.

DataDirect Networks
DataDirect Networks (DDN) is a privately held company based in Santa Clara, California, that has traditionally focused on media companies, high-performance computing (HPC) and analytics. This focus is helping DDN position its products for big data use cases. The Storage Fusion Architecture (SFA) products — SFA14K, SFA12K and the entry-level SFA7700X block storage — form the core of its product line, catering to different scales. Using SFA arrays as building blocks provides economies of scale to DDN’s R&D activities. These activities focus not simply on hardware refreshes, but also on improvements in management tools, ecosystem support and an expanding portfolio of reference architectures. The GRIDscaler system combines IBM’s General Parallel File System (GPFS) with the SFA12K arrays and is positioned for big data use cases. EXAscaler integrates SFA12K arrays with the Lustre file system and is positioned for HPC use cases. Other products in its portfolio include the object storage platform, Web Object Scaler (WOS), which is positioned for active archive and content distribution use cases.

DDN’s major resellers include HP, Dell and Fujitsu. Additionally, it has technology integration partnerships with Intel, Ctera Networks, ownCloud and several other companies.

Strengths
- DDN is building on its leadership in HPC, media and the analytics space, and is now growing its presence in big data environments.
- The vendor has a comprehensive product portfolio consisting of block, file and object storage systems built on a true scale-out architecture.
- DDN has vertical-market solution specialists for life sciences, manufacturing, media, oil and gas, and finance, which gives it additional expertise within these verticals.

Cautions
- DDN has a relatively small presence outside the U.S.
- Until SFA14K, asynchronous and synchronous remote replication and consistency group support are market-validated, users should delay putting this new model and its new functional capabilities into mission-critical production.
- The lack of a high-end block storage system offers limited options for customers that wish to deploy general-purpose storage arrays, and also limits DDN’s ability to increase its customer share of wallet.

Dell
Dell has moved past many of the effects of its privatization, as demonstrated by its ability to maintain storage revenue during the 4Q13 to 4Q14 time period. A combination of product refreshes; the introduction of the entry-level, all-flash SC Series (formerly Compellent) system; good channel management and consistently competitive-to-aggressive pricing are keeping Dell visible in the storage market. The vendor’s decision to share components between its server and storage businesses, and to use the same components for its SC Series and PS Series (formerly EqualLogic) storage systems, has enabled Dell to create economies of scale that should enable it to offer highly competitive pricing in price-sensitive situations. Dell’s willingness to share product roadmaps with customers and prospects provides them with a coherent vision to embrace in whole or in part as they develop their operational infrastructure visions. These roadmaps provide insights into Dell’s ongoing investments in storage systems, Fluid Cache for SAN and Fluid File System (FluidFS). This openness has made the SC Series the Dell system of choice for customers and prospects with a need for 24/7 availability, larger system deployments and remote replication.

While FluidFS implements a scale-out architecture and revenue is growing, it is not yet growing fast enough to make it a mainstream product in the midrange and enterprise NAS markets.

Strengths
- The SC Series is a competitive midrange storage array by most measures of product attractiveness, including performance, feature richness and cost-effectiveness.
- Tight integration between Fluid Cache for SAN and the SC Series’ Data Progression feature improves the performance and usable scalability of SC Series arrays.
- Dell has improved worldwide customer satisfaction with better build and microcode quality, management tool improvements, and growing ecosystem support; and by helping PS Series customers, particularly larger, faster-growing customers, migrate to Compellent systems.

Cautions
- Dell’s lack of a high-end storage system limits the appeal of its FluidFS NAS offering and its ability to address all of a user’s storage requirements.
- While the SC Series already supports data compression, its lack of deduplication will remain a handicap in many environments relative to other modern hybrid and all-flash systems that support data compression and deduplication.
Dell must develop a software-defined storage (SDS) vision that is based on its own IP and preserves its customers’ investments in their storage array portfolios.

EMC
“Built for purpose” characterizes EMC’s strategy for the general-purpose storage system market. The newly redesigned VMAX3 is a high-end storage system that became available in September 2014. The multiprotocol VNX line focuses on the midrange market segment, while Isilon addresses applications associated with the growing scale-out NAS market. The built-for-purpose strategy has worked well for EMC, as its offerings are the most broadly deployed general-purpose storage systems. Beyond platform offerings, EMC has established an effective storage, support and professional services organization to help it sustain its leading position. Messaging, product announcements and acquisitions are tightly aligned and designed to reinforce EMC’s marketing positioning for enterprise storage. The vendor’s restructuring of its business units and accompanying management changes are designed to better-align R&D with evolving user needs and buying behavior. The persistent pressure by activist investors to generate increased shareholder value is stressful on the status of the EMC Federation, but is not having an unfavorable impact on EMC’s competitiveness in the general-purpose storage market.

Strengths
- A steady cadence of VMAX3, VNX and Isilon product enhancements, new model announcements and software improvements keep these systems current with microprocessor and storage technology advancements.
- EMC’s broad portfolio of storage systems enables users to obtain cross-product discounts and reduce the number of vendors an organization has to manage.
- EMC storage systems have OpenStack Cinder drivers developed for all platforms, and are fully integrated with leading hypervisors, including VMware vSphere, Microsoft Hyper-V, Citrix XenServer and Red Hat KVM, as well as other leading independent software vendors (ISV) such as Oracle and SAP.

Cautions
- The lack of interoperability between EMC storage systems adds management and administration complexity in large infrastructures composed of multiple midrange, high-end and scale-out NAS systems.
- EMC’s standard software and warranty pricing models often result in high hardware maintenance costs after the warranty or prepaid period expires, and new one-time software license charges when replacing originally installed platforms.

