

# Êtes-vous préoccupé(e)s par la sécurité de vos données ? Voulez-vous en savoir plus sur la solution « CRS » Cyber Recovery Solution?

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# Nos intervenants

BECHTLE



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**Daniel Scoziero**

Enterprise, Public and Corporate Sales, Member of the Management Team - Dell Technologies

## Defining Cyber Recovery

The perception is that technology is enough...



Dell Technologies Cyber Recovery Capabilities:

- Isolation
- Immutability
- Intelligence
- End-to-end Services
- Incident Response Plan
- Secure Supply Chain
- Recovery Focused
- No external access

Multiple reports following real world events have indicated that *technology alone is simply not enough.*

Immutability is not enough

# Dell PowerProtect Cyber Recovery

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Recovering Your Business from a  
Sophisticated Ransomware or Cyberattack

# The Time for Resilience is Now!

The Gartner logo, featuring the word "Gartner" in a white, sans-serif font with a registered trademark symbol (®) to the right. The logo is set against a light blue, rounded rectangular background.

*“Transforming cybersecurity into cyber-resilience involves prioritizing resilience over defense, and elevating the native disciplines and skills used by the business continuity management office above cybersecurity teams’ traditionally defensive strategies.”*

Gartner, *You Will Be Hacked, So Embrace the Breach!*

*"Implement at least an immutable backup copy by selecting write lock or WORM media before starting any other initiative, as having an immutable copy of the backup is the most important item to start protecting backup data."*

Gartner, *Innovation Insight for Leveraging Isolated Recovery Environments and Immutable Data Vaults*



# Ransomware and the Impact to Business



## BUSINESS IMPACTS

**37%**

Reported their organization was forced to lay off employees following a ransomware attack<sup>1</sup>

## BUSINESS IMPACT

**35%**

Reported C-level resignations following a ransomware attack<sup>1</sup>

## DETECTION

**63%**

Reported that the attackers were in their networks for up to six months before being detected<sup>1</sup>

## PREVALANCE

**73%**

Targeted by at least one ransomware attack in the past 24 months

# Data loss and downtime is increasingly prevalent



**48%**

of orgs have suffered a  
cyber attack in the last  
12 months



**67%**

concerned their  
existing data protection  
may not be sufficient to  
cope with malware and  
ransomware threats



**91%**

are either aware of or  
planning to deploy a Zero  
Trust architecture

# Cyber resilience: Best Practices and Regulatory Considerations



***“An air-gapped data backup architecture...”***

***– Federal Financial Institutions Examination Council***



***“The ability to ensure the ongoing confidentiality, integrity, availability and resilience of processing systems ...”***

***– General Data Protection Regulation***



***“It is critical to maintain offline, encrypted backups of data”***

***– Cybersecurity & Infrastructure Security Agency***



***“Ransomware payments may risk violating OFAC regulations”***

***– The Department of the Treasury***



***“Ensure backups are not connected permanently to the networks they back up.”*** – Department of Justice



# Broad spectrum of sophisticated cyber threats

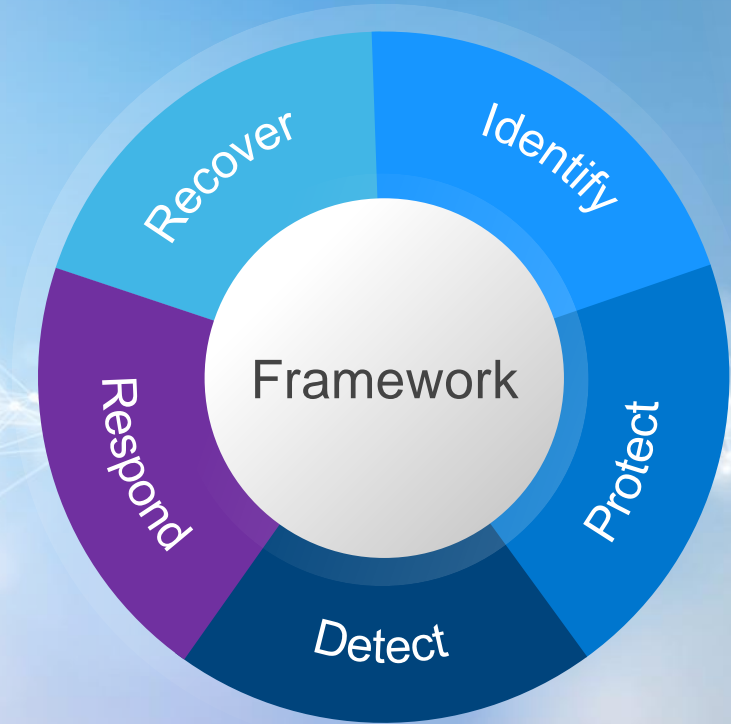
## Motivations, Techniques and Goals



# Cyber resilience is a strategy.

A high-level holistic strategy that includes cyber security standards, guidelines, people, business processes and technology solutions.

Example: [NIST Cybersecurity Framework](#)

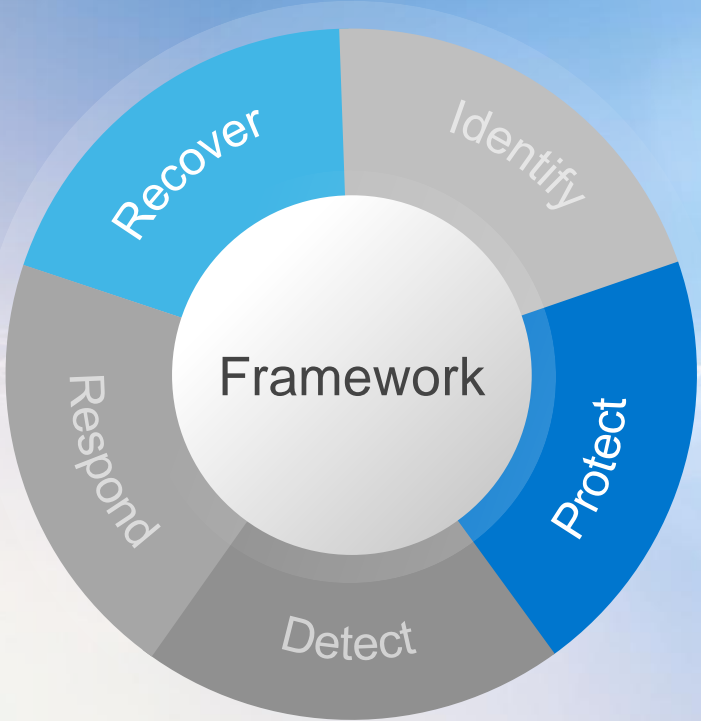


Source: [https://en.wikipedia.org/wiki/Cyber\\_resilience](https://en.wikipedia.org/wiki/Cyber_resilience)

# Cyber Recovery is a solution.

A data protection solution that isolates business-critical data away from attack surfaces.

Critical data is stored immutably in a hardened vault enabling recovery with assured data availability, integrity and confidentiality.



Source: [https://en.wikipedia.org/wiki/Cyber\\_resilience](https://en.wikipedia.org/wiki/Cyber_resilience)

# Disaster Recovery is not Cyber Recovery

Disaster Recovery / Business Continuity is not enough to address modern cyber threats

CATEGORY	DISASTER RECOVERY	CYBER RECOVERY
Recovery Time	Close to instant	Reliable & fast
Recovery Point	Ideally continuous	1 day average
Nature of Disaster	Flood, power outage, weather	Cyber attack, targeted
Impact of Disaster	Regional; typically contained	Global; spreads quickly
Topology	Connected, multiple targets	Isolated, in addition to DR
Data Volume	Comprehensive, all data	Selective, includes foundational services
Recovery	Standard DR (e.g., failback)	Iterative, selective recovery; part of CR

# PowerProtect DD

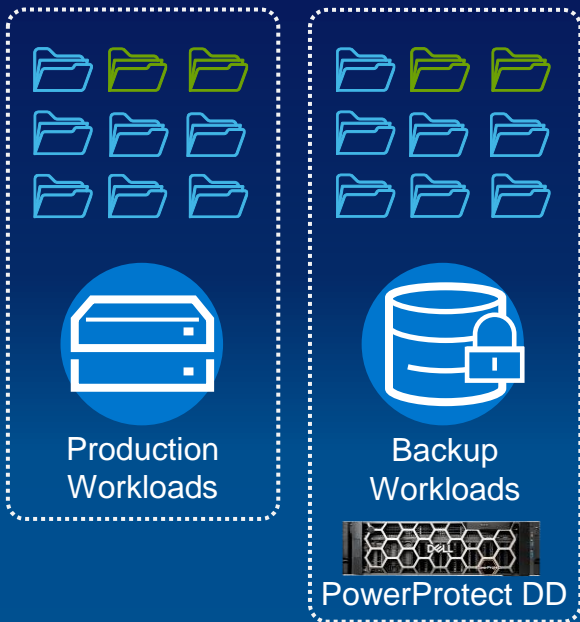
## Data Protection Foundation for Resilience

