

INFINIDAT

# Comprehensive Storage Cyber Resilience

Reduce Your Malware and Ransomware Exposure

**Eric Herzog**

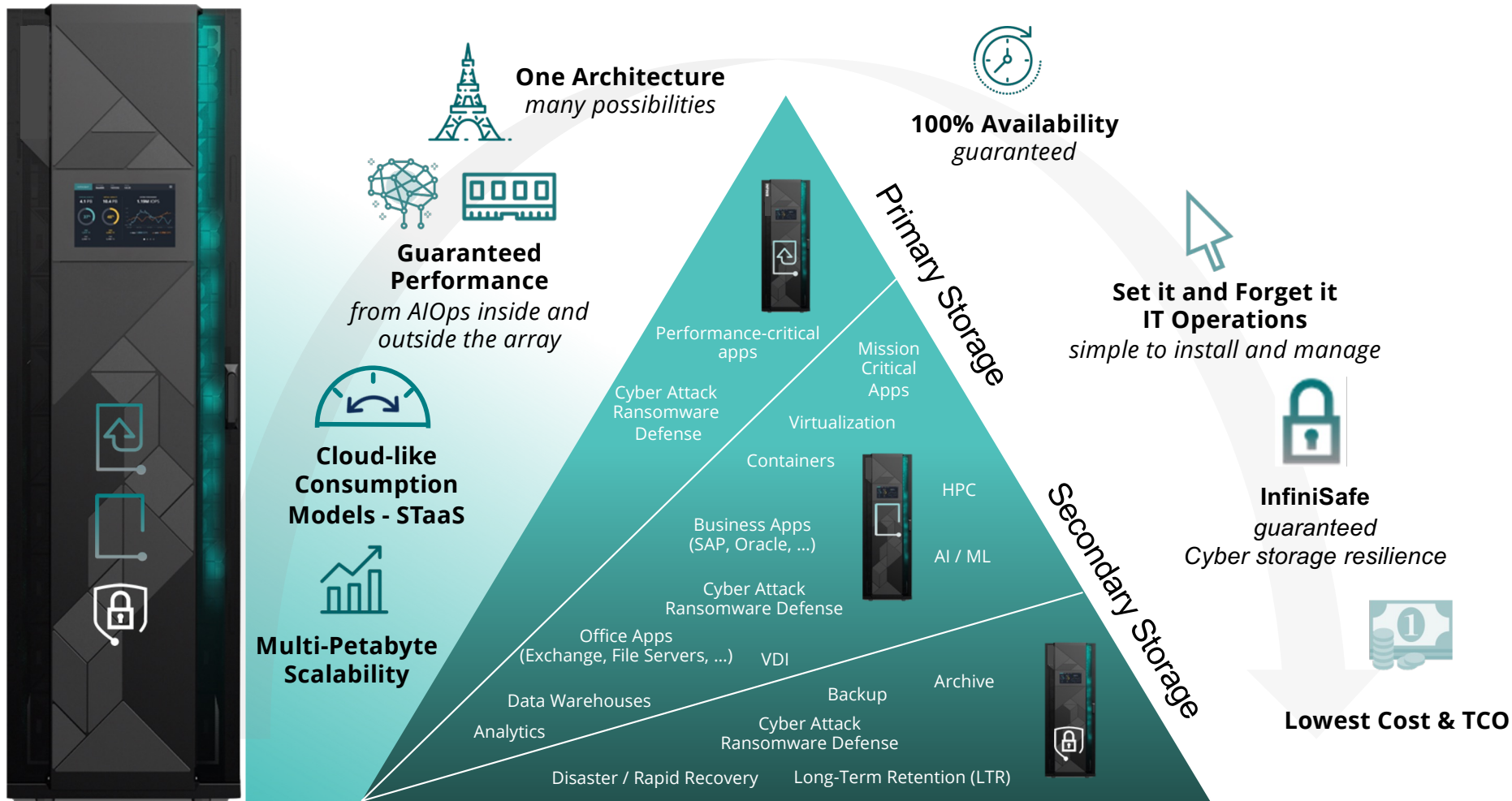
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December 2022



# Broad Enterprise Use Cases and Guaranteed SLAs



# Ransomware Impacts

## Headline News

World © Business © Finance © Travel © Sport © Weather

- **66% of Fortune 500 CEOs** say cyber security is their biggest risk
- Intrusion dwell time averages **287 Days!**
- Ransomware attacks happen every **14 seconds**
- **57X** increase of ransomware costs in 6 years at the end of 2021
- **USA LAW:** “Cyber Incident Reporting Act” requires companies to report cyber attacks (March 2022)
- **\$6 Trillion** in Global Damage by the end of 2021
- **\$20 Billion** projected ransomware costs by end of 2021
- **55%** of businesses will pay the ransom!



