

IDC PERSPECTIVE

How to Evaluate Enterprise Storage Vendor Guarantee Programs

Eric Burgener

EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: Storage Vendor Guarantee Programs Can Drive Significant Value

The first storage vendor guarantee program was initially launched in late 2015, and now, most established enterprise storage vendors offer some kind of comparable program. There is wide variability in the actual value these programs can drive based on their specific definition, but some of the facets drive significant value. Prospective enterprise storage buyers should use them during the storage purchase process to help differentiate between vendors.

Key Takeaways

- There are 10 major areas covered by storage vendor guarantee programs: satisfaction (money back), data reduction, media endurance, fixed maintenance, availability, nondisruptive upgrades, all-inclusive licensing, fixed trade-in credits, “free” upgrades, and breadth of coverage.
- Other areas that are not necessarily part of the guarantee programs should also be evaluated as part of the overall customer experience (CX) — AI-driven operations, subscription-based pricing, and “as a service” consumption models.
- IT managers should use their knowledge of the range of different competitive program facets across vendors to negotiate a better CX on their next enterprise storage infrastructure refresh.

Recommended Actions

- Most vendor guarantee programs have some significant terms and conditions, and prospective buyers of enterprise storage should make very sure they understand them if they are using these programs as a metric to differentiate between vendors.
- To best understand a vendor’s guarantee program, talk specifically to that vendor. In the experience of this analyst, there is a significant amount of misrepresentation of competitive programs occurring during the sales process by different vendors.
- Do use these guarantee programs as a competitive differentiator between vendors on your next storage infrastructure refresh — some features drive significant value for customers.

Source: IDC, 2021

SITUATION OVERVIEW

Back in the 1990s when external enterprise storage for open systems first became available, the life cycle and "customer experience" (CX) associated with them mirrored that of other enterprise infrastructure offerings to date. That held true up until late 2015 when Pure Storage, the industry's first all-flash array (AFA) vendor, introduced the Evergreen program. This program included a set of guarantees that had never before been put in writing that delivered real value for end users. As more customers became aware of this program, they began to put pressure on their storage vendors to offer similar capabilities. Despite initially dismissing these programs as pure marketing, almost all of the established storage vendors now offer their own versions. As a result of these competitive introductions, the overall CX of enterprise storage ownership has improved significantly since 2015.

There are many facets to these programs that prospective enterprise storage buyers should seek to understand. There is a significant difference not only in the actual value that different vendor programs drive for end users but in various vendors' ability to clearly articulate that value. No single vendor offers the best value across every metric, but this document will familiarize the reader with what the available features are based on a cross-vendor analysis. It will explain the actual value propositions associated with each facet of these programs so that IT management understands their worth and can use that knowledge to help make more informed storage solution choices.

Storage Vendor Guarantee Program Facets

There are 10 major areas covered by storage vendor guarantee programs. For some vendors, there may be several related commitments in one or more of these areas. The value that accrues to customers from these programs comes from ease of use, more efficient resource utilization (leading to lower hardware costs), reduced energy and floorspace consumption, reduced downtime, lowered maintenance costs, increased storage product life cycles, and "free" upgrades that promise improved performance and storage density either without requiring separate hardware purchases or at significant discounts. We'll examine each one of these in turn.

First, however, it is important to note that these programs generally only apply to customers that have a valid maintenance contract. Revenue from the maintenance contract is used to fund at least some portion of any "costs" of these programs over time even though the programs themselves are often positioned as bundled with the base purchase price of a storage system. Customers are not required to take advantage of these programs – and in fact, some customers cannot take advantage of certain aspects of them (e.g., government agencies that cannot allow internet access to their systems through their firewalls will not get the benefits of the AI-driven operations [AIOps] platforms).