# PowerProtect DD Series

The Foundation for Data Protection

BECHTLE

DATA CENTER



Avamar – Networker – Data Manager  
Data Protection Advisor – DD Series

**Retention Lock Compliance (Immutability)**

**SEC 17a-4f Compliance**

**Role Based Access**

**End to End Encryption**

**Dual Role Authorization**

**Multi-Factor Authentication**

**Secure System Clock**

**NTP Clock Tamper Controls**

**Key Management**

**Custom System DDOS**

**DD File System Hardened**

**DDBoost**

**Integrated Lights Out Mgt Hardening (iDRAC)**

**Data Invulnerability Architect (DIA)**

**Secure AD/LDAP Authentication**

**Secure Remote support**

**Anomaly Reporting with DPA**





# Efficiency Now Matters More Than Ever

## Deduplication enhances security

### Production Data

Front-end TB  
in production



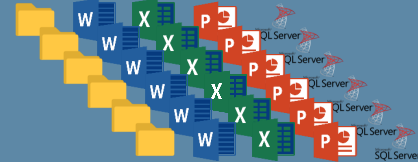
### Dell

### Others

Dedupe 50 -1

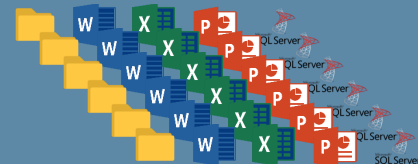
Dedupe 5 -1

### Production Backup



- ✓ Fewer components =
  - Less network traffic
  - Less to secure
  - Less to monitor
- ✓ Save data center space
- ✓ Save data center cooling
- ✓ Fewer FTE

### DR



### Isolated Vault



# PowerProtect Cyber Recovery

The Ultimate Solution To Recover from  
Cyber Threats



# Dell Technologies

## Cyber Recovery & Data Protection leadership



2015	First “Isolated” recovery solution with custom deployment
2018	Introduced PowerProtect Cyber Recovery solution
2019	First technology vendor in Sheltered Harbor Alliance Partner Program
2020	First Endorsed Sheltered Harbor Solution – PowerProtect Cyber Recovery
2021	Introduced Cyber Recovery with Multi-Cloud Data Services for Dell PowerProtect
2021	Introduced PowerProtect Cyber Recovery for AWS
2022	Introduced PowerProtect Cyber Recovery for Azure and Google Cloud

**1500+** Cyber Recovery Customers<sup>1</sup>

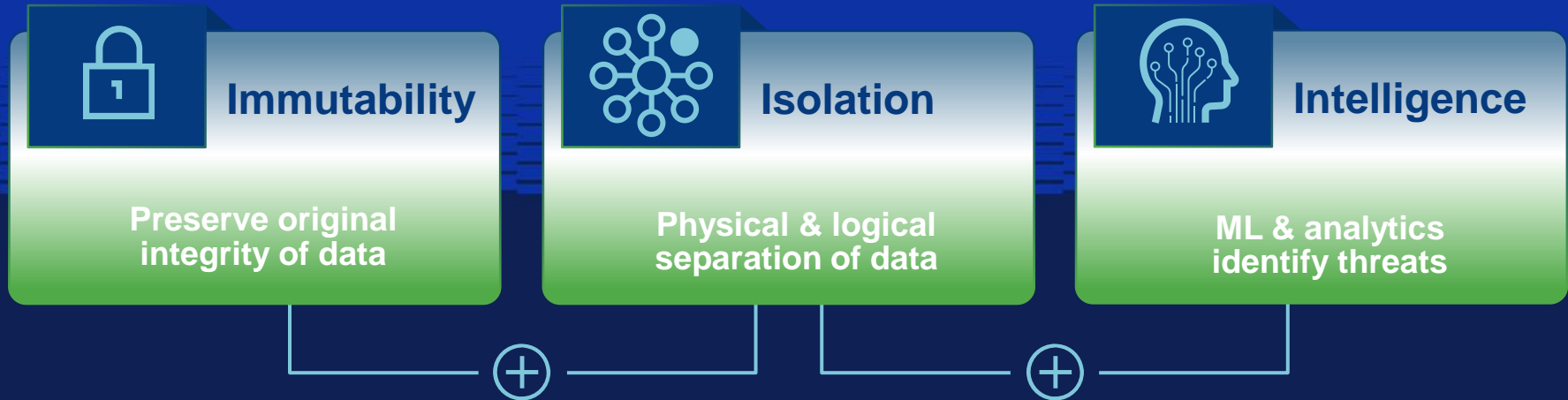
**#1**  
Data Protection Appliances & Software<sup>2</sup>

<sup>1</sup> Based on Dell Technologies analysis, February 2023

<sup>2</sup> Based on combined revenue from the IDC 4Q22 Purpose-Built Backup Appliance (PBBA) Tracker, with select Storage Software segments from the 4Q22 Storage Software and Cloud Services Tracker

# Cyber Recovery Requirements

Modern threats require innovative solutions



# PowerProtect Cyber Recovery Deployment

Modern protection and recovery for critical rebuild data from ransomware and cyber threats to **enable cyber resiliency and ensure business continuity**

