



Enterprise and Cloud Storage

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

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>

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Paper type Opinion

Abstract

Part One of the “water cooler” online discussion of 2024 explored cybercrime, storage guarantees, and the explosive growth of data. In Part Two, the author delves into three more key topics which are being talked about across the industry – AI operations (AIOps); rising energy costs and space constraints; and comparing the use of a single storage operating system versus multiple operating systems and invites readers to share their reaction and insights about these topics on Infinidat’s social media channels using the hashtag #InfinidatTalk.

What’s up with AIOps and why it matters to enterprise storage?

Artificial Intelligence for IT Operations (AIOps) in enterprise storage is a key aspect to simplifying IT operations, reducing administrative overhead, and adding a predictive layer onto the data storage infrastructure. It’s increasing in importance because of the industry shift toward a platform approach to enterprise storage.

AIOps supports scalable, multi-petabyte storage-as-a-service (STaaS) solutions, enabling enterprises to centralize operations and improve cost management. The

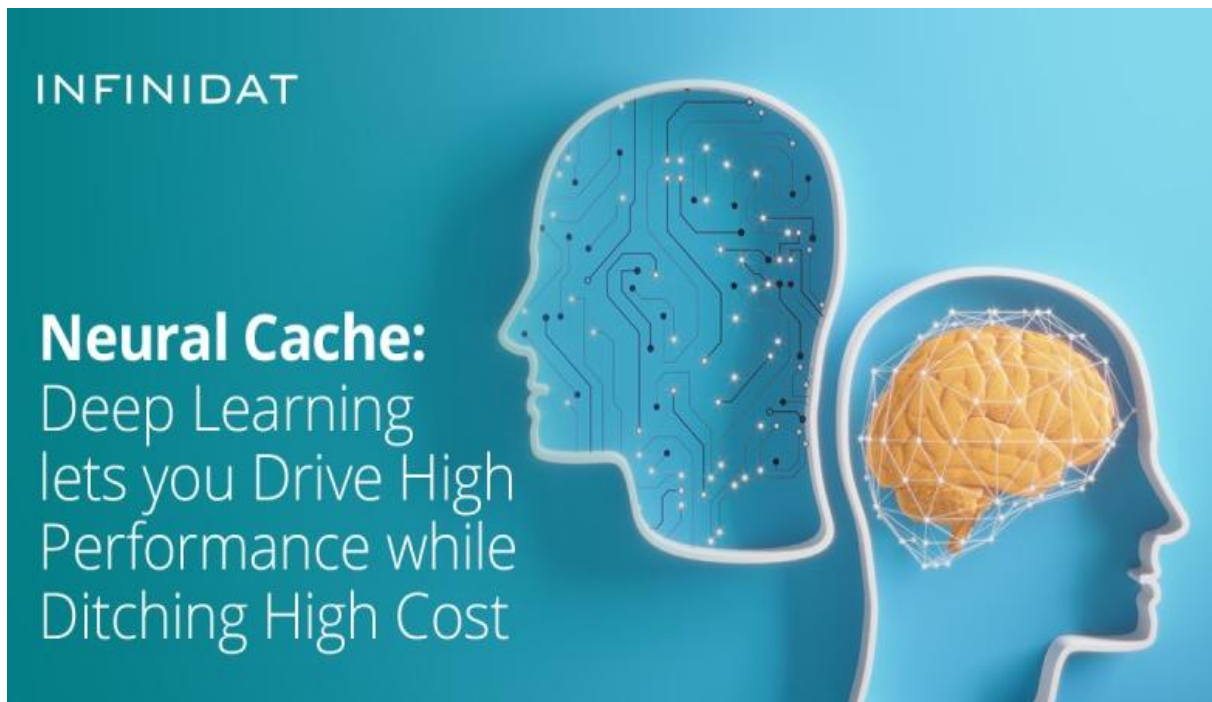


Enterprise and Cloud Storage

beauty of AIOps is that the flexibility of capacity and workloads is much better managed.

Whether they call it “AIOps” yet or not, enterprises are seeking the IT “superpowers” of advanced predictive analytics, early issue detection, and proactive support, which are integral to enabling the storage-as-a-service experience. Indeed, this STaaS experience must be tailored to enterprise requirements and economics throughout the deployment lifecycle.

