



2022-23 DCIG TOP 5

ENTERPRISE STORAGE AS A SERVICE SOLUTIONS

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Enterprise Storage as a Service Solutions

Table of Contents

- 3 Storage as a Service Defined
- 3 Benefits of Storage as a Service
- 4 Distinguishing Features of TOP 5 Enterprise Storage as a Service Solutions
- 5 Similarities among the TOP 5 Enterprise Storage as a Service Solutions
- 5 Infinidat Storage as a Service

Enterprise Storage as a Service Solutions

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DISTINGUISHING FEATURES OF INFINIDAT STORAGE AS A SERVICE

- All inside and outside the box
- Multi-petabyte rack-scale infrastructure
- Infinidat white glove service

DISTINGUISHING FEATURES OF TOP 5 SOLUTIONS

- Deployment flexibility
- Multi-protocol storage
- Quality of service

SOLUTION FEATURES EVALUATED

- *Deployment Options*
- *Licensing and Pricing*
- *Product Features*
- *Technical Support*

Enterprises are on a journey to a cloud operating model for offering and consuming information technology as a service, whether in the public cloud or on-premises. Indeed, IDS estimates that cloud infrastructure spending now exceeds non-cloud spending.¹

Maturing infrastructure automation tools and the application of artificial intelligence and machine learning to the management of storage has created an opportunity for storage vendors to participate in this enterprise journey to the cloud by offering their storage solutions as a service.

Storage as a Service Defined

DCIG defines storage as a service (STaaS) as a storage consumption model where enterprises purchase storage as a subscription with billing based on storage usage, whether deployed on-premises or in the cloud. Storage vendors bill for usage based on various metrics, generally some combination of capacity and performance.

STaaS offers new acquisition and deployment options that give organizations greater agility and flexibility in deploying storage capacity whenever and wherever needed, without sacrificing the enterprise data services they rely on to store and protect vital corporate data. STaaS solutions offer multiple business benefits.

Benefits of Storage as a Service

Financial. The traditional enterprise storage acquisition process involves estimating storage requirements several years into the future and selecting and purchasing storage based on those estimates. With STaaS, enterprises pay only for the storage they currently need. The vendor monitors usage and adds capacity and performance resources as necessary during the agreement term.

STaaS enables organizations to preserve cash by:

- spending less upfront
- aligning costs more closely with revenue
- eliminating waste due to forecasting errors
- protecting budgets from cost surprises through simple, predictable pricing

While some people look at STaaS primarily as a model for financing infrastructure that aligns cost with actual usage, others see it as a mechanism to bring the cloud operating model to on-premises storage or as a tactical move to enable them to move workloads to the cloud.

Agility and flexibility. A well-executed STaaS deployment should do more than conserve cash. It should also deliver greater agility and flexibility to support changing business requirements, especially unexpected events that fall within the planning horizon. These include events as dramatic as a global pandemic or as mundane as putting a new application into production.

STaaS enhances agility by speeding up the initial deployment of the solution. STaaS reduces the number of hours enterprises must invest upfront in developing detailed forecasts of performance and capacity requirements. Instead, they only need to understand if the STaaS solution fits their current requirements and can scale to meet their likely future requirements.

1. <https://www.idc.com/getdoc.jsp?containerId=prUS49426222>. Accessed July 5, 2022.

Enterprise Storage as a Service Solutions

A well-executed STaaS deployment should do more than conserve cash. It should also deliver greater agility and flexibility to support changing business requirements.

STaaS also enhances agility by speeding the implementation of new applications. Solution providers pre-install extra storage beyond the contracted capacity. This buffer capacity is immediately available for allocation. STaaS providers also monitor storage utilization and add capacity and performance resources as the customer's utilization reaches agreed-upon thresholds. Thus, a good STaaS solution ensures that projects move forward without being delayed by the traditional months-long storage acquisition process.

Most STaaS solutions provide self-service and automation capabilities. Giving developers and application owners self-service provisioning of storage resources, self-service data recovery, and automated data protection accelerates application development and deployment by eliminating time-consuming, error-prone manual processes.

Expert management and support. With STaaS, organizations can benefit from storage acceleration and scalability of the latest storage systems without having to become experts in those systems. Most STaaS providers are responsible for keeping their solutions updated and available. Enterprise IT still manages storage volumes for its applications, but the provider manages the underlying storage system(s). Customers benefit from the provider's expertise in managing its solution while reducing the time IT staff must dedicate to maintaining storage systems.

Reduced risk. Traditional storage management requires specialized skills, and the departure of staff with those skills creates business risk. STaaS solutions reduce this staffing risk through vendor-provided expert monitoring, management, and maintenance of the storage infrastructure.

