



**30 minutes to
complete
purchase**

through console with
no upfront capital

Get data center Storage as-a-Service with Dell APEX Data Storage Services

Managed solution deployed in as little as 13 days

Though hosting workloads in the public cloud can simplify IT, single-vendor lock-in and high ongoing operating costs—with the potential for unexpected charges such as egress fees—can hamper IT goals. Storage as-a-Service (STaaS) solutions, such as APEX Data Storage Services, seek to provide a best-of-both-worlds answer by offering the convenience of pay-as-you-go services with the flexibility and control of an on-premises solution.

To show what the path to a STaaS solution looks like, we procured two solutions through normal customer channels: the APEX Data Storage Services solution for Block, and a similar solution from a key competitor (which we refer to as “Vendor C” in this report), comparing our experiences with purchasing, delivery, and ongoing use of both. From initial contact through installation, we found the process of acquiring an APEX solution was both rapid and straightforward. With price quotes and subsequent purchase available via the APEX Console in just 30 minutes and activation in just 13 days, the APEX Data Storage Services solution required no upfront capital to get started. The Vendor C solution required significant upfront payment that could delay the implementation process, and took 21 days from purchase to activation.

We found that the Dell APEX team was proactive and supportive, which is valuable for those unaccustomed to purchasing as-a-Service on-premises infrastructure. With APEX, we had access to the APEX Console before purchase, whereas with Vendor C we had to request access to their console, which resulted in a delay.



38% less time

from purchase
to activation

13 days vs. 21 days
for Vendor C



**Fast access to the
APEX Console**

with a helpful,
comprehensive
walkthrough

At-a-glance comparison

To compare the procurement processes of STaaS solutions, Principled Technologies engineers ordered solutions from Dell Technologies and Vendor C, documenting our experiences from first contact through installation.

We found that both solutions hit their delivery targets, and experienced both similarities and differences throughout the process. (Note: Dell Technologies has a defined time-to-value objective of a little as 14 days, which they met, while Vendor C does not define a timeframe. The Vendor C solution took 21 days to activation, which was consistent with what they communicated throughout the process.) Table 1 details some key differences in the APEX and Vendor C processes. More details are available in the sections that follow.

Table 1: At-a-glance comparison of the processes for the two solutions.

APEX Data Storage Services	Vendor C Storage as-a-Service
No upfront cost	Requires upfront payment for reserve capacity commitment either quarterly or yearly (PT paid over \$80,000 upfront for one year)
Ordering process, from quote to purchase, all online	Ordering process starts online, but moves quickly to Sales contact
Immediate pricing available	72 hours to contact with a quote
Arrived cabled together in a fully assembled cabinet	Arrived in separate boxes for installation by field technician on installation day
Active management, using always-on connections, monitoring hubs, and virtual jump boxes to address issues as they occur	Utilizes phone-home capabilities and a customer-initiated support tunnel for support and maintenance

About APEX Data Storage Services

Part of the APEX portfolio that offers a variety of infrastructure as-a-Service options, APEX Data Storage Services is "an as-a-Service portfolio of scalable and elastic storage resources built on industry-leading technologies."¹ Through the APEX Console, administrators get self-service access that allows them to quickly respond to changing business needs. An actively managed solution, Dell Technologies monitors status around the clock to ensure high availability and that all service levels are met. Dell Technologies offers a 90-day money-back guarantee for APEX Data Storage Services.

To learn more about APEX Data Storage Services, visit <https://www.delltechnologies.com/en-us/apex/cloud-services/data-storage-services.htm>.

Simple purchase process through the APEX Console— and no upfront cost

A compelling reason organizations choose STaaS is IT acceleration, part of which means a short turnaround from purchase to deployment. If you experience delays at any stage in the process—be it during initial pricing, sizing, shipping, or installation—your business initiatives take longer to implement.

Through the web-based APEX Console, we were able to easily access the information we needed to begin the purchasing process almost instantly. We merely had to log into the console and answer a few questions about our requirements, which took approximately 30 minutes to complete. With Vendor C, we also started the process online, but then moved to a chat session and subsequently had a call with inside sales. Then, the Vendor C sales representative set up a call for the following day with the external sales team. The time from initial contact to price quote for our desired services was around 72 hours (see Figure 1).

