

(Cyber)szkolenia dla podmiotów krajowego systemu cyberbezpieczeństwa

Jak zapewnić odtworzenie danych? Bezpieczny backup w praktyce

Warszawa 03.11.2022



Kancelaria Prezesa
Rady Ministrów

DELL Technologies



(CYBER)SZKOLENIA
KRAJOWY SYSTEM
CYBERBEZPIECZENSTWA

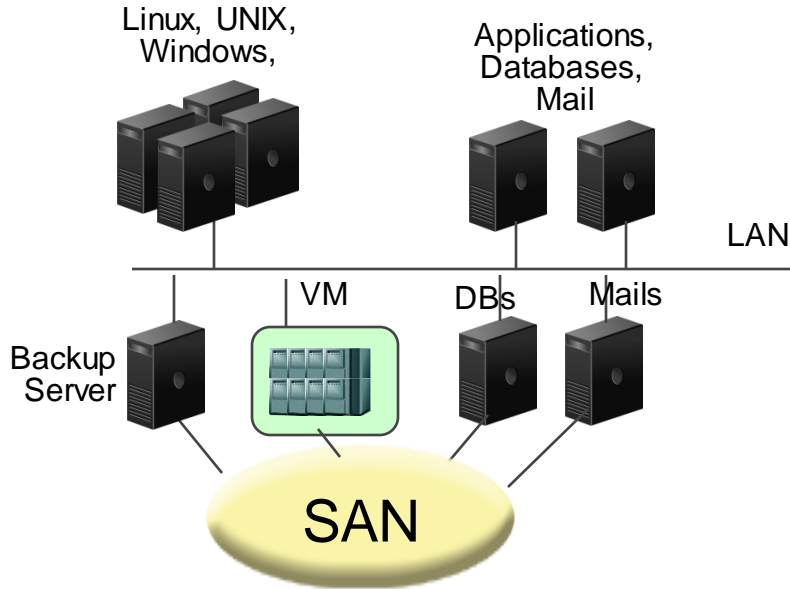
PWCyber

Agenda

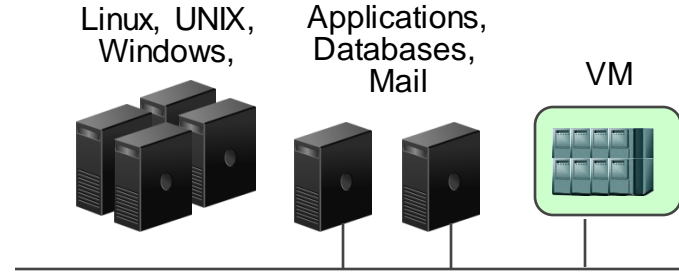
- Cyber attack
- Strategies
- Cyber Bunker
- How to achieve it?