The breadth and overlap of EMC’s VMAX3 and VNX offerings, particularly when EMC’s VPLEX is configured with VNX, is known to confuse EMC clients about which offering is really the best fit for their use cases.

Fujitsu
Fujitsu is a public IT company headquartered in Tokyo, Japan. It operates internationally, but its storage array business is mainly successful in Japan, EMEA and the Asia/Pacific region. Its storage portfolio consists of the midrange segment of Eternus DX500 S3 and DX600 S3 systems that support both file and block arrays, and the high-end Eternus DX8700 S3 and DX8900 S3 arrays that only support block protocols. Fujitsu has slightly improved its visibility in the enterprise storage market, but has a good reputation within its customer base in terms of performance, feature/function, usability, and reliability, availability and serviceability (RAS). The latest Quad Star Architecture represents engineering, technical innovation and leadership. High customer satisfaction ratings are further aided by Fujitsu’s skilled and competent service organization. Fujitsu storage arrays are a good fit for organizations that require high availability, performance and simple management. The vendor has transparent, independently verified and publicly available performance information provided via the Storage Performance Council (SPC) benchmarks.

Strengths
- Fujitsu offers a simple-to-use portfolio of general-purpose and hybrid disk arrays that share a common software base and management GUI.
- High-quality engineering translates into very reliable and serviceable systems.
- The Eternus Storage Cluster features enable local or remote high availability with real-time transparent failover.

Cautions
- The lack of a significant presence in North America handicaps the vendor’s appeal with large multinational corporations and companies planning to enter the North American market.
- Fujitsu does not provide a storage array virtualization product, but rather resells the FalconStor product.
- Many potential customers are not aware of Fujitsu as a storage array supplier.
Hitachi (Hitachi Data Systems)

Hitachi Data Systems is now fully integrated into Hitachi’s Information and Telecommunications Systems group, and is working closely with other Hitachi business units to create synergies within Hitachi in growing market verticals, such as healthcare, telecommunications, public safety and IT operations, which it calls “social innovation.” Hitachi Data Systems’ messaging and product positioning are now coordinated with Hitachi corporate to position Hitachi as a force in the Internet of Things (IoT). Targeting verticals that make extensive use of big data and business analytics also positions the Hitachi NAS (HNAS) Platform and the Hitachi Content Platform (HCP) as attractive IoT platforms.

Hitachi has increased its R&D outside of Japan and merged its Japanese and non-Japanese engineering teams to create a consistent and better understanding of its leading-edge customers’ needs, and in acknowledgment of the growing importance of ease of use and strong ecosystem support. The launch of Hitachi Data Systems’ new family of midrange storage systems on 28 April 2015 provided a common look and feel, and interoperability between all Hitachi Data Systems block storage systems. Hitachi’s decision to use the same Storage Virtualization Operating System (SVOS) across its microcode between midrange and high-end Virtual Storage Platform (VSP) storage systems allows customers to tailor their storage infrastructure to their application needs, and to preserve their investments in training, policies and procedures, which supports Hitachi’s “IT economics” messages. It also improves R&D efficiency and effectiveness by enabling Hitachi to eliminate redundant development activities. These announcements have been complemented by Hitachi’s embrace of flash technology, the cloud and SDS.

Strengths

- Hitachi’s product portfolio and reputation for building reliable storage systems, as well as the vendor’s R&D investments, are aligned well with storage market and technology trends.
- The vendor’s newly refreshed midrange systems provide storage virtualization and a global active device (aka GAD or metroclustering), and interoperability from entry-level to high-end storage systems — an appealing value proposition for customers and channel partners alike.
- HNAS scalability, hardware-assisted file performance and deduplication, and tight integration with VSP arrays offer a significant opportunity to take advantage of growth in big data applications.

Cautions

- Hitachi responsiveness to RFPs and its price competitiveness remain unpredictable.
- Hitachi’s ability to create and support hybrid cloud solutions and heterogeneous SDS infrastructure remains to be field-proven and validated.
- Hitachi’s presales and postsales support, excluding break/fix support, is often negatively influenced by the vendor’s limited benchmarking and consulting resources.

HP

HP storage consists of 3PAR StoreServ, HP XP7 Storage and HP StoreVirtual 4000 Storage. 3PAR is its flagship storage product and generates the bulk of HP’s storage revenue. HP made incremental 3PAR StoreServ announcements last year, including regarding the release of the 7000c models and a unified storage product line. With the 1 June 2015 announcement of the StoreServ 208x0 series and the 26 August 2015 announcement of the StoreServ 8000 series, HP has refreshed its entire 3PAR family of storage systems. It also announced integration with Microsoft Azure, with support for Azure Site Recovery, and it started supporting VMware Virtual Volumes (VVols). HP is aggressively marketing the flash offerings of 3PAR StoreServ by offering a five-year warranty on SSDs. It has also been price-competitive over the past year in its efforts to gain back market share. HP made minimal investments in its marketing efforts toward XP7 Storage, which is based on its OEM relationship with Hitachi and has targeted only its existing installed base. HP continued to make improvements to its StoreVirtual product line and to position it as a software-defined storage product. It also released a hyperconverged storage variant, HP ConvergedSystem 200-HC, based on StoreVirtual VSA. In May 2015, HP consolidated its position in the Chinese server and storage market by announcing that it will sell its controlling stake in H3C to Tsinghua Holdings. This move will result in H3C becoming a state-held shareholding entity and will enable HP to sell better in China, which is increasingly stepping up restrictions against foreign technology companies.