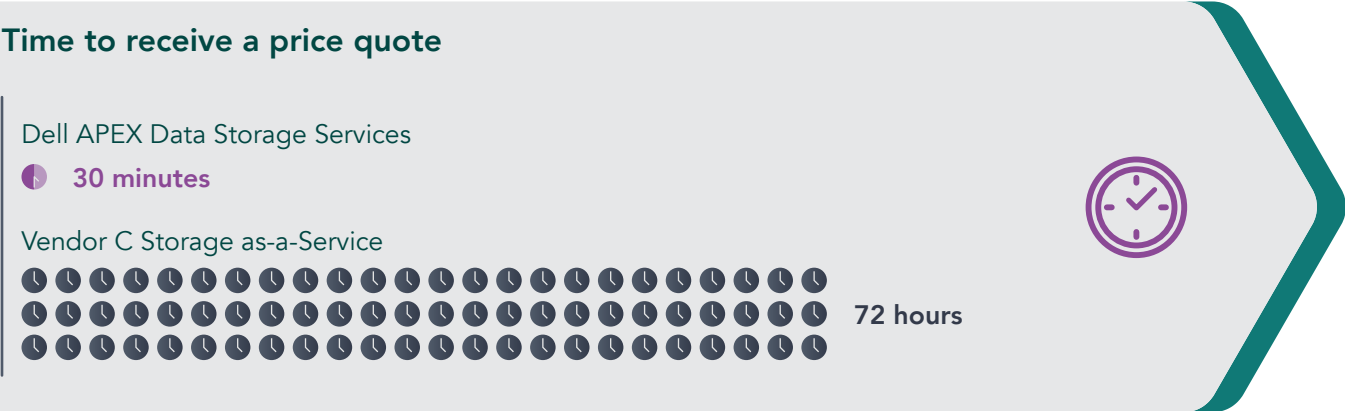


Figure 1: Time to receive pricing for our desired storage as-a-Service solutions. Source: Principled Technologies.

This slower purchasing process has the potential to create delays right from the start, and required more time and effort for the administrator completing the inquiry. By making all information available on-demand through the APEX Console, Dell ensured a smooth process for accessing pricing data.

Most organizations have strict budget processes in place that could require multiple signoffs from executives to finalize purchases. Another way that APEX prevents delays in the procurement process is by allowing the ordering process to continue without payment upfront. Vendor C, however, required significant upfront payment for reserve capacity commitment (either quarterly or yearly) that could pose a challenge for organizations that have to cut through more red tape to free up funds for IT service. PT made an upfront payment of over \$80,000 for one year.

While Dell Technologies has a defined time-to-value objective of 14 days for the APEX Data Storage Services solution, Vendor C does not advertise a defined timeframe. From the time of purchase, it took only 13 days to fully deploy and activate the APEX solution in our data center. The Vendor C solution arrived and was fully deployed 21 days after we completed our purchase, which was consistent with the estimated time to activation they communicated to us. (See Figure 2.)



Figure 2: Time from purchase to activation for the two storage as-a-Service solutions. Source: Principled Technologies.

The APEX team walked us through the procurement process

At every stage of the process, the APEX team was communicative and proactive about providing the assistance we needed. They gave us frequent status updates throughout the delivery process. Conversely, while the Vendor C team was knowledgeable and helpful, we had to reach out to them for status updates and next steps.

In the pre-deployment stage, our interaction with the two companies was similar. The APEX team sent us forms to fill out for planning and offered a STaaS kickoff with our Customer Success Manager, managed-services project manager, and other team members to prepare for the next steps and set expectations for the process. Vendor C sent us a questionnaire requesting basic information that we filled out and returned via email. Then, a Vendor C customer service manager conducted a brief (less than 30 minutes) kick-off call to introduce the technical resources assigned to the project and to provide a brief overview of the implementation roadmap and service offering.

