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Data Protection at Scale – Part 2: Protection at Scale across InfiniBox and InfiniGuard

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Biography

Shahar Bar-Or is the Chief Product Officer and General Manager of Israeli Operations at Infinidat (https://www.infinidat.com). Before joining Infinidat, Shahar was Vice President of Engineering and General Manager for Western Digital Israel design centres, where he was responsible for a global product engineering organization focused on the mobile, automotive and embedded industries.

Prior to that, he held VP R&D positions for SanDisk and m-systems. Shahar holds a master's degree in Electrical Engineering from Tel Aviv University and a Bachelor's Degree in Electrical Engineering from Be'er Sheva University.

Keywords Data protection, Cyber resilience, Scalability, Cyber recovery, Cyber attacks, Ransomware
Paper type Opinion

Abstract

Data protection is one of the most important safeguards that a company can have today. Protection in the physical management of detecting and correcting errors in the data storage hardware was explained in the previous post (https://www.itceoscfos.com/data-protection-at-scale-1). In Part 2 of this article, the author explores cyber recovery, which resides in the upper levels of the storage system with the focus on InfiniGuard® capabilities.

Introduction – protection against cyber attacks

The Data Protection market is struggling to address new challenges, that go beyond simply accessing copies of data for the purposes of restoring application services. Cyberattacks and Ransomware continue to haunt business applications as a real, imminent threat – driving small and large enterprises to look for methods to protect their backups and disaster recovery centres.

At Infinidat, we have developed our InfiniGuard CyberRecovery solution for our customers. Recovery of the data in the wake of a ransomware attack, for example, is immediate and the fastest in the industry as all the data is always already there. We are only moving a pointer to a new location.

With InfiniGuard, you can bring back the data to whatever point in time you pick. You can easily go back to a clean instance of the data. While the main concern is

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usually loss of data and irreversible damage, the immutable snapshots of InfiniGuard protect against it.

The InfiniGuard is optimized for backup and has the right interfaces for robust backup. It allows you to define your policy and automatically rotate the data on the rotation you want (for instance, every day). In other words, it is taking immutable snapshots in rotation mode. It then guarantees to have the snapshot waiting for you.

Infinidat provides the cyber recovery technology that creates a bank-like “safe” that digitally protects data and ensures immediate, complete recovery within an enterprise or service provider. The essence of data protection is that our internal hardware does not allow any future writes to these immutable snapshots. But it’s not just one digital safe.

Infinidat has redefined cyber recovery by delivering an infinite number of safes that you can use to keep restoring, no matter how many ransomware attacks manage to sneak in, even if a “trojan horse,” before the IT security department can identify them and close the breach.

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Moving data between the two platforms

The foundational technology of InfiniGuard is built on top of the same InfiniBox® architecture, so there is 100% seamless and transparent rotating and shifting data between the two platforms. This is important because it combines industry-leading performance, the resiliency of 100% availability and lower TCO with the near-instantaneous cyber recovery with immutable snapshots into a powerfully complementary solution. Through product innovation, we have managed to take data protection to the next level.

Scalability of the storage system

While there are various solutions in the market for data storage and protection, a robust solution has to take into account the protection against new cyber threats that enlarge storage needs dramatically, combined with the data growth that technologies, such as Artificial Intelligence (AI) and Machine Learning (ML), now used in many organizations.

For that non-linear growth of data, the total cost of ownership becomes critical. Infinidat's architecture was designed to fulfill the scalability needs of the biggest on-premises data centres of major enterprises.

By the utilization of DRAM, SSD and HDD technologies, along with smart algorithms (for example, Neural Cacheas[1]), it enables the best performance, based on DRAM, as well as the lowest cost, based on HDD.

This architecture is now not only relevant, but also a necessity to any business that needs to survive and thrive in the future. Infinidat's unique architecture for robust economical solutions to huge amounts of data is now moving from the exclusive usage by large enterprises to the entire industry.

Reference

[1] Burgener, E (21 July 2021), "Infinidat Neural Cache: Harnessing Deep Learning to Drive High Performance at Low Cost", Infinidat. Available at: https://www.infinidat.com/en/blog/infinidat-neural-cache-harnessing-deep-learning-drive-high-performance-low-cost-1