

INFINIDAT

The Standard in Enterprise Storage

Defend Your Data Infrastructure from Cyberattacks with Cyber Storage Resilience

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Feb 2024

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 [@zoginstor](https://twitter.com/zoginstor)

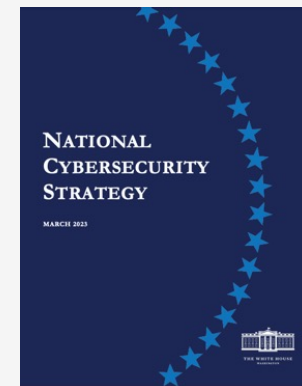


Exploding Cyber Risks

Headline News

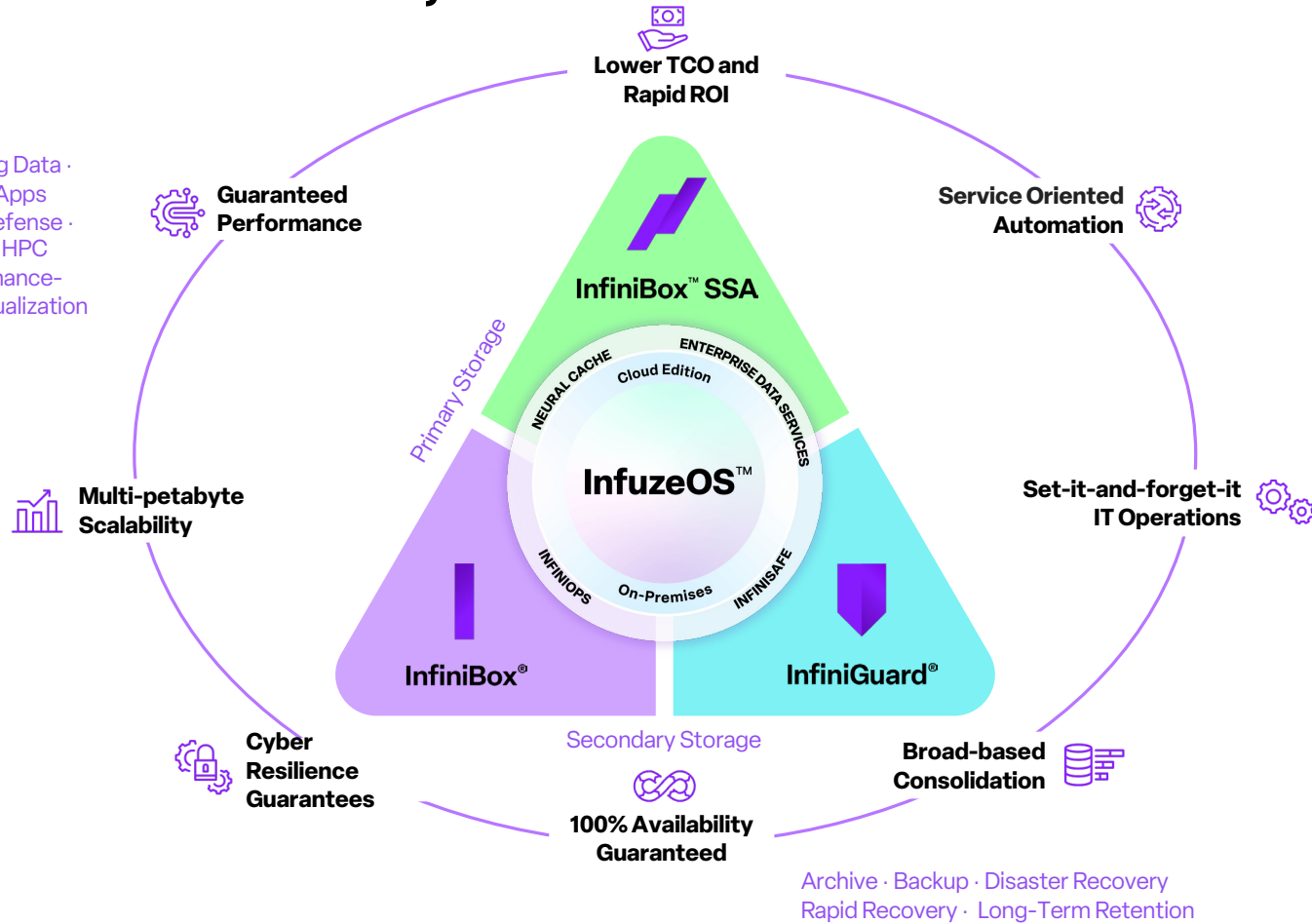
World © Business © Finance © Travel © Sport © Weather

- Cybercrime will cost enterprises \$9.5 Trillion in 2024
- Cyber security is the #2 concern of CEOs globally (Fortune Magazine, June 2023)
- US announces National Cybersecurity Strategy (Mar 2023)/EU moves forward with Cyber Resilience Act (Dec 2023)
- Enterprises suffer 1,258 cyberattacks per week
- Global cybersecurity spending will exceed \$1.75 Trillion cumulatively by 2025
- The world will need to cyber protect 200 Zettabytes of data by 2025



One SDS Architecture, All Platforms

AI/ML · Analytics · Big Data ·
 Business & Office Apps
 Containers · Cyber Defense ·
 Data Warehouses · HPC
 Mission-and Performance-
 critical Apps · VDI · Virtualization