Sources:

<https://cybersecurityventures.com/global-ransomware-damage-costs-predicted-to-reach-20-billion-usd-by-2021/>

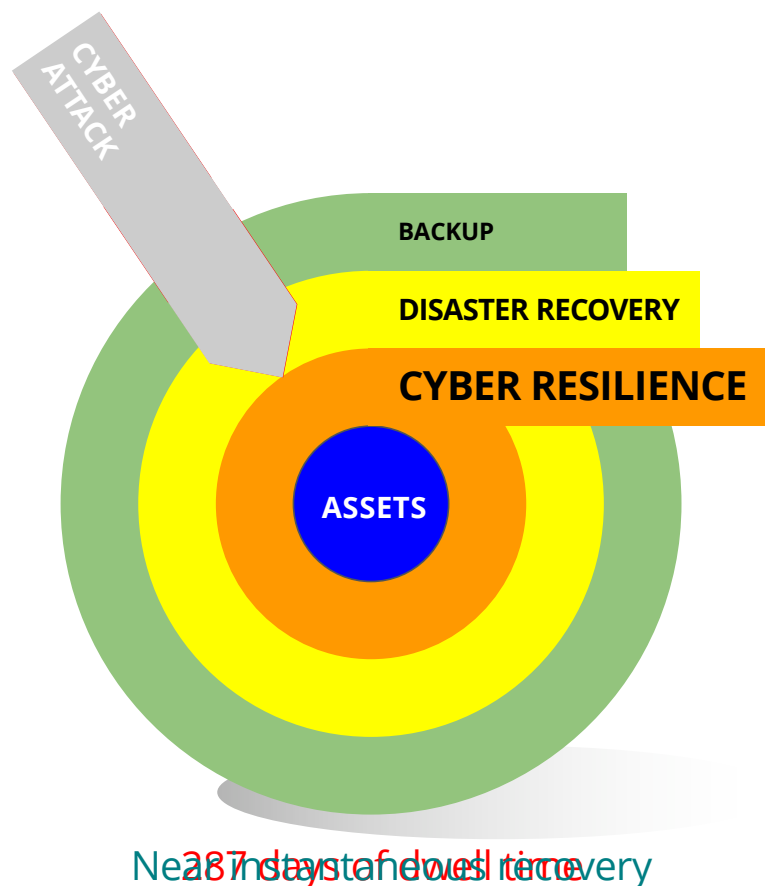
<https://cybersecurityventures.com/cybercrime-damages-6-trillion-by-2021/>

<https://cybersecurityventures.com/cybersecurity-market-report/>

<https://heimdalsecurity.com/blog/ransomware-payouts/>

<https://fortune.com/2021/05/21/fortune-500-ceo-survey-post-pandemic-profits-revenue-cybersecurity-risk/>

# Backup/Disaster Recovery are Necessary But Not Enough



Backup - basic data protection

Disaster Recovery (DR) - advanced recovery processes

**Cyber Resilience** - cyber attack protection

- Cyber criminals know you have DR and have already compromised it
- Cyber Resilience is purpose-built to recover from orchestrated cyber attacks
- Cyber Resilience is a critical augmentation to data protection

# Essential Enterprise Cyber Resilience Criteria

CRITERIA	MUST HAVE	MUST AVOID
<b>Fundamental</b>	<ul style="list-style-type: none"> <li>• Immutable snapshots</li> <li>• Logical air-gap</li> <li>• Fenced forensic environment</li> <li>• Near instantaneous recovery</li> </ul>	<ul style="list-style-type: none"> <li>• Anything less</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>• Encryption at rest and in flight</li> <li>• Role-based access control</li> <li>• Multi-factor authentication</li> <li>• Isolation and immutability</li> </ul>	<ul style="list-style-type: none"> <li>• Any exposure</li> </ul>
<b>Simplicity</b>	<ul style="list-style-type: none"> <li>• Leverage storage architecture</li> <li>• Native functionality</li> <li>• Direct, intuitive operations</li> </ul>	<ul style="list-style-type: none"> <li>• Adding competing architecture</li> <li>• External, supplemental functionality</li> <li>• Long, costly Professional Service (PS)</li> </ul>
<b>Immediacy</b>	<ul style="list-style-type: none"> <li>• Quick, straight-forward implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Long, costly PS engagements</li> </ul>
<b>Scale</b>	<ul style="list-style-type: none"> <li>• Near instantaneous recovery at PB scale</li> </ul>	<ul style="list-style-type: none"> <li>• Recovery time increases with scale</li> <li>• Cloud egress pace</li> </ul>
<b>Control</b>	<ul style="list-style-type: none"> <li>• Data sovereignty, regulatory, and compliance</li> </ul>	<ul style="list-style-type: none"> <li>• Third-party reliance and access</li> </ul>
<b>Cost</b>	<ul style="list-style-type: none"> <li>• No additional costs for functionality</li> <li>• Scale as you need, capacity on demand</li> <li>• Pay as you grow</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive supplemental functionality</li> <li>• Costly reserve infrastructure</li> <li>• Cloud ingress, egress, subscription fees</li> </ul>

# Comprehensive Cyber Resilience



## InfiniSafe for InfiniBox

- Cyber Resilience on Primary Storage
- Guaranteed Cyber Resilience SLAs



## InfiniSafe for InfiniGuard

- Cyber Resilience on Secondary Storage
- Backup
- DR
- Guaranteed Cyber Resilience SLAs

# InfiniSafe for InfiniBox and InfiniGuard

Delivering essential cyber resiliency



## NEW InfiniSafe on InfiniGuard

- InfiniSafe Cyber Storage Guaranteed SLAs
  - Immutability of Snapshots
  - Recovery of those Immutable Snapshots in 20 Minutes or less
- Dedicated InfiniGuard capacity
  - Extended immutable snapshot retention time doubled (60 days)

