



Enterprise and Cloud Storage

Enterprise Storage: The Proverbial “Water Cooler” Discussions 2024 (Part One)

Eric Herzog



Eric Herzog
Chief Marketing Officer
Infinidat

Biography

Eric Herzog is the Chief Marketing Officer at Infinidat (<https://www.infinidat.com>). Prior to joining Infinidat, Herzog was Chief Marketing Office and Vice President of Global Storage Channels at IBM Storage Solutions.

His executive leadership experience also includes: CMO and Senior VP of Alliances for all-flash storage provider Violin Memory, and Senior Vice President of Product Management and Product Marketing for EMC's Enterprise & Mid-range Systems Division.

Eric blogs at <https://www.infinidat.com/en/blog>

Keywords Storage, Cybersecurity, InfiniSafe, IT skills, Data, Service Level Agreements (SLAs), Immutable snapshots
Paper type Opinion

Abstract

Applications and workloads all require storage, but with each requiring differing storage needs it fast becomes apparent that all enterprise storage is not all created equally. There's high-end enterprise storage, mid-range storage, and entry-level storage, block, file, object, and hybrid cloud storage – they all behave and function differently as far as availability, cybersecurity, integration, performance, and connectivity to other software – namely, infrastructure software. This includes VMware, containers, ServiceNow, AIOps software, or a variety of enterprise application software, such as Oracle and SAP. The specialized nature of storage means it promotes much discussion. In the first of a two part series, Infinidat's Chief Marketing Officer, Eric Herzog, invites readers to engage in the discussion and share your views about enterprise storage on Infinidat's social media channels. Do you agree with the author's views of this article? What insights do you have to share? How do you see these different topics? What have you learned? Join the virtual water cooler talk – use hashtag #InfinidatTalk

Explosive growth of data by 2025. What does it mean for storage?

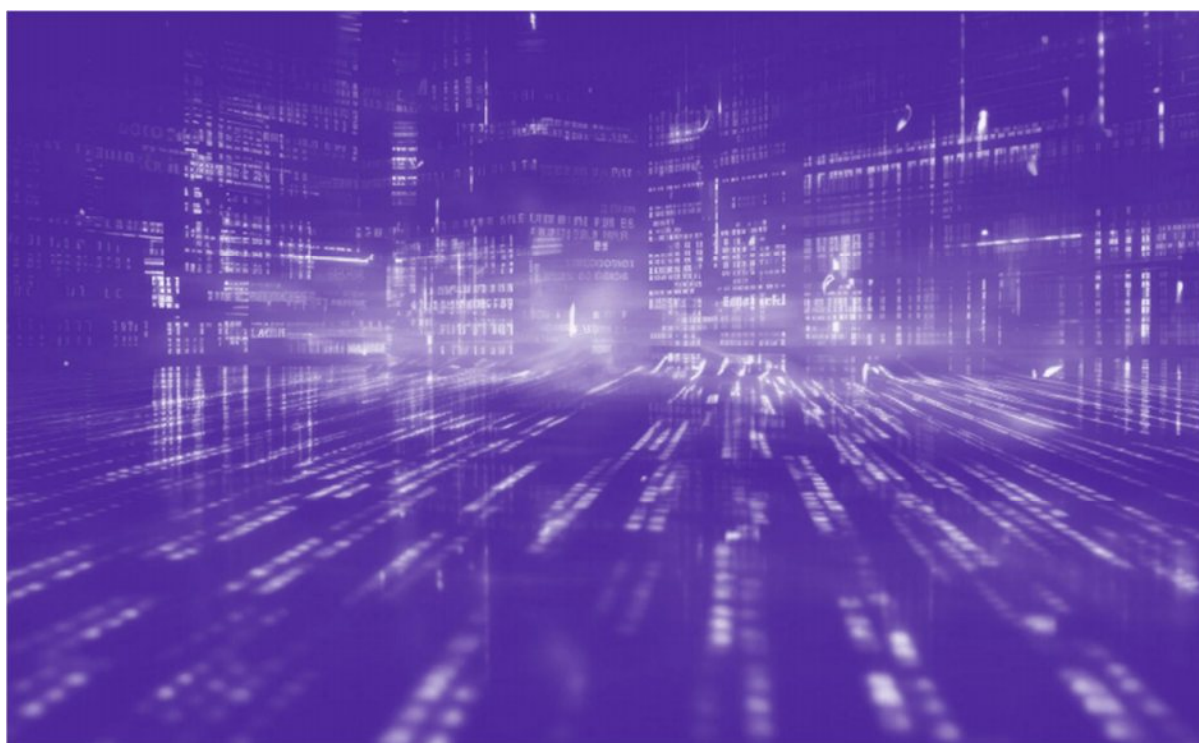
The global datasphere continues to grow exponentially. IDC has tracked an increase in data from 33 zettabytes in 2018 to a projected 175 zettabytes by 2025¹, while Statista projects data growth to reach 180 zettabytes by next year².