Backup environment

Site A

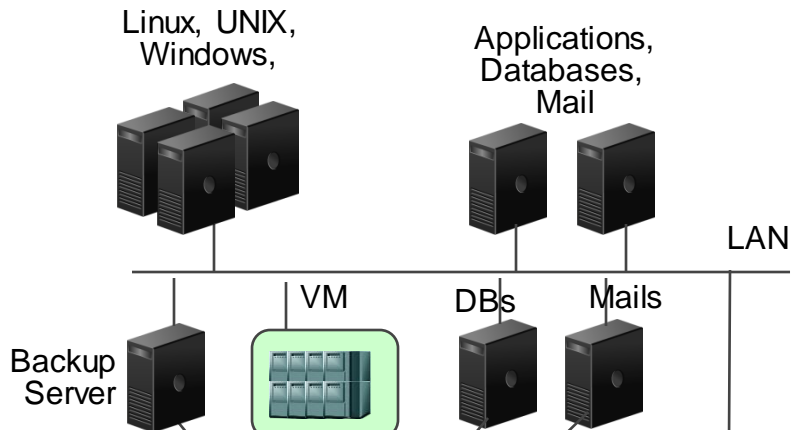


Site B

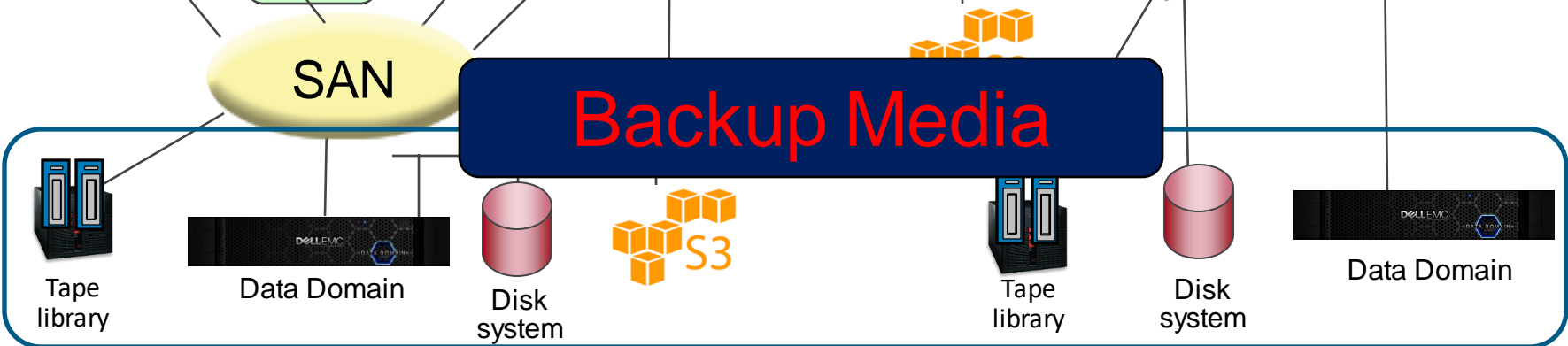
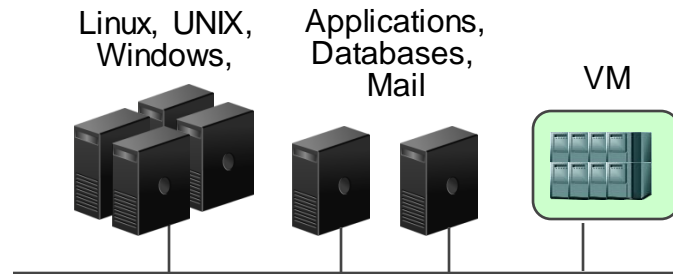


Backup environment

Site A



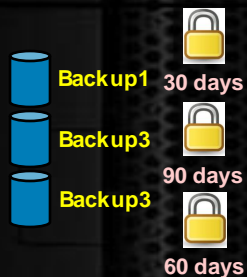
Site B



Data Domain can lock (compliance) data.

No one can modify / delete file

Backup system #1



Backup system #2



Backup system #3



Backup system #4





Compliance Assessments - Summary and Conclusions

EMC Data Domain Retention Lock Compliance Edition

Prepared by: Cohasset Associates, Inc.

Cohasset Associates was engaged to independently and objectively assess the Retention Lock Compliance Edition capabilities against the storage-related electronic records management requirements of the following U.S. and International regulations and standards:

- Securities & Exchange Commission Regulation 17 CFR 240.17a-4(f)
- Commodity Futures Trading Commission Rule 1.31(b)
- Food and Drug Administration 21 CFR Part 11, Electronic Records; Electronic Signatures
- Sarbanes-Oxley Act
- IRS Revenue Procedures 98-25 and 97-22
- ISO Standard 15489-1 and ISO/TR 15489-2
- MoReq2010®: Modular Requirements for Records Systems — Volume 1: Core Services & Plug-in Modules1, Version 1.1 ("MoReq2010®")

For each of these regulations and international standards, Cohasset's assessed the capabilities of the Retention Lock Compliance in the following areas:

- Protection against erasure, overwrite or modification for the required retention period
- Retention, legal hold and disposition
- Accuracy and quality of the recording and retrieval process
- Backup and recovery from a duplicate or replica copy

Conclusion: It is Cohasset Associates' conclusion that the Retention Lock Compliance Edition, when properly configured and utilized, meets all of the requirements that are attributable to storage management systems for storing and retaining electronic records in compliance with the aforementioned regulations and standards.

About Cohasset: Cohasset Associates, Inc. is one of the nation's foremost consulting firms specializing in records and information management. Cohasset provides thought-leadership and award-winning professional services in three areas: management consulting, education, and legal research. Cohasset's goal is to help its clients reduce regulatory and legal risks and improve business processes associated with the management of records and information.

Cohasset Associates

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10

Cyber threats 2021: the facts

39s

Every 11 seconds
a cyber or ransomware attacks occur.*

71%

86%

of breaches
are financially
motivated.

verizon/

\$13M

\$24.7M

Avg. cost of
cybercrime for an
organization.

accenture

\$1T

\$6T

Total global
impact of cyber
crime in 2021.