Strengths

- HP uses can start small, with an entry-level offering such as the 3PAR StoreServ 7200c series, and scale to a high-end StorServ 20000 series, while preserving investments in policies, procedures and training.
- HP continues to support its ecosystem by making timely releases that support major enhancements by its partners — VMware VVols and storage drivers for OpenStack are examples.
The vendor continues to integrate its 3PAR product range with its cloud portfolio by offering integration with public cloud service providers (CSPs), such as Microsoft Azure, as well its own OpenStack-based private cloud platform, Helion.

Cautions
- Data reduction features such as deduplication are available only for the flash tier.
- Overlap in functionality between the newly launched file persona software and 3PAR StoreServ File Controller will make it difficult to position these products adequately and will provide an inconsistent message to the customer.
- Costs incurred due to restructuring may hamper HP's intent to make strategic storage acquisitions or heavily invest in storage-related R&D efforts.

Huawei
China-based technology vendor Huawei has been making significant investments in its storage business since it completed an acquisition of its joint venture with Symantec in 2012. Huawei continues to make improvements to its product lines, announcing an updated version of its unified storage product line — OceanStor 5000 V3 and 6000 V3 in December 2014, and OceanStor 18000 V3 in May 2015. Huawei also updated the OceanStor 9000, which is a scale-out file storage solution based on its OceanStor Distributed File System (DFS). The product is positioned for big data and media and entertainment (M&E) use cases, and scales up to 288 nodes and supports up to 60PB, one of the highest in the industry. Huawei also has built, over time, some significant OEM relationships and technology partnerships with VMware, Intel, HGST, Brocade, Veritas and Seagate. Within the Chinese market, Huawei is increasingly being threatened by local Chinese players such as Lenovo, Inspur and Sugon. Huawei needs to formulate a counterstrategy to mitigate this.

Strengths
- Huawei's strategy of marketing its products based on transparent and verified industry-standard benchmarks to compete in the market gives end users confidence and dispels product viability concerns.
- The vendor has been successful in expanding its storage presence in Western Europe, Greater China, Southeast Asia, Russia, the Middle East and Africa over the past two years.
- Within a short span of time, Huawei has successfully launched strong products that address the unified storage and scale-out file storage market.

Cautions
- Political considerations will continue to handicap Huawei sales in North America for the foreseeable future.
- The inability to replicate between OceanStor N8000 and OceanStor 9000 systems could increase the cost of controller-based disaster recovery solutions by requiring the early replacement of installed N8000 systems.
- Huawei's support model relies on local representatives for Level 1 support (which could lead to inconsistent service experiences), technical assistance centers (TACs) and global TACs (GTACs) for Level 2 support, and China-based experts for Level 3 support.

IBM
Concerns about IBM exiting the storage business are understandable, but do not adequately take into account the consequences of that action. If IBM exited the storage business, it would have to enter into an OEM relationship with a storage competitor for z/OS mainframe storage, or give up the architectural influence over R&D spending and residual margins that an OEM relationship provides. It would also be an unnecessary decision, given System Storage DS8000 series market share in the z/OS mainframe market. An integral part of IBM's storage strategy is to offer its products as software, as microcode in traditional storage appliances or as cloud instantiations via the SoftLayer cloud platform. Products currently included in the Spectrum Storage family of products include Spectrum Accelerate (derived from the XIV) and Spectrum Virtualize (derived from the SVC and Storwize family). In addition to providing its customers with SDS and cloud deployment options, IBM has continued to enhance its storage systems with performance increases, support for larger SSDs and HDDs, data-at-rest encryption using either controller microcode or self-encrypting drives (SEDs), more comprehensive compatibility support matrices, OpenStack support, and more intuitive management tools. IBM is complementing these SDS initiatives with self-orchestration provided by Spectrum Virtualize and Spectrum Control.

Recognizing that selling high-level business and management value propositions requires loyal and well-trained channel partners, IBM is providing its top value-added resellers (VARs) with a variety of incentives. IBM also has programs to help its VARs that lack the revenue, references and skills needed to succeed in a high-touch sales model improve their sales effectiveness and skills.
Strengths
- IBM’s portfolio of traditional HDD and hybrid arrays and its Spectrum Storage portfolio of products enable it to satisfy most users’ storage infrastructure needs.
- IBM’s 13 October announcement of the DS8880 series should quell many of the concerns regarding IBM’s commitment to the storage market and polish its image as a storage vendor.
- IBM’s high-level business value sales approach, combined with its ability to bundle bids and its mature sales service/support organizations, makes it an attractive solution provider.

Cautions
- IBM product overlaps complicate product selection during infrastructure refreshes.
- Scaling V7000 beyond 504 HDDs requires clustering, which adds complexity and creates potential performance exposures.
- Until IBM’s 2015 reorganization delivers on its promises of improved R&D and sales effectiveness, it should not influence infrastructure refresh decisions.

Imation
Imation is a data storage and security company headquartered in Minnesota. It caters to both the consumer storage and enterprise storage markets. The latter is largely driven by its acquisition of Nexsan in 2013. Imation’s enterprise storage portfolio consists of three main product lines — Nexsan NST hybrid arrays, Nexsan Assureon for data archival and Nexsan E-Series high-density storage. Both the NST and Assureon product lines leverage E-Series in the back end. Imation has primarily focused on the M&E and video surveillance industries, and most of its revenue is from these verticals. The vendor is one of the few storage vendors that provides products satisfying government regulations, such as Sarbanes-Oxley Act (SOX), SEC-17, Health Insurance Portability and Accountability Act (HIPAA), the Gramm-Leach-Bliley Act (GLBA) and Payment Card Industry Data Security Standard (PCI DSS). The Assureon product line offers secure archival with file-level encryption, and integrates with Imation’s cloud-based key management server solution. The vendor has recently experienced some difficulties due to declining revenue.

