Storage-as-a-Service Improves Business Operations

Enables business resiliency and agility

RESEARCH BY:

Susan G. Middleton
Research Director, Flexible Consumption and Financing Strategies for IT Infrastructure, IDC

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Executive Summary

Rather than focusing on purchasing assets, features, and functions, enterprises are pivoting to focus on outcomes. They are also prioritizing solutions that allow them to offload lower value, highly repetitive tasks to vendors and partners.

IDC’s research shows that 59% of enterprises are prioritizing efforts to reduce the time and work required to manage their technology investments over the next two years.

Storage-as-a-Service (STaaS) enables timely access to and consumption of innovative infrastructure technologies to support digital business models. It also aligns technology adoption and IT operational governance with business outcomes.
Managing Digital Transformation Efforts and Multicloud Environments Is Complex

Today’s IT environments are complex, with multiple locations (public cloud, datacenter, colocation facilities, and a growing presence at the edge).

By 2024, 80% of enterprises will focus on overhauling infrastructure costs and reducing operational complexity, according to IDC’s Future of Digital Infrastructure: Ever Faster Delivery of Reliable Digital Services and Experiences, September 2020.

- Organizations are reducing operational complexity and examining their infrastructure costs to achieve these outcomes:
  - Consistent resiliency
  - Continual enhancements
  - Resource optimization

This effort will lead to effective use of and timely access to innovative, resilient infrastructure available anywhere and everywhere. It will be imperative to support adaptive, secure, and compliant digital business models.
Storage-as-a-Service: A New Flexible Consumption Model for Storage

In recent years, a new model has emerged to help enterprises close the gap in their storage strategy: Storage-as-a-Service (STaaS).

It is defined as hardware, storage software, life-cycle services, and licensing components consumed in a flexible consumption or pay-as-you-use model.

STaaS allows enterprises to focus on business-enabling tasks, instead of the day-to-day management of the storage environment.

- A core attribute of STaaS is continuous monitoring of the important metrics of the storage environment like capacity, usage, and availability. These analytics are critical to provide the improved reliability and responsiveness that ensure business resiliency.
- A STaaS model satisfies requirements for opex accounting rules. The vendor owns the infrastructure, so there is no need for a significant capital outlay to begin. During the pandemic, IDC observed that the need to conserve capital drove increased interest in as-a-service models like STaaS.

Reasons for Choosing Consumption-Based Models

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to adopt new technology and upgrades at a lower barrier to entry</td>
<td>46%</td>
</tr>
<tr>
<td>Keeping us on the latest technology</td>
<td>44%</td>
</tr>
<tr>
<td>Wanted a cloud-like experience (automated and self-provisioning)</td>
<td>40%</td>
</tr>
<tr>
<td>Wanted our environment kept optimized and functioning at a higher level</td>
<td>38%</td>
</tr>
<tr>
<td>Looking for the vendor to take more risk in managing our IT environment</td>
<td>28%</td>
</tr>
<tr>
<td>Wanted to move to an opex model for cash flow reasons</td>
<td>24%</td>
</tr>
<tr>
<td>Needed an edge-based solution (improve the cost-based economics)</td>
<td>13%</td>
</tr>
<tr>
<td>Wanted to move to an opex model due to changes in FASB laws</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Consumption-Based/Infrastructure Market Trends Survey, IDC, September 2020 | Base=600
Getting the Most Out of IT Investments Is a Key Goal
Understanding how as-a-service models will solve current IT challenges

Adopters of these models recognize the operational and financial benefits of deploying an as-a-service solution like STaaS because it matches usage with costs.

Metering also reduces the need to over-provision for unplanned capacity spikes, another financial benefit.

In previous studies, reducing IT staff workloads has always been one of the top benefits of an as-a-service model.

Most organizations retrained and redeployed their IT staff to focus on value-added activities — another key benefit of STaaS.

Consumption-Based Models Can Address IT Issues

- Align IT resources and usage: 25%
- Want our infrastructure to be better optimized: 25%
- Need to utilize our infrastructure better: 22%
- Looking for a more cloud-like infrastructure model: 22%
- Improve cost-per-user metrics: 20%
- Reduce IT staff workload: 18%
- Lack of IT talent (using vendors): 18%
- Edge solution: 15%
- Reduce over-provisioning: 13%
- Move from a capex to an opex model: 10%

Source: Consumption-Based Infrastructure Market Trends Survey, IDC, September 2020 | Base=600
Market Awareness of as-a-Service Models Increases ITDMs Understanding of Their Value Proposition

Managing an IT environment can be complex, ranging from deployment to end-of-life decommissioning and all the service requirements for system optimization.

In recent years, there has been a focus on responsible IT asset recycling and aligning IT processes with organizational sustainability goals.

- STaaS assists with sustainability goals by utilizing built-in asset decommissioning that is handled by the vendor, providing security and regulatory compliance at the local and regional levels.

Most Important Aspects of Consumption-Based Model

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible scale up/down model</td>
<td>46%</td>
</tr>
<tr>
<td>Most “cloud-like” in functionality</td>
<td>43%</td>
</tr>
<tr>
<td>Has multicloud functionality</td>
<td>40%</td>
</tr>
<tr>
<td>Includes all the deployment/managed support</td>
<td>39%</td>
</tr>
<tr>
<td>There is a well-defined upgrade path</td>
<td>39%</td>
</tr>
<tr>
<td>Clear pricing terms</td>
<td>34%</td>
</tr>
<tr>
<td>Unified service offerings from edge to datacenter</td>
<td>32%</td>
</tr>
<tr>
<td>Switched from capex to opex funding</td>
<td>29%</td>
</tr>
<tr>
<td>Ease of billing and payment terms</td>
<td>29%</td>
</tr>
</tbody>
</table>

Source: Consumption-Based Infrastructure Market Trends Survey, IDC, September 2020 | Base=600
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Workloads Are a Driver for STaaS Adoption
Less predictable or “bursty” workloads are optimal for as-a-Service models

IDC observes that a new project or workload is the starting point for the adoption of an as-a-Service model.

