DATACORE™

Selecting The Right Software-Defined Storage Solution For Your Infrastructure

Software-Defined Storage (SDS) when based on storage virtualization technology abstracts data services from the hardware layer, aggregating unlike storage systems into a tiered pool of centralized resources. This allows you to consolidate capacity across varied devices under one command center and gain the freedom to scale your data center with your choice of storage based on cost, performance, compliance, or any other requirement.

There are many vendors that claim to offer software-defined storage solutions for block and file storage. These are bound by how they are deployed and operated, limited by the data services they offer, restricted by their support for diverse storage equipment, and so on.

1. **Storage OEMs manufacturing SAN or NAS systems** claim to offer SDS packaged with their hardware. Here data services are tied to a specific hardware or a family of equipment from the same supplier.
2. **Hyperconverged platforms** offer some level of SDS functionality extending reach of data services and other SDS functionality within the HCI cluster, limited by the hypervisor.
3. Then there are **purpose-built SDS solutions** that are completely vendor-neutral and span to cover the entire storage infrastructure regardless of the make or model of storage, or deployment model.

Break free from the confinement of hardware with the full potential of SDS and attain complete IT harmony, giving your users and applications fast and uninterrupted data access across any storage, any deployment, anywhere.

The comparison matrix on the next page classifies and differentiates the types of SDS solutions for block and file storage that exist in the market today based on their functionality, capability, maturity, and applicability in IT environments.

There are eleven areas of comparison that help you to analyze the extent of capability of each solution, evaluate the three levels of SDS, and also contrast them with hardware-confined storage, so that you can make an informed decision on what you need for your block and file storage infrastructure.

	HARDWARE-CONFINED STORAGE	SOFTWARE-DEFINED STORAGE (BLOCK & FILE)		
	SAN OR NAS SYSTEM	LEVEL 1 SAN OR NAS SYSTEM	LEVEL 2 HYPERCONVERGED	LEVEL 3 INFRASTRUCTURE-WIDE[1]
DATA SERVICES[2] LICENSE SEPARATED FROM HARDWARE	No	Yes	Yes	Yes
RUNS ON	Proprietary hardware	Proprietary hardware	Virtualized x86 servers limited by hypervisor	Virtualized or bare metal x86 servers
STORAGE PROVISIONING	Yes	Yes	For applications on HCI nodes, partially for external applications	Yes
DATA SERVICES[2] COVERAGE	Confined to just a single model	Across a subset of models from the same vendor	Within a cluster	Across diverse servers (e.g. HCI) and storage systems
STORAGE POOLING AND CAPACITY AGGREGATION	Typically only within a given hardware frame	Recent models from a single vendor	Only within a cluster and not for anything outside	Across all storage (any make, model or deployment)
AUTOMATED DATA PLACEMENT (e.g. hot, warm and cold data)	Only on internal devices and selected cloud extensions	Only on internal devices and selected cloud extensions	Within a HCI node and selected cloud extensions	Over distributed storage on-premises and diverse cloud offerings
NON-DISRUPTIVE REPLACEMENT OR EXPANSION	Some redundant components from the same vendor	Only for offerings from the same vendor	Entire nodes or hot plug components	Any storage, anywhere
INTEGRATE NEW STORAGE TECHNOLOGIES (e.g. 3D XPoint)	Rarely, only when supported or a particular device	Depends on SDS layer and storage hardware compatibility	Depends on SDS layer and server compatibility	Immediately (SDS layer may have to be adopted first)
STORAGE HARDWARE COMPATIBILITY	Recent models from a single vendor	Recent models from a single vendor	Qualified range of components	Supports a wide selection of competing storage vendors
EXPAND CAPACITY WITH JBOD/JBOF	No	No	Partly qualified range as DAS	Yes
LEVERAGE EXTERNAL SAN OR NAS STORAGE	No	Possibly, as part of a family of devices from same vendor	No	Yes

Very Limited · Limited · Somewhat Limited · Unlimited

DATACORE

[1] Infrastructure-wide refers to the reach of coverage of the SDS solution spanning the entire block/file storage environment including, and not limited to, any SAN/NAS/DAS system, hyperconverged platform, and hybrid installations of these.
[2] Data services refer to the functions offered by the storage controller / SDS software to store, manage and protect data. These include mirroring, replication, tiering, snapshots, etc.

DataCore provides Level 3 SDS solutions for block and file storage extending the scalability, agility, and reliability of your infrastructure to unmatched coverage. From Fibre Channel to NVMe and classic storage design to hyperconvergence, DataCore delivers the flexibility to adapt and modernize your data center without being locked into a particular hardware vendor or technology. Adopt new technologies alongside existing equipment to maximize their collective value – and do so without delay or disruption to business services.

Harness the power of software-defined storage to achieve increased performance and data availability, capacity optimization, and centralized management of data services. The future of storage is software-defined; make it yours today.

041521

DATACORE THE AUTHORITY on Software-Defined Storage

DataCore Software delivers the industry's most flexible, intelligent, and powerful **software-defined storage** solutions for **block, file, and object storage,** helping more than 10,000 customers worldwide modernize how they store, protect, and access data. With a comprehensive product suite, intellectual property portfolio, and unrivaled experience in storage virtualization and advanced data services, DataCore is The Authority on Software-Defined Storage.

GET STARTED