The 10 enterprise storage guarantee program facets are as follows:

- Satisfaction guarantee (money back)
- Data reduction guarantee
- Media endurance guarantee
- Fixed maintenance guarantee
- Availability guarantee
- Nondisruptive upgrades guarantee
- All-inclusive licensing guarantee
- Fixed trade-in credits

- Free upgrades
- Breadth of coverage

Satisfaction Guarantee

Not all vendors offer this, but when they do, it is phrased as a "money-back guarantee" if you are not satisfied within a certain time period. For some vendors, that's as short as 30 or 60 days – while, for some others, it may be years. Once administrators have had time to play around with a new system in an unfettered manner, they can pretty quickly determine if it will meet their needs so extending the money-back guarantee period to three years, for example, is probably overkill. But the shorter time frames incent the customer to begin using a newly purchased system right away, which is actually something that benefits the vendor as much as the purchaser.

In the past, vendors did not offer a money-back guarantee in writing, but if customers were having issues, they would put an increasing number of resources on the account to get issues resolved. There was a sort of unwritten understanding that vendors would work to "make it right" for customers purchasing expensive storage infrastructure, but there was no contractual commitment along the lines of a money-back guarantee if they did not. While there may have been isolated instances in the past of a vendor just not being able to sufficiently satisfy customer expectations that drove that customer to return the equipment and demand their money back, it was rare.

By putting the guarantee in writing, the vendor ensures that it will be more proactive in addressing problems that may ultimately end up in a customer asking for their money back, but it does not really provide that much value to end users now that many vendors offer it. For vendors that began to offer this guarantee early on, however, the sheer novelty of it helped differentiate vendor offerings and generate a more positive experience for customers. It might be more concerning if a vendor does not offer it today just because it is so common, prompting prospective customers to wonder why, if their competitors are offering it, a particular vendor is not offering it.

Data Reduction Guarantee

Many vendors offer a number of different storage efficiency technologies like thin provisioning, space-efficient snapshots, compression, and data deduplication that use existing storage capacity more efficiently. A data reduction guarantee of 4:1, for example, is a promise that customers can store 4TB of data on 1TB of capacity. Without the storage efficiency technologies, a customer would need to buy 1PB of storage capacity to store 1PB, but for a system that supports a 4:1 data reduction guarantee, the customer would only need to buy 250TB. For mixed enterprise workloads that are primarily block based, a data reduction ratio of 4:1 is generally very achievable. And the reduced requirement for storage devices can have a significant impact on not only the acquisition cost of the storage hardware but also the energy and floorspace consumption.

Data reduction ratios will vary by workload type. Some workloads benefit more from compression, while some benefit more from deduplication. Often, both will have at least some effect. Relational databases tend to benefit more from compression, and a data reduction ratio greater than 2:1 on them is rare (except when using specialized features such as Oracle's Hybrid Columnar Compression). Other data sets, such as those used for backup and disaster recovery, can achieve data reduction ratios of 50:1 or more. (This is because for subsequent daily backups, generally only a small percentage of each backup is unique data.) In general, the effect of different storage efficiency technologies can vary significantly by workload type (e.g., thin provisioning works best with more dynamic storage environments, compression is most effective for RDMBS, deduplication is most

effective for backups, and space-efficient snapshots work best when administrators create and use a lot of read-only snapshots).

One thing customers should make sure they understand when a vendor quotes a storage efficiency ratio is which technologies are included in the calculation. Some vendors advertise a ratio based only on compression and deduplication, while others base their ratio on thin provisioning and space-efficient snapshots (with a predefined snapshot usage assumption). Make sure that any comparisons done between different storage systems use an "apples to apples" comparison.

When vendors first began offering this guarantee, it was primarily to get end users to believe in and want to try the value of these storage efficiency technologies to make solid state media more cost effective. Vendors would often run a "precheck" against a customer's data sets before they would commit to a guarantee. Today, many vendors have dispensed with this, although some vendors still offer a lower "self-certified" data reduction ratio (often in the range of 2:1) and a higher ratio if customers consent to validation of the data reduction ratio by the vendor ahead of time. If a vendor will do this evaluation up front, that can decrease risk because customers know exactly what data reduction ratio can be achieved with the vendor's storage efficiency technologies on their workload mix. IDC recommends that prospective customers ask for this evaluation to be done once they have identified the finalists for a new storage infrastructure purchase.