## ON-PREMISES



*Optional Managed Services*

## COLOCATION

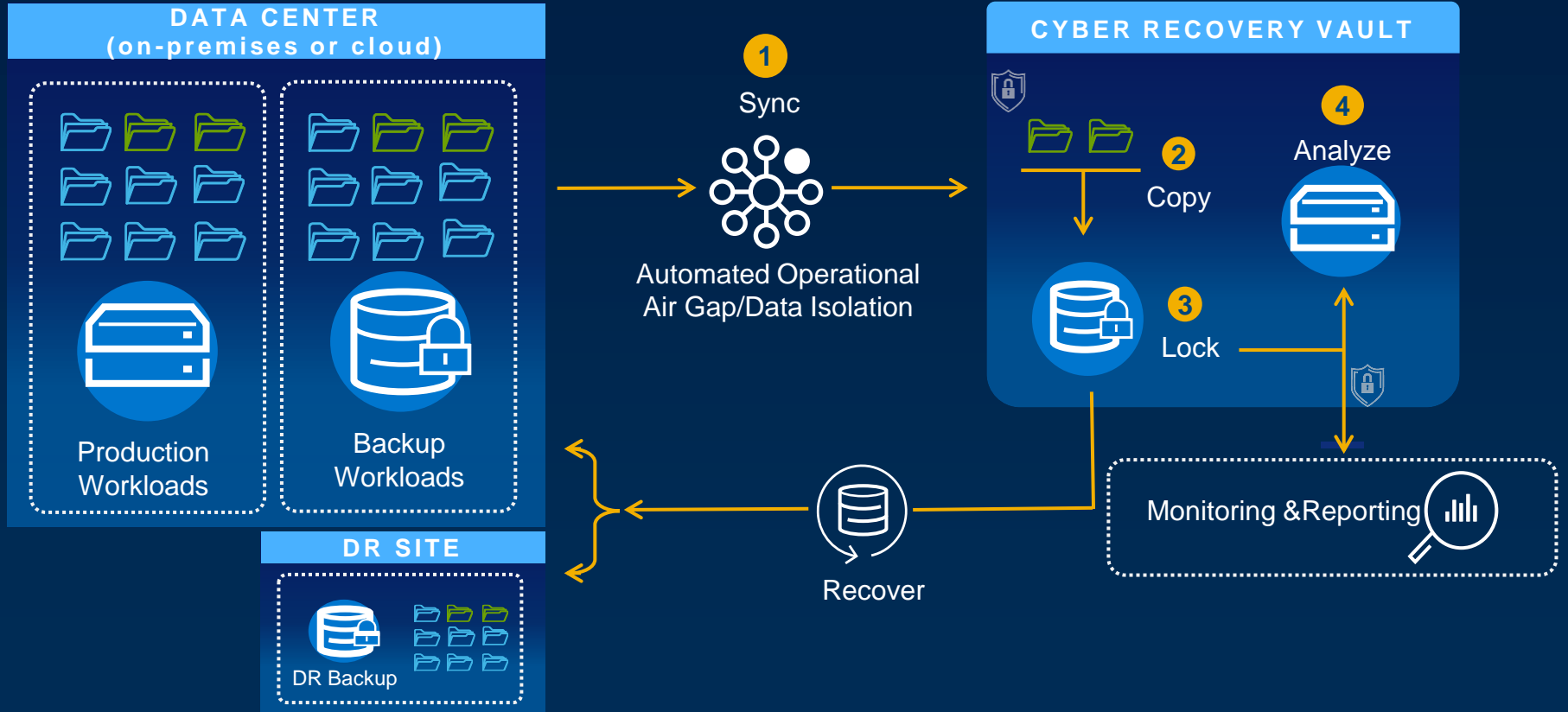


## PUBLIC CLOUD



# Dell PowerProtect Cyber Recovery

Ensuring the Recovery of Critical Rebuild Data in case of Cyber Threats

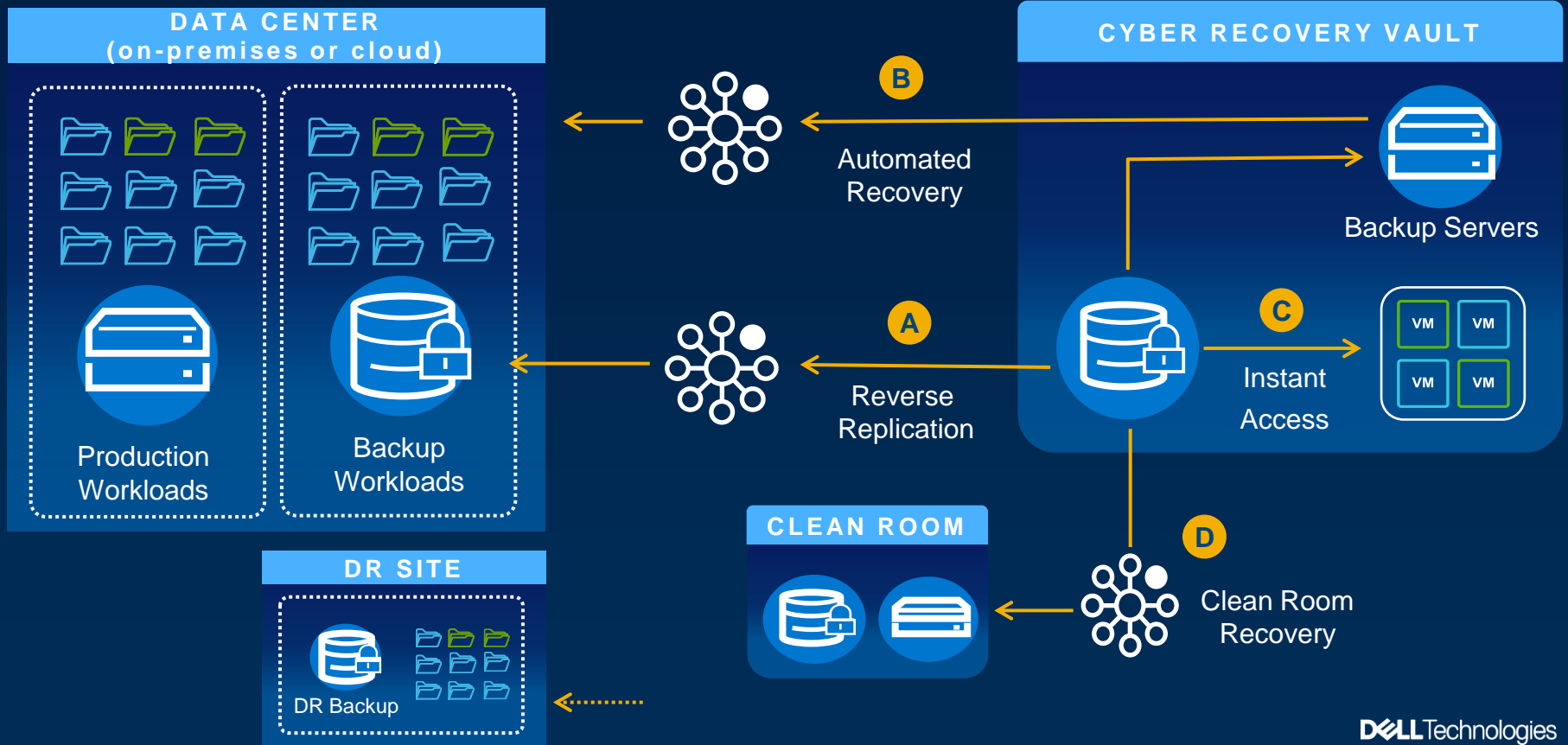




# Recovery Options with PowerProtect Cyber Recovery

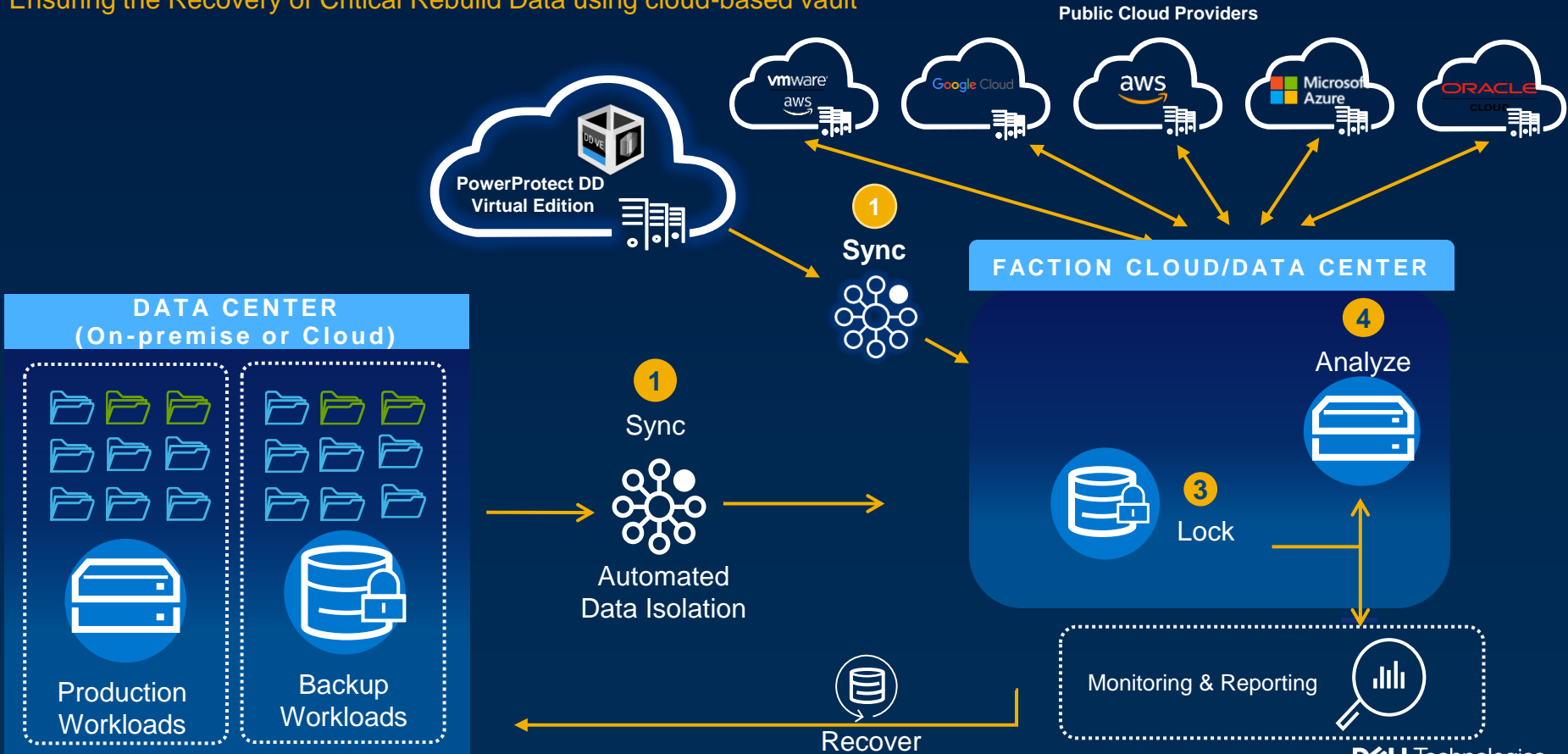


Flexible Recovery options



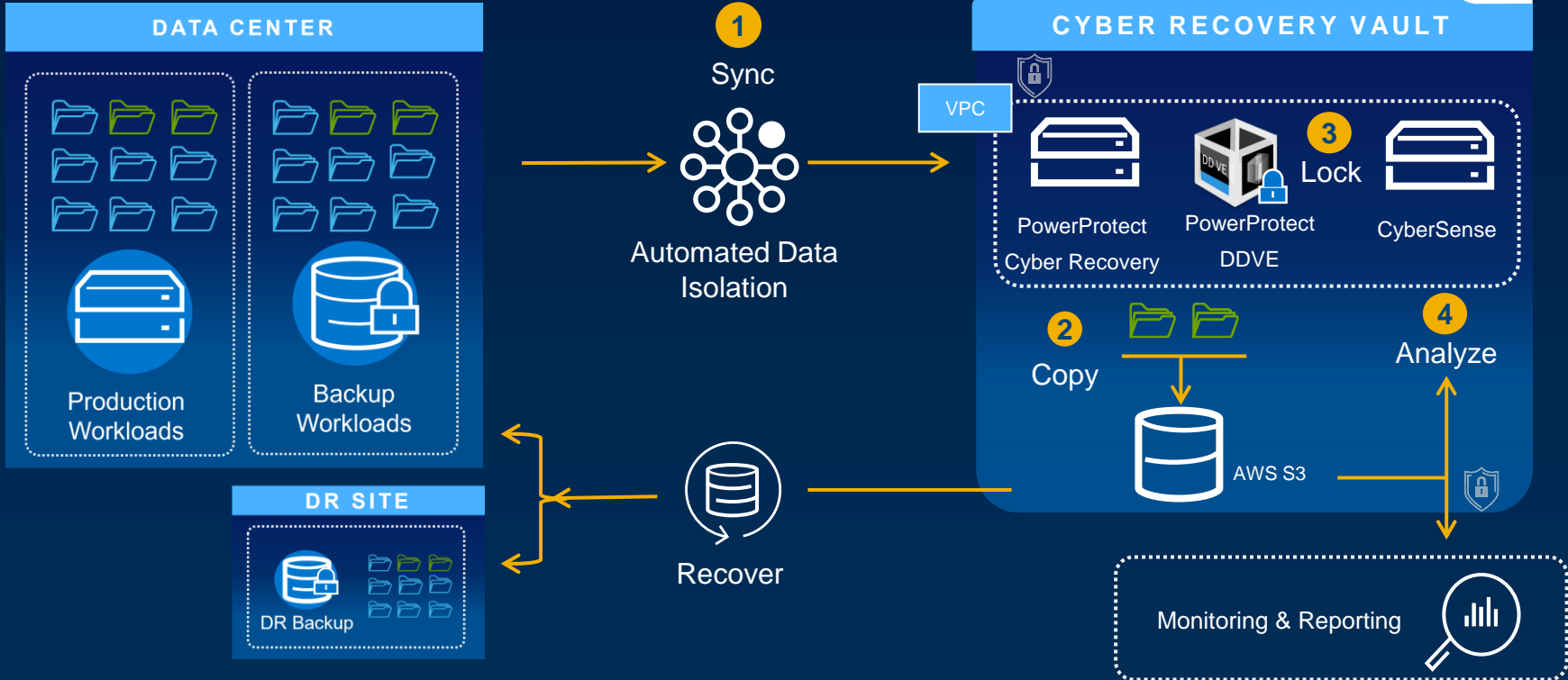
# Multi-Cloud Data Services

Ensuring the Recovery of Critical Rebuild Data using cloud-based vault



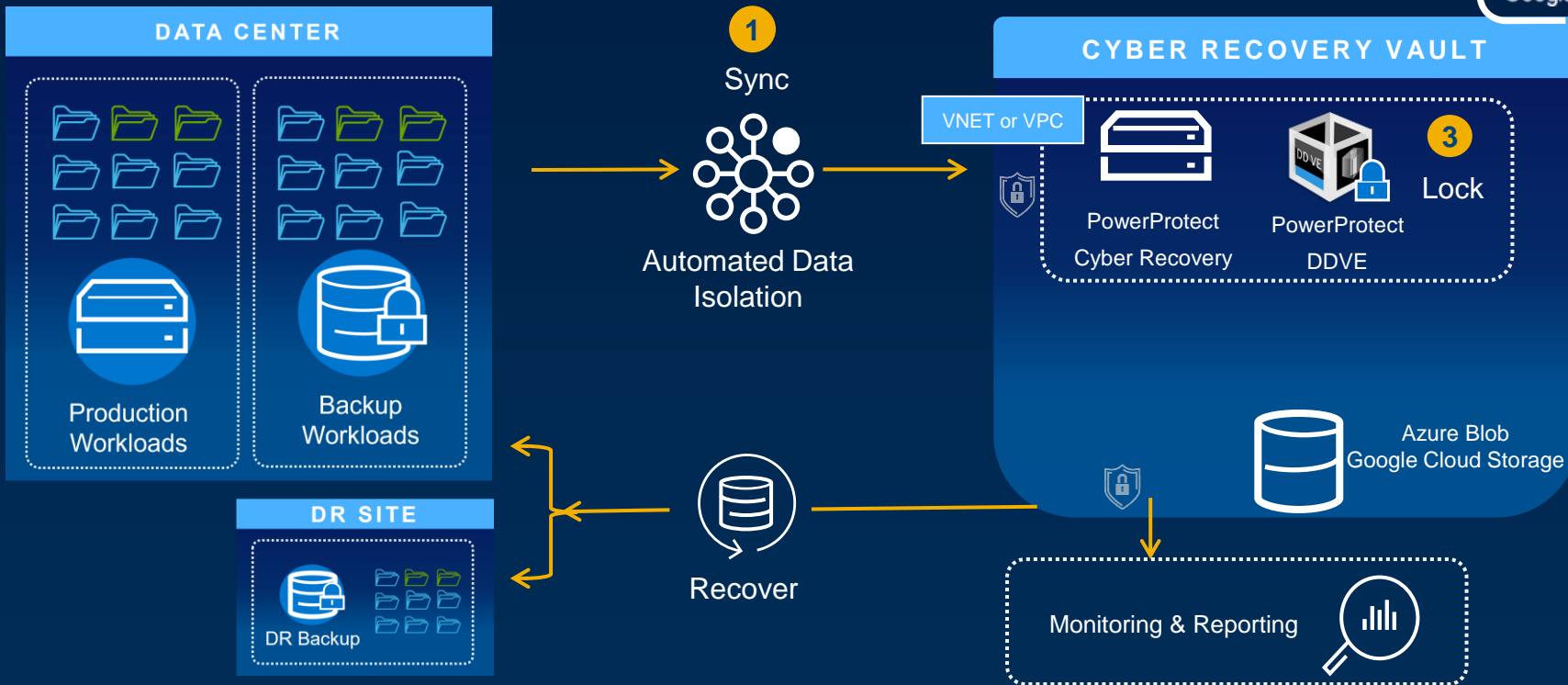
