Hybrid Flash Storage AS5500G5

Inspur AS5500G5 is a mid-end hybrid flash storage system for medium/large-sized enterprises and provides both SAN and NAS. With the storage operating system especially developed for cloud computing and big data, rich software features, and industry-leading hardware platform, AS5500G5 satisfies the data storage and disaster recovery requirement of various applications, such as medium/large-sized OLTP/OLAP databases, virtualization and file sharing. It leads similar products in terms of performance, functionality, reliability and usability, and is widely used in government, finance, communications, energy, media, healthcare, education, SMB and other sectors.

Features

Extreme performance

Platform upgrade: G5 adopts a new generation of hardware platform with chips and specifications upgraded. AS5500G5 performance can reach 3.3 million IOPS(8 Controls)①,contributing to even efficient data processing. At the same time, application efficiency is boosted due to a set of intelligent software, such as InFlashCache, InTier, InQoS.

Rate upgrade: Support 32Gb interface card to meet the requirement of high bandwidth and low latency, and fully unleash the storage potential.

Scale-Out architecture: Inspur G5 mid-end active storage supports online horizontal expansion, up to 16 controllers and TB-level cache, enabling customers' storage resources to grow linearly to meet the changing business needs.

Extreme reliability

Efficient and reliable system architecture: Inspur G5 adopts industry-leading Active-Active storage architecture to achieve load balancing between controllers, eliminate performance bottlenecks of controllers, improve system availability, and ensure business continuity.

Redundant and reliable hardware platform: The fully modular redundant architecture ensures no single point of failure (SPOF) for key components. Passive backplane is used to improve system reliability. It also supports online hardware expansion, online firmware upgrade, online system maintenance, and power failure data protection.

Extreme fast and reliable system functions: InRAID makes data blocks and hot spare blocks distributed in all member disks of the RAID array. The concept of hot spare disk no longer exists. 1T data reconstruction is reduced to the minute-level. Therefore, it greatly reduces RAID failure risk when disk failure occurs again and enhances system reliability.

Mature and reliable disaster recovery and protection: Inspur G5 supports multiple disaster recovery and protection solutions, such as snapshot, remote replication, active-active, and three centers with two variants. The combination of the reliable hardware platform, rich software features and mature disaster recovery solutions guarantees business continuity and high availability of applications, and achieves RPO = 0 and RTO = 0.

Rich features

Intelligent cache acceleration: Support SSD cache and 32 cache partitions to meet the requirements of different applications, improve overall storage performance, and eliminate performance bottlenecks in complex application environments.

Intelligent tiering: Four tiers. Hotspot data can be migrated online between different storages to optimized storage cost and performance, and improve customers' ROI.

Intelligent online compression: The hardware compression card provides lossless compression, which has no impact on performance. Adopt the time-based pre-compression, data is compressed in the cache, and the fixed stripe size can fully utilize the storage space.

Intelligent heterogeneous virtualization: Allow to take over third-party storage resources and form a unified virtual resource pool. Data protection, data migration between storages and other services are provided.

Intelligent disaster recovery replication: Three disaster recovery replication mechanisms: sync, async, and async periodic. Thus, meet different RTO and RPO requirements, protect business continuity, and support three data centers with two variants.

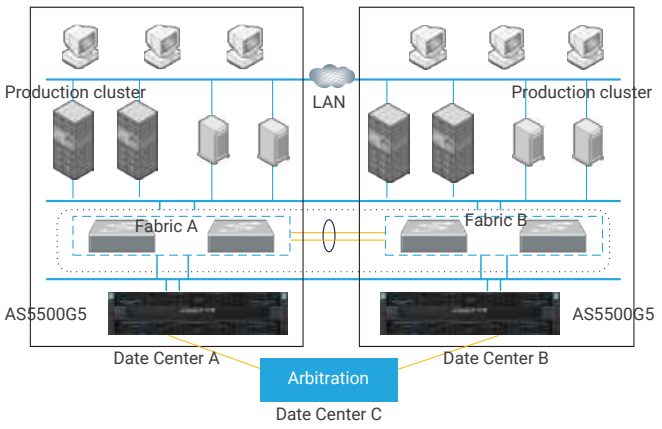
InMetro: Inspur G5 active storage provides an active-active multi-data center topology to achieve RTO=0 and RPO=0, zero data loss, and uninterrupted business.

① The data comes from SPC-1 official website
http://spcresults.org/sites/default/files/files/executive_summary/A32015_ES.pdf

Application Solution

In-Metro Solution

Solution Description: The current critical business not only requires higher and higher performance requirements, but also poses challenges to business continuity. AS5500G5 uses mature active-active technology to ensure business continuity and high availability of applications. When any one of the storages has a disaster, it will use the perfect arbitration mechanism and switching mechanism to make the other storage continue to provide continuous business access capabilities.



Solution Value: AS5500G5 In-Metro solution has the following characteristics: reliable and safe, mature technology, simple and efficient, automatic switching, without the help of a virtual gateway. At the same time, it can be matched with different host systems to achieve high availability between different data centers and provide continuous access to services (RPO=0, RTO=0).

Specifications

Product	AS5500G5	
Controller	2-16	
Controller Cabinet	2U12, 2U25, 3U48	
Processor	Multi-core	
System Cache	256GB-8TB	
Supported Storage Protocols	FC, iSCSI, NFS, CIFS, HTTP, FTP	
Type of Frontend Port	16/32Gb FC, 1/10/40Gb iSCSI	
Type of Hard Drive	SSD, SAS, NL-SAS	
Number of Hard Drive	2992-23936	
System Frontend IO Port	6-48	
Type of System Backend Port	SAS3.0, single port 4*12Gbps	
Expansion Enclosure	2U12, 2U25, 3U48, 5U92	
RAID Level	0, 1, 3, 5, 6, 10, 50, 60, InRAID	
Boost Resource Efficiency	Intelligent Thin Provisioning (InThin) Intelligent virtualization RAID (InRAID) Intelligent data migration (InMigration) Intelligent online compression (InCompression) Intelligent tiering (InTier)	Intelligent volume conversion (Intune) Intelligent heterogeneous virtualization (InVirtualization) Intelligent file service (InFileService) Intelligent online deduplication (InDedupe) Intelligent multi-tenant (InMulti-tenant)
Data Protection Software	Intelligent snapshot (InSnapShot) Intelligent cloning (InClone) Intelligent backup (InBackup) Intelligent disk mirroring (InVdiskMirror) Intelligent remote replication (InRemoteCopy)	Intelligent active-active (InMetro) Intelligent cloud tiering (InCloudTier) Intelligent encryption (InEncryption) Intelligent data destruction (InErase)
Mission-Critical Guarantee	Intelligent quality of service (InQoS) Intelligent cache acceleration (InFlashCache)	Intelligent automatic cache partition (InAutoPartition)
Virtualization Features	Heterogeneous virtualization: supports 95%+ of the models for unified management. RAID virtualization: block-level virtualization, system balancing, no hot spots. Virtualization system supports mainstream virtualization technologies, such as IntelliSense plugins (i.e.VAAI, VVOL, VASA, vCenter integration).	

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