




# Storage as a Service Comes of Age

A Study of Enterprise User Perceptions and Requirements



**S**torage as a Service (STaaS) is a cloud-like storage resource implemented as an on-premises service that offers its users immediacy, scalability, and pay-per-use flexibility but without the security and performance variability issues that typically cause apprehension among enterprise users.

STaaS users commonly equate it to public cloud storage that is on premises. Cloud storage is immediately available, offers unlimited capacity, and the ability to spin up / down resources using only what you pay for—all available on a pay-as-you go basis. It can also be “fully managed” by cloud personnel who maintain availability, provide capacity as needed and perform infrastructure lifecycle management tasks. This makes it a ready alternative to traditional storage.

However, public cloud storage presents its own challenges. Public cloud security is a perennial issue, as well as the security of network connections between the enterprise data center and the cloud service provider’s (CSP) data center. Primary-grade storage performance adds cost, as does the use of automated management tools. Enterprise staff time is increasingly devoted

to monitoring and managing public cloud costs. Data movement away from the CSP also adds costs, and problems can be difficult to remediate when dealing with the CSP’s support staff.

STaaS is a storage resource implemented as an on-premises service that offers users the same immediacy, lifecycle manage and pay-per-use flexibility of public cloud storage but without the performance variability issues and added costs for data movement. It can be consumed as a managed service when staffing becomes an issue. It also allows the customer immediate access the latest technology—be it for high performance, data protection or longer term archival storage—acquired without having to commit capital investment resources to technology that will become increasingly obsolete as time passes.

For this study, Evaluator Group compiled the results from 249 surveys completed by respondents who were mostly enterprise information technology (IT) end users, and interviewed IT end users to understand their attitudes toward STaaS.

# STaaS has Come of Age

Most enterprises (60%) who already have on-premises IT infrastructure operated on an as-a-service basis, are familiar with the STaaS storage alternative, and have a generally positive attitude toward STaaS. In terms of desirability they ranked the following factors in terms of its most desirable attributes:



Interviews revealed commonly expressed needs that STaaS can address:

“*On-prem is getting expensive.* STaaS takes away the whole maintenance cost requirement. We don’t need to have the FTEs maintaining storage on-prem.”

“The internal acquisition process here is a *pain.*”

“Using STaaS has *saved us countless hours* of manpower.”

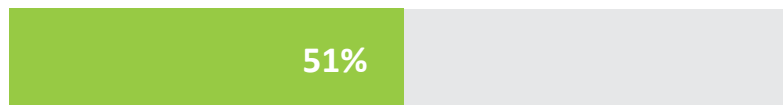
“Switching over to STaaS has allowed us to lifecycle our aging storage fleet without the large CAPEX layout that would be required if we were to purchase the storage infrastructure. We will also be *getting a significant performance uplift from the new storage hardware.*”

“I think *it would be better for our budget* to be able to buy storage as we go instead of buying a huge system every 2 years.”

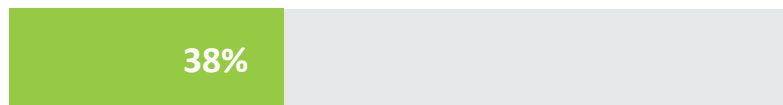
# Confidence in the STaaS Vendor is King

We asked survey respondents what their top two decision factors would be when selecting a STaaS vendor.

The answer was **CONFIDENCE**.