Sustainability. STaaS can also contribute to enterprise sustainability goals. STaaS enables more effective use of energy and materials by avoiding the traditional overprovisioning of storage systems. Some STaaS offerings incorporate complete lifecycle hardware management, including responsible refurbishing or recycling.

Distinguishing Features of TOP 5 Enterprise Storage as a Service Solutions

Deployment flexibility. The TOP 5 Enterprise STaaS solutions offer greater deployment flexibility than the other solutions DCIG evaluated. The TOP 5 vendors partner with more colocation facilities than the other solutions DCIG evaluated. Four of the five can also be deployed as software-defined storage on-premises, in MSP facilities, and in the vendor's own facilities.

Multi-protocol storage. In addition to block storage, 4 of the 5 solutions also support NFS and SMB file protocols, bringing the benefits of STaaS to a broader set of workloads and enhancing the opportunity for additional workload consolidation onto the STaaS platform. All TOP 5 solutions also provide container support via CSI drivers.

Quality of service. Most of the TOP 5 solutions offer a richer set of quality-of-service (QoS) features than their peers. In combination with support for multiple protocols, rich QoS enables confident consolidation and acceleration of more enterprise workloads. Accelerating and consolidating workloads increases production while reducing costs.

Enterprise Storage as a Service Solutions

STaaS offers new acquisition and deployment options that give organizations greater agility and flexibility in deploying storage capacity whenever and wherever needed.

Infinidat ships a fully-configured storage rack. As the enterprise needs more storage, it simply adds additional capacity from the already installed array, making expansion instantaneous.

Similarities among the TOP 5 Enterprise Storage as a Service Solutions

In addition to the distinguishing features that all DCIG TOP 5 solutions share, the solutions also have the following traits in common.

- All integrate with enterprise authentication mechanisms, including Active Directory/LDAP. This integration helps to ensure that only authorized personnel can access and manage storage resources.
- Pre-built integrations for Ansible provide the foundation for automating infrastructure operations.
- Automated policy-based storage provisioning enables self-service and the adoption of the cloud operating model on-premises.
- Service availability 24x7x365, with service response times of 1 hour or less. Responsive service is critical to success with STaaS.

Infinidat Storage as a Service

Upon completing its independent research and marketplace analysis, DCIG ranks Infinidat as a DCIG TOP 5 enterprise storage as a service solution.

Infinidat offers two different STaaS consumption and deployment models for its InfiniBox[®], InfiniBox[™] SSA, and InfiniGuard[®] enterprise storage platforms. Infinidat's STaaS offerings include a complete set of enterprise data services, including remote replication (synchronous and asynchronous), Infinidat's InfiniSafe[®] cyber resilience software, and a 100% availability guarantee.

Elastic Pricing (formerly called "Capacity on Demand (COD)") is a hybrid CAPEX/OPEX approach where the enterprise purchases a percentage of the storage appliance up-front. Expansion can either be purchased or burst month-to-month.

Infinidat FLX is a true cloud-like OPEX-based all-inclusive enterprise STaaS subscription. FLX provides pay-as-you-go scalability (up or down), with support and hardware included for the life of the term.

In both scenarios, Infinidat ships a fully-configured storage rack. As the enterprise needs more storage, it simply adds additional capacity from the already installed array, making expansion instantaneous.

Three of the features that earned Infinidat's STaaS a spot among DCIG TOP 5 Enterprise Storage as a Service Solutions include:

- **AI inside and outside the box:** Every InfiniBox benefits from Infinidat's patented Neural Cache: its data distribution and placement engine that leverages machine learning to get the right data on the right media (DRAM, NAND, or rotational) at the right time without tuning. This ensures maximum performance with minimum administrative overhead. Additionally, InfiniVerse[®] is Infinidat's cloud-based monitoring, AI-based predictive analytics, and support AIOps software. InfiniVerse enables Infinidat support engineers to take preventative actions before the customer is impacted.

Outside of the box, Infinidat leverages its comprehensive API to integrate with data center AIOps vendors such as ServiceNow and VMware. This allows enterprises to incorporate Infinidat storage platforms into a broader data center view.

Enterprise Storage as a Service Solutions

- **Multi-petabyte rack-scale infrastructure:** Infinidat designed its platforms for multi-petabyte storage environments. InfiniBox is a rack-based system that ships pre-configured at full capacity of up to 4PB usable storage per rack before compression. This approach facilitates rapid deployment at a customer location and instant capacity expansion for the storage as a service subscriber.
- **Infinidat white glove service:** Infinidat comprehensive service and support includes its AIOps-based support software, 24x7x365 technical support with rapid SLA response times, and its Technical Advisor program. Infinidat assigns a named engineer to each customer for the duration of the storage as a service agreement, as a Technical Advisor. The Technical Advisor is an experienced Storage Systems Engineer who provides a full spectrum of services and acts as a customer advisor. ■

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July 2022 6