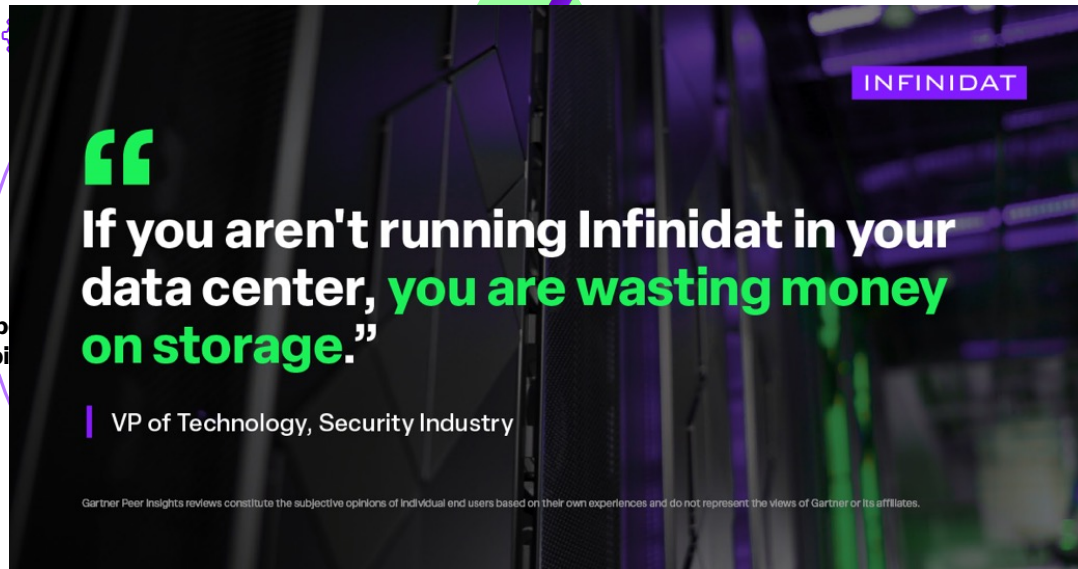


One SDS Architecture, All Platforms

AI/ML · Analytics · Big Data ·
Business & Office Apps
Containers · Cyber Defense ·
Data Warehouses · HPC
Mission-and Performance-
critical Apps · VDI · Virtualization


**Lower TCO and
Rapid ROI**


**Multi-p
Scalabi**



VP of Technology, Security Industry

Gartner Peer Insights reviews constitute the subjective opinions of individual end users based on their own experiences and do not represent the views of Gartner or its affiliates.


**Cyber
Resilience
Guarantees**

Secondary Storage


**100% Availability
Guaranteed**

**Broad-based
Consolidation** 

Archive · Backup · Disaster Recovery
Rapid Recovery · Long-Term Retention

Industry Acclaim: 2023



Leader in the 2023 Gartner Magic Quadrant for Primary Storage (2023, 2022, 2021, 2020, 2019, 2018)



Storage Product of the Year: InfiniBox™ SSA II “Gold Winner” for “Best Enterprise Storage Arrays”



Storage Optimisation Company of the Year
Winner for Storage Optimization Company of the Year and Runner-up in 3 categories – Editor’s Choice – Product award, Performance Storage Vendor of the Year, and Storage Innovators award.



Gartner Peer Insights Customers’ Choice for Primary Storage based on reviews & ratings of end-users



Storage Product of the Year: InfiniGuard® “Gold Winner” for “Top Backup and Disaster Recovery Services”



2023 GigaOm Sonar for Ransomware Protection - “Leader” and “Fast Mover” for Block and File Storage



Winner for AI/Machine Learning Data Protection Innovation of the Year
Runner up in 5 categories -
Storage Company of the Year
Vendor Channel Program of the Year
Cloud Security Innovation of the Year
Business Continuity/Disaster Recovery Innovation of the Year
Backup/Archive Innovation of the Year



2023 Tech Innovator Awards Finalist- InfiniBox



Mitch Diodato Named a 2023 CRN Channel Chiefs



One of the Power 500 Software Companies of 2023



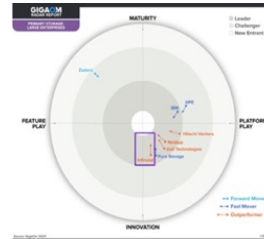
Infinidat's InfiniBox Family - One of Top 5 High-end Storage Arrays in the World



Infinidat Earns 5-Star Rating in CRN® Partner Program Guide for the Second Consecutive Year

One of CRN's 50 Coolest SDS Vendors for Second Consecutive Year

2023 Storage 100



Named a Leader and an Outperformer in Primary Storage for large enterprises



Most Innovative Hyperscalar Implementation

Flash Memory Summit - Most Innovative Hyperscalar Implementation



One of the Top 50 Executive Teams and Top 50 Marketing Teams in the World, 2023



Lynsy Calvario Named as a 2023 CRN - Women of the Year Rising Star Finalist



Eric Herzog Named One of the Top 10 CMOs of 2023

Industry Acclaim: 2024



Storage Product of the Year:
InfiniBox™ SSA II Gold Medal Award
for “The best enterprise storage
arrays of 2023”



InfiniBox and InfiniBox SSA II a Leader
and Outperformer in the 2024 Radar
Report for Primary Storage
For Large Enterprises



Infinidat’s InfiniBox® and
InfiniGuard® Named One of
Top 5 2PB+ Cyber Secure
Backup Targets in the World



InfiniBox and InfiniBox SSA II a Leader
and Outperformer in the 2024 Radar
Report for Primary Storage For
Midsize Businesses