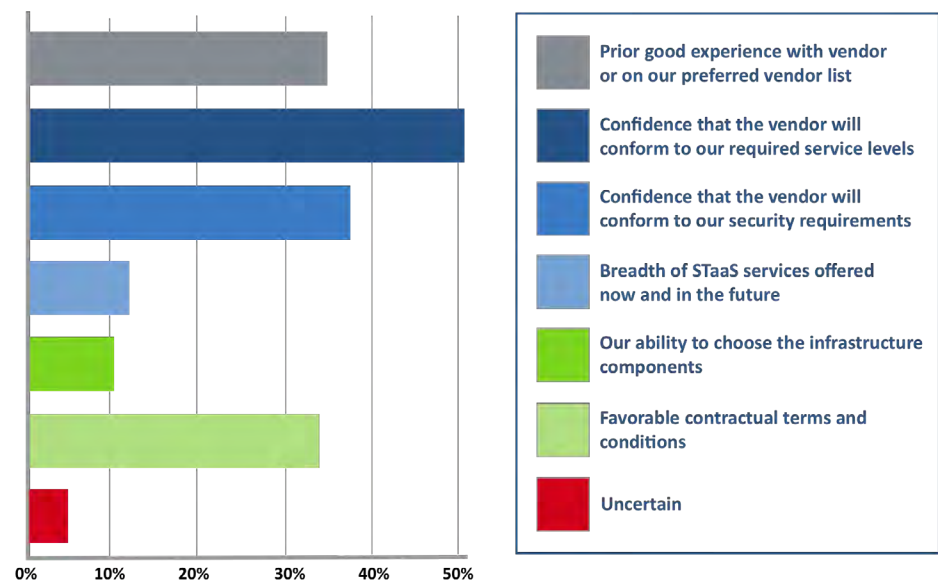


Confidence that the vendor will conform to our required service levels



Confidence that the vendor will conform to our security requirements

If you were to consider STaaS, what would be your top two decision factors for selecting a STaaS vendor? (Select no more than two)



# Compatibility, Security and Support Matters

Evaluator Group asked respondents for their top evaluation criteria, and included questions that probed a sensitivity to compatibility issues:

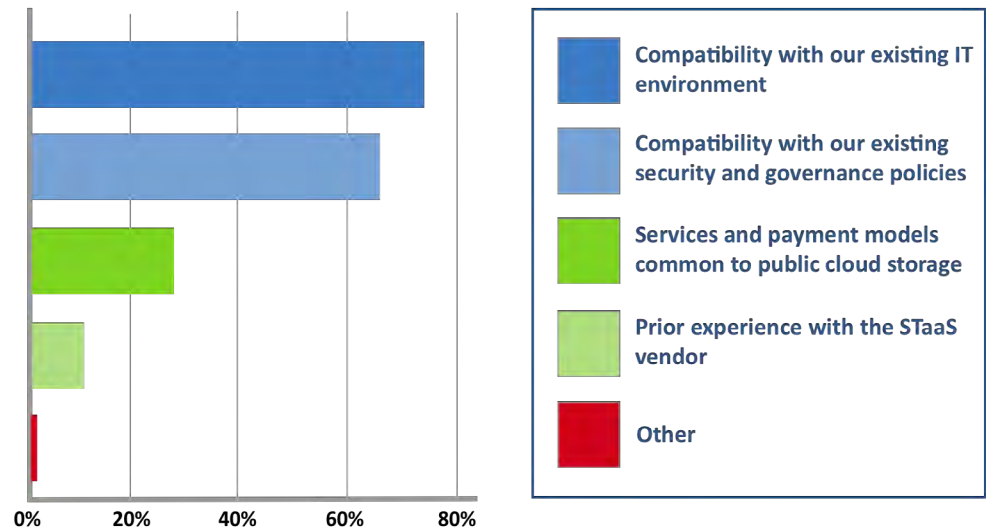


**73% require compatibility with an existing IT environment**



**65% require compatibility with existing security and governance policies.**

Which of the following would be your top criteria to evaluate STaaS offerings?

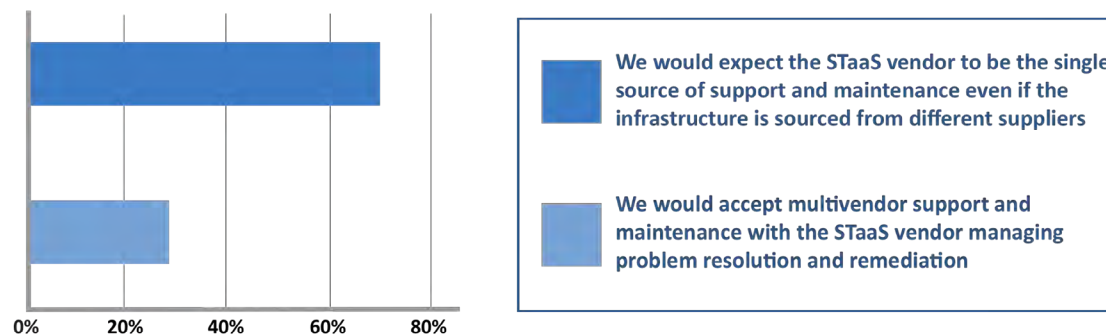


Ranking the importance of thirteen different STaaS services, security came out on top. This underscores a critical understanding among users: a STaaS vendor is no longer selling a box. The STaaS vendor becomes a presence on the floor of the enterprise data center and is evaluated that way.