Enterprise and Cloud Storage

This explosive growth in data is symptomatic of how much data is being used – and therefore, creates significant demand for enterprise storage. Here’s the key point for Chief Information Officers (CIOs) to consider as they develop their future plans: just because there is enormous growth in data and the increased need for more storage capacity, enterprises don’t need to have “explosive growth” in their IT budgets to handle it.

Given this severe budget limitation, storage consolidation is a strong, powerful strategy to adjust to huge leaps in data. Enterprises should be striking down complexity associated with traditional approaches to dealing with data growth – more, more, more. No, a smarter strategy is less, less, less – and this is what Infinidat specializes in for enterprises that are forward-thinking and don’t want to be caught awkwardly on their back foot when the implications of explosive data growth wash over you like a tsunami.



In addition, this increase in data will exacerbate the already tremendous IT skills gap. There will be a greater need for more qualified IT professionals to be able to help enterprises navigate through the overwhelming bursts of data. But there are not enough capable IT pros available to direct at the problem.

You need to think “inside the Box” – InfiniBox®, that is – which simplifies the storage infrastructure to adeptly handle petabytes and petabytes of data in your data centers and hybrid cloud storage configurations, by leveraging services-oriented automation to automatically and autonomously store the data. Infinidat focuses on enterprise storage, but our best practices can be adopted in other areas of storage as well, including cloud storage.



Just to put these data numbers in perspective: if astronomers are processing 10 petabytes of data every hour from a telescope, such as the Square Kilometre Array (SKA) telescope, one exabyte of data is generated every four days of operation. It takes 1,000 exabytes to equal one zettabyte.

According to University of California researchers, if all human speech ever spoken were digitized into 16-kilohertz 16-bit audio files, it would be over 42 zettabytes. This speaks to the magnitude of the datasphere that has taken shape and has made the storage of data, in a general sense, extremely important to the future of humankind.



Cybercrime is getting worse. How can storage help?

Cybercrime is a \$9.5 trillion attack vector, according to Cybersecurity Ventures³. It's not shrinking. Rather, it's expanding again – enormously – which makes it all the more problematic that too many enterprises are leaving their enterprise storage systems vulnerable to cyberattacks due to lack of intelligent cyber resilience and recovery.

Even though the most valuable data of a company is stored on their enterprise storage systems, it's ironic that storage is often left out of a company's overall cybersecurity strategy. The question is not "if" your enterprise will suffer a cyberattack, but "when" and "how often."

According to a 2023 Fortune 500 survey, the second biggest concern of CEOs is cybersecurity⁴. One wonders if CEOs will soon have the security of enterprise storage on their minds, too, if IT leaders don't address the interconnection of cybersecurity and cyber resilient storage. Enterprises are in desperate need to shore up their cyber protection on the storage front.



Enterprise and Cloud Storage

There is no question that you should be using immutable snapshots (unalterable snaps of data) for reliable, rapid recovery of data. But there is one more piece of the cyber puzzle that is critical to have a well-rounded cyber resilience implementation – cyber detection. This capability has a twofold purpose. Cyber detection serves as an early warning system to help you protect the data. It can conveniently tie into data centre-wide security software, revealing what is being detected and seen from a cyber standpoint.

The second useful purpose is after a cyberattack has occurred. With cyber detection, you can get to a known good copy of data faster. It's vital to have a clean copy because if you recover data that has hidden malware or ransomware in it, you are going down a self-defeating path. Malware and ransomware do not pound their chest like King Kong. They are much more surreptitious, lurking and hard to detect.



This is why you need machine learning-driven cyber detection to scan the data in primary storage and secondary storage for any corruption before you recover it. Other security scans that an enterprise does may not detect the malware or ransomware at all, even though it is hidden there. The most effective way to identify it and root it out is a cyber detection capability built into the primary storage system.

Infinidat made it a priority to enhance our InfiniSafe® cyber storage resilience solution portfolio with cyber detection and automated cyber protection. Infinidat is one of the very few storage vendors to offer cyber detection on primary storage –



and it is perfectly positioned to save enterprises money, time, and headaches. Industry analysts have also identified Infinidat as the only vendor to offer an automated cybersecurity capability that can seamlessly integrate with cyber security software applications. Infinidat equips enterprises with stronger cyber storage resilience capabilities to counter cyberattacks against their data infrastructure in the face of increasing cyber threats.

InfiniSafe Cyber Detection is designed to help enterprises resist and quickly recover from cyberattacks. It provides highly intelligent deep scanning and indexing needed to identify potential issues. InfiniSafe Cyber Detection inspects the full breadth of files, applications, core storage infrastructure (such as volumes), and databases for signs of cyber threats for primary storage environments, helping ensure all data that needs to be recovered has integrity.