Eric Herzog
”CMO to Watch
2024” by the
CMO Alliance

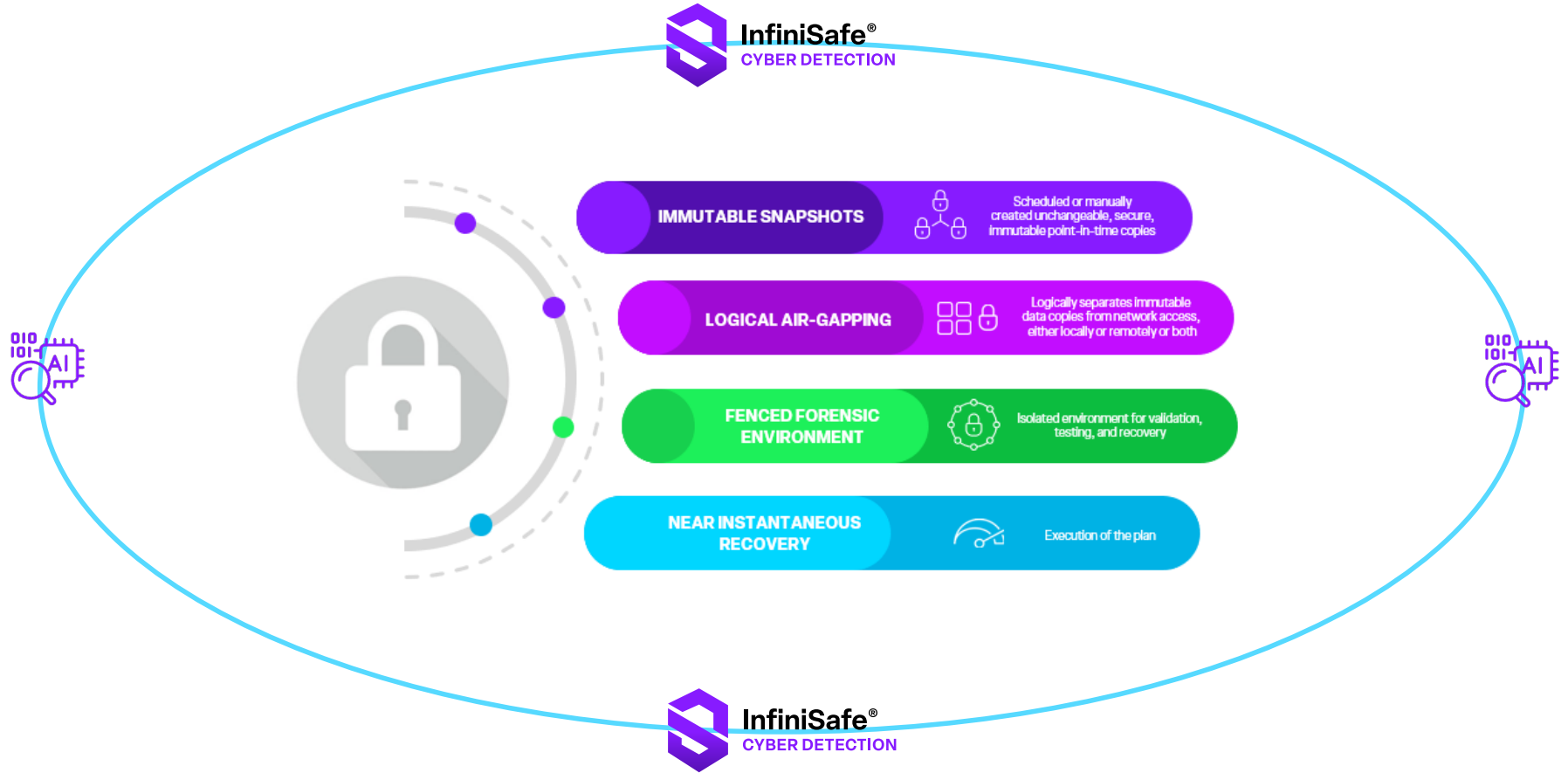


Steve Sullivan –
2024 CRN
Channel Chief



Eric Herzog Finalist for the
2024 CMO/Marketer of the
Year

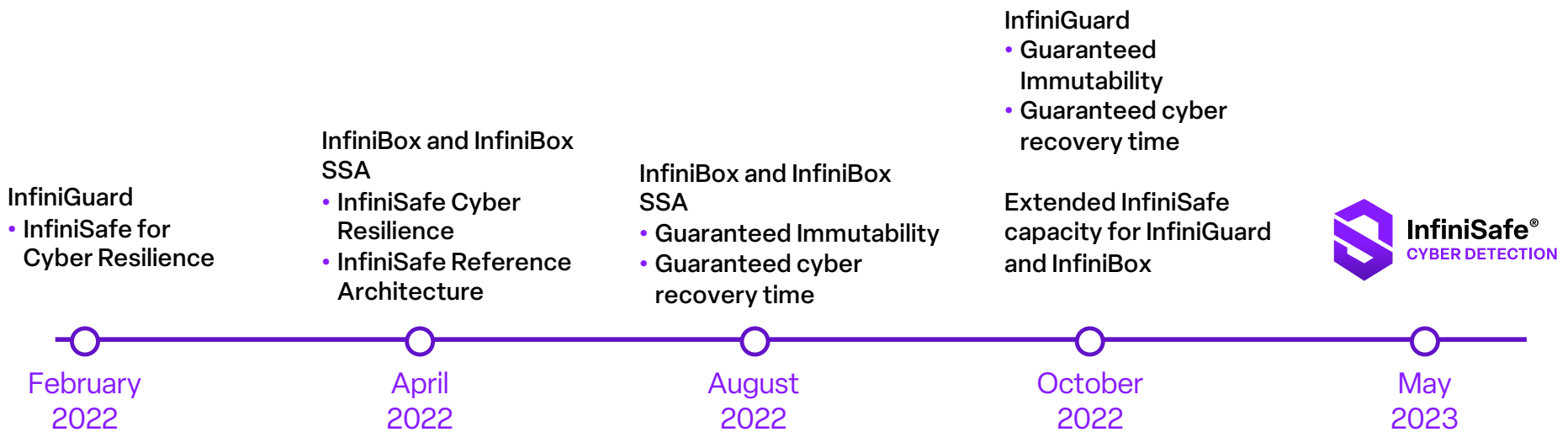
InfiniSafe Cyber Storage Resilience



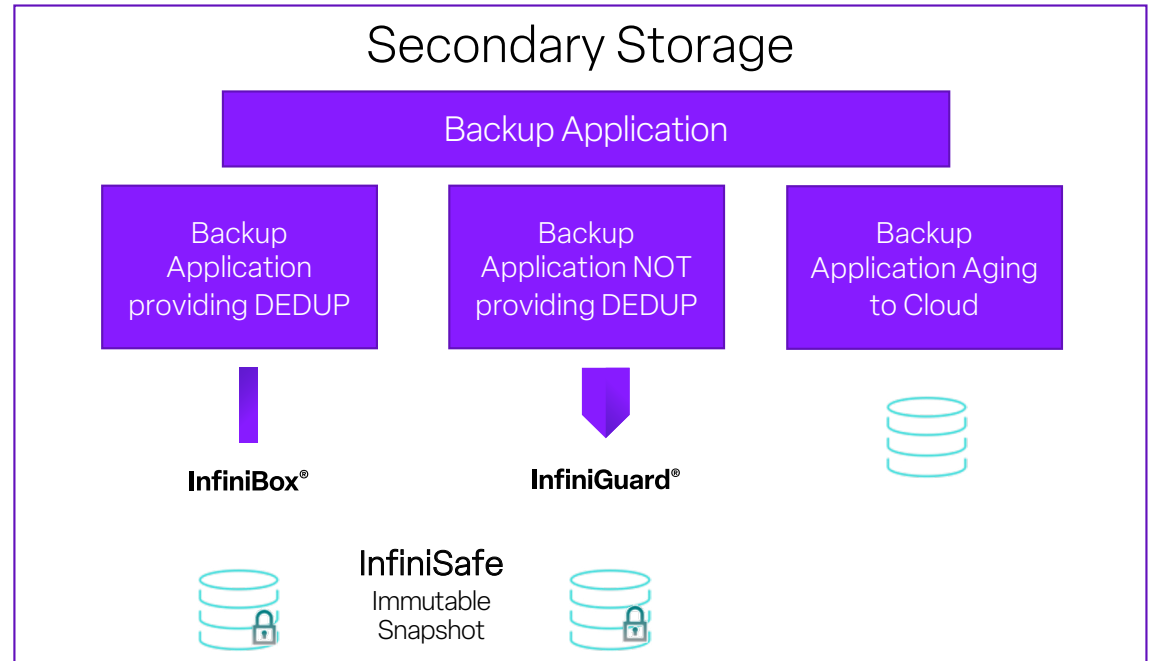
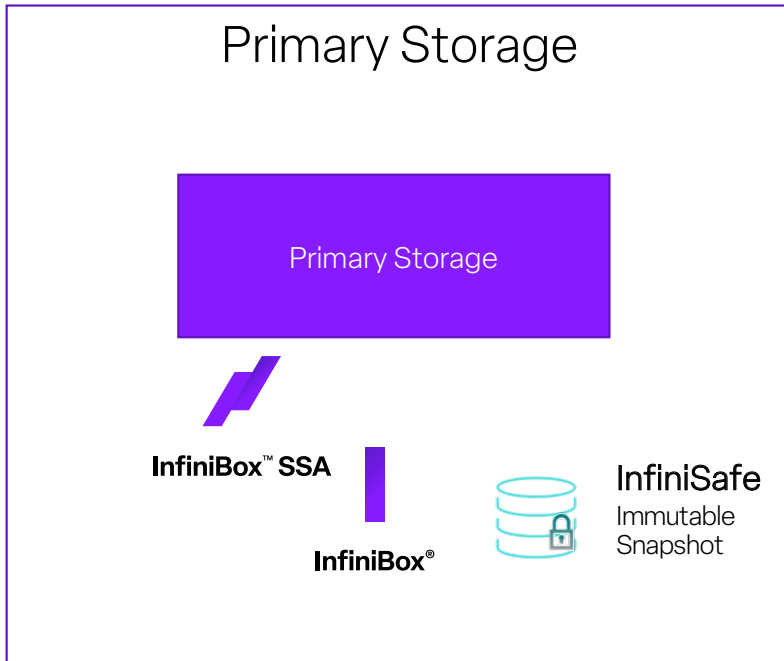
InfiniSafe Cyber Resilience Innovation

Commitment to delivery of cyber resilience innovation

- First cyber resilience solution for primary storage
- First guaranteed cyber resilience recovery
- First guaranteed cyber resilience recovery time



Cyber Resilient Storage Enabled by **InfiniSafe**



InfiniSafe Cyber Storage Resilience Guarantees

- Guaranteed immutability of InfiniSafe immutable snapshots
- Recovery time guarantee of those immutable snapshots
 - Less than 20 minutes for InfiniGuard
 - Less than 1 minute for InfiniBox SSA II and InfiniBox
 - Regardless of immutable snapshot size

InfiniSafe Cyber Storage Resilience

- Immutable Snapshots