The APEX team gave us access to the APEX Console and necessary logins, and walked us through the tool upon delivery. They scheduled follow-up learning meetings so we could ask questions as we continued to use the solution. With Vendor C, we received a primer on the built-in array element manager, but we had to request access to the Vendor C cloud-based management console. Vendor C provided this within 24 hours of our request, but offered no initial training on how to use it.

For organizations that have not engaged in this type of STaaS procurement, we found that the APEX team was a more collaborative, proactive partner.



Comparing the STaaS deployment processes

Despite differences in the purchasing process, both APEX and Vendor C solutions arrived at our data center by their target dates. (Note: Dell Technologies has a defined time-to-value objective of 14 days, and the Vendor C representative set our expectation at 21 days. Both vendors met these respective targets for deployment.)

The APEX solution arrived in a single cabinet that was internally pre-cabled. Pre-deployment documentation and meetings required us to power the system on, and have all drop-cables in place prior to installation. The Vendor C solution arrived in multiple boxes on a single pallet, and while on site the Vendor C technician installed all the components in an existing rack.

Once the solutions arrived in our data center, both APEX and Vendor C technicians handled deployment and got our new STaaS solutions up and running.



Dell APEX Data Storage Services solution

Post-deployment observations

Once our two STaaS solutions were up and running in the Principled Technologies data center, we explored aspects of the ongoing experience of using them.

The APEX support team addressed security vulnerabilities more proactively than the Vendor C team

On December 9, 2021, Apache released information that Log4j, a logging library that millions of Java-based applications use, contained a critical vulnerability that allowed malicious operators to execute code remotely on a targeted computer.²

On December 13, the APEX support team reached out to us with information regarding a patch for their solution. They asked us to select a one-hour window when they could access the systems to apply a non-disruptive patch to the underlying virtualization platform. We did so. After this period ended, we received word from them via email that the process was complete.

Vendor C did not reach out to us about Log4j. At the time that APEX addressed the vulnerability, we looked on the Vendor C website and saw a banner with a link to a knowledge base article on Log4j. When we logged into their service management portal on January 12, 2022, we noticed that the banner had changed to one indicating that a patch was available. The notice instructed us to initiate an eight-hour remote session by following several simple steps on the array manager graphical user interface (GUI), and we did so. Vendor C provided little guidance about what to expect in terms of downtime during this period, which was eight times as long as the one that APEX had requested. When the eight-hour period, during which we received no communication from Vendor C, ended, we checked the Vendor C console. Our storage system had disappeared from the list of affected systems, and the banner had changed to indicate that all affected systems were no longer vulnerable.

The APEX Console offers useful billing and subscription information that the Vendor C console does not provide

APEX and Vendor C use different approaches to billing. With Vendor C, we received a single invoice from the third-party reseller from whom we purchased the service. This invoice covered prepayment for 12 months of service and also a one-time charge to install the flash array. Once we paid this invoice, we received no further billing information from either Vendor C or the reseller.

In contrast, the APEX service charges us on a monthly basis, and the APEX Console provides a great deal of billing and subscription information. Access to this kind of information allows companies to make informed decisions about storage usage, budgeting, and more.