Generally, if a storage system does not meet its advertised "data reduction ratio," the vendor will provide one or several free storage devices that customers can configure into their systems to bring them up to the desired ratio. This is an easy and relatively inexpensive fix for a vendor, and customers should not be shy about asking for more storage devices if the original data reduction ratio commitments are not being met. Note, however, that additional devices may marginally increase energy and/or floorspace consumption relative to a vendor that was able to achieve higher data reduction ratios with its storage efficiency technologies.

It is important to understand the potential limitations of this guarantee. If data is precompressed (such as it might be for customers using application-based compression performed on servers) or it is pre-encrypted (again, on the server), then generally data reduction cannot be successfully performed by a storage system. Many storage systems can simultaneously implement data reduction, compression and encryption together as long as they are all performed on the storage array. And some data is just not reducible at all – generally, the storage vendor will attempt to discover this up front and not offer a data reduction guarantee. At least one vendor performs an up-front check for data reduction and then reevaluates that every six months or so before "rewriting" the guarantee for an updated ratio.

At this point, it's clear that these technologies offer a huge value to end users, and the general data reduction ratios applicable to different workloads is more widely known. Unless an array is being purchased for workloads where it is already known up front that the data is not reducible, customers should rarely buy a storage system that does not support a broad panoply of storage efficiency technologies. The performance of flash media really made these technologies usable in line with latency-sensitive workloads, and now that NVMe is widely available, it is rare that there would be any kind of latency impact to the use of thin provisioning, compression, deduplication, and other storage efficiency approaches in line.

When working through the potential cost savings associated with this type of guarantee, make sure to understand the difference between raw capacity, usable capacity, and effective capacity. Before a storage device can be used, it must be formatted, and that will take up a small amount of capacity. If a

customer wants to protect data through protection techniques such as RAID, erasure coding (EC), or replication, the resulting redundant data retained in the system will reduce the amount of unique data that can be stored. Generally, the difference between raw capacity (what a storage device is rated at) and its usable capacity will take formatting and data protection into account. At that point, additional storage efficiency technologies like compression and deduplication can "expand" the unique data storage capacity of that device.

Ultimately, a higher data reduction ratio guarantee produces more value for enterprises. While many vendors claim that their storage efficiency technologies drive higher data reduction ratios than the competition, these claims cannot necessarily be taken at face value. Some vendors track their data reduction ratios against their installed base (and for some even by workload types) and can share those with prospective customers to validate their claims. In truth, different vendors' collections of storage efficiency technologies will likely perform differently against different workload mixes. Look for the number the vendor is willing to guarantee and base storage purchase decisions on that.

Media Endurance Guarantee

When persistent solid state storage was originally introduced for enterprise use, there were concerns about media endurance. Unlike with mechanical disks, flash media has a finite life that gets "used up" with each additional write. Since many enterprise workloads tend to be write intensive, there was a concern that individual solid state storage devices would not meet the common five-year enterprise storage life cycle. AFA vendors implemented a number of "write minimization" algorithms in their storage systems to preserve flash media, and these enhancements have been so effective that media endurance is much less of a concern today. Each time a new, denser flash media gets introduced (e.g., the transition from triple-level cell to quad-level cell flash media that is currently happening in the enterprise), the issue gets briefly raised – but vendors respond with further improvement to their write minimization algorithms to address the issue.

