Enterprise and Cloud Storage

Revisiting Herzog's Dirty Dozen: The Progress Report

Eric Herzog

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.

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Abstract
Back in 2022, the author introduced "Herzog's Dirty Dozen" to shine a light on the challenges that enterprises face in their data infrastructure. The Dirty Dozen is a list of challenges, gaps, misconceptions and problems that keep Chief Experience Officers (CxOs), storage administrators, and other IT leaders up at night, worried about what they don't know. Now, it's time for a progress report to mark how far we have come since the first unveiling of Herzog's Dirty Dozen in 2022.

Introduction
Before getting into the progress we have made, let's take a look at the Dirty Dozen: the list of issues that tarnish IT infrastructure, "contaminating" current enterprise-grade implementations and exposing the dangers and risks associated with them.

On the list we find:

1.   Insufficient level of cyber resilience

2.   Disconnect between cybersecurity and enterprise storage

3.   Storage proliferation

4.   Lack of utilizing flexible consumption models

5.   High total cost of ownership

6.   Slow data recovery after a cyberattack

7.   Slow application and workload performance

8.   Reliance on an outdated architecture

9.   Lag in making storage more green

10.   Misunderstanding about hybrid cloud

11.   Lack of autonomous automation

12.   Underperforming storage vendor IT support

Any one of these factors can taint an otherwise high-performing IT operation. As I stated in my initial article[1] on this topic years ago, you need sound strategies to solve each of these Dirty Dozen. This holds true today as well, but I'll add that our innovation has advanced and expanded considerably, and we are putting new, leading-edge capabilities into the hands of our customers and partners to empower them to solve every single one of these issues.
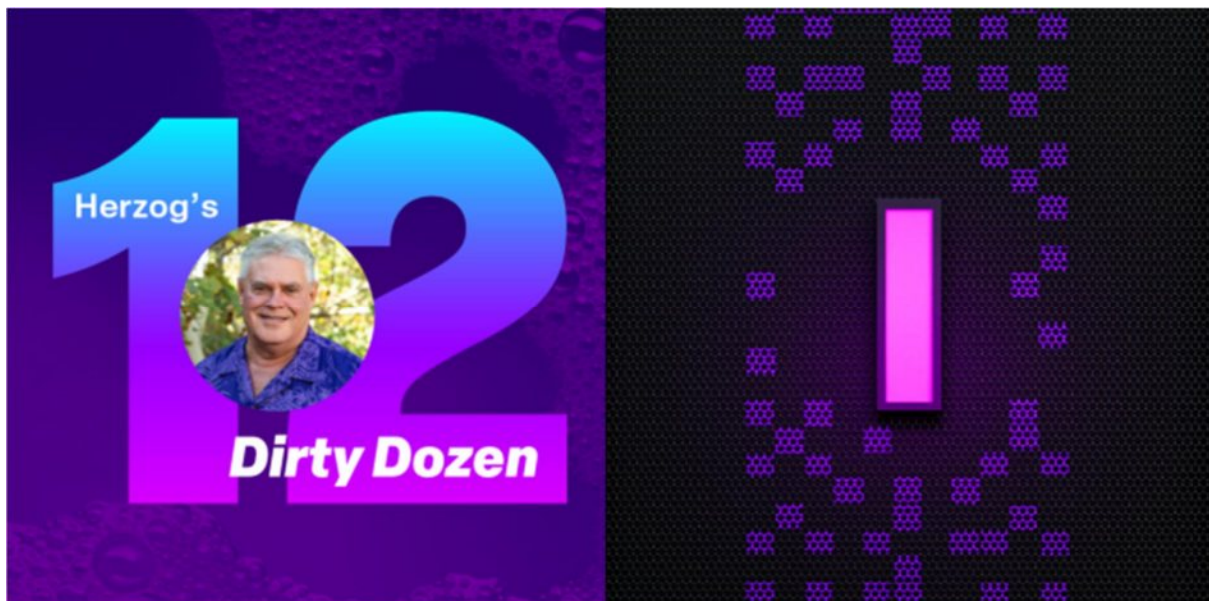
1.   **Insufficient level of cyber resilience** – Most enterprises still have inadequate levels of cyber resilience to be sufficiently safeguarded against cyberattacks, especially ransomware and malware. With much more stringent global oversight of cyberattacks on publicly traded companies, this issue has become even more high profile. Not to mention that cyber security analysts estimate that cyberattacks will cost enterprises in excess of $10 trillion USD in 2025 and that enterprises will suffer from 1,636 cyberattacks per week in 2025.