Cybersecurity
Ventures

43%

48%

of breaches
involved
small business.

verizon/

Banking	\$18.4M
Utilities	\$17.8M
Software	\$16.0M
Automotive	\$15.8M
Insurance	\$15.8M
High Tech	\$14.7M
Capital Markets	\$13.9M
Energy	\$13.8M
US Federal	\$13.7M
Consumer Goods	\$11.9M
Health	\$11.9M
Retail	\$11.4M
Life Sciences	\$10.9M
Media	\$9.2M
Travel	\$8.2M
Public Sector	\$7.9M

*Sources: Cybersecurity Ventures:

<https://cybersecurityventures.com/global-ransomware-damage-costs-predicted-to-reach-60-billion-usd-by-2021>

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

67%

Organizations had
incident within last
year within real
issues

92%

Organizations
cannot detect cyber
attack

Average time to
detect is 100 days



Castle strategy



Castle strategy



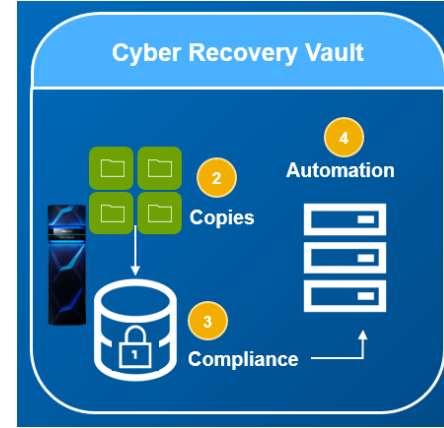
Real time protection



Ambulance strategy



Ambulance
strategy



Cyber Bunker

Cyber Recovery Requirements

Modern threats require modern solutions



Immutability

Preserve original
integrity of data



Isolation

Physical & logical
separation of data



Intelligence

ML & analytics
identify threats



SITE A

IT Infrastructure



DD Boost

Ransomware protection

Any backup software ↔ Backup Recovery

Data Domain

SITE B

IT Infrastructure



DD Boost

Ransomware protection

Any backup software ↔ Backup Recovery

Data Domain

Disaster Recovery



1% data transfer
100% recovery



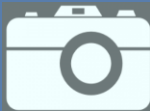
Cyber Bunker



Air Gap
Separation from production

Data Domain

Secure Historical backups



Compliance
No possibility to change data

PLAN B – Secure data & Recovery

Cyber Recovery



Management and automation

Cyber Sense



Checking ransomware

Backup software



Recovery automation

Sandbox



Any tests

Cyber Bunker gives us answers for the questions

- What if I am encrypted?
- Am I being encrypted?
- Who encrypts me?
- How to stop being encrypted?
- Which copy to use to recover?
- How to recover?



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1.0

Recovery / Test Center

SITE A

IT Infrastructure

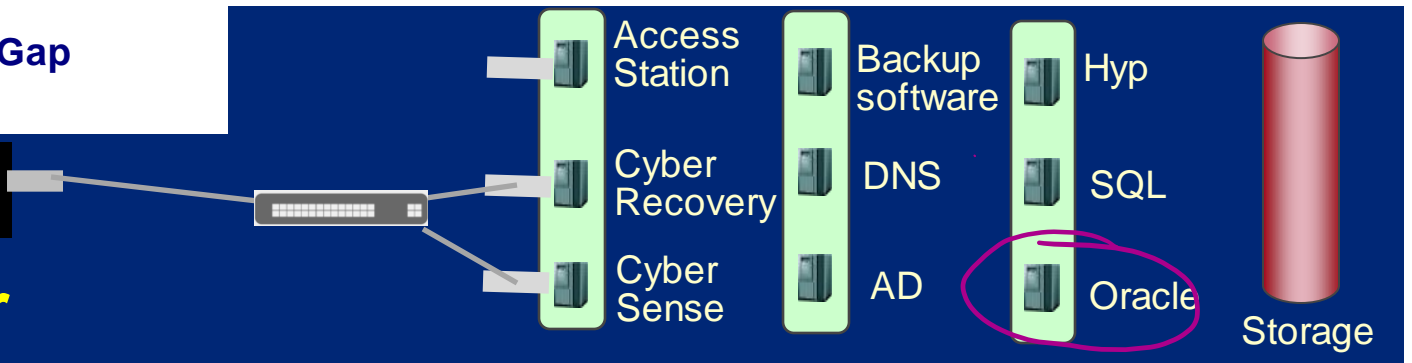


Data Domain



Data Domain

Cyber Bunker



CyberSense Analytics Compute Servers

Analytics, Machine Learning and Forensic Tools to Quickly Detect & Recover from Cyber Attacks