InfiniSafe Cyber Detection uses advanced machine-learning models that provide 99.5% confidence in detecting cyber threats. This helps dealing with false positive/negatives and greatly reduces the effort in any additional forensics. Over 200 points of determination are included, using content-based analytics that inspect inside files for even subtle signs of an attack. The post-attack dashboard (with forensic report) details the last known good copy of the data for rapid, intelligent recovery.

In May of this year, Infinidat introduced InfiniSafe Automated Cyber Protection, which is a cybersecurity capability that helps reduce the threat window for cyberattacks. It enables customers to integrate into their Security Operations Centers (SOC), Security Information and Event Management (SIEM), Security Orchestration, Automation, and Response (SOAR) cyber security software applications, and simple syslog functions for less complex environments. A security-related incident or event triggers immediate automated immutable snapshots of data, providing the ability to protect InfiniBox G4 and InfiniBox SSA G4 block-based volumes and/or file systems and ensure cyber recovery.

These advanced capabilities to secure data infrastructures address a harsh reality. If an enterprise, or service provider, does not have cyber resilient storage, the damage that cyber criminals can do is significant, and it's the equivalent to leaving a bank vault door open and unguarded. Storage of a company's data, which is among its most valuable assets, can no longer be considered separate from a comprehensive cybersecurity strategy.

Are storage guarantees real?

Guarantees are real; however, the most important question is: does the guarantee have teeth? In other words, is it backed up? Is it comprehensive? Does it really benefit you if you don't get what you are expecting through the service level agreement, or SLA?

For example, at Infinidat, we have guarantees on cyber storage resilience and recovery, performance, and 100% availability. Some other vendors have a guarantee on availability only. Other vendors have a guarantee on performance, while some other vendors have guarantees for cyber on backup, but not on primary storage. This is the reality.



Enterprise and Cloud Storage

A reason why Infinidat's guarantees are real and have "teeth" is because there is a penalty for not delivering what we say we will deliver for primary and secondary storage. We put our money where our mouth is. Furthermore, our guarantees are comprehensive. Not just moderately comprehensive, like a few other vendors, but fully comprehensive.

Guarantees should not be seen with scepticism. A fair analysis should be conducted to examine how comprehensive each one is and how much "teeth" each one has.

Guarantees are everywhere in the consumer world. For instance, you get guarantees on your new car. If the engine breaks, they fix it for free. No one would find it strange if you bought a new car and the engine conked out in six months and then, the car company either gives you a new car or replaces the engine.

Likewise, in enterprise storage, a guarantee basically says that the vendor, such as Infinidat, is going to do whatever is possible and feasible to fix any unexpected issue that may come up. This guarantees orientation reflects a customer-centric mindset. But some are better than others.

I've also been asked, "What's the future of guarantees in this industry?" Over time, IT leadership in enterprises will expect guaranteed SLAs more and more. Infinidat already has a head-start. We were the first company in the world to have a cyber resilience guarantee on primary storage. It doesn't get more "real" than this because cyberattacks are nothing to joke about. To put a guarantee on something associated with cybersecurity means there is a very high level of confidence in the system.

Now, it's your turn

Join the conversation online and let us know what you think of these topics, which comprise the first of a two-part series around "water cooler" topics for 2024. Use hashtag #InfinidatTalk, and take part in the discussions on Infinidat's LinkedIn social media channel <https://www.linkedin.com/company/infinidat/>, or on Infinidat's Twitter feed at <https://x.com/Infinidat>. Alternatively, you can use my own social media channels (LinkedIn <https://www.linkedin.com/in/erherzog/>) or Twitter (<https://x.com/zoginstor>). We'd love to hear from you.

Reference

- ¹ Coughlin, T. (27 November 2018), 175 Zettabytes by 2025. Forbes. Available at: <https://www.forbes.com/sites/tomcoughlin/2018/11/27/175-zettabytes-by-2025/>
- ² Taylor, P. (16 November 2023), Volume of data/information created, captured, copied, and consumed worldwide from 2010 to 2020, with forecasts from 2021 to 2025. Statista. Available at: <https://www.statista.com/statistics/871513/worldwide-data-created/>
- ³ Cybercrime Damages To Cost The World \$9.5 Trillion USD in 2024 (13 December 2023). Cybersecurity Ventures. Available at: <https://www.einpresswire.com/article/674883055/cybercrime-damages-to-cost-the-world-9-5-trillion-usd-in-2024>
- ⁴ Clipperton, K. (7 September 2023) Top 2 CEO Concerns and Enterprise Storage. DCIG. Available at: <https://dcig.com/2023/09/top-2-ceo-concerns-and-enterprise-storage/>