# InfiniSafe for InfiniBox and InfiniGuard

Delivering essential cyber resiliency

## NEW InfiniSafe on InfiniGuard

**“Enterprises are relentlessly challenged with the threat of cyberattacks. With Infinidat’s InfiniSafe technology extended to Infinidat’s family of innovative InfiniBox storage solutions, end-users can develop robust cyber resilience strategies for their primary storage estate. The new InfiniBox SSA II delivers enterprises unmatched performance with superior cyber data protection!”**

Stuart McMinn  
Chief Technology Officer  
Bell Integration



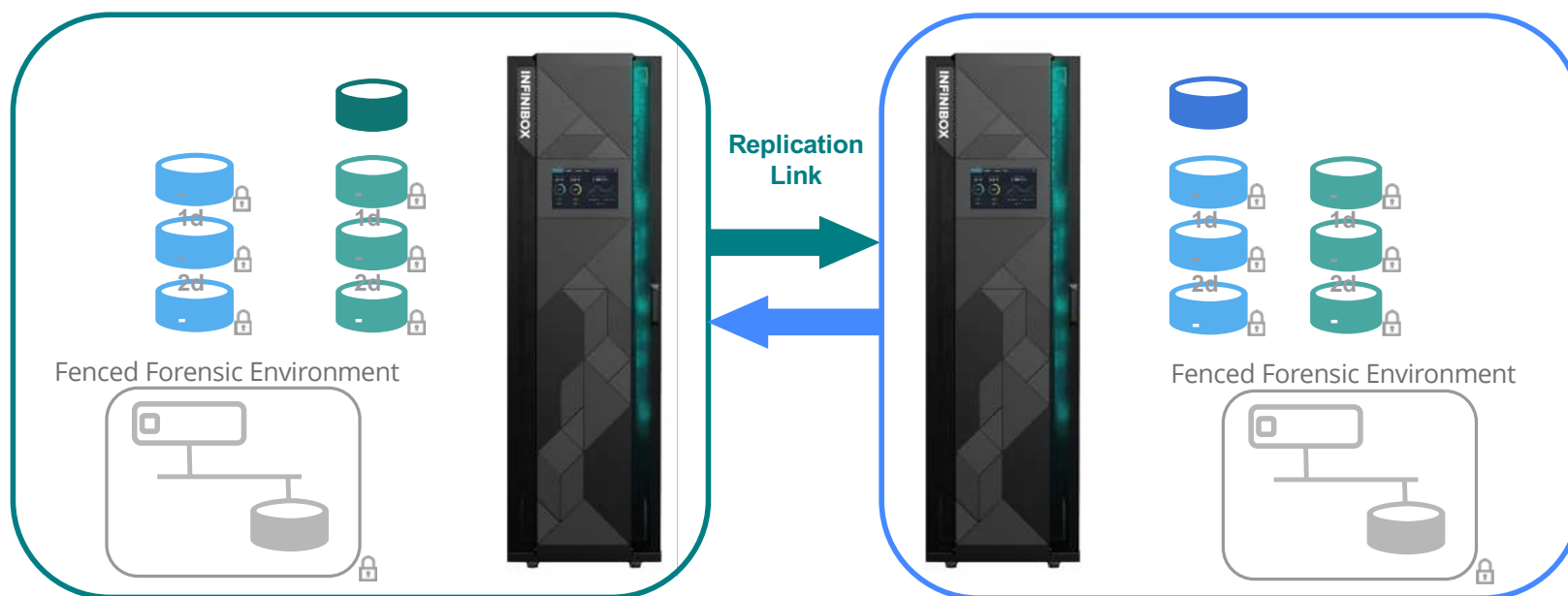
# InfiniBox Immutable Snapshots

- Once locked, **no one** can make any changes (including administrators)
  - **No one can** Modify the content (the snapshot remains read-only)
  - **No one can** Delete the snapshot
  - **No one can** Expedite the lock expiry (it can be extended)
  - **No one can** Modify the snapshot policy
- Stolen Administrative credentials cannot be used to steal or alter snapshot contents
- Built for scale/space efficiency
- Data is encrypted on storage devices
- Guaranteed SLA on Immutability of Snapshots and recovery of immutable snapshots in 1 minute or less