**“Security and data availability are my responsibility, but I could be convinced that a vendor could manage that.”**

**LARGE UNIVERSITY IT  
INFRASTRUCTURE MANAGER**

**When considering the source for support and maintenance of the STaaS environment, please indicate which statement below most closely describes your expectations?**

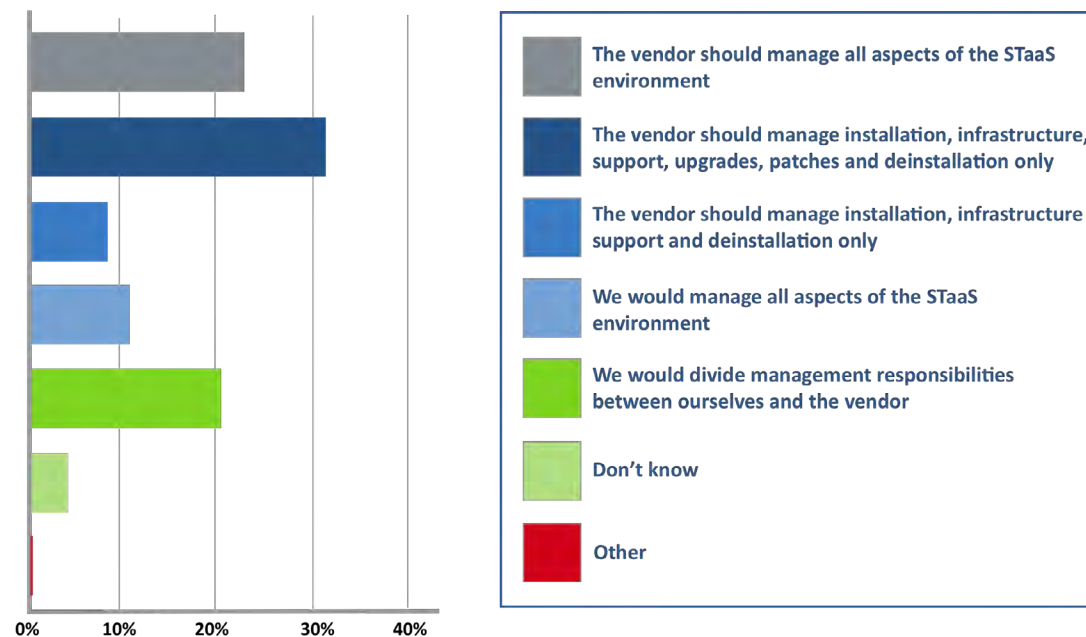


When it comes to support, customers prefer a STaaS vendor to be the single, consolidated source for support and maintenance. 65% of respondents indicated that they want the STaaS vendor to be the single source of support and maintenance even if the infrastructure is sourced from different suppliers.

# Management and Control of the STaaS Environment

Only 22% of survey respondents want the vendor to manage all aspects of the STaaS environment, while 11% want to do it all themselves.

From the list below, please select the statement that most closely applies how your company would feel about the management of a STaaS environment.





Most respondents (61%) want something in between, dividing management responsibilities between enterprise IT and the vendor. For most of these respondents, the majority believe that the vendor should manage installation, infrastructure support, upgrades, patches and deinstallation.

IT users draw a distinction between who manages the STaaS environment and who is ultimately in control. These concepts can easily be conflated by vendors and users. Users generally understood and accepted a STaaS vendor's lifecycle management of the STaaS environment. One user referred to this as "keeping the lights on." These processes are commonly understood by users to fall under the category of managing the STaaS environment. They are also regarded as repetitive and burdensome—things that could be offloaded to the STaaS vendor. Off-loading them was seen as a way to spend time more profitably on higher-level activities.