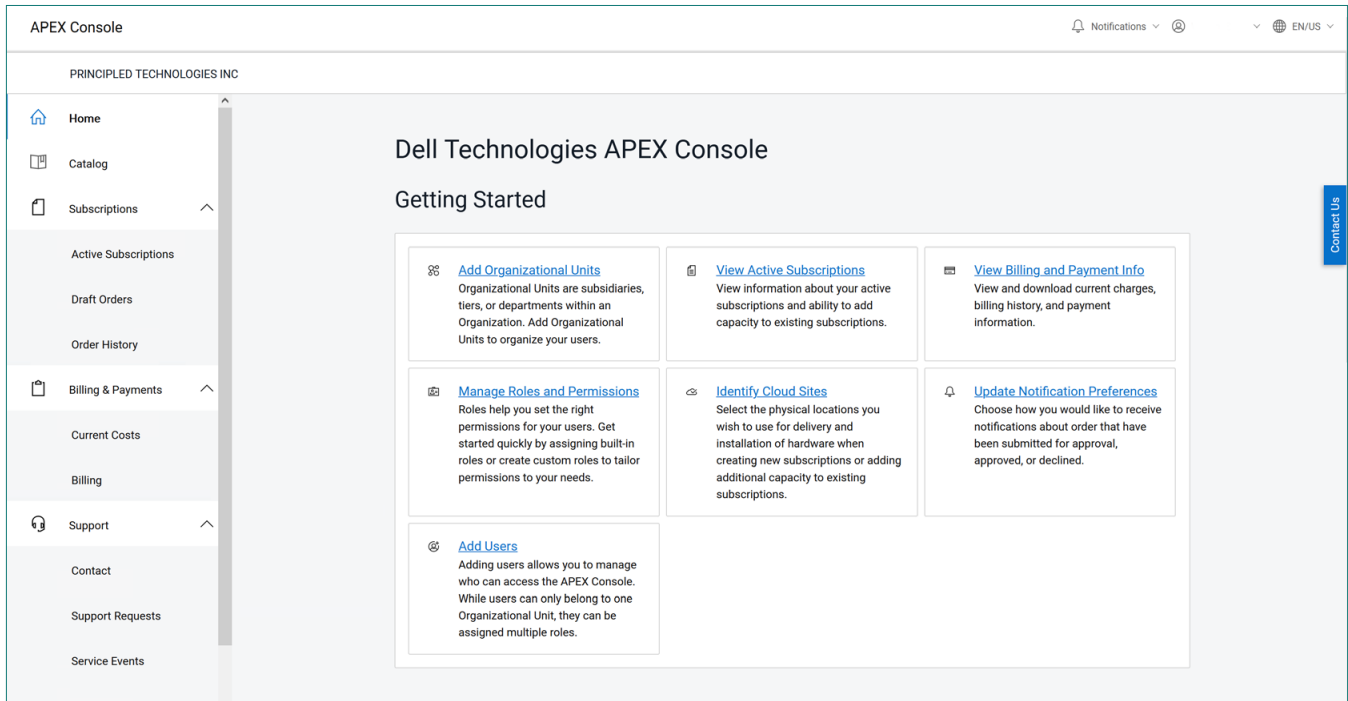


Figure 3: Home screen of the Dell APEX Console. Source: Principled Technologies.

