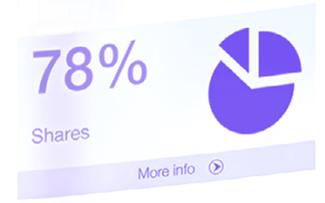


RFP GUIDE

# Storage as a Service



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# Overview

The data storage market is changing to address the fast-evolving needs of enterprises. Organizations are increasingly challenged to:

- Manage and protect the massive amount of business-critical data being generated.
- Determine the best way to utilize IT staff to address the changing storage environment.
- Infuse intelligence into storage management by adding predictive analytics using AI/ML.

As a result, modern storage systems must evolve to deliver services that are flexible, highly scalable, and elastic.

Data storage providers offer a broad range of services, but how do you determine which storage model is right for your business? What are the right questions to ask?

Questions about security, encryption, and compliance should be a part of every discussion when choosing a storage vendor. Major enterprise storage vendors take these areas very seriously. You should confirm that they are up to date with government regulatory compliances (including PCI, HIPAA, and SOX), that they offer the latest encryption methods, and that they employ best practices to prevent data breaches. Differentiation appears when you inquire about the specific services offered.

A good RFP helps create a level playing field among the different choices and vendors and makes comparison and selection easier.

A common challenge in developing an RFP is to know what questions to ask to help match your requirements with vendor offerings.

To help you through that process, we've designed a set of criteria that you can add to your organization's RFP process for storage systems. They are based on real-world experience with proven agile storage architectures. These questions can help you highlight a storage system's ability to stay agile over time. Use the vendor responses to weigh future needs, both known and unknown, against vendor claims and capabilities. This guide is not meant to be exhaustive, but to help show the key requirements of storage upgradeability and agility.



# What to Look for in Storage as a Service

Legacy storage vendors may try to sell customers infrastructure that looks like a flexible consumption model, so it's important to recognize the differences between an as-a-service model and a lease in disguise. A true storage-as-a-service (STaaS) model offers the following at a minimum:

- Flexible storage consumption
- Cloud pay-as-you-go financial model
- Hardware owned and managed by the vendor
- No large upfront financial commitment
- Zero planned downtime during upgrades and expansions

## Flexible Storage Consumption

An as-a-service model delivers elastic and available capacity when you need it. Expansions and additional usage do not change your contractual costs, and your rate structure does not change as a result of unexpected workloads or usage spikes.

Legacy vendors adapting to the cloud environment try to entice buyers into infrastructure that looks like a flexible consumption model on the surface, but in reality, retains the same issues of long-term commitments, unpredictable costs, and disruptive upgrades. Ask the vendor whether expansions are disruptive and what additional costs are attached.

## On-demand Consumption Based Models

When your needs change, an as-a-service model has the flexibility and elasticity to change with you, and you're billed only for actual consumption. Look for a vendor that monitors your usage for you, automatically adds capacity if you exceed a set percentage of your allocation and has no contract implications if you exceed capacity.

Legacy vendor storage models mimic cloud resources with pay-as-you-go models, pricing tiers, and some level of management. However, their model requires buyers to commit to large amounts of storage up-front and then bills those costs over a long period with the potential for rebuys. This offers little benefit over an operationalized lease. Ask the vendor: What happens if you exceed capacity? How does expansion or additional usage affect contractual costs?

## Hardware Owned and Managed by the Vendor

True as-a-service vendors own and manage the hardware that provides the service. Expansions and upgrades, if required, are done at no cost to the customer.

With the majority of legacy vendors, the hardware and the storage system management are your responsibility. The cost of any hardware upgrades or expansions to add capacity are also your responsibility. This typically involves a detailed process to expand the gear in your data center, and a new contract may be required. Ask the vendor whether they monitor usage and alert you when you get close to your allocation or if it is your responsibility to tell the vendor when you need additional capacity.



## No Large Upfront Financial Commitment

A significant part of the economics of as-a-service models is clear per-unit pricing with no large upfront cost, which allows you to scope and price projects based upon outcomes, not the hardware required to deliver them.

Although some legacy vendors claim to offer flexible consumption models, these models haven't changed much. The services are still delivered in a similar way to a lease. You still have to commit to large amounts of pay-as-you-go storage upfront that offer little benefit over an operationalized lease.

## Zero-Planned Downtime

A significant benefit offered by as-a-service models is zero-planned downtime during upgrades and expansions. Ask the vendor about their policy on expected downtime for upgrades and expansions. If they respond that zero downtime is expected, are they willing to put this in an SLA as part of the contract terms?

## Proven Track Record of Delivering on Promises

It's always prudent to verify any vendor's claims. How long has the as-a-service model been offered? How many customers have taken advantage of it over time? Can you speak with any of those customers to see how the reality matches up with the promise?

You can minimize your risk by choosing a vendor with a transparent, successful program.