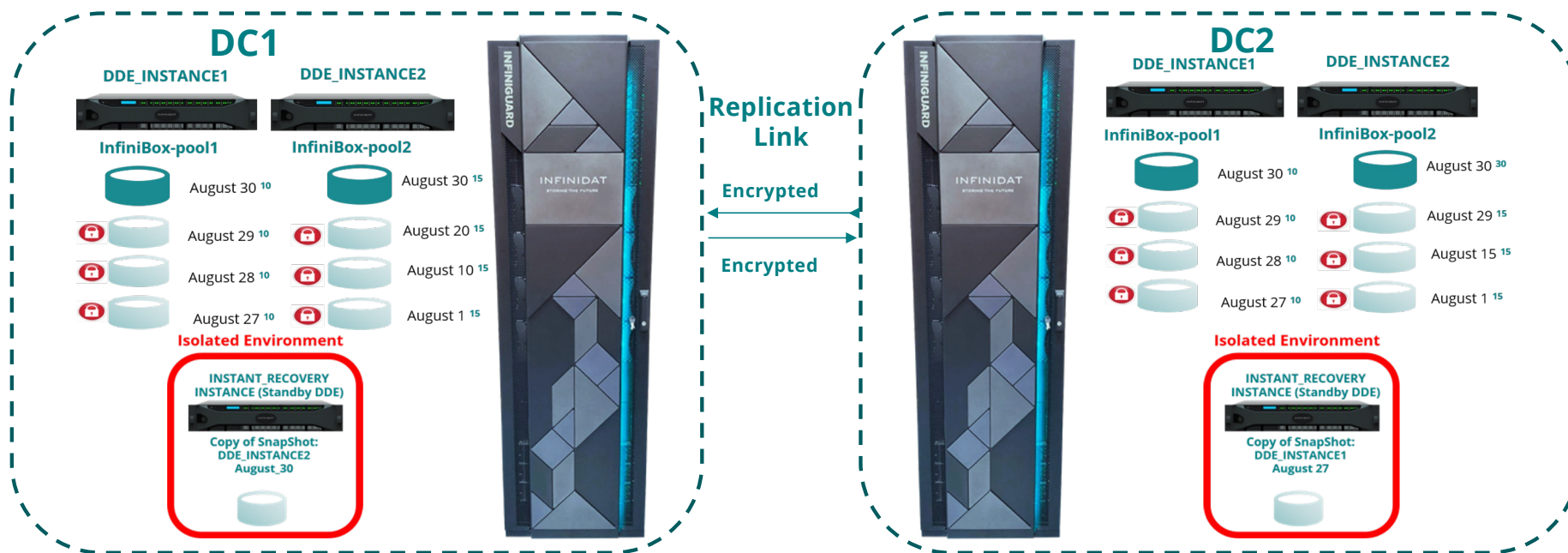
# InfiniSafe on InfiniBox – Logical Remote Air Gap

- Data can be replicated bi-directionally across sites
- Allows longer data retention in DR site
- Cyber resilience tests and validations can occur in both sites
- Create immutable snapshots in either or both locations
- Validate, test and recover from the Isolated Environment



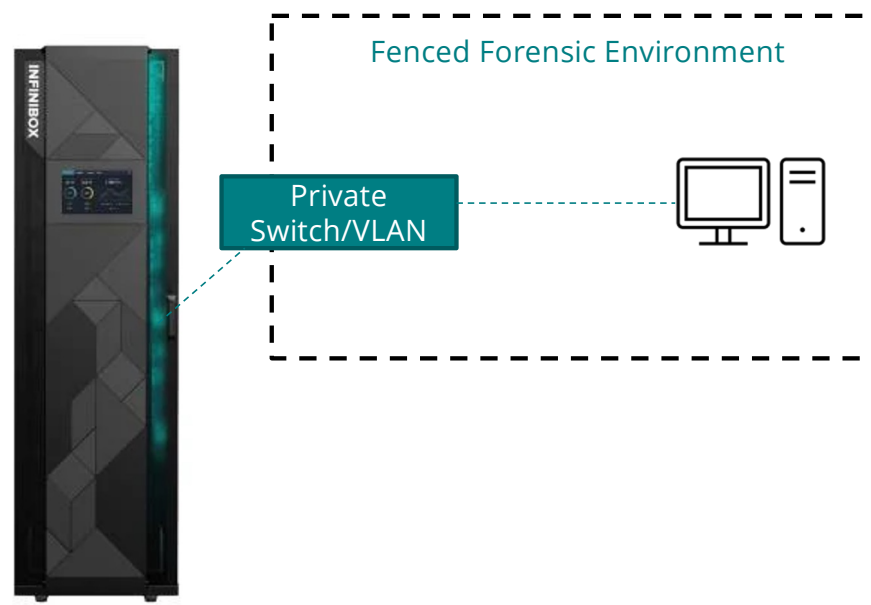
# InfiniSafe on InfiniGuard – Remote Logical Air-Gap

- Data can be replicated bi-directionally across sites
- Different policies and retention on each InfiniGuard/DDE
- Completely decoupled from backup application
- Allows longer data retention in DR site
- Cyber resilience tests and validations can occur in both sites



# InfiniSafe on InfiniBox – Fenced Forensic Environment

- Defined access to a secure isolated network
- Use an Isolated HOST to attach immutable snapshots
- Test and validate with your tools or applications
- Defined Orchestration methods and processes (eg. Ansible Playbook and Modules)



# InfiniGuard: Purpose built Restore appliance with an enhanced Cyber Protection design

## InfiniGuard

- Restores as fast as the backups once steady state achieved!
- Advanced availability design, high speed backups during failures
- Decoupled immutable snapshot methodology
- InfiniSafe on InfiniGuard Guaranteed SLA on immutability of snapshots and recoverability of those snapshots in 20 minutes or less

## Powered by InfiniBox

- The backend storage matters!
- 100% available backend
- Trie



# InfiniGuard: Purpose built Restore appliance with an enhanced Cyber Protection design

## InfiniGuard

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- Advanced availability design, high speed backups during failures

**“Switching to InfiniGuard has been a huge win for use. We’ve saved approximately 40% compared to the costs of our previous vendor and Infinidat’s white-glove support puts our team at ease. Our customers are healthcare providers and Infinidat helps assure our ability to meet the industry’s strict regulatory requirements. ”**