Control in the context of STaaS is different. Control can imply a delegation of authority and / or responsibility from the IT administrator to the STaaS vendor. Users typically do not want to delegate authority or responsibility—at least until they become familiar with the STaaS vendor. If something goes wrong, or if there is a performance issue or an outage, the person in the IT organization responsible for managing the issue will be looked to first by the user's senior management and user groups and will ultimately be held responsible.

IT administrators generally do not want to outsource their higher-level functions, nor do they want to put the STaaS vendor in the position of managing the relationship with the business user or other executives and entities within the enterprise. However, the issue of management versus control can be complicated.



“As-a-service is becoming like virtualization. It’s something we increasingly believe we have to do. However, it’s been a long journey that has met with a lot of internal resistance. Stakeholders needed to understand that as-a-service doesn’t mean giving up control and responsibility of ownership.”

SVP, LARGE FINANCIAL SERVICES FIRM

“On prem is getting expensive. You have to have the (human) resources. The support and maintenance costs money. STaaS takes away the whole maintenance cost. We don’t need to have the FTEs maintain storage on prem. However, we still need to know what’s going on. We still need to be in control.”

INFRASTRUCTURE MANAGER,  
LARGE INSURANCE AND FINANCIAL SERVICES FIRM

“With the business-critical data, auditors come in and ask me if I’ve done certain things and if I can prove it. I can’t point to the (STaaS) vendor as proof. That has to come from me and I’m in a bind if I don’t know of or have control over what they do.”

IT STAFF, HIGHER EDUCATION

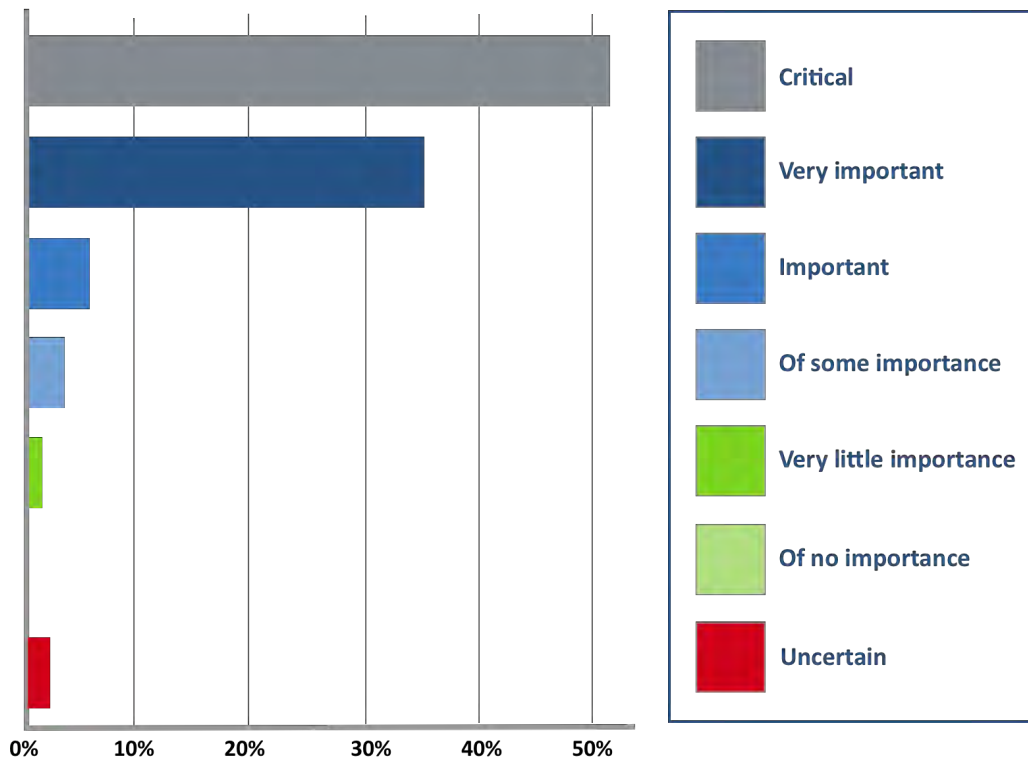
“We would manage all aspects of the environment. We would want the vendor to get the service up and running but we would take over after that because we have the people. It has to be done our way because we have some custom things we do for user groups.”