In 2022, we were touting the fact that Infinidat delivers among the industry's highest cyber resilience with our InfiniSafe® software on both our InfiniBox® and InfiniGuard® platforms for both primary and secondary storage. This also includes InfiniSafe® Cyber Storage guarantees.

Today, in 2025, we have expanded InfiniSafe to offer cyber detection and automated cyber protection – both of which take cyber storage resilience to the next level.

2.   **Disconnect between cybersecurity and enterprise storage** – It remains true that IT leaders and CISOs need to think of storage as part of their overall enterprise cybersecurity strategy. Storage cannot be separate from security.

In 2022, we articulated how Infinidat has fashioned our enterprise storage systems to be seamlessly and intelligently integrated into overall enterprise cybersecurity strategies and comprehensive frameworks.

Today, in 2025, we stand as a leader in providing one of the most comprehensive portfolios of cyber resilient storage that integrates with cybersecurity capabilities.

3.   **Storage proliferation –** An organization knows it has experienced storage proliferation when it has too many storage arrays.

In 2022, I wrote about how storage consolidation is the strategy to employ when you need to deal with the issue of having amassed 10, 20, 30, 50, 100 or more storage arrays over time.

Today, in 2025, the same holds true, but Infinidat now offers larger capacity, higher-performing storage systems in smaller footprints. You can consolidate

20 arrays into one or two Infinidat systems, while using less floorspace, less rack space, less power, less IT operational resources, and save dramatically on both CAPEX and OPEX.

4.   **Lack of utilizing flexible consumption models** – Enterprises spent decades buying storage as traditional purchases – typically a capital expenditure.

In 2022, my blog showcased the menu of flexible consumption models that Infinidat offers, including FLX and Elastic Pricing.

Today, in 2025, Infinidat is considered a leader in Storage as a Service (STaaS). Our FLX model is OPEX-based with cloud-like, pay-as-you-go consumption – whether up or down in storage capacity. We give our customers attractive options, including the traditional way to buy storage, too.

5.   **High total cost of ownership** – Storage is one of those areas that the IT department can look at for substantial cost savings without sacrificing availability, reliability, and performance.

In 2022, we emphasized how Infinidat is adept at helping customers lower total cost of ownership across the storage estate (both CAPEX and OPEX).

Today, in 2025, we can point to real, hard numbers that have been validated by an independent industry analyst firm, IDC. Infinidat's customers can get an 11-month ROI on the purchase of an InfiniBox system and can reduce costs up to 40%, 60% or even 80% than what they are paying with storage arrays from other vendors. Infinidat has fundamentally changed the economics of enterprise storage.

6. **Slow data recovery after a cyberattack** – Recovering data after a ransom-ware or malware attack is usually very slow.

    In 2022, it was plastered everywhere that data on Infinidat's InfiniBox and InfiniBox SSA could be recovered in one minute or less from immutable snapshots. We also cited our InfiniGuard® solution as delivering near-instantaneous recovery.

    Today, in 2025, we continue to guarantee cyber recovery, regardless of dataset size, in one minute or less on primary storage, and 20 minutes or less on backup files. Although cyberattacks are more sophisticated today than they were three years ago, Infinidat's cyber-focused, recovery-first approach has stayed a step ahead of the cyber criminals.