The need for a media endurance guarantee is much less important than the need for durable media. If a solid state storage device failed because it was "written out," the failure would be transparent due to data protection approaches like RAID, EC, and/or replication. All enterprise storage systems can handle a single storage device failure transparently and support online replacement. As part of their standard maintenance contracts, all vendors will replace any failed components on a system so there is no out-of-pocket cost to the customer other than the hassle factor of having to replace a failed device. Flash has a strong track record borne out of hundreds of thousands of AFAs deployed with enterprise workloads over the past decade, and there really isn't a need for a media endurance guarantee that is separate from the standard maintenance contract. While this guarantee may make an administrator feel more secure, there really is little need for it.

Fixed Maintenance Guarantee

Under the more traditional enterprise storage customer experience, as a storage system aged, the vendor tended to increase the maintenance fees on it. This effectively became an additional influence that storage vendors could bring to bear to incent customers to upgrade to a new system. While a customer upgrading to an entirely new system likely got higher infrastructure density (performance and capacity) at lower cost, there were significant downsides associated with the traditional forklift upgrade. Customers had to rebuy an entirely new system, along with all the storage capacity that they had currently already paid for, and relicense all the software (much of which was the same as on their older system). Data had to be migrated and the new system had to be qualified for use within a customer's infrastructure. This topic will be discussed more under the Nondisruptive Upgrades Guarantee section.

The fixed maintenance guarantee removed the possibility of increased maintenance pricing, driving a customer to upgrade to a new system before the customer might really have wanted to. What customers should expect from this guarantee is that as they expand a system over time, adding additional controllers, storage devices, and racking, the maintenance fees on those components are exactly the same (on an individual level) as they were on the day the customer bought the system. Regardless of whether a customer keeps a system for three years or eight years, maintenance prices on the individual components should never increase. This guarantee does provide some benefit, but it is an easy one for competitors to copy, and today, almost all vendors offer it. This is another one of those guarantees that today, like a satisfaction guarantee, is more conspicuous by its absence.

Availability Guarantee

As IT has become more critical to day-to-day business operations, availability requirements have been on the rise. In fact, customers that needed "high availability" for mission-critical workloads back in the 1980s would usually buy either a mainframe or a system from a vendor like Tandem or Stratus that was specifically architected for it. In the 1990s, high availability was offered by clustering two or more general-purpose systems into a shared disk cluster, but by the early 2000s, we began to see general-purpose servers and storage systems that could support multiple "nines" of availability (99.9%, 99.99%, etc.) on their own (i.e., standalone). Today, most enterprise-class storage systems are billed by their vendors as supporting at least "five-nines" (99.999% or roughly five minutes of downtime in an 8,760 hour year) and many support "six-nines." These availability ratings are for single, standalone storage systems (not clusters).

Hitachi Vantara was the first vendor to offer a 100% data availability guarantee on its flagship enterprise storage system starting back in 2000(!). It stood alone for a number of years with this guarantee, but by the end of the past decade, we were starting to see other vendors offer that same guarantee. Today, there are four vendors that offer a 100% data availability guarantee on a single storage array: Dell EMC (PowerMax), Hitachi Vantara (Virtual Storage Platform), Hewlett Packard Enterprise (HPE) (Primera), and Infinidat (InfiniBox). IBM offers a six-nines availability guarantee for single systems but increases that to 100% for customers that purchase a HyperSwap (i.e., "stretch cluster") configuration.

When customers want more than six-nines of availability, other vendors will point them toward "stretch cluster" configurations that support immediate transparent recovery and 100% data availability in the event of a catastrophic primary array failure. In truth, even the vendors that offer a 100% data availability guarantee on a single system cannot meet that requirement in truly catastrophic site disaster failures (e.g., a water main breaks and floods an entire datacenter). For customers worried about such failures, a vendor can always sell them synchronous replication or a "stretch cluster" to ensure that there is an up-to-date and a recoverable copy of data in a location that is not affected by a site disaster.