AIOps is an approach that combines autonomous automation with analytics and some form of artificial intelligence, such as machine learning, or better yet, deep learning, on a multi-layered technology platform. Infinidat’s Neural Cache is a great example of AIOps technology, which provides deep learning capabilities within InfiniBox® G4 hybrid, InfiniBox™ SSA G4, and InfiniGuard®.



Neural Cache enhances data storage with built-in intelligence that optimizes application environments and performance over time, essentially delivering a zero-touch, set-it-and-forget-it experience. This software capability, which forms the core of our technical differentiation in the market, dynamically adapts to changing application, user and performance demands – without administrative overhead. It enables 100% SLA-based guarantees, predictive abilities, and optimal combinations of underlying media.

It's to an enterprise's benefit to get an end-to-end dynamic perspective on their entire Infinidat environment with optimized AIOps, leveraging a platform approach that puts Infinidat among the leaders of how primary storage is evolving.



Rising costs, constraints, and environmental impact in data centres

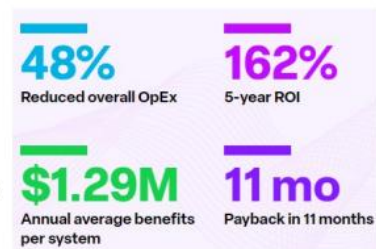
IT leaders are dealing with the rising costs of energy, floor space, rack space, cooling, and operational resources in data centres, as well as environmental impact. They are being required to do more in less space. The expense to power a data centre, including storage arrays and servers, is only going up, affected by higher energy prices. IT budgets are being squeezed by escalating real estate costs. Last, but not least, the increasing need to dispose of old equipment and the rush to install new systems that produce more carbon emissions are having an environmental effect as well.

What should an IT manager who is overseeing or managing the storage infrastructure do in the face of these challenges? Where should the IT team focus to minimize the rising costs, make the most of space constraints, and responsibly reduce the environmental impact as much as possible?

Our Infinidat solutions have been designed to increase efficiency on-premises. With one of our enterprise storage solutions, you can double the capacity of your storage while reducing the footprint that your legacy storage arrays were taking up. You can get double-digit better energy efficiency than what you may be accustomed to. You need fewer personnel to manage the storage system. Doing more with less. Getting more for storage while spending less, using less energy, and taking up less space in the data centre.

Figure 1: Infinidat's E² Factor

- Infinidat has a strong **Economic** value
 - IDC Research White Paper
 - 1.7 to 2.7x Watts per TB better
 - 66% Better power efficiency - kWh
- Infinidat has a strong **Environmental** value
 - Consolidation of 5, 10, or 20 arrays into ONE = OpEx benefits
 - Reduces power, cooling, and floor space
 - Need to recycle 5-20 previous vendors' arrays
 - **Environmental** impact is "X" for each array consolidated to ONE rack
 - Reducing significant electricity and GHG emissions
 - At end-of-life for Infinidat solution - Recycle only ONE



Source: Infinidat

We have a \$20 billion enterprise customer that went from 24 storage arrays from three different vendors to only four Infinidat array solutions, while a Fortune 100 customer dramatically reduced their storage infrastructure, going from 250 floor tiles to only 50 floor tiles running all the same applications and workloads – a 5X reduction. This consolidation had many benefits, but one of the key ones was reducing the need for IT operational resources.



Enterprise and Cloud Storage

The impact on the environment is reduced because you have more efficient, green IT-optimizing storage. This means there is less hardware to dispose of and therefore generate less carbon emissions helping to evolve your data centre into a greener IT centre of excellence.

We call it E2. You're able to simultaneously decrease costs (economic benefit), while reducing the ecological effects (environmental benefit). Infinidat's enterprise storage solutions are among the very few that can accomplish these two feats, equally well, at the same time.