7. **Slow application and workload performance** – Latency is the number one determinant for real-world transactional performance. For highly transactional block workloads, you must focus your efforts on application latency. Without a doubt, the level of latency that an enterprise storage system provides is critical to real-world application performance.

    In 2022, we heralded the launch of the InfiniBox™ SSA II all-flash system, delivering lower latency than any other comparable enterprise storage platform in the industry.

    Today, in 2025, Infinidat offers the next-generation version of our all-flash enterprise storage solution with the InfiniBox SSA G4 system, which delivers an unprecedented 35 microseconds of latency combined with 2.5x the

performance of the previous generation. Needless to say, the InfiniBox SSA G4 cleans up the "mess" of slow application and workload performance. Let me put it another way: it blows this Dirty Dozen issue away – in style.

8.   **Reliance on an outdated architecture** – Dual redundancy architectures for enterprise storage are outdated. Yet, it's ironic how many enterprises still rely on them from their existing storage vendor. This type of architecture does not deliver the level of reliability that is needed at enterprise scale.

In 2022, we shouted from the rooftops about how the best practice in storage has already moved on to the triple-redundancy architecture, even though incumbents are reluctant to acknowledge it because they want to keep their installed base on a dual-mode architecture. If you want high reliability and durability, triple redundancy is the way to go for enterprises and service providers.

Today, in 2025, Infinidat steadfastly remains the industry leader championing triple-redundancy architecture, extending our advantage over incumbent storage vendors that want to keep their customers trapped in dual-redundancy, so they can keep selling them "band-aid" fixes. Infinidat provides a 100% availability guarantee for our InfiniBox® solutions. There is nothing outdated about that value driver.

9.   **Lag in making storage more green** – Enterprises have been slow to "go green" in their storage infrastructure because they have not yet made a strategic move to consolidate their existing storage arrays onto multi-petabyte-scale enterprise storage systems. By holding onto their existing storage arrays, they have inadvertently held onto inefficiency, waste, and a potentially

harmful impact on the environment. Too many storage arrays use up more energy, more space and are higher in costs.

In 2022, we were touting how storage consolidation aligns with going green – less energy, less space, less waste, less to recycle, while reducing costs. Infinidat has helped organizations advance sustainability initiatives by accelerating their ability to go green in the storage estate. In fact, one of our global Fortune 500 customers consolidated 288 floor tiles of a competitor's all-flash array down to 61 floor tiles with Infinidat's all-flash arrays. Now that is saving on watts, slots, power, floor space, IT resource management, CAPEX, and OPEX! At the same time, delivering a much greener data centre! Who said being data center environmentally friendly has to be more expense? With Infinidat, environmental advantage equals financial advantage.

Today, in 2025, Infinidat has a strong green IT story to tell, backed by hard numbers that will make you see "green" in more ways than one. Infinidat's green IT approach focuses on reducing energy consumption and lowering carbon emissions, as well as cost savings. A study revealed that InfiniBox showed a 42% reduction in power per effective PB, which means less power usage and less use of coolant chemicals. It also revealed 72% more capacity in the same footprint as previous generation arrays. Overall, a 36% improvement in ROI/TCO connected the dots between environmental value and economic efficiency.

10. **Misunderstanding about hybrid cloud** – Too many IT leaders have assumed for years that their company needs to go completely "public cloud" and cannot have any private cloud because they think private cloud is no longer relevant. This sentiment was untrue three years ago, and it is still untrue today.

In 2022, we illustrated how the value of hybrid cloud had been established. We demonstrated how mixing public and private cloud environments gave an enterprise more control, more flexibility, more security, and more cost-effectiveness. A key to this set of benefits was how Infinidat transformed the private cloud into a cloud-like experience.

Today, in 2025, Infinidat is leading the way with hybrid multi-cloud, thanks to our InfuzeOS® Cloud Edition. We seamlessly integrate with Microsoft Azure and AWS. No matter whether a large enterprise is using Azure or AWS, Infinidat injects all the powerful capabilities of the award-winning InfiniBox solutions into a hybrid multi-cloud deployment. Essentially, the InfiniBox operates transparently in the cloud, delivering everything from high performance and cyber resilience to the latest support for AI applications and workloads.