While a 100% data availability guarantee on a single box shows that a vendor stands behind their system, the "get well" if the array does not live up to the promise is generally one or more months of free maintenance that get added onto an existing contract. While that can represent a nice cost savings, it does not help replace lost data. Customers that really require this level of availability need to take other steps to meet that requirement – in particular, using replication to a remote site that can meet their specific recovery point (RPO) and recovery time objective (RTO) needs.

The 100% data availability guarantee is another one of those facets that, while it may provide additional peace of mind for some administrators, does not really provide all that much value. What does provide value in terms of ensuring availability is support for features like host multipathing, RAID, EC, snapshots, replication, backup integration, dual-ported devices, redundant hardware, online component replacement, nondisruptive upgrades, and transparent recovery capabilities.

Nondisruptive Upgrades Guarantee

Over time, most storage systems will have to be upgraded in place. Whether that is a software upgrade that brings performance and efficiency enhancements and new features, expands a system to better accommodate growth, or provides support for next-generation hardware, enterprises have less and less of an appetite for application downtime during these activities. When vendors evolved their systems to support "five-nines," most of them had to begin implementing at least some form of nondisruptive upgrade capability. Today, most enterprise-class systems support a broad array of nondisruptive upgrades.

The one area that is still an issue for some vendors is with multigenerational technology refresh. Among external storage arrays, it is common to support adding controllers of the same generation to scale performance, but to access the higher performance and additional capabilities of next-generation controllers, customers generally had to perform a disruptive, expensive, and time-consuming forklift upgrade. This holds true for multicontroller storage arrays today with several exceptions – both Dell (PowerStore) and Pure Storage (FlashArray) can nondisruptively upgrade customers to next-generation controllers without requiring any storage device repurchases or data movement. Note that products that support federated scale-out clusters like NetApp can perform nondisruptive forklift upgrades by adding a new node into the cluster, migrating the data from the old to the new node, and then removing the old node from the cluster. But that approach has different implications than being able to upgrade controllers in place within a single system, which is clearly easier.

With the advent of storage virtualization, it became possible to migrate data from one storage array to another without having to shut down application services. When vendors talk about "nondisruptive upgrades" as part of their guarantee programs, they are generally referring to the ability to migrate data from the old array to a new array without having to shut down application services. Many of these vendors include (or include usage of) data migration tools that can support nondisruptive data migration as part of the array purchase. While it is true that technically this approach removes the "disruption" from forklift upgrades, it is a partial solution. Customers still have to repurchase storage device capacity, relicense storage management software, and invest the time to migrate the data over time (this process is generally staged over a period of weeks or months for most enterprises).

Forklift upgrades are not the only event which can potentially cause downtime. New storage operating systems releases generally become available at least several times a year, and in the past, those have required downtime. By moving many processes out of the storage operating system kernel and into user space, this issue has largely been addressed. Most enterprise storage systems now support firmware and software upgrades without downtime, although there have been isolated instances across vendors in the past five years where a complete rewrite of a storage operating system (or a change in on-disk format) have required a disruptive upgrade. There have already been instances of enterprise storage vendors re-architecting (or building) their storage operating system around a microservices-based design, and more vendors are expected to do this going forward. This approach should make it easier to upgrade enterprise storage systems with new functionality more often with less testing and increased reliability and should further narrow down the upgrade scenarios where downtime may be required.

This problem is a bit harder to solve for multicontroller arrays than it is for scale-out, software-defined storage clusters that are truly distributed (i.e., not federated). Systems using the latter architecture often also support nondisruptive, multigenerational technology upgrades – nodes with next-generation technology can be added into the cluster and older nodes can be retired, all without having to impact application services. The ability to support multigenerational technology upgrades is a huge win for customers for several reasons: it enables customers to integrate needed new technologies on their schedule without having to incur the pain of a forklift upgrade, it preserves investment in existing hardware and software, and it extends the useful life of systems without the same performance and capacity limitations that have historically been applied to multicontroller arrays.