- Logical air-gapped protection
- Fenced forensic environment
- Near-instantaneous recovery of any size backup repository

Guaranteed Cyber Storage Resilience !!!!!



- **InfiniSafe Cyber Storage Guarantee**
 - First primary storage platform cyber storage guarantee
 - Guaranteeing immutability of our InfiniSafe immutable snapshots
 - Guaranteeing near instantaneous recovery of an InfiniSafe immutable snapshot:
 - 1 minute or less with InfiniBox/InfiniBox SSA II
 - 20 minutes or less with InfiniGuard
- **100% Availability Guarantee**
 - InfiniBox/InfiniBox SSA II
- **Performance Guarantee**
 - InfiniBox/InfiniBox SSA II - Based upon your actual real-world applications

InfiniSafe Ransomware and Malware Resistance

Cyber Detection Flexibility



InfiniSafe[®]
CYBER DETECTION



Primary Storage

Volumes, App
Workloads,
Snapshots



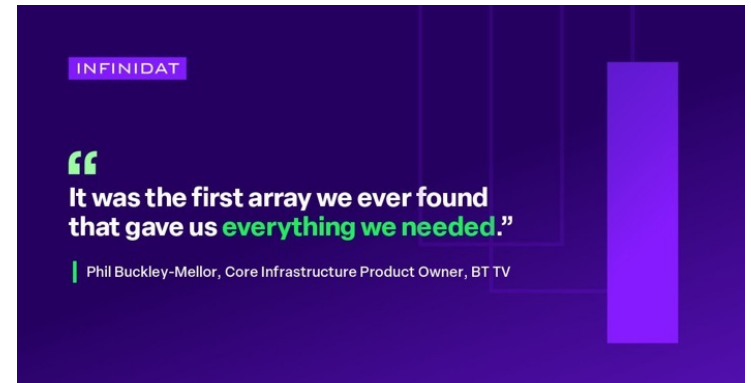
Databases

Oracle, DB2, SQL,
SAP Hana, Cache, etc.



User Files

Contracts, Financial
Docs
Intellectual Property,
etc.