Strengths
- Imation/Nexsan provides good support capabilities to users with a need for inexpensive, dense, high-capacity storage.
- Imation’s product portfolio includes unified and archived storage systems that integrate with leading hypervisors and operating systems, and support storage pooling, thin provisioning, space-efficient snapshots and asynchronous/synchronous replication functionality.
- NST has a selective compression feature that can be enabled at the storage pool, logical unit number (LUN) or file share level.

Cautions
- Imation’s lack of tight integration with VMware, Symantec NBU, and IBM TSM may create deployment and operational restrictions.
- A focus on M&E, video surveillance and healthcare requires additional due diligence before deploying the vendor’s storage systems outside of these verticals.
- Imation has limited presence outside the U.S. could constrain user plans for worldwide deployments.

Infinidat
Infinidat was founded in 2011 and began shipping its InfiniBox storage systems in 2013. The InfiniBox architecture is a clean-sheet, flash-centric design that targets the high end of the storage market. InfiniBox highlights include a claimed 7/9 availability, petabyte scalability, triple controller mesh architecture with large DRAM and flash cache for performance, block protocol support, low overhead snapshots, autotiering, low disk failure rebuild times, integration with multiple hypervisors, and ease of management augmented by VMware and OpenStack support. InfiniBox supports FC, Ethernet and InfiniBand host-side protocols. An all-inclusive software licensing model simplifies the acquisition cycle and budgeting for the upgrade process. Dense packaging and the use of standard 42U racks reduce data center requirements. While InfiniBox’s technical specifications are impressive, it is Infinidat’s promise of low acquisition and ownership costs, tight user budgets, and the track record of the company’s founders that are driving much of the market’s current interest in the vendor.

Infinidat’s decision to target the high end of the market required it to build a direct sales channel heavily supported by Infinidat system engineers. Support centers provide 24/7 support in the U.S. and Israel, both with easy access to R&D, which leads to positive call effectiveness. Break/fix support is handled by Infinidat or third-party field engineers, depending upon location. Moving past the initial market validation phase of system shipments, Infinidat has put plans in place to use indirect sales channels (VARs) to accelerate revenue and customer base growth.

Strengths
- Infinidat’s revenue and installed base growth, combined with easy access to large accounts, large venture capital funding and an experienced startup management team, should increase its acceptability as a storage vendor.
InfiniBox’s performance, ease of use and pricing compare favorably with traditional high-end storage systems.

Infinidat’s focus on the high end of the storage market enables it to pursue a high-touch sales model and still undercut its competitors on acquisition and ownership costs.

**Cautions**

- Deploying InfiniBox into business and mission-critical environments may elongate the acquisition process because of the need to build support for bringing a new vendor online, doing local support reference checks and reviewing potential impacts on disaster recovery.
- Until compression, deduplication and Server Message Block (SMB; aka CIFS) protocol support are delivered, and functionally and performance market-validated, the promise of the InfiniBox architecture will only be partially fulfilled.
- Infinidat’s ability to manage growth and its future as a stand-alone company remain to be market-validated for at least the next 12 to 24 months.

**Infortrend**

Based in Taipei, Taiwan, and listed on the Taiwan Stock Exchange, Infortrend has a diverse range of general-purpose storage products. The EonStor DS 4000 and the EonStor DS 3000 series are well-featured midrange storage platforms that support general-purpose applications with particular emphasis given to high performance for databases and hosted virtual desktop applications. Infortrend’s offerings feature virtualization technology and multiple Enterprise Scalable Virtualized Architecture (ESVA) modular platforms combined with the ESVA Cluster File System, which can be consolidated into a storage pool to support large high-performance applications. Infortrend claims to be the first to deliver disk arrays with 16Gb per second FC, 12Gb per second SAS and 2.5-inch HDDs, and it prides itself on being an early-to-market leader with differentiating hardware technology. With sales and support offices located in the U.S., U.K., China and Japan, Infortrend employs a direct and indirect channel go-to-market strategy to reach its target markets. The vendor reported 5% year-over-year revenue gains with positive net operating results for its most recent fiscal year.

**Strengths**

- The EonStor DS 4000 employs supercapacitors with a flash module, rather than cache batteries, to keep data safe for extended periods of time should a power outage occur. Compared to battery technology, supercapacitor technology requires no maintenance, is less expensive and will last for the life of the system.
- In June 2015, Infortrend reported that the EonStor DS 3024B delivered the best SPC-1 input/output operations per second (IOPS) per dollar ratio, underscoring Infortrend’s emphasis on the importance of price/performance in the midrange general-purpose storage market.
- SANWatch, the common storage management software suite, provides all the functions necessary to discover, configure, administer and monitor all Infortrend storage platforms, including the virtualization functions associated with the ESVA system.

**Cautions**

- The SSD, automated storage tiering, snapshot, volume mirror/copy and remote replication data services a la carte pricing model associated with the EonStor DS 4000/DS 3000 complicate configuration determination, and may result in a hidden cost if it becomes necessary to upgrade to advanced versions.
- Data reduction, secure multitenancy, dynamic load balancing between controllers and quality of service (QoS) are missing functions for the EonStor DS 4000 and DS 3000 platforms.
- Considering its global market reach, Infortrend has a rather limited system engineering field organization requiring it to rely largely on reseller partners to provide Level 1 and Level 2 end-user service and support.