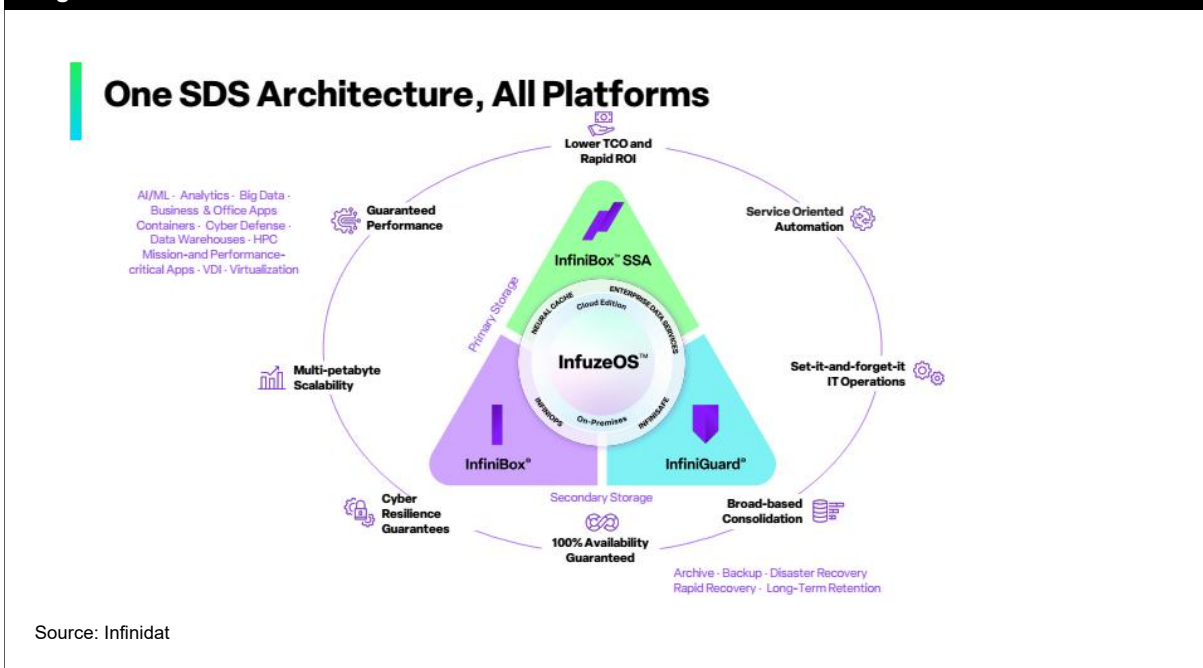
Single storage operating system versus multiple operating systems

It's a no-brainer: when you have to deal with multiple storage operating systems across a vendor's portfolio, you are forced to deal with complexity and additional IT operational costs. It is better to have a single operating system that works across storage systems, including primary storage, secondary storage, and hybrid multi-cloud environments. The compatibility, efficiency, and simplicity of a single operating system makes the life of a storage admin much easier.

If your enterprise has too many storage arrays and you need to manage several different operating systems – even across a single vendor's storage products – the experience takes up more time than necessary, and there is more of a risk of a mistake, a distraction, or a breakdown. Why do you want the headache?

Let's say you have 20 or more arrays installed today across two data centres. Storage consolidation will enable you to condense those 20 arrays into just two arrays, at petabyte scale. It knocks out the complexity of multiple operating systems across three or more vendors, saving you time and money.

Figure 2: Infinidat's InFuzeOS™





Our InfiniBox hybrid platform, our InfiniBox SSA platform, our InfiniGuard purpose-built backup appliance, and our InfuzeOS™ Cloud Edition are built on the same, singular operating system. Our customers are assured a seamless connection between all elements of their deployments, be those on-premises, in the cloud, or, more likely, in a hybrid cloud storage configuration.

Customers and partners don't have to deal with multiple operating systems that all have their own requirements, procedures, and interfaces. You want to manage and leverage your storage infrastructure for the good of your business – not become a 'master' of all storage operating systems on the market for the sake of it. Don't waste your time!

One of the ways that the single operating systems comes in very handy today in an Infinidat implementation is when the InfiniBox hybrid, InfiniGuard, and our InfuzeOS Cloud Edition are used as cyber backup targets. Whether the enterprise takes an on-premises or a hybrid cloud approach, the customer only needs to interact with the same operating system, which maximizes learnings and contributes to an overall better experience.



I invite you to share your reaction and insights about these topics on our social media channels. Use #InfinidatTalk. Join the virtual water cooler talk.”

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. If you want your comments to be seen and included in the broader visibility, use hashtag #InfinidatTalk. You can either go on Infinidat's social media channels ([LinkedIn](https://www.linkedin.com/company/infinidat/) <https://www.linkedin.com/company/infinidat/> or [Twitter](https://x.com/Infinidat) <https://x.com/Infinidat>) or my own social media channels ([LinkedIn](https://www.linkedin.com/in/erherzog/) <https://www.linkedin.com/in/erherzog/> or [Twitter](https://x.com/zoginstor) <https://x.com/zoginstor>). We'd love to hear from you.