

DIGITAL TRANSFORMATION

The most important asset : DATA



Without doubt, data is the new oil and new currency. When we look at the most valuable companies in the world, they all leveraged the data to disrupt and change traditional ways. Furthermore, artificial intelligence and machine learning technologies will enable companies and brands to better synthesize and incorporate mounds of data to create more personalized consumer experiences in the modern era of connected devices. From this perspective, the ability to make sense of the digital transformation will be what distinguishes the winners from the losers.

Business Demands for the Digital Transformation

Digital technology is evolving rapidly and every second humanity is generating massive amount of data. To deal with these growth, enterprises must change their way of doing business while providing better user experience with constrained resources.

- **Continuous Innovation.** It is very clear that IT holds the capability to derive future ready digital transformation to entire organization. And, to build superior customer experience IT should re-invent itself to provide agile solutions. However, integrating applications and services from multi source complex environments needs interoperability between new and old infrastructures.
- **Growth Facts.** Digital trends are rapidly deriving from today's more sophisticated users. Our culture is generating and consuming more data with ever-increasing mobile devices. As a result, capturing, storing and analyzing the data is getting much more expensive without new approaches and technologies.
- **Cloud Computing.** Today, IT responded to quick growth challenge with cloud computing to meet business expectations, which brings flexible, innovative and cost effective infrastructures. Additionally to the cloud approaches, it is essential to modernize next

generation data centers with flash and software defined solutions to keep business in the market.

- **Keep in Budget.** All eyes on IT to provides strategic innovations in the cloud, big data, social media, mobility and now IoT to advance customer expectations ahead of the competition. This responsibility is generally given to IT with no more funding.
- **Consolidate.** Maintaining traditional applications and infrastructures brings more costs to the enterprises. Furthermore, dealing with legacy infrastructures is one of the main threat to digital transformation. Keeping up with a dynamic business environment needs agile, flexible and workload consolidated infrastructures.

Definitely every company knows that quickly adopting new technologies is the fundamental advantage to be competitive in the market, and this shift brings growth and success.

At this point, a unified all-flash storage which works with your existing applications and supports new technologies help companies meet data growth challenges and stay competitive in the business.

Next Generation All-Flash Data Centers with NGX Storage

Architecture

The NGX Storage All-Flash designed and developed in terms of always in-line storage efficiency with compression, deduplication and thin provisioning while providing extreme performance, reliability, scalability and manageability. Our seamless innovative RAID like schema delivers triple-parity robust data and metadata protection which solves performance and rebuild time challenges at petabyte scale capacities.

Furthermore, NGX Storage provides over 10M IOPS, 20PB efficient capacity, 99.9999% reliability, up to 840Gb connectivity, instant snapshots, instant clones, data replication, non-disruptive upgrades and share nothing HA architecture within unified storage principles.

NGX Storage delivers these capabilities without any compromise on enterprise resiliency.

Performance

NGX Storage can easily fulfill any modern data center workloads with consistent performance within sub-millisecond latencies. Thanks to our innovative and intelligent cache algorithms, NGX Storage serves nearly 95% percent of random I/O requests directly from its ultra fast DRAM cache layer which can capable to store up to 12TB of data. Supports variable block sizes from 512B to 1MB to optimize transactional and sequential workloads simultaneously in a single array. Furthermore, intelligent data aware in-line deduplication algorithms protects storage resources and increase performance automatically.

Availability and Reliability

NGX Storage is designed to prevent any downtime with it's high availability architecture and complete data protection schemes. It provides non-disruptive software upgrades and capacity expansions while keeping the business online. The system can handle multiple disk failures, repair itself with its unique



self-healing algorithms and provides consistent performance at petabyte scale capacities under heavy production workloads. All components in the NGX Storage systems are tested in our QA/Perf labs before delivering to the customers to achieve highest production quality and reliability.

NGX Storage is using both asynchronous differential delta copy remote replication and synchronous replication to achieve lowest recovery point and recovery time objectives in the industry. All of our products can communicate natively with each other for data replication. Furthermore, NGX Storage has cloud ready design that capable to work with Amazon S3, Microsoft Azure and Google Cloud.

NGX Storage Solutions

Database

There are various database workload for different applications and software. It is hard to get an efficient performance from a mixed workload in different deployments. NGX Storage provides consistent IOPS, throughput and lower latencies for growing database demands. With NGX Storage's flexible volumes it is possible to arrange logical units so that it perfectly fits to your application and you get the most out of the given performance. By optimizing volumes you can take advantage of variable block size, data reductions, caching and writing methods. I/O optimization can be arranged to sequential or transactional workload anytime. With NGX's writable snapshot clones, production databases can be used for analytics, development or data recovery without disruption to ongoing workloads. Since our snapshots and clones are instantaneous and holds only changed data, there is no performance and capacity impacts on overall system.

Server Virtualization

NGX Storage is so efficient to consolidate and virtualize any server workload and helps you get the most from your virtual environment. Generated I/O stream from many virtual machines to the NGX Storage, handled by low latency cache centric architecture to provide consistent performance. In addition, NGX supports the major hypervisors like VMware, HYPER-V, KVM and Xen for simple deployment and also supports VMware VAAI, Microsoft ODX and OpenStack plugins for acceleration and integrations.

VDI

NGX Storage delivers consistent low latency, high performance connectivity and millions of IOPS that handle any virtual desktop environment needs. Furthermore, NGX can reduce capacity requirements up to 95% in VDI deployments efficiently with its inline intelligence deduplication and compression features. With these capabilities and wide range provider supports like Citrix and VMware, NGX is the perfect match for the VDI.

Near Real-Time Analytics

NGX All Flash products are designed to help solve the challenges of big data analysis and warehousing. It is very simple to access from Oracle database, Apache Spark or from Hadoop environments to the lightning fast unified flash storage that gives 840Gbit connectivity over 10GbE,



40GbE and 100GbE interfaces. NGX Storage provides consistent latency, throughput and IOPS - also better capacity efficiency with inline compression and deduplication.

Finance

Financial services needs to optimize their IT infrastructure to enhance customer experience, handle enormous amount of online transactions and counter cyber threats with real-time fraud detection approaches. NGX Storage delivers reliable, cost effective, high performance and high available all-flash storage solutions to improve and accelerate critical financial operations.

Government

Government services are very critical that they have to be available all the time, and also need highly scalable solutions which will cost a lot to protect their today's and future investments. NGX Storage is working closely with government agencies from the beginning to provide reliable and cost effective solutions for their various needs and keep their technology future ready. With our Eternal Storage program, government agencies can easily avoid the traditional re-purchase cycle and can significantly reduce regular CAPEX requests.

Healthcare

Healthcare industry needs efficient products that can be fast, scalable and reliable with their valuable medical records. Millions of users including patients doctors and medical staffs generating petabytes of data in hospitals. At this point NGX Storage offers products that are scalable within reasonable cost. In the industry we have also seen that group of hospitals share information or move their data into an another center for both processing and storing. Our delta copy replication system provides manageable fast and easy way to move their big chunk of data volumes.

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