**NEC**

NEC is a 115-year-old technology conglomerate headquartered in Tokyo, Japan. NEC, which has historically focused on the Japan domestic market, has reinvigorated its efforts to sell outside Japan by targeting the U.S. market with specific pricing models and channel partner programs to increase its brand awareness in this region. Last year, the vendor introduced the M-x10 Series in the U.S. This product is an update to the M-x00 Series, with improvements in cache capacity, processing power and bandwidth. NEC also expanded its ecosystem by adding a new vCenter plug-in for VMware environments, as well as support for OpenStack by adding drivers for Cinder. While most data management features such as snapshots, replication, autotiering, QoS and write once, read many (WORM) are offered, each of these features requires individual licenses. The M-Series has a resilient dual-controller design, but it does not have a scale-out architecture. From a security standpoint, the product supports role-based access control, data shredding and WORM capabilities. It has robust integration with most third-party backup software vendors, as well as integration with storage APIs provided by popular hypervisors such as VMware and Microsoft Hyper-V.
Strengths
- NEC pays extraordinary attention to power and cooling. Its system is designed to improve cooling efficiency, and massive array of idle disks (MAID) functionality is used to control disk power consumption, thus reducing total cost of ownership (TCO).
- The M-Series provides convenient integrations with storage integration APIs from VMware, such as VVols, vStorage API for Array Integration (VAAI) and Site Recovery Manager (SRM), as well as Microsoft Offloaded Data Transfer (ODX) features. It also supports all major third-party ISVs for backup and archiving.
- NEC is well-positioned to offer its integrated infrastructure solution, Nblock, consisting of servers, storage and networking products that are indigenous to the vendor particularly, and can target cloud use cases.

Cautions
- Compression and deduplication are supported via a third-party appliance, SANblox from Permabit, resulting in deployment complexity as these features are out of the box and not native to the M-Series appliance.
- The lack of a true scale-out architecture limits NEC's capabilities in penetrating larger enterprises.
- The M-x10 Series lacks support for native NAS capabilities.

NetApp
NetApp has a worldwide presence with offices in all regions. NetApp has a two-product portfolio, the FAS series of unified storage arrays and the E-Series of midrange storage arrays. The vendor has been concentrating on the transition of its DataOntap FAS array software to clustered DataOntap (cDOT) array software, and on developing its data fabric solution. While the majority of new customer sales are cDOT, the transition is taking years, with many customers not wanting or needing to move to clustered DataOntap. During this transition, NetApp has been losing market share, and there have been significant changes in the management structure, including the CEO. Overall, staff turnover has also been high, and due to this turmoil, some customers are questioning NetApp's future direction.
The FAS arrays are suitable in all general-purpose/unified storage environments, from low-capacity requirements to extremely large clustered installations. The E-Series is positioned as a high-performance storage array, but often the FAS array with a tier of SSDs is good enough for most workloads. While many vendors have been consolidating their product portfolios, NetApp has expanded its portfolio, investing a large amount of resources in positioning of the wider product range, which adds complexity to the customer's product selection process.

Strengths
- The FAS model range offers mature and proven FAS unified storage arrays, which use the same management GUI and software features across the FAS range.
- NetApp Flash Pool is a fast and responsive caching feature that improves the performance and efficiency of the FAS arrays.
- Selective postprocess FAS deduplication and compression maintain performance and optimize data reduction appropriately for each workload.

Cautions
- Customers should ensure that marketing and field engineering are equally competent on all NetApp series systems under consideration.
- Conversions of 7-Mode to cDOT are difficult, have the potential to cause downtime and should be managed as heavy-resource-load ed projects.
- FAS postingest deduplication ratios are not particularly aggressive, and postingest deduplication complicates capacity planning and space management.

Nimble Storage
With $228 million in revenue in its first fiscal year as a public company — an 81% increase over the prior fiscal year — Nimble Storage continues to execute its strategy of accelerating top-line growth while improving operational and cash-flow results. Beyond improvements to its CS-Series hardware and enhancements to the Cache Accelerated Sequential Layout software and InfoSight cloud-based customer support system, the vendor is focusing resources on building out its solution offerings, broadening technology partnerships with leading ISVs and independent hardware vendors (IHVs), advancing penetration into select large-enterprise accounts and CSPs, and strengthening channel enablement programs. Notably, SmartStack, based on Cisco's UCS and Nimble's CS-Series, is gaining increased traction in the integrated infrastructure solution market. CS-Series deployments are broad-based, with nearly 100% having a virtual server footprint with hosted virtual desktops and Microsoft SQL, Exchange and SharePoint being popular use cases. The vendor's creative marketing strategy for the Adaptive Flash platform enables it to position the CS-Series as a hybrid array or as an all-flash array, depending on the use case and competitive circumstances.

Strengths
- Relative to legacy SAN offerings, the Nimble CASL file system enables performance, capacity utilization, form factor, energy consumption and TCO to be simultaneously optimized.
Nimble’s cloud-based InfoSight customer support system facilitates rapid problem identification/resolution, and provides users with proactive trending and forecasting advice regarding capacity and performance headroom.

NimbleConnect, an online customer community, fosters the establishment of peer relationships and shared learning among the Nimble user base.

Cautions
- Default flash capacities may be insufficient to guarantee read performance over the expected CS-Series useful life cycle.
- Missing functions that are important to large global enterprises and CSPs include robust QoS, in-line deduplication, synchronous remote replication and secure multitenancy.
- Nimble has yet to develop a native capability that enables users to back up on-premises storage data to public cloud providers, such as Amazon and Microsoft Azure.