Production

Critical Infrastructure
Critical Apps
Backup SW



Data Domain

DD
Replication
Air Gap

Cyber Recovery VAULT

CyberSense
Analytics Servers

Cyber Recovery SW
Management Host

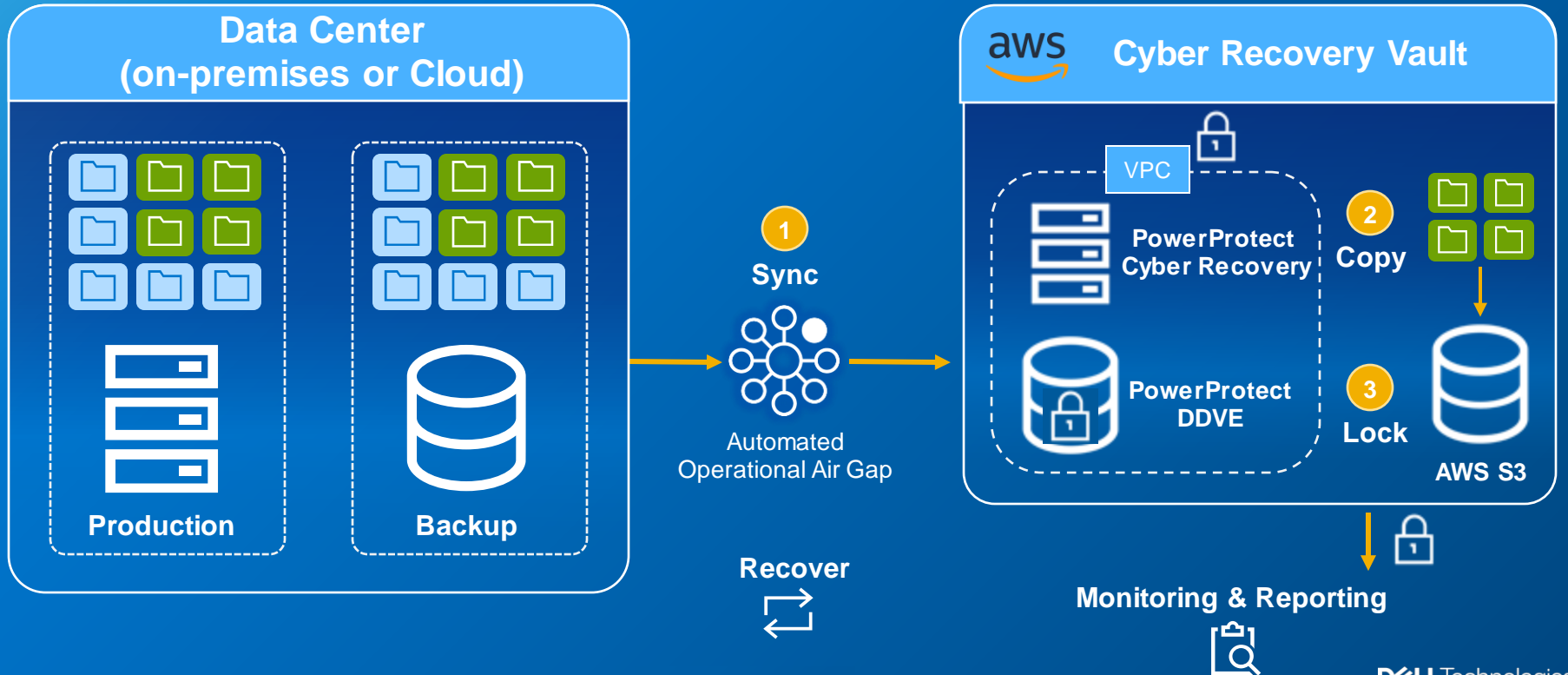
Management
Host

Data Domain

- Machine learning and unique full content level analysis.
- Over 100 heuristics to identify suspicious activity.
- Deep integration with Cyber Recovery for workflow automation and alerting.
- Post attack forensics... quickly determine attack vector and impacted data list.
- Provide last known good dataset for recovery.
- Unparalleled resiliency to recover and restore data quickly from an attack.

PowerProtect Cyber Recovery for AWS

Data Vaulting and Recovery Processes



What is the cost?

Cyber Bunker

 Air Gap



Cyber Recovery



Management and automation

Cyber Sense



Checking ransomware

Backup software



Recovery automation

Sandbox



Any tests

Check it – worth!

- Discussion
- Qualification - Infrastructure / Security departments
- Solution

Cyber Bunker

- Continue business regardless of criminals
- Detect attack
- Help to remove effect of attack

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