IT SERVICES MANAGER,  
LARGE LEGAL FIRM

“What I could allow the vendor to manage and control depends on what they own. There are a lot of moving pieces in an IT environment. The storage vendor could tweak something which causes problems upstream and we’re left trying to figure out what changed. One of the things I hate is when vendors say it’s not their problem or they didn’t do that. They would have to be accountable and we would have to know what they are doing.”

CHIEF INFORMATION OFFICER (CIO),  
MANUFACTURING FIRM

How important is it that the STaaS vendor includes service level agreements (SLAs) in a STaaS contract?



## SLAs are Critical

In the “top two decision factors” question, the most frequent response was “Confidence that the vendor will conform to our required service levels.”

Evaluator Group also asked about the importance of SLA inclusion in a STaaS vendor contract. Almost 90% of respondents felt that SLA inclusion was either critical or very important.

It would seem from these results that, as long as the STaaS vendor writes SLAs into the services contract and conforms to them, the customer should be happy. However, users do not necessarily see it that way. Evaluator Group identified several concerns for users regarding the use of contractual SLAs.

One interviewee identified the development of complacency or detachment from the STaaS vendor that can occur over time, as long as the vendor is adhering to the SLAs.

**“We don’t want a box seller coming to us with just another way to sell a box. On the other hand, we don’t want a solution that is totally managed by SLAs. We want the experience and expertise of the box seller as well. We’ve seen that management by SLA allows the (STaaS) partner to become detached and that detachment leads to problems down the road.”**

**SENIOR VICE PRESIDENT (SVP),  
LARGE FINANCIAL SERVICES FIRM**

We also saw an SLA lock-in issue that is related to the contract term. As one interviewee pointed out, an SLA may seem adequate at the beginning of the relationship. But enterprise IT has become an increasingly dynamic environment. What makes sense in an SLA today may not make sense a year later. It is not just a matter of writing SLAs into the contract. There is also an issue of whether the user believes that the vendor can actually live up to an SLA.

# Conclusions

## Users Need to Have Confidence in the STaaS Vendor

Factors that build confidence include:

- Prior good experience with the vendor
- Vendor's breadth of experience with enterprise storage and supporting enterprise storage environments
- Confidence the vendor will understand the user's business and IT environment
- Ability to conform to the security and governance policies
- A Proof of Concept (POC) demonstration when feasible

## Vendor Responsiveness is Critical

Data center operations administrators traditionally want to form relationships with their preferred vendors. They want their vendors to understand their business models, their operational procedures, their staff members, and their IT culture. The same is true when considering a STaaS vendor. The customer's position is that if they are going to go through the trouble of vetting the STaaS vendor for the ability to perform in mission-critical operational environments, then the vendor has to demonstrate responsiveness.

## Drawing the Management / Control Boundary Line

In this study, Evaluator Group focused on a central issue for STaaS users: management responsibility versus control. These concepts can easily be conflated. Users typically understand and accept a STaaS vendor's lifecycle management of the STaaS environment. However, control is different because it can imply a delegation of authority and / or responsibility from the user to the STaaS vendor. In general, IT administrators do not want to outsource their higher-level functions, nor do they want to put the STaaS vendor in the position of managing the relationship with business users or other executives and entities within the enterprise.

## The Service-Level Agreement: A Double-Edged Sword?

One interviewee quipped that Service Level Agreements (SLAs) were the grease that made relationships work. Forming an SLA-based relationship with the STaaS customer is critical, but SLAs can also be a source of contention. Experienced STaaS users see downside risk with the use of contractual SLAs in the form of vendor complacency and loss of control. Confidence in the vendor is critical. Users should avoid any vendor who comes into the discussion with an attitude that, as long as the vendor lives up to the minimum terms of SLA, the customer should be satisfied no matter what the vendor does to achieve that SLA. That attitude only works in the public cloud. Users should also explore ways to modify SLAs during a STaaS contract term in response to changing conditions.

## What Happens at the End?

Users should of course examine contact terms and conditions as part of the evaluation process. As part of that process, users will encounter cancellation and end-of-term provisions. These should be studied and considered carefully as they can wind-up becoming a form of vendor lock-in.