Oracle
Oracle’s vision and positioning of its storage are considerably different from that of the traditional legacy general-purpose disk array market and that of its competitors within the general-purpose array market, where competitors compete to attach third-party storage to other vendors’ servers and applications. Oracle is primarily concerned with the Oracle Stack, Oracle Cloud, and the direction and vision toward which the vendor is heading, not with where the general-purpose disk array market is heading. Therefore, Oracle designs its storage arrays specifically for high-bandwidth and low-latency Oracle application requirements. Oracle does support and provide storage for general-purpose servers and applications, and customers can successfully implement Oracle storage for Oracle and non-Oracle workloads. The FS1 Flash Storage System, derived from Pillar Data Systems’ Axiom array, is a completely new array that became generally available in October 2014. The FS1 uses new packaging, current-generation technology — x86 microprocessors, SSDs and HDDs — and heavily re-engineered and enhanced microcode. Highlights include QoS, application profiles to simplify configuration, synchronous and asynchronous remote replication, consistent group support, and the ability to scale up capacity to almost 3PB per node pair. The latest ZFS Storage Appliance, the ZS4-4, became generally available in December 2014. Oracle has positioned the FS1 as its block storage array of choice, and its ZFS appliance as its NAS and backup array of choice. Oracle also provides price and performance transparency for the ZFS Storage Appliance systems via the SPC-2 benchmark.

Strengths
- Designed for ease of use and detailed reporting, Oracle storage arrays are quick and simple to implement and operate.
- Oracle offers very high scalability systems that enable large amounts of data to be transferred via fast interconnects such as InfiniBand.
- Customers are allowed to expand, perform upgrades and install fixes on the ZFS storage appliance.

Cautions
- Oracle’s prioritizing of Oracle Virtual Machines over other hypervisors has so far translated into delayed or limited support and integration with VMware, Hyper-V and xVM.
- Scale-out versions of the FS1 are not yet shipping and will require at least three to nine months to be market-validated.
- The ZFS Storage Appliances do not have synchronous replication.

Promise Technology
Promise Technology caters to customers that have high-performance requirements, but are price-sensitive. Its general-purpose disk arrays are typically deployed for rich-media applications, surveillance data, backup streams, unstructured data associated with big data analytics and other use cases that require high-speed ingestion. Promise’s go-to-market strategy is to customize disk storage solutions to fit a particular partner use case, and to leverage the larger market presence of its partners to gain branded market traction. The most visible example of this strategy is the successful relationship with Apple, where the Promise VTrak x30 is the only qualified dual-controller SAN solution listed on the Apple Store website. In order to expand market reach, Promise has strengthened its general VAR and system integrator programs. Publicly listed on the Taipei stock exchange, Promise Technology has a substantial R&D, sales and marketing presence in San Jose, California.

Strengths
- The VTrakFS file system enables the VTrak A-Class disk arrays to embrace a scale-out architecture, nondisruptively scaling up to eight nodes (a node equals one VTrak x30 RAID head plus nine VTrak x30 JBODs) with a single global namespace supporting a maximum of 24PB.
- The VTrak A-Class Shared Storage Appliance integrated with the NAS Gateway G1100 creates a unified storage solution with redundancy and single VTrakFS management software to support multiprotocol infrastructures.
- Promise provides timely certification with Apple’s latest software, including OS X Yosemite, as well as support for asymmetric logical unit access (ALUA) to enhance availability and load balancing in a SAN infrastructure.
Cautions
- Promise’s technical support knowledge and skill lean toward applications requiring high bandwidth, such as rich media and surveillance, rather than general-purpose applications associated with Microsoft and Oracle.
- In a hybrid configuration (HDD and SSD), VTrak does not support autotiering or pinning data to a specific tier of storage, which may impact performance.
- Limited integration and certification with leading ISVs (such as Microsoft, Oracle, SAP and VMware) hinder Promise’s attractiveness as a primary storage provider.

Tegile
Tegile is a private company headquartered in Newark, California. Founded in 2009, it is a relatively new entrant into the storage array market. It has a worldwide presence with offices in all regions, and all products are sold via resellers. Tegile has a unified product portfolio consisting of four general-purpose arrays and three solid-state arrays, all of which are based on the same hardware and software architecture, and all of which support block and file protocols. The raw capacity of the largest array, the T3400, is relatively small at 314TB. However, since the Tegile arrays are some of the few general-purpose disk arrays that have in-line compression and deduplication (depending on the data types), the usable capacity can often be several times larger and provide a very competitive price per usable capacity. The data reduction ratios also provide an environmental advantage in terms of power, cooling and physical rack space. The hardware is designed to be simple to maintain, and customers are allowed to add expansion shelves and extra disk capacity, and also to perform software upgrades and apply fixes themselves.

Strengths
- The same hardware, software architecture and technology are used across the vendor’s entire storage array portfolio.
- Selective in-line data reduction and compression allow customers to select data reduction where required and, just as importantly, to disable it for unsuitable workloads.
- All software features are included in the base price of the storage array.

Cautions
- Tegile has a very limited presence outside of North America and Western Europe.
- The lack of synchronous replication limits appeal in business and mission-critical environments, requiring the capture of every last I/O sent to the storage system.
- The lack of OpenStack Cinder support and broader integration with backup/restore solutions limit the appeal in many environments.

Tintri
Founded in 2008, Tintri has kept pace with the rapidly evolving server and desktop virtualization markets, and competitors. Ongoing VMstore product enhancements include new models (i.e., hardware refreshes and all-flash models), more performance/throughput, software enhancements, and expanded hypervisor support and tighter integration with them. Among the more significant functional enhancements are virtual machine-level QoS and OpenStack support, data at rest encryption, and improved monitoring and management tools. VMstore hypervisor support now includes VMware, Hyper-V, Red Hat Enterprise Virtualization (RHEV) and OpenStack. Directly provisioning virtual machines rather than physical servers eliminates the layers of abstraction and complexity that are inherent in provisioning virtual machines from LUNs and file systems managed by a hypervisor. It also associates snapshotting, cloning, replication, and QoS and security with individual VMs, rather than LUNs or file systems. Tintri Global Center (TGC) addresses the relatively limited scalability of VMstore systems by managing up to 32 VMstore systems from a single pane of glass, and, when teamed with vSphere Web Client, SRM and vRealize Operations plugin, provides users with a solid ease-of-use experience. Tintri’s go-to-market strategy is centered on indirect channels that have the technical expertise to add value by helping users to automate workflows and drive repeat business.