Cyber Detection Machine Learning Model Training

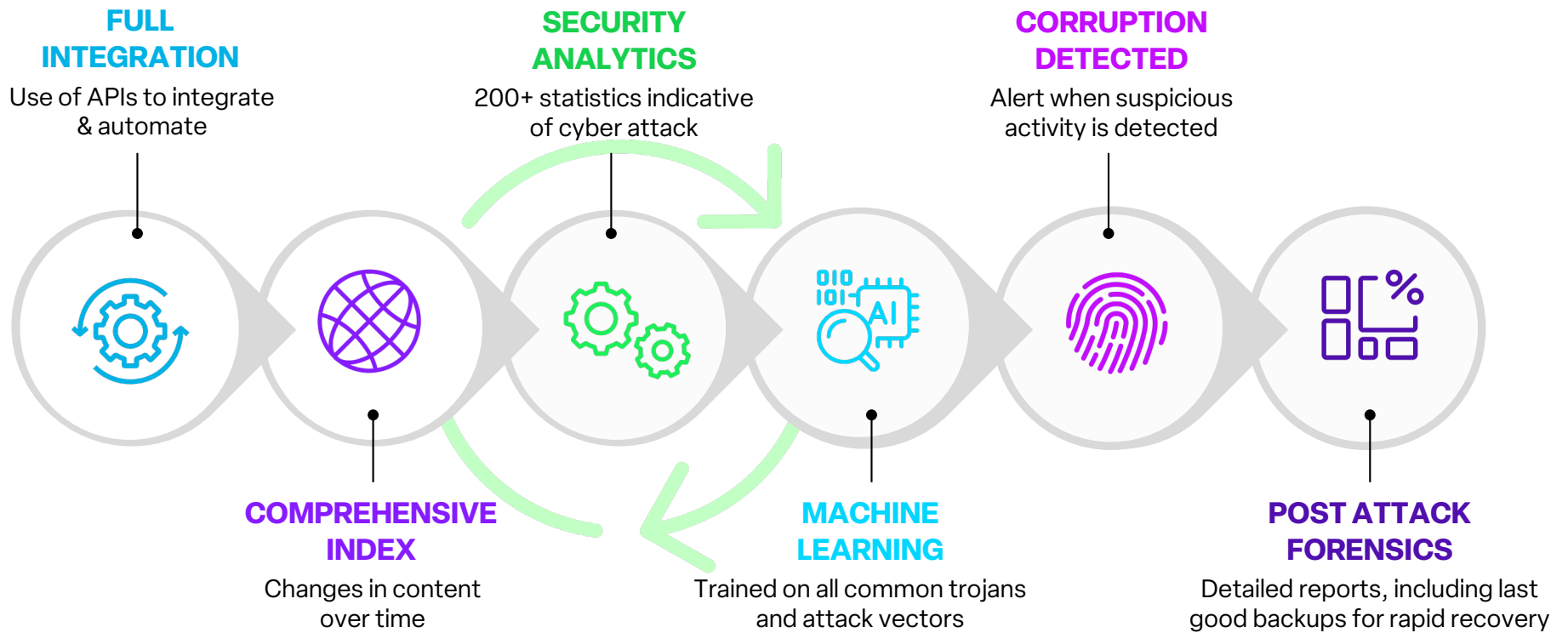
- Data sets representing many different pre and post attack environments, with all known ransomware variants, are used to train the machine learning model
- Machine-learning model quality is tuned and measured to meet a 99.5% recall rate

“

The new SSA II provides a compelling all-flash platform for consolidation, making a very **strong economic argument....** and a **strong environment statement.**”

Cyber Detection Workflow

Analytics, Machine Learning and Forensic Tools to Detect and Recover from Cyberattacks



Managed Turnkey Solution for Cyber Protection

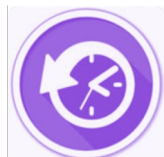
**INFINIDAT - High Quality Storage (100% Available)
- with Built-in Instant Cyber Protection & Recovery**

Two elements of protection

Primary Data



Data Backups



Today's Topic

Infinidat InfiniSafe Snapshots
Infinidat Cyber Detection Software

- Customer supplies the required servers
- Infinidat Installs, configures, updates and maintains the software and services.

Infinidat InfiniSafe Snapshot Protection

Infinidat uses patented instantaneous snapshot capture & recovery (regardless of scale)

- Ability to capture or recover a snapshot of volumes, file systems
- Lock snapshots immutably (with defined retention)
- Extend retention of snapshots (locked or unlocked)
- Infinidat snapshot features are included with every license, and button easy for admins

Infinidat InfiniSafe Cyber Detection

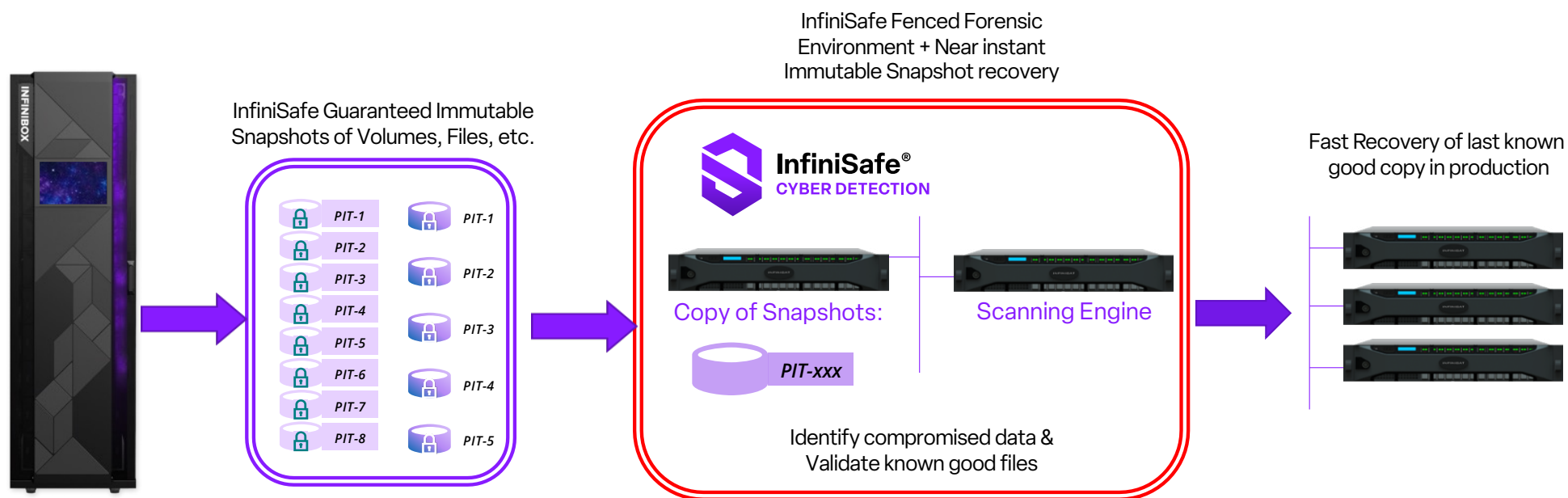
Infinidat uses Data Scanning Engines to automate detection of malware and cyber attack

