Reduce Ransomware Exposure with Comprehensive Storage Cyber Resilience

Dave Nicholson
Americas Field CTO
Infinidat

dnicholson@infinidat.com
@MasSubestimado

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Exploding Cyber Risks

- Cybercrime to cost the world $8T in 2023
  - $15.2M per minute
  - Average WW Cost per event $4.5M
  - Average USA Cost per event $9.1M
- By 2025, cybercrime will cost the world $10.5T
- US announces National Cybersecurity Strategy (Mar 2023)/EU Announces Cyber Solidarity Act
- Cyber security is the #2 concern of CEOs globally (IDC, Feb 2023)
- Average enterprise suffers 1,168 cyberattacks weekly
- 48% of CEOs are increasing investment in cyber security 2023
- Globally, 30,000 websites are hacked daily
InfiniSafe Cyber Storage Resilience

- **IMMUTABLE SNAPSHOTS**: Scheduled or manually created, indelible, secure, immutable point-in-time copies
- **LOGICAL AIR-GAPING**: Logically separates immutable data copies from network access, either locally or remotely or both
- **FENCED FORENSIC ENVIRONMENT**: Isolated environment for validation, testing, and recovery
- **NEAR INSTANTANEOUS RECOVERY**: Execution of the plan
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

- February 2022
- April 2022
- August 2022
- October 2022
- May 2023
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

Primary Storage
- InfiniBox™ SSA
- InfiniSafe
- Immutible Snapshot
- InfiniBox
- Primary Storage

Secondary Storage
- Backup Application
  - Backup Application NOT providing DEDUP
  - Backup Application providing DEDUP
  - Backup Application Aging to Cloud

InfiniBox
- InfiniGuard
- Immutable Snapshot
- InfiniSafe
- Primary Storage
- Secondary Storage

Backup Application providing DEDUP
- InfiniSafe
- Immutible Snapshot
- Backup Application Aging to Cloud
- InfiniBox
- Primary Storage
- Secondary Storage
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

Primary Storage
Volumes, App Workloads, Snapshots

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

User Files
Contracts, Financial Docs
Intellectual Property, etc.
• 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.

This approach proves 99.5% effective.
Cyber Detection Workflow
Analytics, Machine Learning and Forensic Tools to Detect and Recover from Cyberattacks

FULL INTEGRATION
Use of APIs to integrate & automate

COMPREHENSIVE INDEX
Changes in content over time

SECURITY ANALYTICS
200+ statistics indicative of cyber attack

MACHINE LEARNING
Trained on all common trojans and attack vectors

CORRUPTION DETECTED
Alert when suspicious activity is detected

POST ATTACK FORENSICS
Detailed reports, including last good backups for rapid recovery

INFINIDAT
InfiniSafe Cyber Detection Solution

- Applications can validate immutable snapshots in Fenced Forensic environment
- Cyber Detection will tag any corrupted files, create forensic report
- Provides the intelligence needed to facilitate recovery

InfiniSafe Guaranteed Immutable Snapshots of Volumes, Files, etc.

Copy of Snapshots: PIT-xxx

Scanning Engine

Identify compromised data & Validate known good files

InfiniSafe Fenced Forensic Environment + Near instant Immutable Snapshot recovery

Fast Recovery of last known good copy in production

PIT-1
PIT-2
PIT-3
PIT-4
PIT-5
PIT-6
PIT-7
PIT-8
InfiniSafe Cyber Offload Solution

- Multiple InfiniBoxes or InfiniBox SSAs replicate to one
- Cyber Detection offload “array” will scan all data files and tag any corrupted files, create forensic report
- Provides the intelligence needed to detect an attack
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
Infinidat at FMS

Dates: Aug 8 – 10, 2023  
Location: Santa Clara, CA  
Set up Meetings: Lynsy Calvario - lcalvario@infinidat.com

Tuesday, August 8
• 8:30am – 9:35am: Will All Storage Reside in the Public Cloud?  
• 9:45am – 10:50am: All-Flash Technology Getting the Advantage of Software Defined Storage  
• 3:20pm – 4:25pm: Perpetual Upgrades, Managed Services and Other Modern Storage Consumption Models  
• 7:30pm – 9:00pm: Chat with the Experts - Beer & Pizza Night

Wednesday, August 9
• 8:30am – 9:35am: The current state and future direction of storage system investments for Generative AI and Analytics Workloads  
• 3:30pm – 4:35pm: Reduce Ransomware Exposure with Comprehensive Storage Cyber Resilience - DSEC-203-1: Cyber Resiliency and Systems - What You Don't Know Will Hurt You  
• 3:30pm – 4:35pm: CMO Panel – Flash Arrays Will Be Everywhere but What Are the Changing Customer Requirements and Winning Go-to-Market Strategies  
• 6:30pm – 7pm: Best of Show Awards
VMware Explore Las Vegas 2023

**Infinidat Party at VMware Explore – Monday Aug 21**
*Time*: 7:00pm – 10:00pm  
*Location*: The Venetian, Las Vegas, NV  
*Venue*: Villa Azur – Grand Canal Shoppes  
*Demo*: Kevin Fredericksen, Infinidat’s Director of Professional Services, will be demoing our Cyber Resilience solutions

**Speaking Slot** - *Tuesday Aug 22 at 2:00pm*
- Veeam Booth #603  
  - “Building a cyber resilient VMware environment with Infinidat and Veeam”

**Speaking Slot** - *Wednesday Aug 23 at 9:30am*
- VMware Explore Technical Session – Attendees will need to check the VME calendar  
  - “Core Storage Best Practices: Optimizing NVMeoF and vSphere Virtual Volumes [CEIB2533LV]”

**ABOUT – VMware Explore Infinidat Party**
Before the event begins, come and unwind with Infinidat in a relaxed lounge atmosphere at the brand-new restaurant, Villa Azur, located within the Grand Canal Shoppes of The Venetian.

Catch up with the people behind Infinidat’s legendary enterprise storage solutions while mingling with business partners and peers from all over the world. This restaurant is straight out of the South of France adorned with glamour and elegance from the French Riviera. You’ll be greeted with delectable serving stations and canapes. Enjoy the open bar and roaming entertainment.

**Registration Page:** [click here](#)
THANK YOU!

InfiniSafe®
CYBER DETECTION