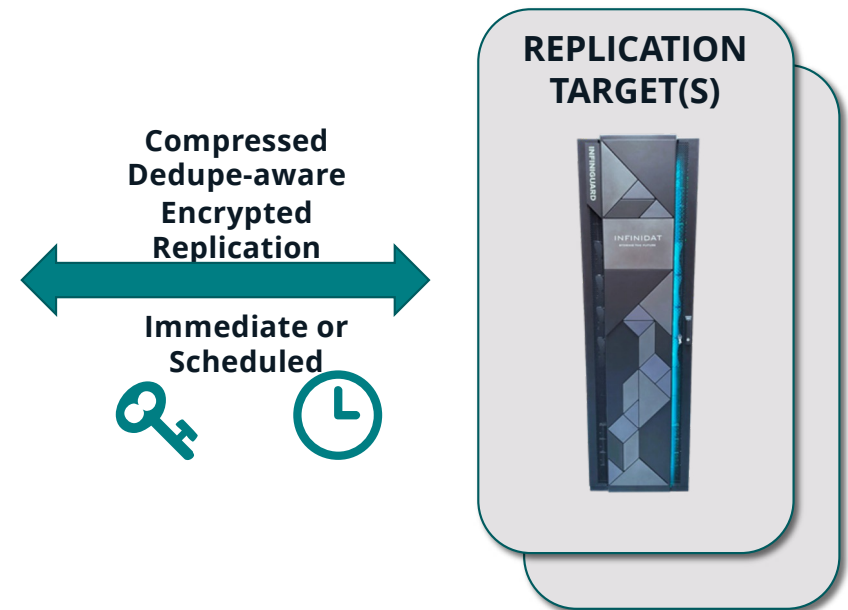
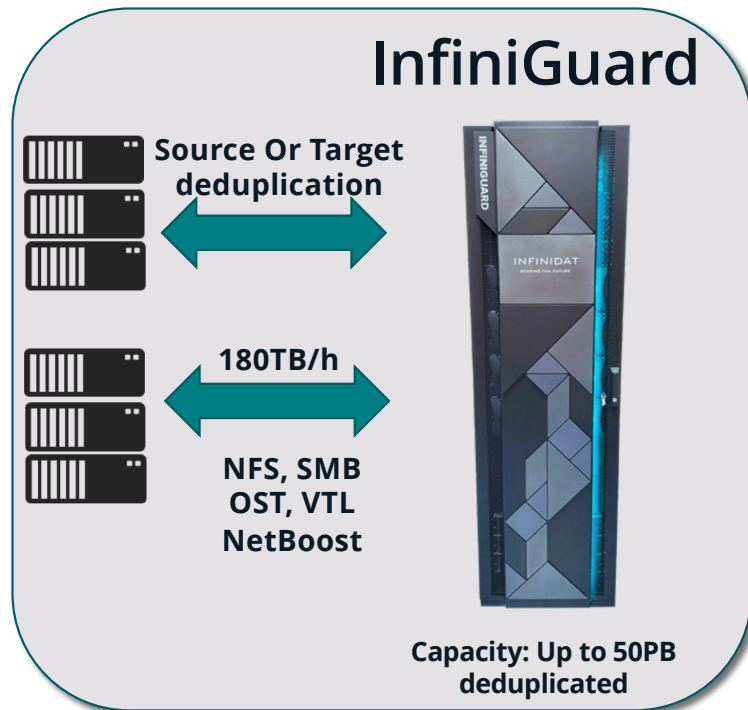
Lead Enterprise Architect  
Technology Service Provider

## Powered by InfiniBOX

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- 100% available backend
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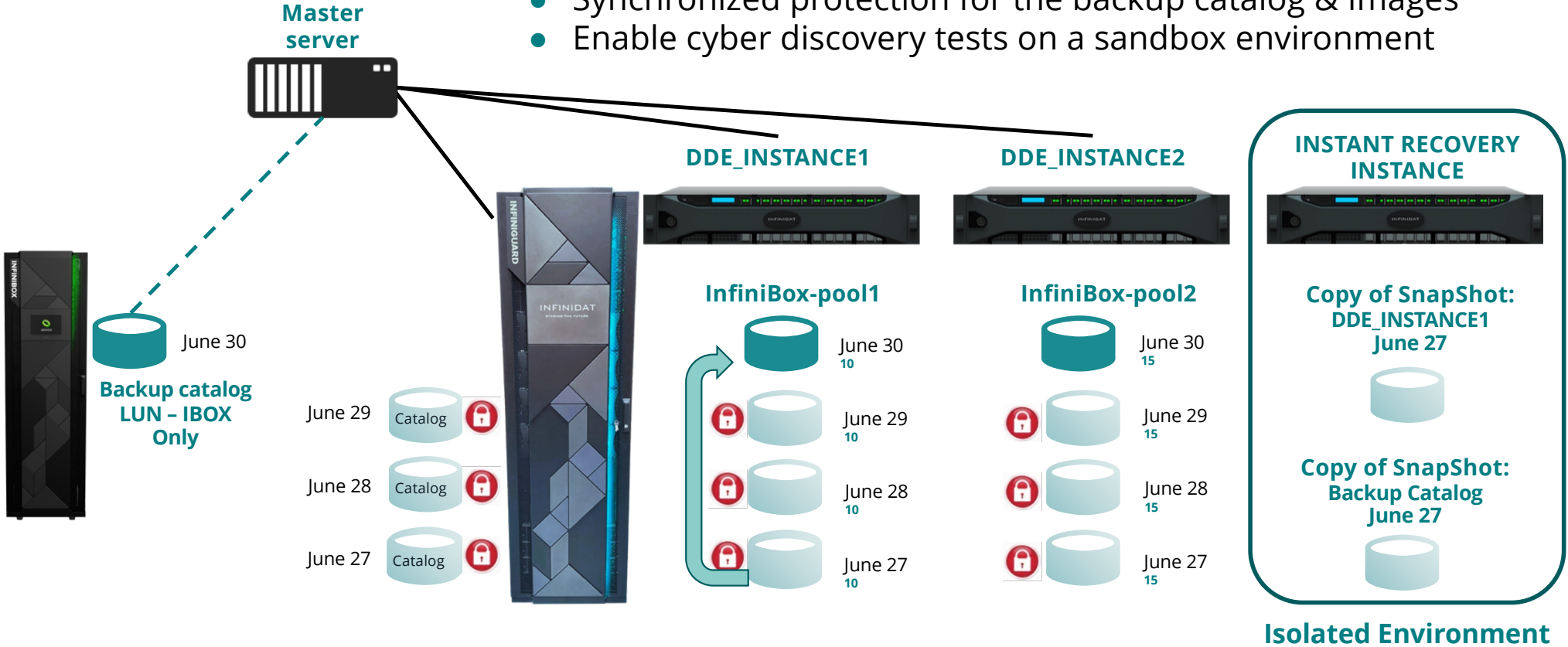