- Ability to automate directed scanning of volumes and file systems
- Scan and detect anomalies, malware and cyber attacks
- Provide alerting and reporting on data detected as compromised
- Direct the staff on which copies are compromised and when for safe recovery
- Installed and configured by Infinidat with capacity license-based installation

InfiniSafe Cyber Detection Solution



- Applications can validate immutable snapshot data in Fenced Forensic environment
- Cyber Detection will tag any corrupted files and create forensic report(s)
- Provides all the intelligence needed to facilitate recovery



InfiniSafe Snapshot Simplicity

InfiniBox can manage 100,000 snapshots

NAME	POOL	CONSISTENCY GROUP	THIN	EXPORTED	SIZE	ALLOCATED	SNAPSHOTS	WRITE PROTECTED
JoesSMBs1	Joeepool1	N/A	Yes	No	279.4 GiB	8 KiB	0 GiB	Yes
auto-reclaim-rc-454110.00...	Joeepool1	N/A	Yes	No	279.4 GiB	4 KiB	0 GiB	Yes

Create Snapshot dialog:

Name: JoesSMBsnap2

Advanced: ...

Lock this snapshot for: 2 Hours

Snapshot will be unlocked on: 10/3/2022

Buttons: CANCEL, CREATE

InfiniBox - Guaranteed Snap Recovery in less than 1 Minute (regardless of size)

InfiniGuard – Guaranteed Snap Recovery in less than 20 Minutes (regardless of size)

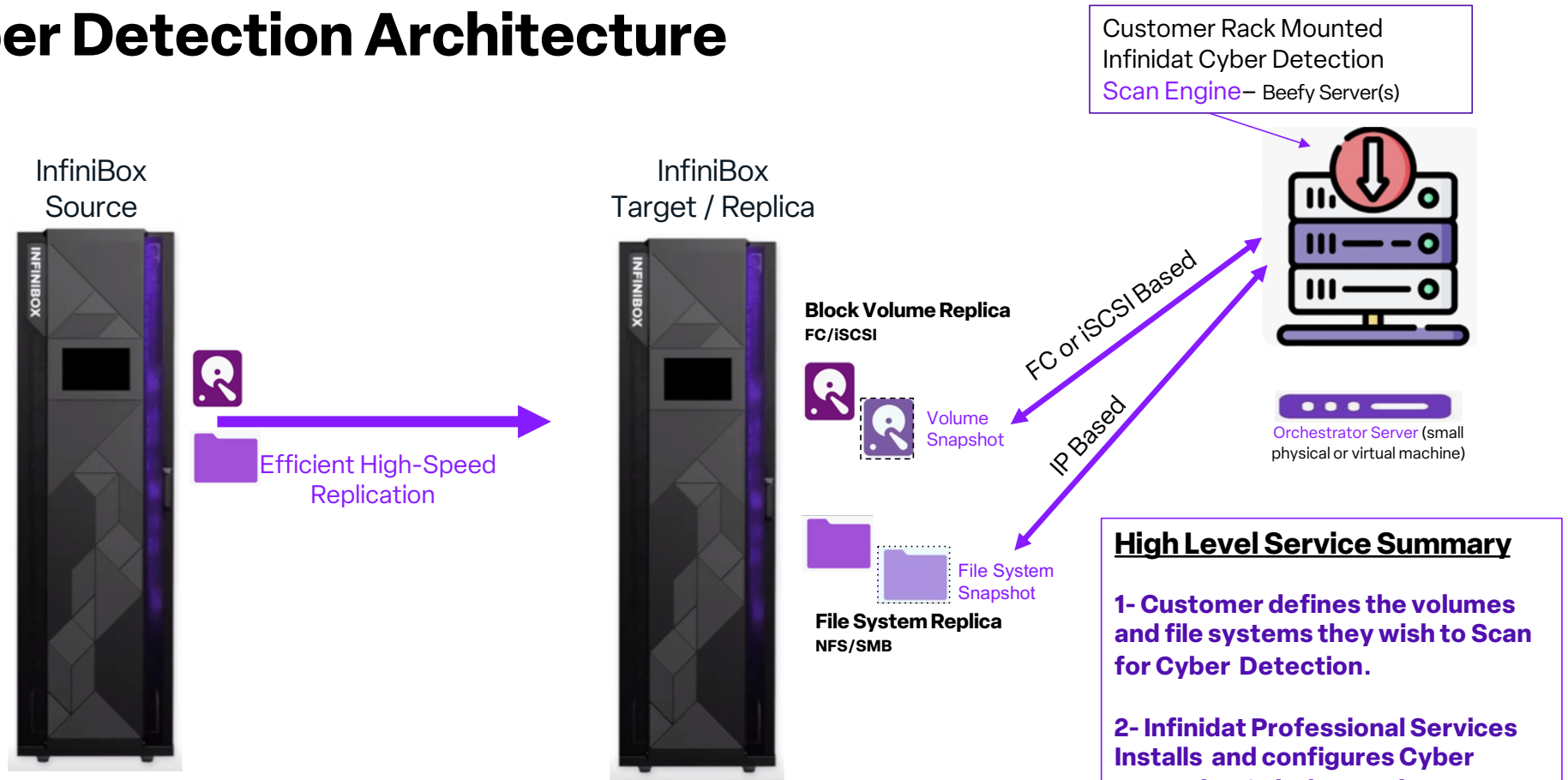
Snapshot management is by Volumes, File Systems, or Consistency Groups.

Locked snapshots can only be extended in retention.
*They cannot be modified in any other way.

Snapshot UI, CLI, API (very easy tools!)

```
jroa@localhost> fs.snap.  
Commands:  
cache                rename                set_snapshot_directory_accessible  
create               resize                tree  
delete               restore                write_enable  
query                secure_lock           write_protect  
refresh              set_atime_granularity
```


Cyber Detection Architecture



Customer Rack Mounted
Infinidat Cyber Detection
Scan Engine – Beefy Server(s)

InfiniBox
Source

InfiniBox
Target / Replica

Efficient High-Speed
Replication

Block Volume Replica
FC/iSCSI

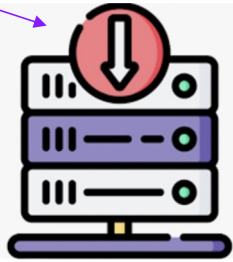
Volume
Snapshot

FC or iSCSI Based

IP Based

File System Replica
NFS/SMB

File System
Snapshot



Orchestrator Server (small
physical or virtual machine)

High Level Service Summary

- 1- Customer defines the volumes and file systems they wish to Scan for Cyber Detection.
- 2- Infinidat Professional Services Installs and configures Cyber Detection Solution on site.
- 3- Customer is trained and provided tools for focused Cyber Detection Analysis and Recovery.