# Dell PowerProtect Cyber Recovery for AWS

Recovery of Critical Rebuild Data with AWS



# Dell PowerProtect Cyber Recovery for Azure and Google Cloud

Recovery of Critical Rebuild Data with Azure and Google Cloud



# CyberSense

Analytics To Verify Data Integrity for Resilience

# PowerProtect Cyber Recovery and CyberSense



The Intelligence of Cyber Recovery



Fully Integrated and Automated Cyber Recovery orchestrates CyberSense data analysis. Alerts appear in the CR dashboard.



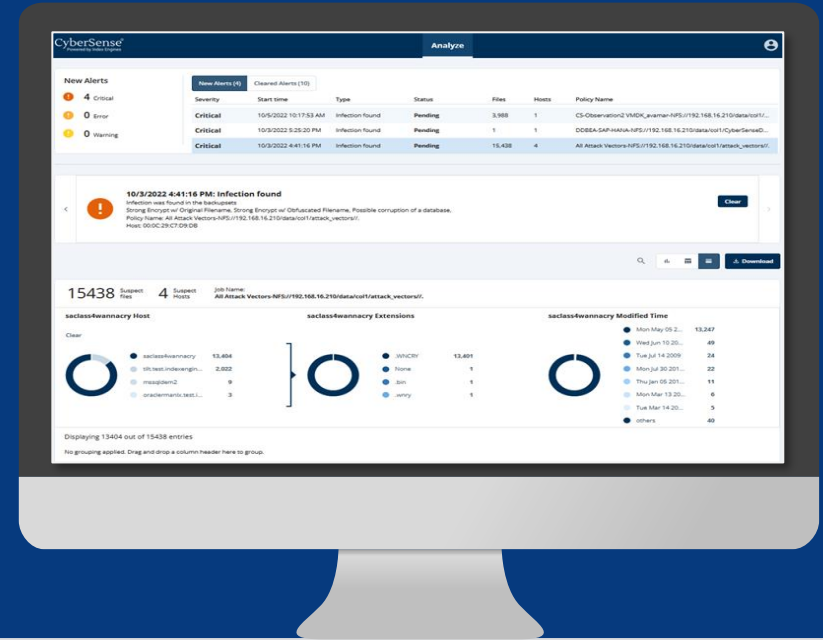
Backup Data Validated in Vault

Analytics are run with every replication to the vault, integrity of data is checked.