# InfiniGuard – Ecosystem and Design Principles



# InfiniGuard Complete Cyber Resiliency

- No external dependencies for the backup system
- Synchronized protection for the backup catalog & Images
- Enable cyber discovery tests on a sandbox environment

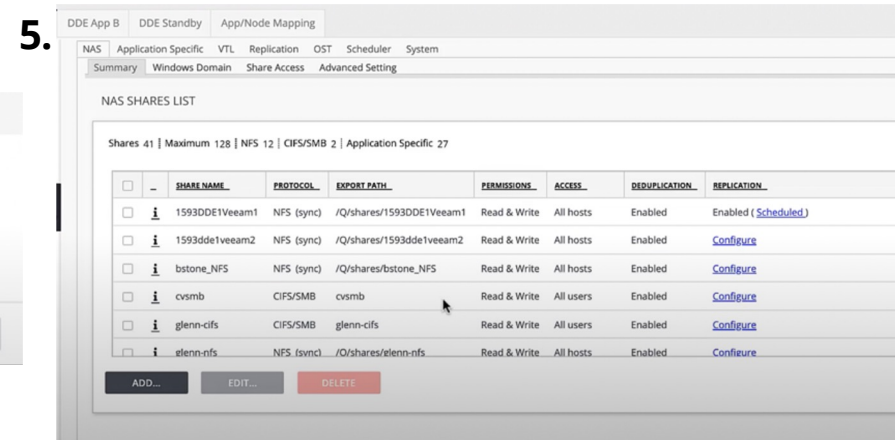
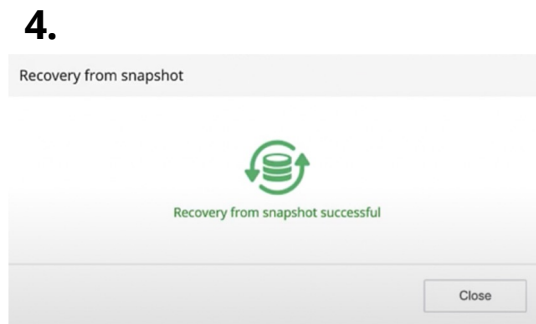
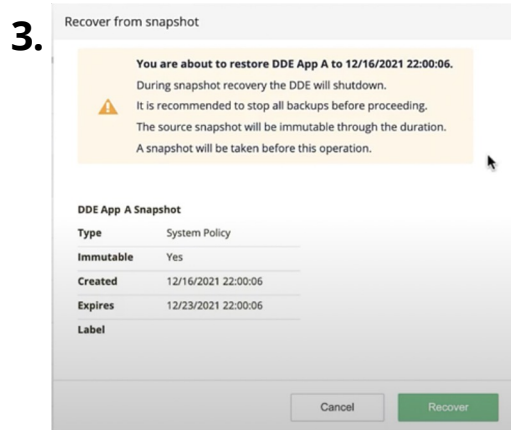
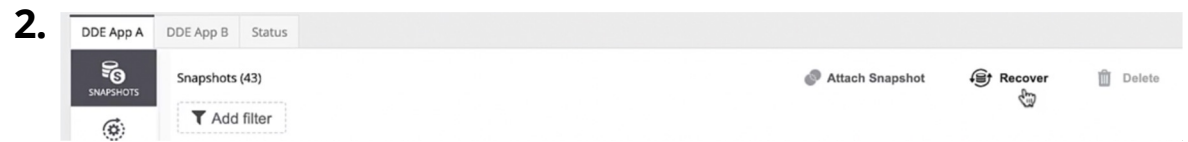
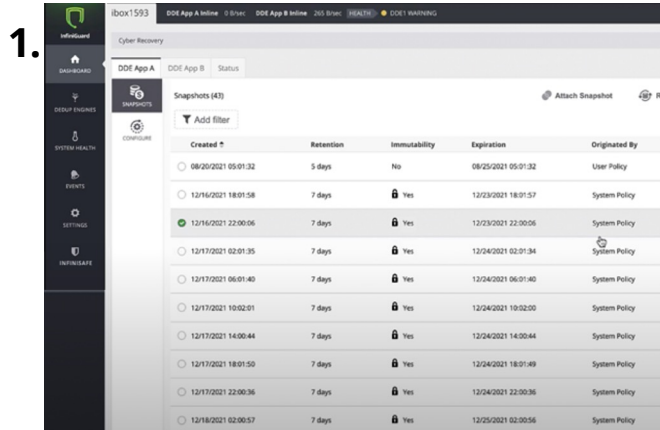