Cyber Detect Post Attack Dashboard

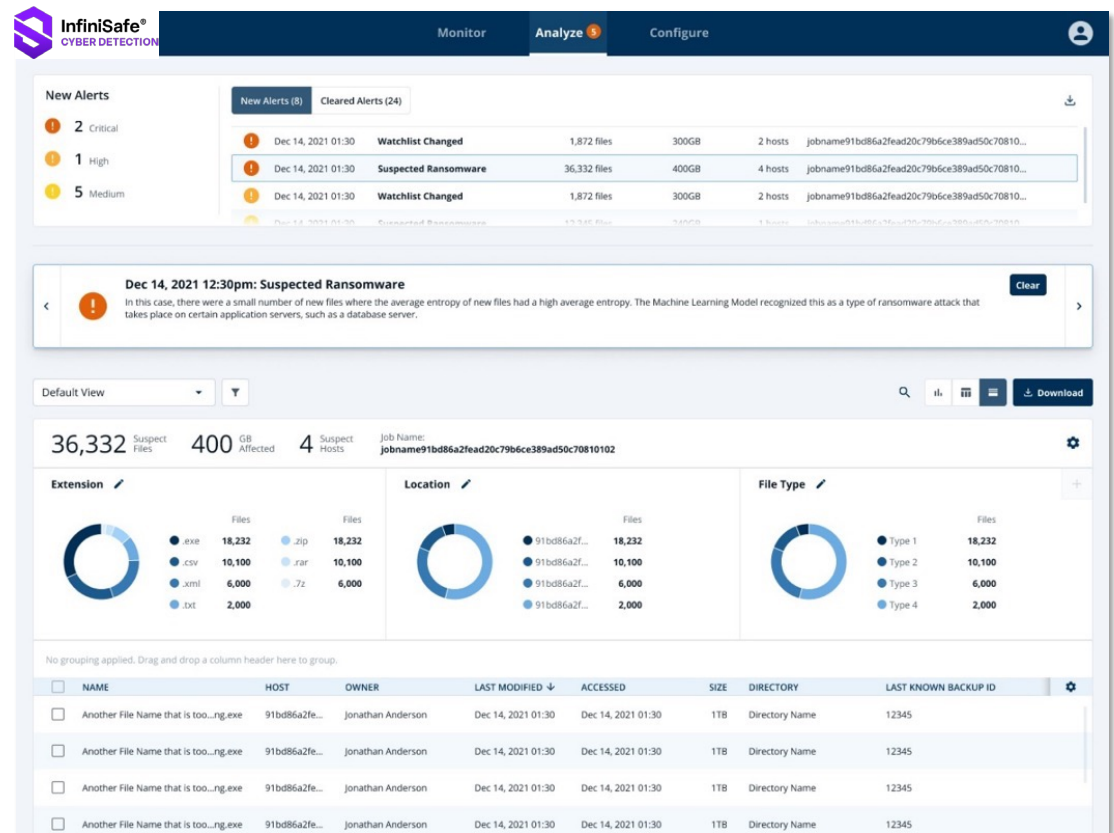
Improved user experience - More insight into data - Intuitive post attack workflow

Alerts organized by severity

New details on suspect corruption

Customizable, dynamic charts to drill down into details of the attack

List of corrupted files that can be downloaded



InfiniBox + InfiniGuard + CommVault

1,000's of Application Servers

- Servers run Faster
- Servers run more Reliably
- Servers provision and grow with simplicity



10GbE/25GbE Ethernet

FC Fabrics

- Block & File Simplicity
- Penalty-free Snapshots
- Efficient Compression & Replication



InfiniBox Primary Storage

100% Available Primary with Replication
Secured by
InfiniSafe with Immutable Snapshots

CommCell Server

- Runs Faster
- Run more reliably



CommVault Media Agents

- Runs Faster
- Run more reliably



10GbE/25GbE

- Path to Cloud from CommVault



CommVault IntelliSnap w/ InfiniBox
instant, penalty-free snapshots drive backups

Turnkey Storage & Protection Solutions
Better than All Flash Array Performance
100% back-end reliability
Comprehensive Cyber Protection (w/ INFINISAFE)
Visionary simplicity for enhanced data protection

Benefits

- **Faster Primary Data & Backup**
- **Faster Restores (many ways to recover)**
- **Shrinking Backup Windows**
- **Extreme Reliability (Best in Industry)**
- **Deployment Simplicity**
- **Vested Infinidat Partnership**
- **Capacity Efficiency**
- **Massive Scale (non-disruptive growth)**
- **Flexible Cost Saving Models**
- **Unrivalled Support Reputation**

+ InfiniSafe

- **Instant Snapshot Based Protection**
- **Instant Snapshot Based Recovery**

Media Agent Mounted devices
Integrate
CommVault
with Infinidat
NFS, SMB,



**InfiniBox or InfiniGuard
Secondary Storage**

Network
Efficient
Replication to
remote site(s)



InfiniSafe Snaps Applied

**Backups to
InfiniBox**

OR

**Backups to
InfiniGuard**

Either Way – You Get
InfiniSafe Enabled Protection

Award Winning InfiniSafe



InfiniBox Family - One of Top 5 High-end Storage Arrays in the World - InfiniSafe and Guaranteed Cyber SLAs cited as a key reason for the rating

GIGAOM



2023
GigaOm Sonar for Ransomware Protection - "Leader" and "Fast Mover" for Block and File Storage



InfiniBox and InfiniGuard - Top 5 Cyber Storage Backup Targets



Storage Product of the Year: InfiniGuard® "Gold Winner" for "Top Backup and Disaster Recovery Services" InfiniSafe and Guaranteed Cyber SLAs cited as a key reason for the rating