Post Attack Diagnosis & Recovery

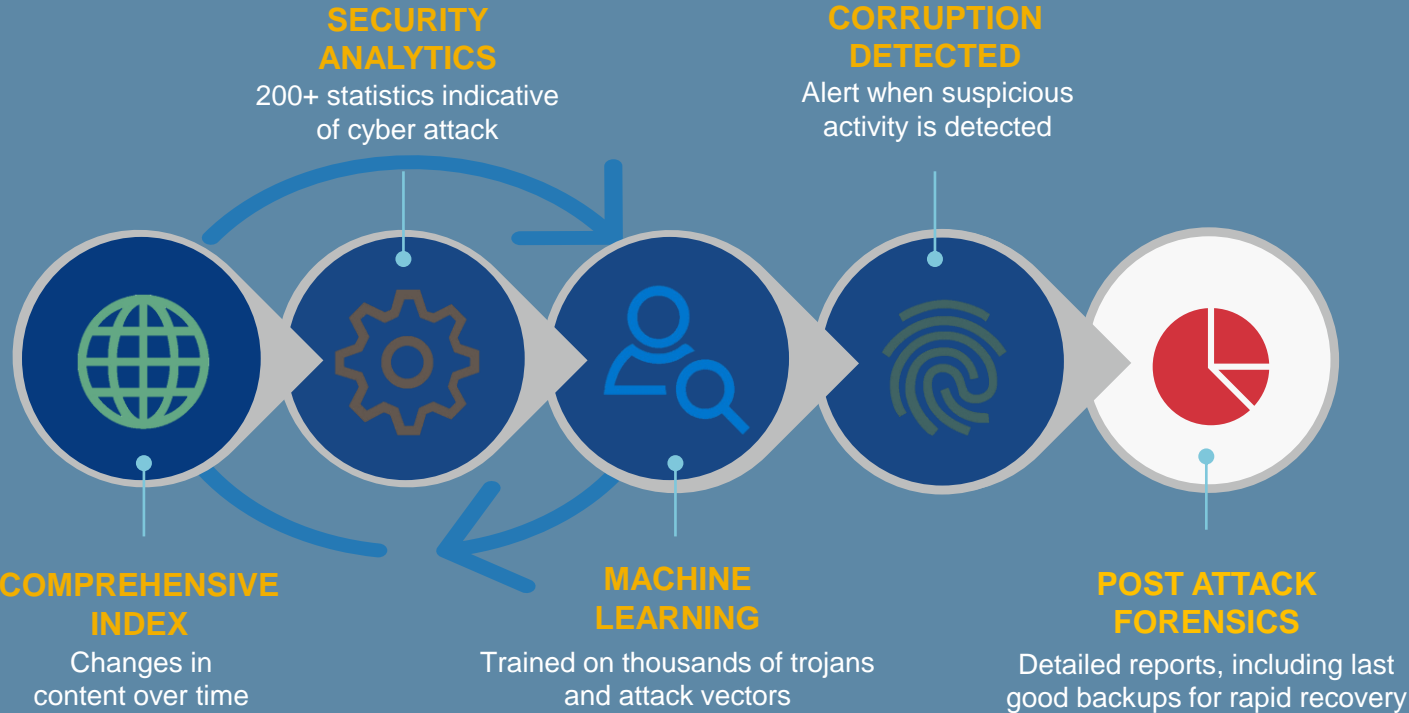
Understand the depth and breadth of the attack, as well as the last good backup sets for recovery.





# How CyberSense Works

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



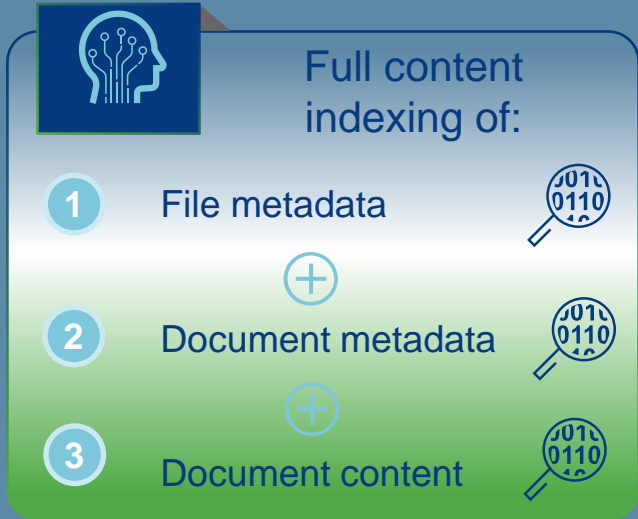
## CyberSense Provides

- Attack vector notification
- Ransomware detection
- Corrupted file details
- Data changes / deletions
- Breached user accounts
- Breached executables
- Last good backup copy

# Compare: CyberSense vs. “Basic” Analytics

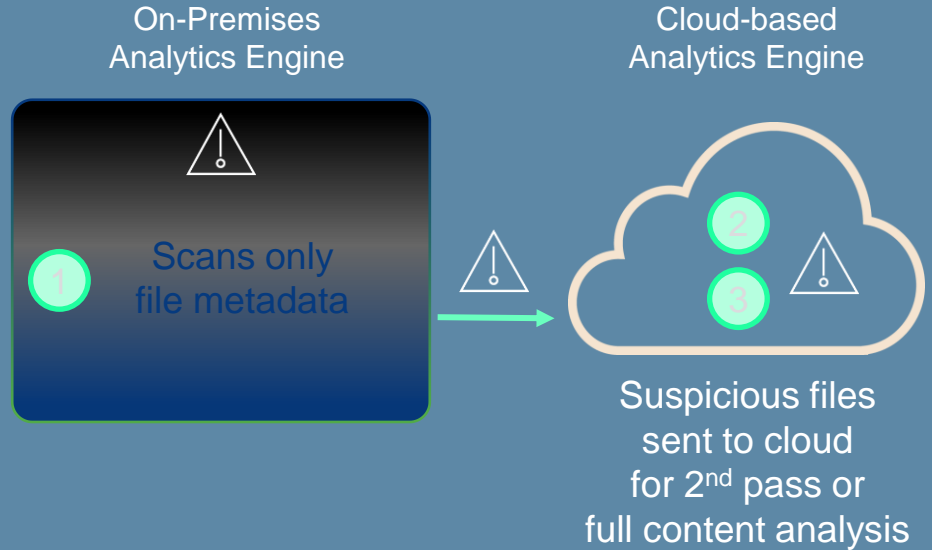
Machine learning enables early detection & rapid recovery within the Cyber Recovery vault

## CyberSense:



VS.

## Basic Analytics:



# CyberSense Support for Intelligent Recovery

1

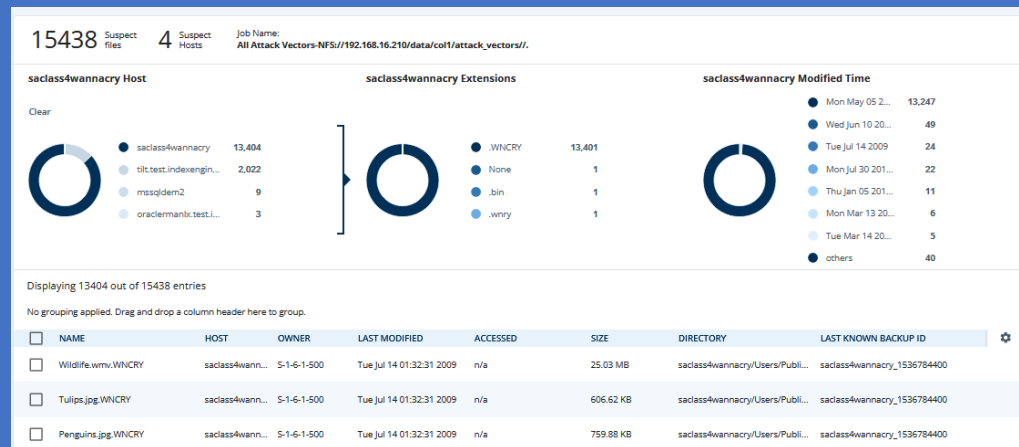
**Detect**  
*Detect corruption  
within a backup cycle*