# InfiniSafe – Near Instantaneous Recovery

## Easy and Fast

- ONLY 1 InfiniBox needed - No data movement required
- Reduced CAPEX and OPEX
- Simplifies entire forensic and recovery process
- Simple mount to the standby DDE taking only minutes
- Rapid accessibility to entire backup dataset – up to PBs
- No capacity size penalties
- DDE operating environment is protected and available
- Guaranteed SLAs on Snapshot Immutability and Recovery times on InfiniBox and InfiniGuard platforms

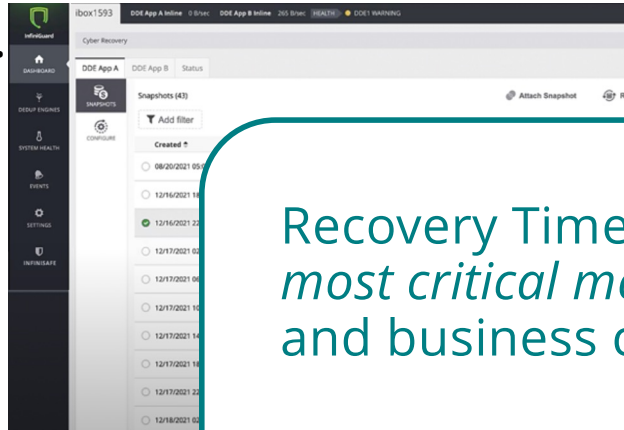


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1.



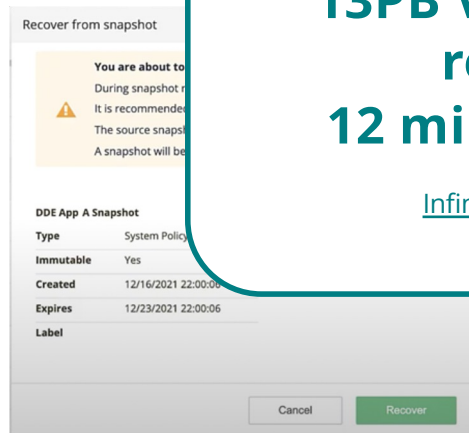
Recovery Time Objective (RTO) is the *most critical metric* for cyber recovery and business continuance

**13PB Veeam backup dataset recovered in ONLY 12 minutes and 55 seconds!**

[InfiniGuard live demonstration, October 2022](#)



3.



h InfiniBox and

Delete

Enabled (Scheduled)

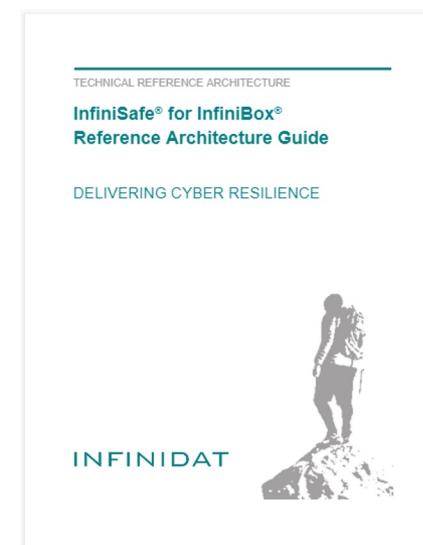
Configure

Configure

Configure

# InfiniSafe on InfiniBox Reference Architecture

- Leverages strength of InfiniBox architecture
  - Straight-forward, step-by-step guidance
  - Built-in, not add-on
- 
- Preparation
  - Protection
  - Replication
  - Validation
  - Recovery



# An Essential Component of Your Overall Cyber Security Strategy

## InfiniSafe for InfiniBox

- Cyber Resilience on primary storage

## InfiniSafe for InfiniGuard

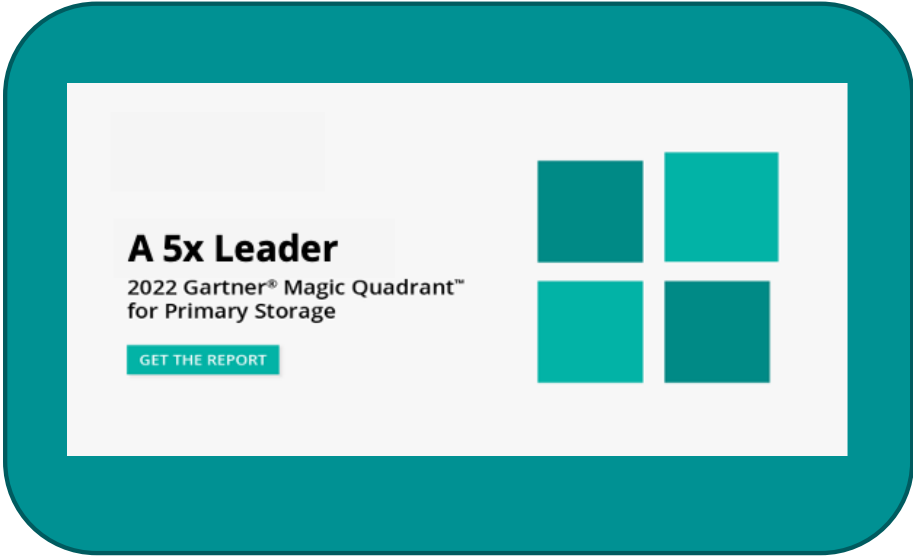
- Purpose-built Recovery appliance/secondary storage with Cyber Resilience