All-Inclusive Licensing Guarantee

With all-inclusive licensing, an unlimited capacity license for all software functionality for a particular platform is included at the time of purchase and it also applies to any new software functionality that may be released on the platform during its useful life. Historically, enterprise storage vendors have charged separately for various data services (snapshots, replication, etc.) and some enforced very expensive capacity-based licensing (i.e., licensing replication for use across a 100TB system is less expensive than licensing replication for use across a 200TB system). The move to all-inclusive licensing has been a huge win for customers in simplifying purchases, increasing the flexibility to accommodate evolving needs, and reducing software licensing costs over time.

The vendor (Pure Storage) that started this approach back in 2012 actually did bundle all software available for the system with the initial purchase, and it has continued to do so. Most other vendors have introduced a slightly handicapped form of this with two software packages: an "essentials" and a "pro" package. The essentials package is bundled with the system, while the pro package adds additional features at extra charge. The vendor justification for the latter approach is that you don't really get the software for free, the price is just hidden in the price of the overall system, and formerly expensive features like support for stretch clusters are not needed by everyone, so why should everyone be forced to pay for it? In the opinion of this analyst, this is a bit of a specious argument. When comparing the cost of different storage alternatives, prospective customers should be evaluating the total features and the total cost. On the ease-of-use issue, there's no doubt that all-inclusive software licensing is a win as there is no opportunity to "nickel and dime" customers as their storage management needs evolve (and they need additional functionality).

Fixed Trade-In Credits

Historically, trade-in credits on older systems have been made available on a vendor's schedule, and they were typically created to incent customers to buy within a short time window when a vendor wants to boost revenue. Many of these newer guarantee programs offer a known trade-in credit up front that can be used at any time. These fixed trade-in credits are not necessarily higher than the older sales-driven trade-in programs, but they do allow customers to better perform financial planning and make choices based on their rather than a vendor's schedule.

Some vendors only offer trade-in credits on controllers, while others may also offer them on storage devices (i.e., SSDs and custom flash modules), and some even offer trade-in credits defined up front for new system purchases of the same type. The availability of fixed trade-in credits does give customers more flexibility to use them on their own schedule but is probably not a major contributor to reduced cost over time. For at least several vendors, how fixed trade-in credits can best be used is intricately linked with their free upgrade programs, so customers should evaluate the two sets of options together to best understand the value it may provide.

Free Upgrades

For enterprise storage used in growing application environments, systems may eventually run out of performance and/or capacity. This need has in the past been a major driver of when customers elected to undergo a forklift upgrade despite the pain. As part of its original Evergreen Storage program, Pure Storage included a "free every three" controller upgrade feature that allowed customers to swap out their older controllers for the newest-generation controllers after three years, effectively extending the life cycle of the platform (hence use of the term *evergreen*). The fact that these multigenerational controller upgrades could be performed nondisruptively made them particularly attractive.

In recent years, many storage vendors have incorporated some kind of free controller upgrade into their guarantee programs. Technically, the upgrade is not really free since the costs of the upgrade are borne by the vendor and likely passed onto the customer somehow. However, what is important to focus on is not where the cost is hidden, but the overall value the vendor delivers for the price they charge.

There are many permutations of the free upgrade program. Sometimes, it is time based (can occur every three years); sometimes, it is at the discretion of the customer but can only happen once during a predefined term; and in others, the customer can choose to upgrade multiple times, either using trade-in credits for older components or paying an upcharge themselves (which is often based on what the vendor says is the difference in implied cost between the "new" controller and the "old" controller). Some vendors only offer it on controllers, while others allow customers to trade-in older storage devices toward the purchase of new, faster, and/or denser capacity storage devices (an upgrade option one vendor calls "capacity consolidation"). Some vendors offer a full system-level upgrade path, although these may incur additional cost and are usually limited to systems of a certain type. When evaluating this latter type of "upgrade," customers may want to compare what the vendor has done in the past when forklift upgrading an older system to a newer one (there is usually some kind of special discount involved) and compare that to whatever the free upgrade deal is.