2

**Investigate**

3

**Recover**  
*Report on last good  
backups quickly  
recover*



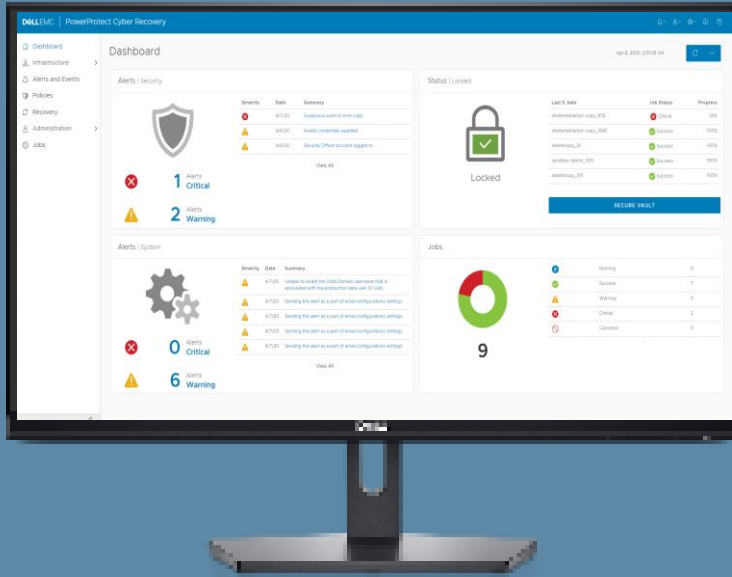
Point in  
time of  
the attack

Listing of  
corrupted  
files

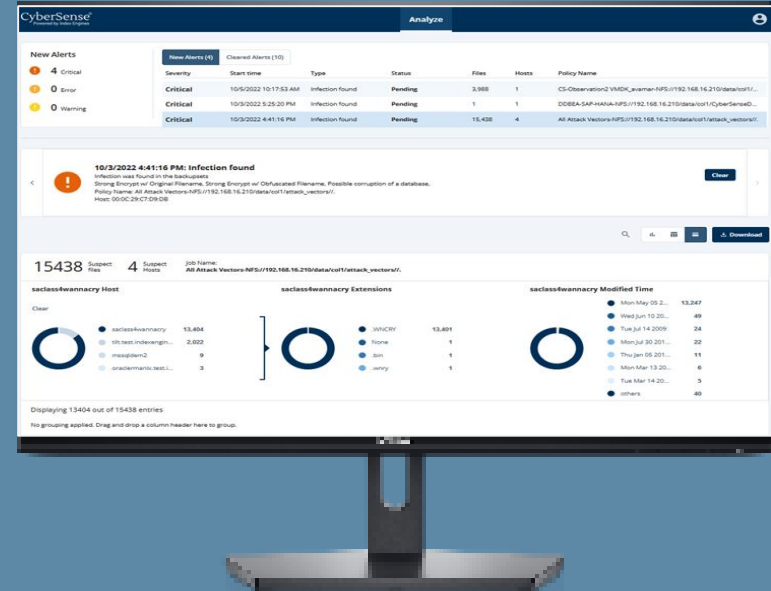
What  
backups  
need to be  
recovered

Search  
backups to  
detect  
ransomware

# PowerProtect Cyber Recovery



## CyberSense Alert



# Sheltered Harbor Endorsement

Only Endorse Solution for Confident Recovery



## 9 out of the top 10

U.S. financials sector companies are Dell Technologies Data Protection customers<sup>1</sup>



## 7 out of the top 10

Global financials sector companies are Dell Technologies Data Protection customers<sup>1</sup>

<sup>1</sup>Based on Dell Technologies internal analysis as compared to a global media organization publication, July 2022



The Sheltered Harbor initiative was launched by the industry in 2015 to ensure that in a worst-case scenario:

- ✓ Public confidence in the financial sector is maintained
- ✓ Critical data sets are protected across the industry
- ✓ Critical services can continue even when systems and backups are down
- ✓ An impacted financial institution has a lifeline to survival
- ✓ All of the above must be achievable independent of the event's origin



## Data Vault Requirements

- ✓ “Unchangeable”
- ✓ “Separated”
- ✓ “Survivable”
- ✓ “Accessible”
- ✓ “Decentralized”
- ✓ “Owned & managed by institution or service provider”



## PowerProtect Cyber Recovery

is first turnkey data vaulting solution to be endorsed by Sheltered Harbor



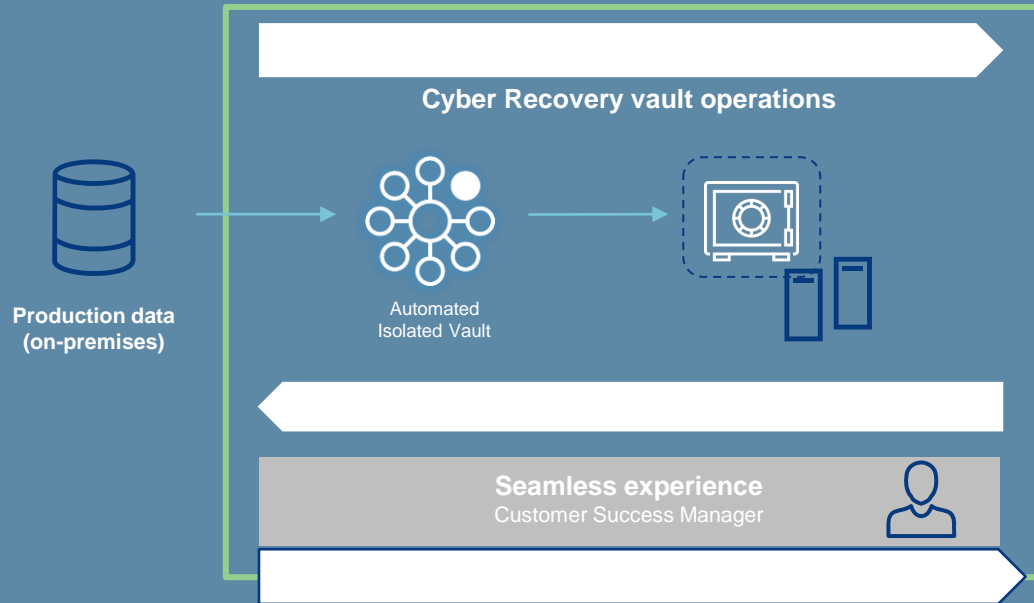


# Professional Services

Leverage Dell Manager Services for Resilience

# APEX Cyber Recovery Services

## Leverage Dell Managed Services to simplify recovery



- ✓ Gain expertise from 1900+ vaults
- ✓ as-a-Service management simplifies recovery
- ✓ Protect your most important data
- ✓ Detect anomalies dynamically
- ✓ Predictable business recovery

# Making it easy to operate a cyber recovery vault

Focus more on cybersecurity strategy, not infrastructure management



## Customer Success Manager

Seamless experience of day-to-day operations of the Dell cyber recovery vault



## Gain experience from over 1,900 vaults

Provide end-to-end expertise through simplified, as-a-Service management

### Cyber Recovery Solution Runbook

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Streamline recovery processes with Dell assisted recovery and using templated runbooks

# Positioning guidance for Cyber Recovery Services portfolio



Help customers protect critical data from an attack and enable a path to recovery through an isolated cyber recovery vault



## Professional Services for Cyber Recovery

For small to complex environments, or those that have unique business or data requirements



## Product Success Accelerator for Cyber Recovery

For mid-market customers who want to own their infrastructure but need operational support



## APEX Cyber Recovery Services

For mid-market to enterprise customers who want a fully managed solution – hardware, software and services

Highly tailored with 25+ offers	Single offer – 3 service level options	Single offer – 2 service level options
CapEx – custom and standard offers	CapEx – standard fixed scope	As-a-Service subscription – fixed scope
Price varies by offer	Fixed price for each level	Consumption-based pricing
Service hours vary by offer	8x5 service hours*	24x7x365 service hours

*\*Provided as part of Operate level option*

# PowerProtect Cyber Recovery Advantage

Transforming Data Protection to Data Resilience

# PowerProtect Cyber Recovery Advantages:

Modern protection for critical data and an enabler of Security Transformation



## Immutability

### Preserve original integrity of data

Multiple layers of security and controls protect against destruction, deletion and alteration of vaulted data



## Isolation

### Physical & logical separation of data

PowerProtect Cyber Recovery vault is protected with operational air gap either on-premises or in cloud and multi-cloud offers