## InfiniSafe Guaranteed SLAs

- Guaranteed Immutability of snapshots on the InfiniBox and InfiniGuard Platforms
- Guaranteed Recovery times regardless of dataset size
  - 1 minute or less on InfiniBox and InfiniBox SSA II
  - 20 minutes or less on InfiniGuard

For a technical deep dive session or to explore which Cyber Resilience solution is best for your requirements, [contact Infinidat to set-up an appointment](#)

# Industry/Analyst Recognition

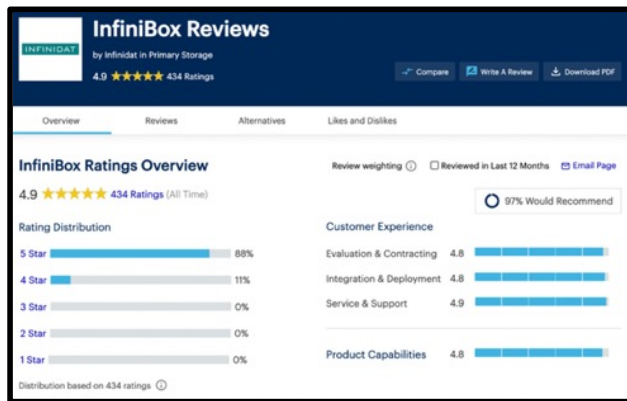


Infinidat, a leading provider of enterprise storage solutions, today announced that the company has been named a Leader in the 2022 Gartner Magic Quadrant for Primary Storage, marking the 5th consecutive year that Gartner has recognized Infinidat's in enterprise storage, including four years in the Primary Storage Magic Quadrant and one year in the Magic Quadrant for general-Purpose Disk Arrays.

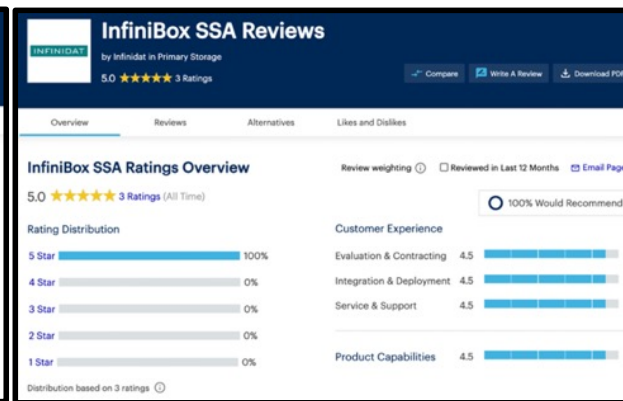
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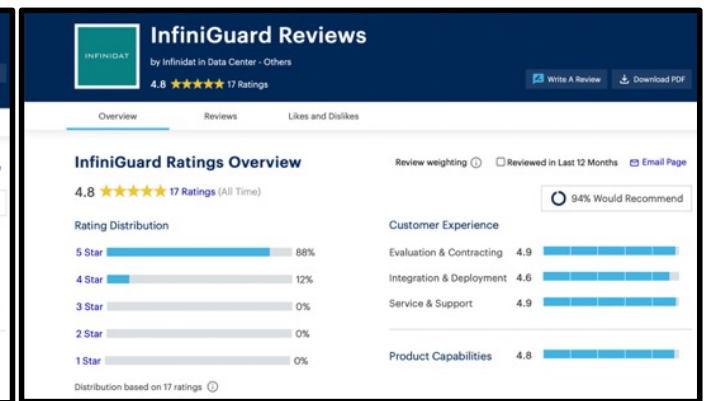
# The End Users Have Spoken



As of 21 Nov. 2022, Infinidat has an Overall Rating of 4.9 out of 5 in the Primary Storage category, based on 434 reviews.



As of 21 Nov. 2022, Infinidat has an Overall Rating of 5.0 out of 5 in the Primary Storage category, based on 3 reviews.



As of 21 Nov. 2022, Infinidat has an Overall Rating of 4.8 out of 5 in the Primary Storage category, based on 17 reviews.



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# Come Visit Us!

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- Booth #: 234
- Solution Provider Session:
  - Wednesday, December 7 from 3:15p – 3:45p
  - Topic: Comprehensive Storage Cyber Resilience, Reduce Your Malware and Ransomware Exposure
  - Speaker: Eric Herzog, Infinidat
- Theater Session:
  - Thursday, December 8 from 2:05p – 2:25p
  - Topic: Fortune 500 Financial Institution Leveraging SSA Technology
  - Speaker: Eric Herzog, Infinidat

[Get a copy of the 2022 Gartner Magic Quadrant for Primary Storage](#)



A long-exposure photograph of a dark tunnel with light trails from a moving vehicle, creating a sense of motion and depth. The light trails are primarily white and yellow, with some blue and red accents. The text "Thank You" is centered in the middle of the image.

**Thank You**

**INFINIDAT**

**The Standard in Enterprise Storage**