# Sample RFP Questions

## Section 1: Cloud Economics

### Describe the different storage pricing models that you offer.

- Does the pricing model more closely align with a CAPEX or OPEX model?
- Cost optimization and cash preservation are top of mind in the current economic environment. What are your alternatives to avoid a large CAPEX purchase of storage equipment upfront?
- Is the service linked to an identified asset? Who ultimately owns the hardware? Can the accounting department recognize the spend as OPEX?
- Is there an on-demand consumption based model that eliminates the risk associated with forecasted consumption?
  - Does the storage system include a simple management architecture and purchasing via a unified subscription?
  - Are costs aligned to applications with clear per-unit pricing?
- Does the pricing model reduce technical debt over time?

### Does the model include price transparency and granularity of service selections for performance and capacity?

- Can customers clearly identify the service and tier of storage needed based on the workload?

### Describe the type of financial flexibility the storage model offers.

- Does expansion or an additional usage requirement change the contractual costs?
- If capacity needs change drastically, is there a way to manage and control the cost in a period when it may be difficult to predict ongoing requirements? E.g., how would your bills and rate structure change as a result of an unexpected increase in remote workers?
- What is the minimum contract term available?
- Is there an option to start small and grow the environment over time to optimize performance with a flexible consumption model?



## Section 2: Cloud Operations

### Describe in general what IT organizations require to manage and maintain the storage infrastructure.

- - Is the management of the storage infrastructure simple enough to reduce IT staff workload, yet comprehensive enough to support everything from containers to converged infrastructure to VDI?
  - Does the storage infrastructure enable customers to manage growth, optimize performance, and simplify the storage environment?
  - What steps are required to get the storage system up and running?
  - Is there an option that requires zero management?

### Who owns and manages the hardware?

- Who performs the ongoing management of the storage equipment? Is the customer responsible for hardware upgrades and expansions to add capacity or performance?
- Are there contractual implications if changes are required?
- Is the customer or the vendor responsible for monitoring usage?
- How does a user know when they are close to their storage allocation limit? What actions are required if additional capacity is needed?

### What downtime is expected for upgrades or expansion?

- Can the system be upgraded and expanded non-disruptively?

- Can data remain in place during all upgrades, or does it need to be moved (whether onto another array, backup device, or cloud-based service)?
  - If data can remain in-place, please explain how this is accomplished.
- If the system can't upgrade and expand non-disruptively, what is the recommended procedure? How long does it typically take to perform, and what are the performance or data availability impacts?

### Is there an on-demand consumption based model that eliminates the risk associated with forecasted consumption?

- Does the customer have to estimate and continuously plan for spikes from seasonality and other future storage needs?
- Does the storage system include simple management architecture and purchasing via a unified subscription? In other words, can customers subscribe to storage in their data center and the cloud via a single unified subscription?
- Are costs aligned to applications with clear per-unit pricing?

### How easy is it to build a hybrid cloud infrastructure?

- Does the storage system allow for on-premises, co-location/hosted, and public cloud storage? If so, is there also a multi-cloud option?
- Does the storage system enable the customer to leverage their purchasing relationship and contracts with AWS (or other cloud vendors) and keep the billing and metering consistent with how they consume other AWS services?
- Are customers able to migrate to the public cloud at any time without worrying about stranded assets?



## Section 3: Cloud Experience

### Describe the customer experience with the storage system.

- Is the experience similar to that provided by a hyperscaler? How easy is it for the customer to consume new storage infrastructure?
- Does the vendor monitor and track storage usage? Does the vendor have the capability to automatically add capacity if customer storage allocation is exceeded?
- What is the experience like if more capacity is needed? Does the customer tell the vendor when additional capacity is needed, or does the vendor tell the customer?
- What is the process to expand the gear in a customer's data center as needs change?
- What provisions are made for customers to better manage financial demands? Is there a large purchase price up front or can customers quickly get what they want and manage discounts over time as their requirements increase?

### What downtime is expected for upgrades or expansion?

- Does the storage system decrease or eliminate planned downtime?
- Is the vendor willing to put "zero-planned downtime during upgrades and expansions" in an SLA as a contract term?

### If a customer signs a contract today, what would the experience be like if they suddenly exceed their committed capacity or are trending to exceed available capacity in the next 90 days?

- Are the expansions disruptive?
- What cost is attached?
- If hardware needs to be upgraded, are those costs included in the service or are there additional charges?
- Is a new contract required?
- On the other hand, if the customer's storage requirement is greatly reduced, can they reduce the committed spend?

### Does the customer have visibility into pricing and granularity of service selections for performance and capacity?

- Can customers clearly identify the service and tier of storage needed based on their workload?

### How is the customer notified if there are issues with the storage environment?

- Does the vendor have a management tool that provides real-time notification of issues? If so, do the tools help forecast trends, plan infrastructures, and reduce overhead?

### What options are available for the customer to enable flexible consumption-based payments for storage, compute, and networking?



# Other Resources

IDC Research Director Susan Middleton studied the [adoption of as-a-service models](#) by organizations seeking new consumption models that offer flexibility, agility, and transparency around usage.

## For More Information

Visit the [Evergreen//One](#) page for additional insights on selecting the right storage for your organization.

[purestorage.com](https://purestorage.com)

800.379.PURE