In a recent IDC survey, we asked ITDMs to rank the top workloads that were the driver for a STaaS implementation. Interestingly, there is a strong correlation to IDC research about the top performance-sensitive storage workloads:

<table>
<thead>
<tr>
<th>Top four performance-sensitive storage workloads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internet of Things (IoT)</td>
</tr>
<tr>
<td>3. Security applications</td>
</tr>
</tbody>
</table>

STaaS represents a way for IT organizations to support new workloads and business requirements with confidence. For adopters of as-a-service models, these models help them achieve their goals of business resiliency and agility within budget requirements, ensuring that they can meet future challenges with ease.

Datacenter Workloads

<table>
<thead>
<tr>
<th>Workload</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT infrastructure</td>
<td>34%</td>
</tr>
<tr>
<td>Data analytics</td>
<td>29%</td>
</tr>
<tr>
<td>Networking &amp; security</td>
<td>29%</td>
</tr>
<tr>
<td>Database/data management</td>
<td>25%</td>
</tr>
<tr>
<td>Business Applications (ERM, CRM, SCM)</td>
<td>24%</td>
</tr>
<tr>
<td>AI platforms</td>
<td>21%</td>
</tr>
<tr>
<td>Engineering/technical apps (CAD/CAM, HPC)</td>
<td>20%</td>
</tr>
<tr>
<td>Development tools and applications</td>
<td>18%</td>
</tr>
<tr>
<td>Client computing (including VDI)</td>
<td>18%</td>
</tr>
<tr>
<td>Digital content</td>
<td>17%</td>
</tr>
<tr>
<td>Collaborative/social applications</td>
<td>16%</td>
</tr>
<tr>
<td>Industry-specific applications</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: Consumption-Based Infrastructure Market Trends Survey, IDC, September 2020 | Base=600
Building a Resilient, Responsive, and Optimized Infrastructure Is the Goal

One of the key benefits of as-a-Service models are the services they offered to support the infrastructure.

IDC research indicates that relying on a vendor to handle the refresh cycle and manage equipment life cycles improves asset life cycles. Internal metrics like responsiveness and satisfaction levels may also improve because the systems are monitored and managed with an automated process to repair and remove equipment that is not performing.

Services That Matter

Vendor maintained & managed: the provider does all provisioning and updates, our team does not access the system - 50%

Deployment/implementation services - 48%

Ongoing managed support, keeping the solution optimized and monitored on a proactive basis - 48%

Refresh services, making the determination on when the assets need to be replaced or upgraded - 47%

Ongoing support (break/fix) - 44%

Plan, assess, and design services - 41%

Disposal services - 25%

Source: Consumption-Based Infrastructure Market Trends Survey, IDC, September 2020 | Base=600
Business benefits are tied to improved system and application performance.

Organizations anticipate these models will improve system optimization and ensure that they can react quickly to new projects because of the built-in analytics about usage.

Ability to scale to meet business demand is another important factor. 2020 has taught us that organizations have to be able to pivot quickly. The better optimized their environment, the faster they could react.

Adopters of Flexible Consumption Models, like STaaS, Recognize the Operational and Business Benefits
Focus on Managing Business Outcomes Instead of Infrastructure

STaaS helps organizations overcome pain points such as relying on outdated infrastructures and architectures and providing higher reliability and services by constantly monitoring and optimizing the environment.

STaaS allows organizations to align their storage requirements to the dynamics of the business, with the ability to scale up and down as needed.

The benefits of STaaS models from an operational, planning, financial, and security standpoint are what is driving their adoption, and they underscore why IDC expects STaaS adoption to accelerate over the next few years.
Conclusion

STaaS represents a way for IT organizations to support new workloads and business requirements with confidence.

It enables business resiliency and agility efforts all within budget requirements.

IDC predicts that 75% of enterprises will recognize the benefits of as-a-service consumption in 2021, driving a 3X INCREASE IN DEMAND for on-premises infrastructure delivered via flexible/as-a-service solutions.

About the Analyst

Susan G. Middleton
Research Director, Flexible Consumption and Financing Strategies for IT Infrastructure, IDC

Susan Middleton leads IDC’s worldwide research on IT equipment, software, and services financing markets. As research director for IDC’s Flexible Consumption and Financing Strategies for IT Infrastructure research, her analysis provides insight from both a supply-side and a buyers’ point of view. Ms. Middleton’s core research coverage includes the evolution of procurement models from purchasing, leasing, and financing to the new as-a-service models, also known as flexible consumption. Based on her analysis and expertise on procurement strategies and IT equipment life cycles, Ms. Middleton’s research helps vendors and buyers understand the top drivers of the new flexible consumption models and the impact of these new buying behaviors on long-term IT equipment values and forecasts.

More about Susan Middleton
Message from the Sponsor

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APEX Data Storage Services enables you to eliminate over and under provisioning and complex procurement and migration cycles. You can easily procure and manage your storage resources through the APEX Console – a unified and seamless experience for your entire APEX journey. Scale up and down to respond dynamically to business needs and only pay for what you use with no overage penalties for on-demand usage.

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