Strengths
- Tintri’s installed base growth, repeat business, hiring and additional venture capital funding suggest continued sales momentum.
- VMstore systems are delivering high availability, a consistent performance experience and superb ease of use by eliminating many of the configuration and tuning errors associated with provisioning physical servers rather than virtual machines.
- Tintri’s channel partners are providing positive deployment experiences.

Cautions
- The lack of nondisruptive dynamic load balancing between VMstore systems and limited scalability are limiting Tintri’s attractiveness in large environments.
- Competition from SSAs, integrated platforms, I/O optimization software and SDS has the potential to neutralize VMstore’s value propositions and shrink VMstore margins.
- Tintri is more vulnerable than other storage vendors to hypervisor vendors commoditizing virtual machine storage (for example, VMware VVols and Hyper-V storage spaces).
X-IO Technologies

X-IO Technologies is a private company headquartered in Colorado Springs, Colorado. Despite churn in its executive ranks that can delay decision making, X-IO was able to launch the ISE 800 G3 SSA, and iglu. Iglu is a tight integration of FalconStor technology with X-IO that expands ISE scalability and ecosystem support, and adds missing functionality such as stretch cluster support and asynchronous replication. The presently available ISE G3 series is the third generation of ISE storage arrays. The same architecture and microcode are used for all disk, hybrid and SSAs. The architecture of the array was designed to provide high availability, and the ISE Mirroring product creates active-active data copies and the equivalent of synchronous replication between ISE arrays up to a distance of 40 kilometers. Hybrid ISE uses the in situ remanufacturing (using many of the same manufacturing codes that transform coated substrates into disk platters) of HDDs and overprovisioning of SSDs to cost-effectively provide a five-year warranty. X-IO provides transparent, publicly available performance information that has been independently verified via the SPC benchmarks. Most customers will have to purchase X-IO products from resellers as the vendor is moving to a predominantly channel sales go-to-market strategy.

Strengths

- The base price of the storage array includes all software features plus five years of support and maintenance.
- X-IO has reliable scale-out architecture with self-repairing disk drives.
- ISE 700 series arrays offer self-tuning via continuous adaptive data placement (CADP).

Cautions

- There are no data reduction features, such as compression or deduplication.
- The reluctance of the marketplace to insert network-based virtualization or replication solutions in the I/O paths between servers and storage arrays will challenge iglu marketing and sales.
- Whether the most recent senior management changes at X-IO will succeed in driving customer, revenue and market share gains will be determined over the next 12 to 18 months.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants and MarketScopes as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant or MarketScope may change over time. A vendor’s appearance in a Magic Quadrant or MarketScope one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

- Imation
- Infinidat

Dropped

- Dot Hill

Inclusion and Exclusion Criteria

The criteria enumerated below are intended to include established and emerging vendors selling midrange and high-end disk storage systems that support block-access, file-access or converged (block and file) protocols. Commonly supported protocols include FC, iSCSI, CIFS and NFS. Less commonly used, but still qualifying, protocols include InfiniBand, FCoE and AoE. These systems are configured with HDDs and, optionally, with SSDs.

Product Criteria:

- Bundled all the hardware and software needed to store and retrieve data using industry-standard block and/or file host connection protocols into a storage array
- Implemented architectures with no single points of hardware failure
- Sold system through indirect or OEM channels, maintained brand awareness with end users, and had an average selling price of more than $24,999

Vendor Criteria:

- Annual company revenue of $25 million or more
- A multinational presence and 24/7 support capabilities

Notes:

- z/OS support is no longer used as a boundary separating midrange from high-end storage arrays.
- Inclusion of dual controller, scale-out and high-end storage systems in the same Magic Quadrant does not imply that the differences in usable availability, scalability, performance/throughput and functionality of these different architectural approaches are insignificant.

**Evaluation Criteria**

**Ability to Execute**
The Ability to Execute axis highlights the change in vendor positioning directly attributable to vendor actions. Criteria that provide relatively high levels of vendor and product differentiation are more highly weighted than those that have relatively little ability to provide differentiation.

**Table 1. Ability to Execute Evaluation Criteria**

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product or Service</td>
<td>High</td>
</tr>
<tr>
<td>Overall Viability</td>
<td>Medium</td>
</tr>
<tr>
<td>Sales Execution/Pricing</td>
<td>High</td>
</tr>
<tr>
<td>Market Responsiveness/Record</td>
<td>Medium</td>
</tr>
<tr>
<td>Marketing Execution</td>
<td>High</td>
</tr>
<tr>
<td>Customer Experience</td>
<td>High</td>
</tr>
<tr>
<td>Operations</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Source: Gartner (October 2015)

**Completeness of Vision**
The Completeness of Vision axis highlights the change in vendor positioning directly attributable to vendor actions. Criteria that provide relatively high levels of vendor and product differentiation are more highly weighted than those that have relatively little ability to provide differentiation.