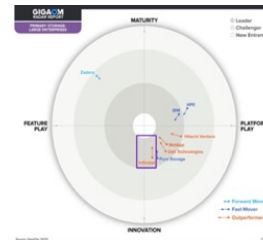


Runner up - Cloud Security Innovation of the Year for InfiniSafe and Backup/Archive Innovation of the Year for InfiniSafe



2023
Tech Innovator Awards Finalist for InfiniBox - InfiniSafe and Guaranteed Cyber SLAs cited as a key reason for the rating

GIGAOM



2023 GigaOm Rader Leader and Outperformer in Primary Storage for large enterprises - InfiniSafe and Guaranteed Cyber SLAs cited as a key reason for the rating

GIGAOM

2022
GigaOm Sonar for Ransomware protection - "Leader" and "Fast Mover"



2022
Hybrid Storage Vendor of the Year
Runner-up for Immutable Storage
Company of the Year for InfiniSafe



InfiniSafe® solution - WINNER
CRN 2022 Tech Innovator Award -
Data Protection Software



WINNER - Data Security/Compliance Innovation of the Year for InfiniSafe®

Cyber Storage Resilience

INFINIDAT Products Solutions Resources Partner Company Support Request a Demo Contact Us

Cyber Resilience: Infinidat Has Your Back

The question is not if you will suffer a cyberattack, but when. Ensure the continuity of your business with comprehensive, enterprise-class, cyber-resilient storage and modern data protection.

[Learn More](#)

Overview Cyber Storage Cyber Detection Cyber Storage Guarantees More Protection Resources

Cyber Storage Resilience Powered by InfuzeOS™

Cyber resilience is a fundamental characteristic of InfuzeOS, our unique software-defined storage architecture with built-in technologies that protect and add cyber resiliency for your data. InfuzeOS powers all Infinidat platforms, providing robust capabilities that help protect, defend, and quickly recover your data.

Primary Storage

Whatever the threat—ransomware, natural disaster, systems failure, human error—Infinidat has your primary storage covered with cyber resilient solutions that provide a first line of defense and facilitate fast recovery.

Secondary Storage

Infinidat goes beyond traditional backup, restore, and disaster recovery to help enterprises avoid ransomware and other cyberattacks with our powerful, enterprise modern data protection with built-in cyber resilience solutions.

<https://www.infinidat.com/en/cyber-resilience>

Cyber Storage Resilience

The screenshot displays the Infinidat website's 'Cyber Resilience' page. The main heading is 'Cyber Resilience: Infinidat Has Your Back'. Below this, a sub-heading reads 'The question is not if you will suffer a cyberattack, but when. Ensure the continuity of your business with comprehensive, enterprise-class, cyber-resilient storage and modern data protection.' A 'Learn More' button is visible. The central content area is titled 'SOLUTION BRIEF' and 'InfiSafe® Cyber Detection'. The text discusses the impact of cybercrime, the costs to businesses, and how InfiSafe technology provides a multi-layered cyber stack for resilient environments. It also mentions the introduction of InfiSafe Cyber Detection, which enhances security and response capabilities by enabling the detection of ransomware and malware attacks with up to 99.5% accuracy, and the near-instantaneous recovery of data from clean 'known good' copies on the InfiBox and InfiBox SSA platforms. The page includes a navigation menu with 'Products', 'Solutions', 'Resources', 'Partner', 'Company', and 'Support', along with 'Request a Demo' and 'Contact Us' buttons. The background features a network diagram with purple and blue nodes and lines.

INFINIDAT

Products Solutions Resources Partner Company Support Request a Demo Contact Us

Cyber Resilience: Infinidat Has Your Back

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[Learn More](#)

Overview

SOLUTION BRIEF

InfiSafe® Cyber Detection

INFINIDAT

Resources

The impact of cybercrime is expected to cost businesses 8 trillion USD\$ per year.¹ Every 39 seconds, there is a new attack somewhere on the web.² The costs to a business include damage and destruction of data, lost productivity, theft of intellectual property, theft of personal and financial data, embezzlement, etc. Along with the post-attack disruption to the business, you have forensic investigation, detection and restoration of hacked data and systems, and loss of trust and reputation. Most security and IT teams feel that it's a matter of time before they have a cyberattack. Are you prepared?

InfiSafe technology provides a multi-layered cyber stack for the creation of cyber storage resilient environments with the InfiBox® and InfiBox™ SSA platforms.

The introduction of InfiSafe Cyber Detection, enhances Infinidat's cyber storage resilience and response capabilities by enabling the security and IT teams to detect ransomware and malware attacks with up to 99.5% accuracy, and enable near instantaneous recovery of data from clean "known good" copies on the InfiBox and the InfiBox SSA platforms.

systems failure, human error – Infinidat has your primary storage covered with cyber resilient solutions that provide a first line of defense and facilitate fast recovery.

disaster recovery to help enterprises avoid ransomware and other cyberattacks with our powerful, enterprise modern data protection with built-in cyber resilience solutions.

<https://www.infinidat.com/en/cyber-resilience>

Infinidat Drives Dramatic CAPEX and OPEX Savings

\$167K

Yearly
Benefit/PB

48%

Reduced
OPEX

11 Month

Payback on
Investment

51%

More efficient
storage
management

\$41.6K

OPEX Reduction/PB



[Video Webinar](#)



[On-demand](#)

<https://www.infinidat.com/en/financial-benefits>

The End Users Have Spoken



InfinitiGuard Reviews
by Infinidat in Data Center - Others
4.9 ★★★★★ 18 Ratings



InfinitiBox Reviews
by Infinidat in Primary Storage
4.9 ★★★★★ 458 Ratings



InfinitiBox SSA Reviews
by Infinidat in Primary Storage
4.8 ★★★★★ 13 Ratings



As of February 5, 2024

The End Users Have Spoken

InfiniGuard Reviews
by Infinidat in Data Center - Others
4.9 ★★★★★ 18 Ratings

“Infinidat is the Golden Standard for Enterprise Storage.”
Storage Operations Supervisor, Banking | InfiniBox®

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InfiniBox SSA Reviews
by Infinidat in Primary Storage
4.8 ★★★★★ 13 Ratings

As of February 5, 2024

INFINIDAT

THANK YOU!



InfiniSafe[®]
CYBER DETECTION