In all of these cases, it is important to understand up front whether the free upgrades are disruptive or nondisruptive. If they are disruptive, require customers to rebuy capacity and/or software, and include a data migration step, then their value may be limited.

Breadth of Coverage

When the guarantee programs first started, they generally applied just to a specific storage platform from a single vendor. Over time, coverage was expanded to additional storage platforms from the same vendor – for example, when HPE extended the Timeless Storage program to include not just Nimble Storage but also Primera. To date, these programs have been largely limited to enterprise storage offerings, although it is possible that, in the future, vendors like Dell and HPE that sell servers may look at extending coverage to those platforms as well. The breadth of coverage varies significantly across vendors, and there are still some vendors whose programs still only apply to one array brand in their portfolio. And some vendors offer a version of the program across multiple platforms, but the actual guarantees, which apply to each platform, are different.

Other Types of Programs

There are several other programs vendors have introduced that aren't exactly guarantees but do provide value. Sometimes, they are positioned as part of the guarantee programs – while, for others, they are more specifically tied to maintenance contracts. Generally, the guarantee programs only apply to customers with valid maintenance contracts so it is less important how they are bundled (just so long as they are). Prospective customers should ask their vendors of choice whether they offer comparable programs to those discussed here.

The first is in the area of AI-driven operations. These are software-as-a-service applications, based usually in a vendor's private cloud, that have taken the place of traditional remote monitoring systems (but go way beyond them in terms of functionality). These new platforms collect significantly more sensor data from installed systems, store the data in a private cloud, and use AI and/or ML techniques to mine the data for a variety of reasons. These platforms predict failures, aid in performance and capacity planning, can pre-validate upgrades for compatibility and, in some cases, can help optimize systems on the fly to hit defined service-level agreements and enable "what-if" analyses (among others). It provides good additional value when vendors extend the coverage these platforms offer to include not only storage infrastructure but also servers, networks, virtual machines, and/or applications.

Note that some storage vendors that sell converged infrastructure solutions that include Cisco UCS servers have worked with Cisco to extend the coverage in Cisco's Intersight to include the vendor's bundled storage array, providing more comprehensive monitoring of bundled compute resources in the infrastructure stack under a single pane of glass. This applies to converged infrastructure offerings like, for example, NetApp FlexPod and Pure Storage FlashStack.

Customers should ask their vendors to explain how these platforms drive value for customers to get a better understanding of specific capabilities. There is still significant differentiation between the types of capabilities each vendor's platform supports and the value they can drive. Examples of these types of platforms are Dell Technologies CloudIQ, HPE's InfoSight, IBM's Storage Insights, NetApp's Active IQ, and Pure Storage's Pure1 META. Prospective customers should note that some of these platforms are comprehensively bundled by the vendor, whereas others bundle a base package and offer a pro package upsell with added features.

As enterprises became more familiar with the advantages of the public cloud, they looked to vendors to offer some of those advantages for in-house IT infrastructure as well. Subscription-based pricing and "as a service" models are two of those. These are often offered under specific brands by the vendors (e.g., Dell Technologies on Demand provides a subscription-based pricing option for in-house infrastructure purchases, whereas Project Apex is the vendor's program for delivering various types of infrastructure as a service). Other examples include HPE's GreenLake, NetApp's Keystone, and Pure Storage's Pure as-a-Service. Since the program definitions can vary across vendors, make sure you understand whether these programs cover both subscription-based and as-a-service models or just one of the two. These programs are all generally separate from the guarantee programs although they may include some of the guarantees (where applicable).