11. **Lack of autonomous automation** – Without autonomous automation, storage and the enterprise infrastructure overall are more complex and more costly. Automation alone is no longer enough. Incorporating autonomous automation makes the storage infrastructure "self-learning."

In 2022, we showcased our self-learning Neural Cache, which uses intelligent data placement in a tiered storage design to cost-effectively optimize the storage, eliminate the need for performance tuning, and reduce operational manpower. Infinidat was among the first storage solution providers in the industry to break new ground with autonomous automation. We pioneered the "set-it-and-forget-it" approach years earlier. In addition, our InfiniOps™ technologies were shown to allow customers to leverage autonomous automation to dramatically reduce OPEX and CAPEX.

Today, in 2025, Infinidat has advanced the autonomous automation capabilities of our enterprise storage solutions. We have leveled up the AI / ML-driven capabilities, adding high intelligence into our solutions. The advancements that we have made in AI alone, including a RAG architecture for GenAI, have extended our leadership position with automation for cyber resilient enterprise storage.

12. **Underperforming storage vendor IT support** – Enterprises and service providers should look for a white glove service because, when hands-on support is needed, you want to make sure your supplier will be there for you. However, most storage vendors cannot deliver white glove service. They don't value their customers enough to assign a technical advisor right from the start of the relationship at no additional cost. They bump their customers off to a first line of customer support that doesn't have the same knowledge and experience as an L3.

In 2022, we made it clear to the world that Infinidat delivers a white glove service that is proactive and fixes problems before enterprises and service providers are even impacted by them. With every purchase of any Infinidat enterprise storage solution, a Technical Advisor (TA) has been assigned to serve as the experienced technical account consultant with full oversight to ensure customer success – at no additional cost. Infinidat's L3 development support was the highest level of customer support in the industry back then – and it still is.

Today, in 2025, Infinidat remains a leader in providing white glove service. Often, new customers are stunned at how good our Technical Advisors (TA) are. They also love how they can call directly into L3 support on the first call and get technical expertise that always rises to the challenge. Infinidat's differentiation – and credibility – has only increased over the past few years with the continuous dedication to delivering this much-lauded white glove service. Additionally, Infinidat has amped up its professional services and often provides technical support that exceeds expectations.

When you combine Infinidat's innovation with our service and support, the picture becomes clear how and why Infinidat has jumped ahead in analyst reports about the enterprise storage industry. Herzog's Dirty Dozen now fades away and is superseded by Herzog's Magnificent Seven – (1) superb triple redundant architecture, (2) AI / ML storage capabilities, (3) cyber storage

resilience, (4) hybrid multi-cloud support, (5) green IT value proposition, (6) lower CAPEX and OPEX, and (7) white glove service.

That's progress, indeed.

In conclusion

Don't just take our word for it. The advancements that solve the Dirty Dozen list issues have been validated independently by our enterprise customers whose reviews appear publicly on the Gartner® Peer Insights™ site. In March 2025, Infinidat was named a 2025 Gartner® Peer Insights™ Customers' Choice in the Gartner Peer Insights "Voice of the Customer": Primary Storage Platforms for the 7th time (5 times as an overall Customers' Choice and 2 times as a North America region Customers' Choice).

We have demonstrated our expertise in primary storage in the enterprise market, and, with Infinidat's broad portfolio of solutions, we solve enterprise customers' issues. It's now time for you to knock out the issues that have hindered your storage infrastructure and prevented you from maximizing its full potential.

Reference

[1]   Herzog, E. (29 September 2022), Herzog's Dirty Dozen: IT Issues that Need Cleaning Up, IT for CEOs & CFOs. Available at: https://www.itceoscfos.com/it-issues-that-need-cleaning-up