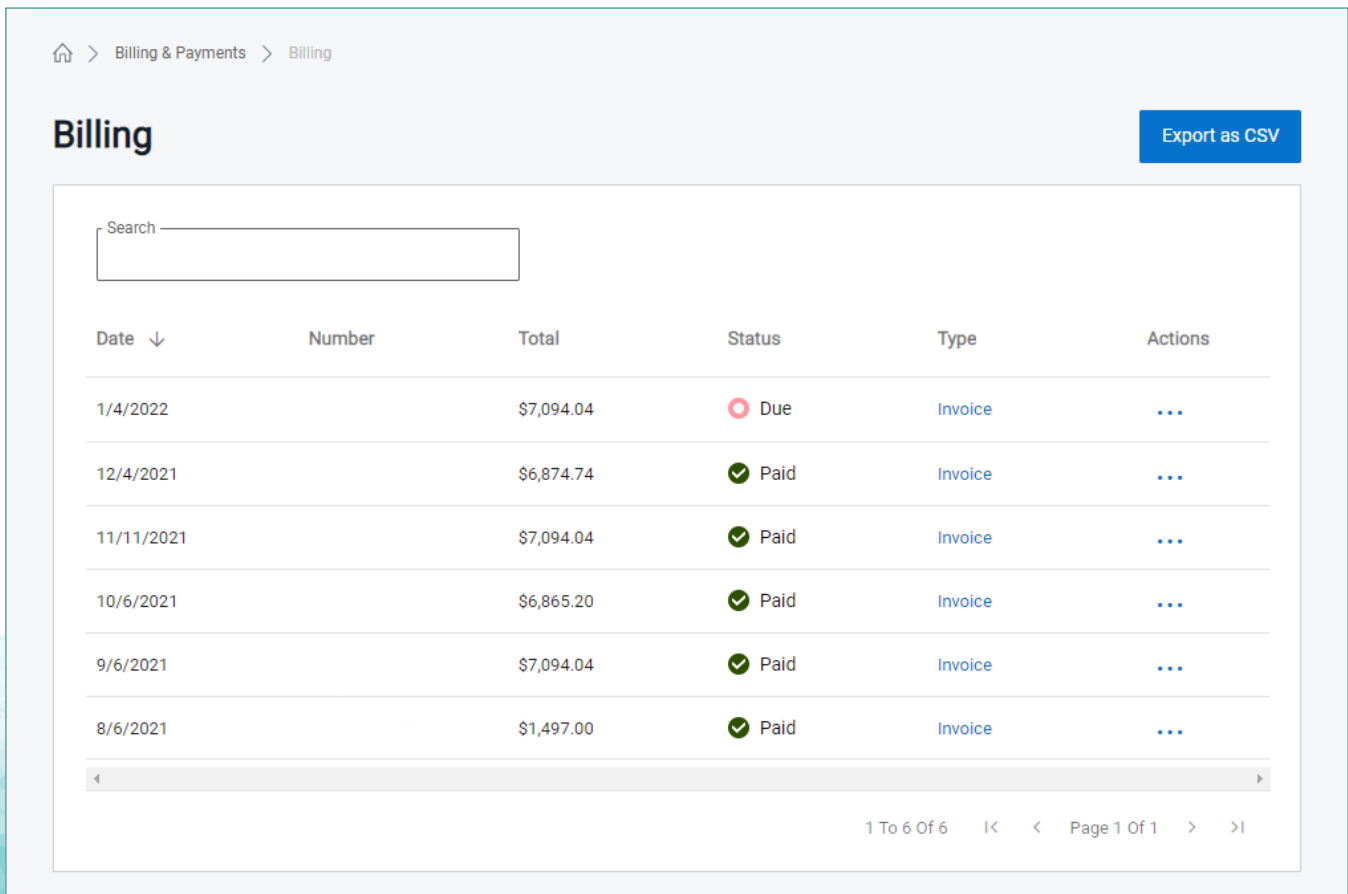


Figure 4: The Billing screen within the APEX console. Source: Principled Technologies.

Conclusion

Moving to a STaaS on-premises solution can increase agility and flexibility for workload planning—but only if the procurement process doesn't have setbacks that hamstringing your business goals. In our procurement comparison, we found that APEX Data Storage Services provided a simple, straightforward process that delivered a new STaaS solution in just 13 days after completing the purchase. The APEX team was proactive and communicative from first contact to on-site installation, assuaging any misgivings about a prolonged or inconvenient process. In our experience, the APEX Data Storage Services team was knowledgeable, walking us through purchasing and deployment of their storage as-a-service solution, and reaching out to us proactively when a major security vulnerability came to light. Furthermore, we found that the APEX Console contained a wealth of billing and subscription information that customers could find helpful in planning.

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- 1 Dell Technologies, "APEX Data Storage Services," accessed September 2, 2021, <https://www.delltechnologies.com/en-us/apex/cloud-services/data-storage-services.htm>.
 - 2 "The Apache Log4j vulnerabilities: A timeline," accessed January 19, 2022, <https://www.csoonline.com/article/3645431/the-apache-log4j-vulnerabilities-a-timeline.html>.

To learn more about Dell APEX Data Storage Services, visit <https://www.delltechnologies.com/en-us/apex/cloud-services/data-storage-services.htm>

We concluded the bulk of our hands-on testing on August 5, 2021. We concluded the hands-on testing around the Log4j security vulnerability on January 13, 2022. The results in this report reflect configurations that we finalized on June 28, 2021 or earlier. Unavoidably, these configurations may not represent the latest versions available when this report appears.

System configuration information

Table 2: Detailed information on the systems we tested.

System configuration information	Dell APEX Data Storage Services solution	Vendor C Storage as-a-Service
Data services	Block	Block
Base capacity	100 TB	100 TB
Subscription term	1 year	1 year

This project was commissioned by Dell Technologies.



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