Examples of Storage Vendor Guarantee Programs

The following is a nonexhaustive list (alphabetic) of currently available vendor guarantee programs in enterprise storage:

- Dell's Future-Proof Program
- Hitachi's Flash Assurance Program
- HPE's Timeless Storage program
- Huawei's FLASH EVER program
- IBM's FlashWatch program
- Pure Storage's Evergreen Storage program

Communicating the Value

For some vendors, the guarantees and related CX programs are not combined under a single umbrella brand, making it more difficult for customers to understand (and sales to communicate) the value that all of these features bring. The best way for vendors to communicate how they drive value with these is to put them under a single program and discuss all of them as part of a single offering. When the different facets are fragmented across different areas (marketing, sales, support, and product management), it may be difficult to see how one vendor stacks up against another. The vendors that are the best at communicating the value these programs offer are clearly using it to better differentiate themselves from their competition.

Guarantee programs vary by vendor, but there is no doubt that they offer better value to customers than the traditional enterprise storage life-cycle experience and costs. The fact that most of the major enterprise storage vendors offer them has definitely improved the enterprise storage CX, but those customers that get the most value out of these programs are the ones that come to understand them the best so they can work them to their benefit.

ADVICE FOR THE TECHNOLOGY BUYER

- Some vendors' programs are shockingly limited – for example, including only a media endurance or a storage efficiency guarantee. Others offer a full panoply of features, some of which can drive significant value for enterprises across the entire storage life cycle. Seek to understand the different facets that each storage vendor you are considering offers with these programs and how well that fits into your specific needs.
- Most programs have some significant terms and conditions, and prospective buyers of enterprise storage should make very sure they understand them if they are using the value the programs can drive as a differentiator between vendors during the buying cycle. The devil is in the details.
- If you are going to evaluate a particular program in detail, talk directly to that vendor to understand its program. In the experience of this analyst, there is a significant amount of misrepresentation of competitive program values occurring during the sales process by different vendors.
- Use your knowledge of the range of different competitive program facets to negotiate a better customer experience on your next enterprise storage infrastructure refresh. You won't get anything you don't ask for.

LEARN MORE

Related Research

- *Setting an Enterprise Storage Infrastructure Strategy for the Next Five Years: What to Consider* (IDC #US47509821, March 2021)
- *Net Promoter Score Becoming an Important Metric for Enterprise Storage Managers to Understand* (IDC #US43896818, June 2018)
- *A Framework for Evaluating Storage Efficiency Technologies in Enterprise-Class All-Flash Arrays (AFAs)* (IDC #US42464717, April 2017)

Synopsis

This IDC Perspective discusses how to evaluate enterprise storage vendor guarantee programs. Since late 2015, the enterprise storage industry has seen the rise of vendor guarantee programs. Today, many vendors offer these programs, each of which have a number of different facets. There is significant variability though in program aspects among vendors. After reviewing this document, readers should be able to more accurately evaluate the value these programs can actually drive in their own environments – a determination that can help them to make better enterprise storage purchase decisions.

"Guarantee programs from enterprise storage vendors do offer some real value for customers," said Eric Burgener, research vice president, Infrastructure Systems, Platforms and Technologies Group at IDC. "But if customers are going to use them to help make an enterprise storage purchase decision, it is important to really understand which program facets offer differentiating value and which are just baseline capabilities available from most vendors."

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

140 Kendrick Street
Building B
Needham, MA 02494
USA
508.872.8200
Twitter: @IDC
blogs.idc.com
www.idc.com

Copyright Notice

This IDC research document was published as part of an IDC continuous intelligence service, providing written research, analyst interactions, telebriefings, and conferences. Visit www.idc.com to learn more about IDC subscription and consulting services. To view a list of IDC offices worldwide, visit www.idc.com/offices. Please contact the IDC Hotline at 800.343.4952, ext. 7988 (or +1.508.988.7988) or sales@idc.com for information on applying the price of this document toward the purchase of an IDC service or for information on additional copies or web rights.

Copyright 2021 IDC. Reproduction is forbidden unless authorized. All rights reserved.