## Intelligence

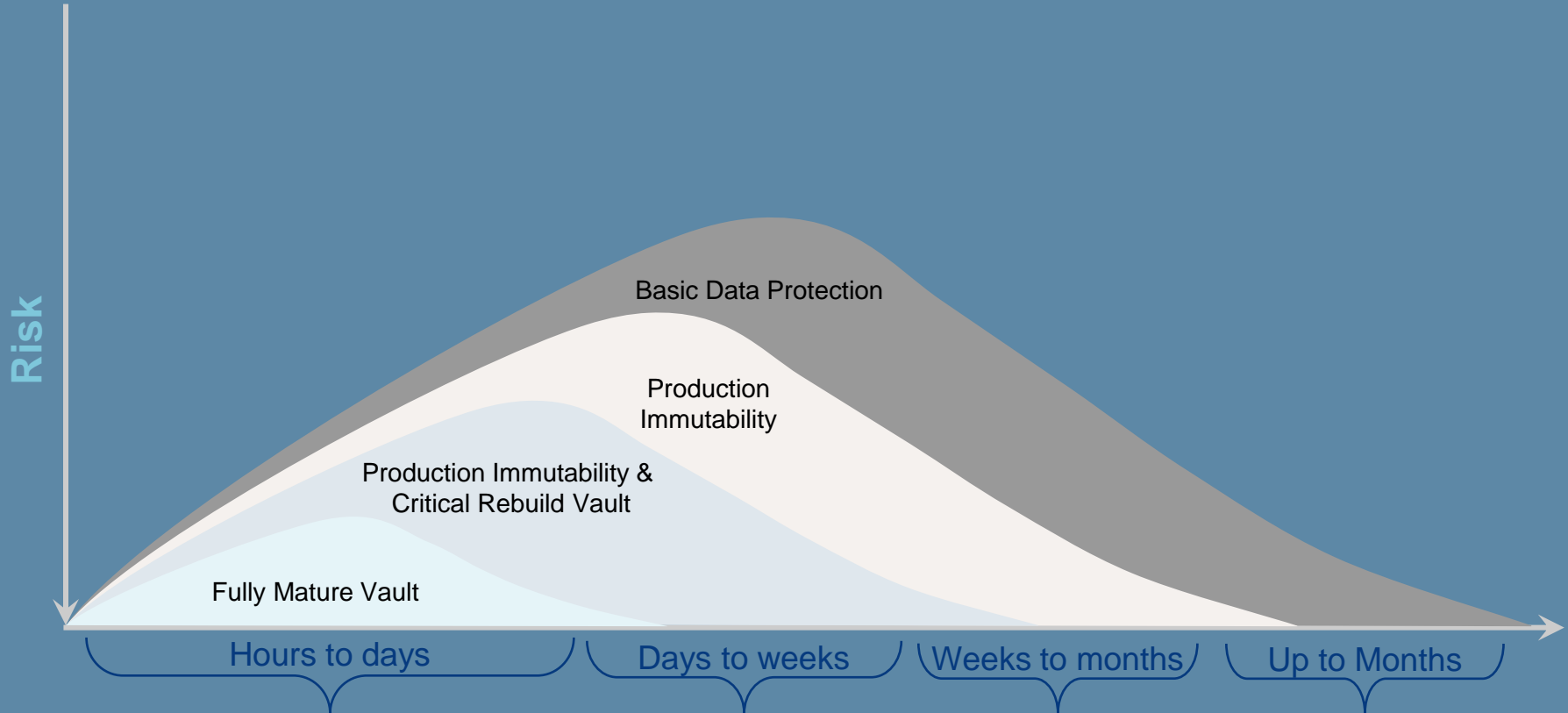
### ML & analytics identify threats

CyberSense enables assured recovery of good data and offers insight into attack vectors from within the Cyber Recovery vault



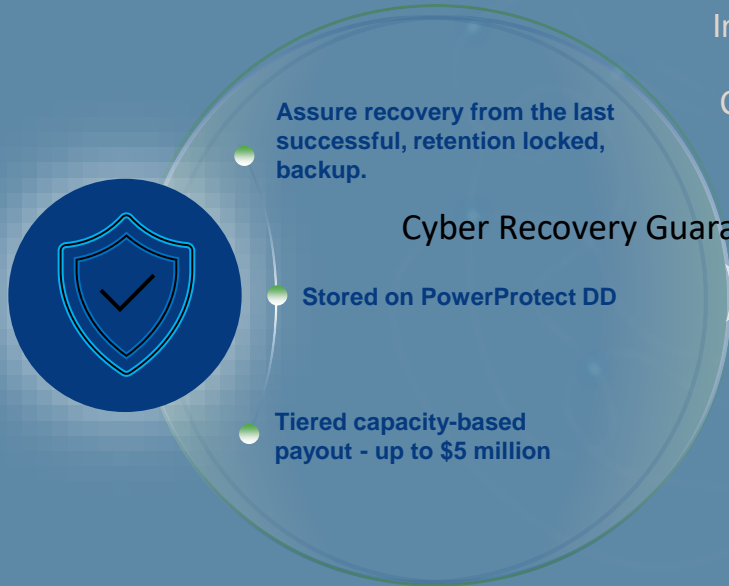
# Stronger Resilience. Better Outcomes.

Reduce Risk, Speed Recovery, and Lower Costs

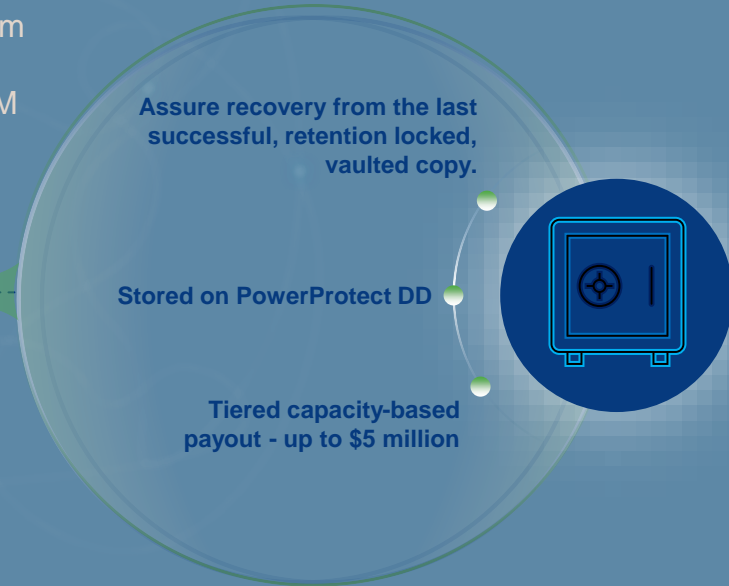


# Cyber Recovery Guarantee overview

## Production Immutable Copy Up to \$5M



## Vault Isolated & Immutable Copy Up to \$5M



Independent up to \$5m  
or  
Combined up to \$10M

**\$10M**

### Cyber Recovery Guarantee overview

[For More Information](#)



# The Power of PowerProtect Cyber Recovery

Reduce Risk, Speed Recovery and Lower costs to recovery from Destructive Cyberattacks



**PowerProtect DD and DDVE** are the foundation of Data Protection – fast, storage efficient and highly secured for resilience



**Immutability** & multi-layered security design protects against a full spectrum of threats, including insiders



Physical and logical **Isolation** plus an operational air gap protect data vault from unauthorized access



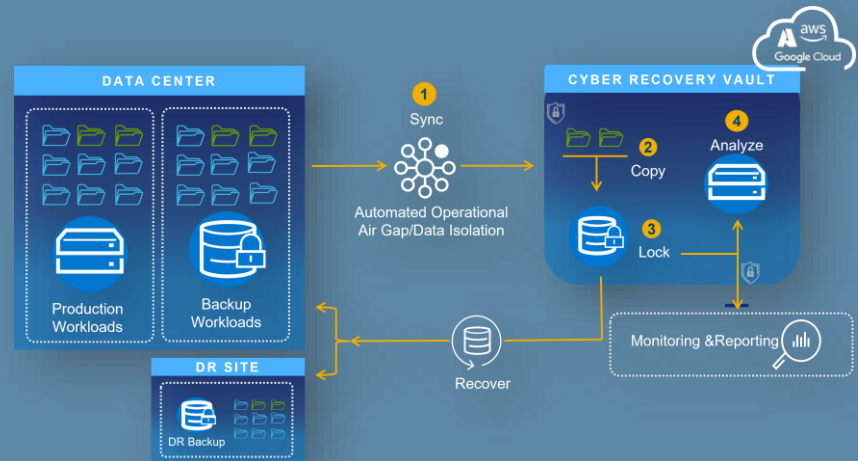
**Intelligent** analytics & ML help to enable confident recovery with data integrity



**First** and **Only** Sheltered Harbor endorsed turnkey data vaulting solution to confidently recover financial data



**Cyber Recovery Guarantee** will make sure data is protected and recoverable



*On-premises – Colocation - Public Cloud*

*Whether on-premises, colocation or public cloud, Dell PowerProtect Cyber Recovery protects critical data from cyberattacks with flexible deployments and streamlined recovery options.*



1,500+ customers<sup>1</sup>

Dell Technologies

# Fortune 100 companies

71% of the Global  
companies in the Fortune  
Global100 are

Dell Technologies Data  
Protection customers

# Fortune Global 500 sectors



- 9 out of top 10 Global Technology
- 9 out of top 10 Global Energy
- 8 out of top 10 Global Health Care
- 8 out of top 10 Global Motor Vehicles & Parts
- 8 out of top 10 Global Food & Drug Stores
- 8 out of top 10 Global Telecommunications
- 8 out of top 10 Global Transportation
- 7 out of top 10 Global Financials
- 7 out of top 10 Global Retailing
- 7 out of top 10 Global Food, Beverage & Tobacco

# Start Your Cyber Resiliency ...Now

# Cyber Recovery is a Key Enabler of Cyber Resilience

Focus on increasing confidence in the ability to recover from a cyber attack through key technologies and processes

**Air Gapping,  
Immutability  
& automation**



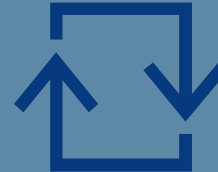
**AI/ML based  
security  
analytics tools**