**Table 2. Completeness of Vision Evaluation Criteria**

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Understanding</td>
<td>Low</td>
</tr>
<tr>
<td>Marketing Strategy</td>
<td>Medium</td>
</tr>
<tr>
<td>Sales Strategy</td>
<td>High</td>
</tr>
<tr>
<td>Offering (Product) Strategy</td>
<td>High</td>
</tr>
<tr>
<td>Business Model</td>
<td>High</td>
</tr>
<tr>
<td>Vertical/Industry Strategy</td>
<td>Medium</td>
</tr>
<tr>
<td>Innovation</td>
<td>High</td>
</tr>
<tr>
<td>Geographic Strategy</td>
<td>Low</td>
</tr>
</tbody>
</table>

Source: Gartner (October 2015)

**Quadrant Descriptions**

**Leaders**
Vendors in the Leaders quadrant have the highest scores for their Ability to Execute and Completeness of Vision. A vendor in the Leaders quadrant has the market share, credibility, and marketing and sales capabilities needed to drive the acceptance of new technologies. These vendors demonstrate a clear understanding of market needs; they are innovators and thought leaders; and they have well-articulated plans that customers and prospects can use when designing their storage infrastructures and strategies. In addition, they have a presence in the five major geographical regions, consistent financial performance and broad platform support.

**Challengers**
A vendor in the Challengers quadrant participates in the broad general-purpose disk array market and executes well enough to be a serious threat to vendors in the Leaders quadrant. They have strong products, as well as sufficient credible market position and resources to sustain continued growth. Financial viability is not an issue for vendors in the Challengers quadrant, but they lack the size and influence of vendors in the Leaders quadrant.

**Visionaries**
A vendor in the Visionaries quadrant delivers innovative products that address operationally or financially important end-user problems at a broad scale, but has not demonstrated the ability to capture market share or sustainable profitability. Visionary vendors are frequently privately held companies and acquisition targets for larger, established companies. The likelihood of acquisition often reduces the risks associated with installing their systems.

**Niche Players**
Vendors in the Niche Players quadrant are often narrowly focused on specific market or vertical segments, such as data warehousing, HPC, low-cost disk-based data retention and other areas that are generally underpenetrated by the larger disk array vendors. This quadrant may also include vendors that are ramping up their disk arrays or larger vendors having difficulty developing and executing upon their vision.
Context
This Magic Quadrant represents vendors that sell into the end-user market with branded disk arrays. An insatiable demand for storage, tight budgets caused by difficult economic conditions and skills shortages have caused users to focus on flash technologies to solve performance problems; storage efficiency and ease-of-use features to enable them to keep pace with a more stringent regulatory environment; and the need to take advantage of big data analytics to create competitive advantage by identifying new product opportunities and new marketing and sales strategies before competitors. This will speed product development and improve the quality of business decisions by enabling users to do more realistic “what if” analysis.

Market Overview
Historically, Gartner segmented the storage market by architecture, protocol support and price bands to facilitate a better understanding of storage market dynamics and to assist clients in designing infrastructure refreshes. However, improvements in technology have led users to treat high-end, midrange and NAS systems as roughly equivalent, and have allowed them to compete against each other — even in business-critical environments, although high-end storage systems retain marginal advantages in availability, recovery point objectives (RPOs) and software ecosystem support. Storage vendors with significant high-end storage revenue and markets to protect have responded by introducing lower-capacity high-end models, which are positioned to compete with larger midrange storage. Examples of these entry-level high-end storage systems include EMC’s VMAX 10K and Hitachi Data Systems’ HUS VM.

Newer entrants, such as Infinidat, Tegile and Tintri, are indirectly influencing the market by using their innovation to influence large established storage vendors. Many large, established incumbent vendors are using acquisitions of these emerging storage companies to keep their portfolios innovative, and their large marketing and channel development budgets to drive user wants and needs.

Gartner expects the advantages of traditional high-end enterprise storage arrays to disappear over the next three to five years as scale-out architectures and integrated platforms continue to gain market and mind share because of their continuously improving usable availability and scale. With the possible exception of one vendor currently in the Magic Quadrant, Gartner does not expect new storage vendors to enter the z/OS segment of the high-end market because its share of the high-end storage market is in long-term decline. Even as the traditional markets are coalescing, we are witnessing the creation of an SSA market, which we are acknowledging with the creation of our SSA Magic Quadrant and SSA Critical Capabilities research.

Evaluation Criteria Definitions

Ability to Execute
Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization’s financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization’s portfolio of products.

Sales Execution/Pricing: The vendor’s capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor’s history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization’s message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This “mind share” can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.
**Customer Experience:** Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

**Operations:** The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

**Completeness of Vision**

**Market Understanding:** Ability of the vendor to understand buyers’ wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers’ wants and needs, and can shape or enhance those with their added vision.

**Marketing Strategy:** A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

**Sales Strategy:** The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

**Offering (Product) Strategy:** The vendor’s approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

**Business Model:** The soundness and logic of the vendor’s underlying business proposition.

**Vertical/Industry Strategy:** The vendor’s strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets. Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

**Geographic Strategy:** The vendor’s strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the “home” or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.

*Gartner Research Note G00272355, Stanley Zaffos, Roger Cox, Valdis Filks, Santhosh Rao, 21 October 2015*
Nimble Storage, Inc.
211 River Oaks Parkway
San Jose, CA 95134

Website: www.nimblestorage.com
Phone: 1-877-364-6253; 1-408-432-9600
Sales Email: sales@nimblestorage.com
Information Email: info@nimblestorage.com
Twitter: @NimbleStorage

Nimble Storage (NYSE: NMBL) is redefining the storage market with its Adaptive Flash platform. Nimble’s flash storage solutions enable the consolidation of all workloads and eliminate storage silos by providing enterprises with significant improvements in application performance and storage capacity. At the same time, Nimble delivers superior data protection, while simplifying business operations and lowering costs. At the core of the Adaptive Flash platform is the patented Cache Accelerated Sequential Layout (CASL) architecture and InfoSight, an automated cloud-based management and support system that maintains storage system peak health. More than 6,200 enterprises, governments, and service providers have deployed Nimble’s flash storage solutions across more than 50 countries.