**Runbooks  
and recovery  
process**



**Business  
Recovery  
At speed  
and scale**



**Cross  
functional  
enablement**

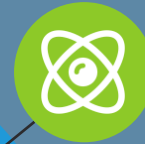
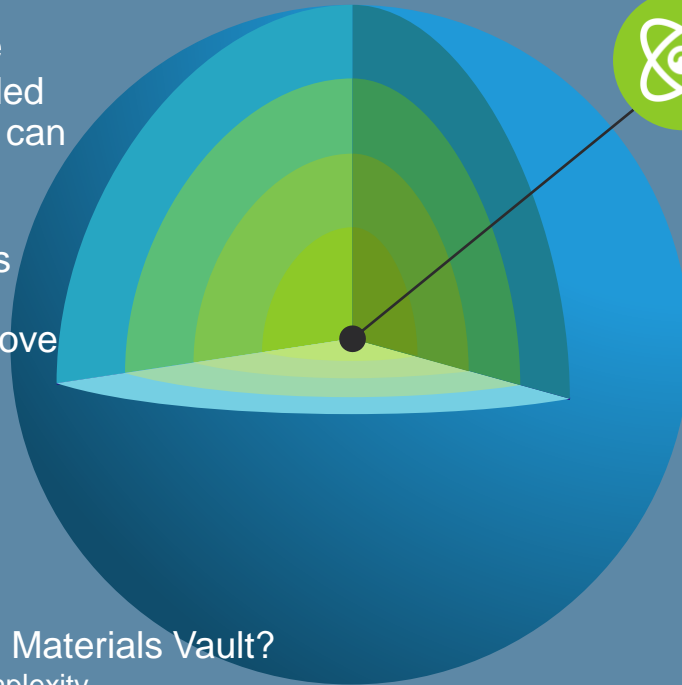


# Critical Rebuilds Start at the Core

Deploy A Vault with Basic Recovery Building Blocks



- Critical Rebuild Materials are **"Tier 0"** infrastructure needed before business applications can run.
- Protecting Tier 0 components such as Active Directory can substantially speed and improve recovery with very little complexity or overhead requirements.



## Tier 0

Protect the critical data needed to begin the rebuild of your environment first. Some examples are:

- Active Directory / LDAP
- DNS
- Switch / router / IP configurations
- Firewall rules
- Gold copy images / binaries
- Configurations and settings

## Why Deploy a Critical Rebuild Materials Vault?

- Fast deployment and low complexity
- Enhanced resilience
- Provide a foundation for future vault contents such as databases and business applications



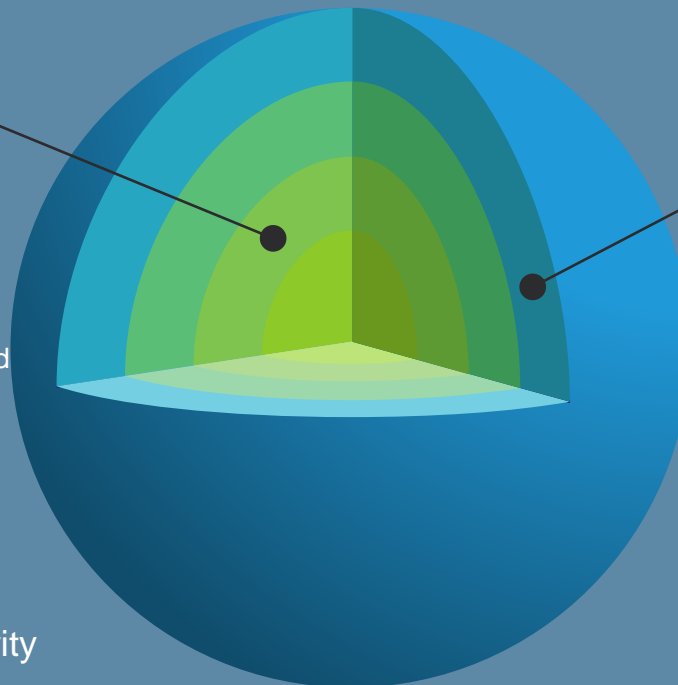
# Continue Your Data Recovery Journey

Understand the data in your environment and how it impacts the business



## Tier 1 Applications

Start with the top 2 or 3 applications that are most important to keeping the business running. These are typically aligned to revenue, reputation, systematic risk and safety.



## Tier 2 Applications

Protect additional applications and data that are important to the business. This will enable more of the business to be quickly recovered. Grow, as needed, over time.

## Recovery Maturity

Consider advanced capabilities such as clean rooms and landing zones to speed and further enhance the recovery process.

# Dell Security & Resiliency Services



## Professional Services

- Cyber Assessments
- Deploy & Implement
- Runbook & Validation
- Advisory & Design
- Operate & Manage

## Incident Recovery & Retainer Service

- Evaluate & Plan
- Strengthen Readiness
- Incident Response & Recovery
- Tabletop Exercises

## APEX Cyber Recovery As-a-Service

- Manage day-to-day vault operations
- Drive consistent procedures & testing
- Monitored 24x7x365 by global operations team
- Support recovery operations

>35K

Service & Support Professionals

Certified Cyber  
Security Experts

20+ years of  
resiliency services innovation



# Data Protection & Data Resilience Leadership

# 1500+

Cyber Recovery customers<sup>1</sup>

# 17 EB+

Data protected in the cloud

# #1

Data Protection appliances & software<sup>2</sup>

2012	First “Immutable” Data Protection Appliance
2015	First “Isolated” recovery solution with custom deployment
2016	zDP: 1st z/OS implementation of logical corruption protection
2018	Introduced PowerProtect Cyber Recovery solution
2019	First technology vendor in Sheltered Harbor Alliance Partner Program
2020	First Endorsed Sheltered Harbor Solution – PowerProtect Cyber Recovery
2021	Introduced PowerProtect Cyber Recovery for Multi-Cloud & AWS
2021	Formal support for PowerProtect Cyber Recovery for DLm
2022	Introduced PowerProtect Cyber Recovery for Azure and Google Cloud
2022	Managed as-a-Service APEX Cyber Recovery Services

<sup>1</sup> Based on Dell Technologies analysis, February 2023

<sup>2</sup> Based on combined revenue from the IDC 4Q22 Purpose-Built Backup Appliance (PBBA) Tracker, with select Storage Software segments from the 4Q22 Storage Software and Cloud Services Tracker

# >35K

Service & Support Professionals

# 241M+

Assets supported

# 94%

Technical Support CSAT rating

# 10,000+

Transformation projects completed

# Learn More

# Dell PowerProtect Cyber Recovery

[delltechnologies.com/cyberrecovery](https://delltechnologies.com/cyberrecovery)



Intel® Innovation Built-in



Data Protection > Guarantees

FUTURE-PROOF PROGRAM

## Data Protection Guarantees

[delltechnologies.com/dataprotection](https://delltechnologies.com/dataprotection)

Twitter post from Dell EMC Protect (@DellEMCProtect) dated July 2021. The tweet discusses data protection solutions and includes a video thumbnail. It has 695 followers and 33,206 followers.

@DellProtect

## Multicloud Data Protection and Backup Solutions

Fortify the protection and resiliency of your critical workloads and data across your multicloud experience. Boost efficiency and scalability throughout your cloud infrastructure, while reducing total cost of ownership.

[Watch Video](#)

[delltechnologies.com/cloudprotection](https://delltechnologies.com/cloudprotection)

PowerProtect Cyber Recovery  
Safeguard Dell PowerProtect Cyber Recovery to Recover the S.M.A.R.T. of Your Business

Fortify Your Organization

San Felipe Del Rio CISD

Customer Video  
San Felipe Del Rio

ESG Analyst Case Study: Cyber Recovery for Financial Sector

ESG Analyst Case Study:  
Cyber Recovery for  
Financial Sector

Enterprise Strategy Group  
by TechTarget

Dell Technologies and Sheltered Harbor:  
Partners in Cyber Resilience


ESG Analyst Video  
Cyber Recovery &  
Sheltered Harbor

SANS Analyst Program  
Protecting Data Integrity with Index Engine's CyberSense


Data Integrity with CyberSense



# Key Data to Protect by Industry




**Healthcare**  
Electric medical records, scheduling, payment and billing systems



**Legal**  
Document management, conflicts checking, billing, email




**Financial Services**  
Payment, core banking, trading, treasury, sheltered harbor data




**Oil & Gas**  
Seismic & geographical exploration data




**Life Sciences**  
Research and development, drug discovery & clinical trial data



**Government**  
Property records and taxes, justice systems, payment collection, licenses



**Retail**  
Point of sale, inventory, shipping



**Manufacturing**  
Plant manufacturing and scheduling, ordering systems, inventory

# Merci!

Des questions? Contactez-nous: [it-forum.ch@bechtle.com](mailto:it-forum.ch@bechtle.com)

Plus d'informations :  
[bechtle.com](http://bechtle.com)

