



Bring Zero Trust Data Management to the NetApp Data Fabric





Today's Agenda

- Context
- Rubrik & NetApp: Better Together
- Integration & Use Cases





Speakers



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Background Data Management Forever





Context





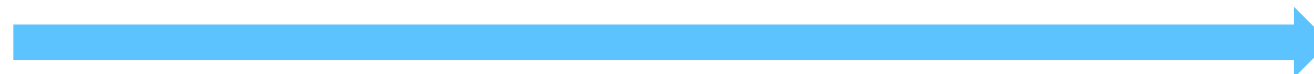
The Transition From Traditional IT to Cloud Is Not Easy

ON PREMISES

Own/operate

PUBLIC CLOUDS

Consumption



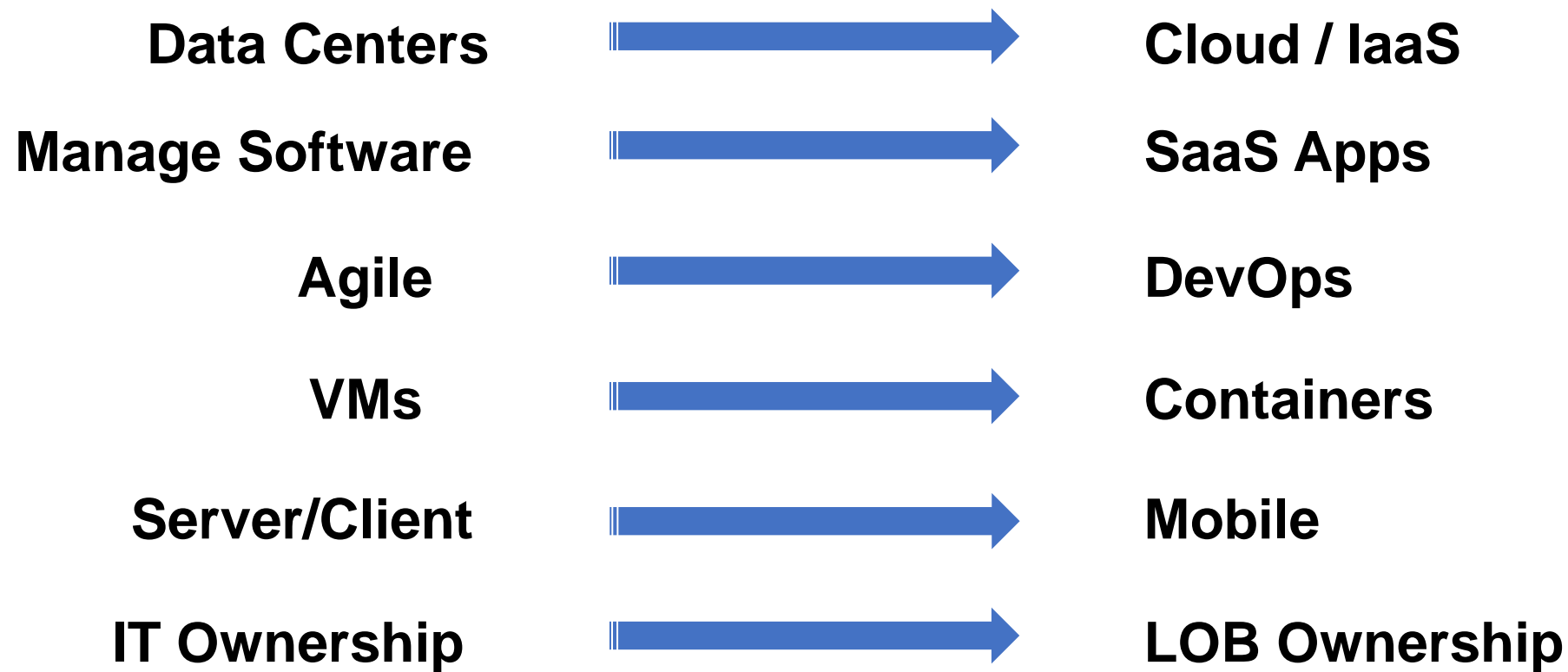
ENTERPRISE IT



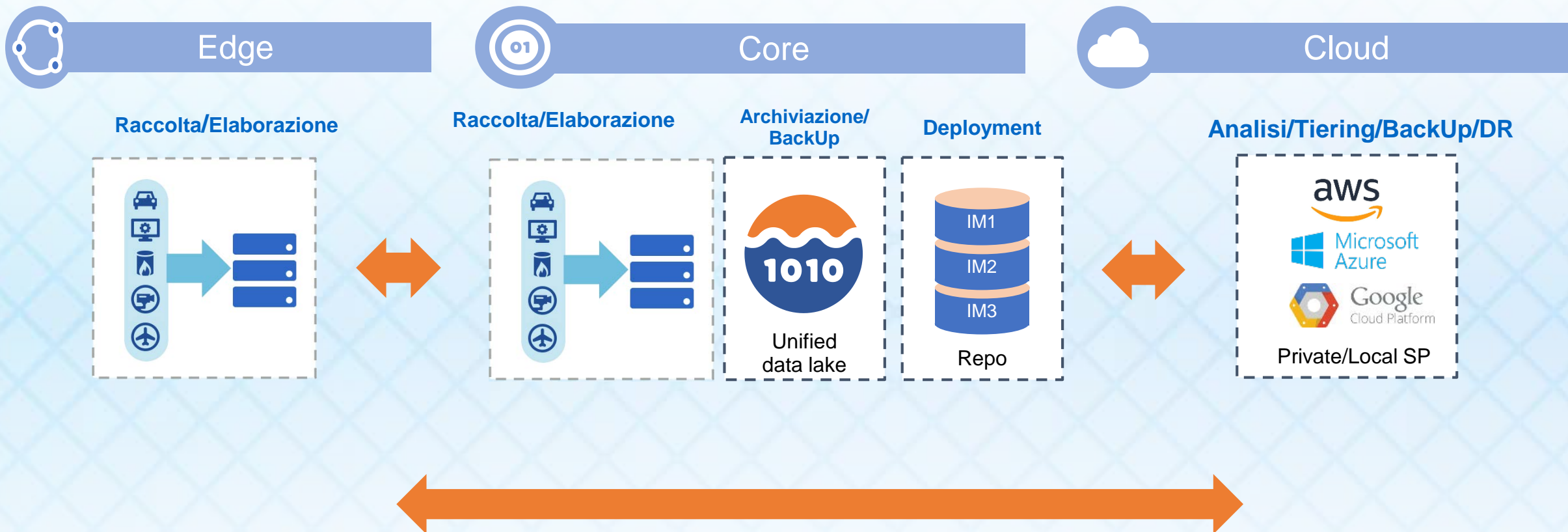
“Your organisation’s cloud strategy will be unique”



World is Changed



Edge to Core to Cloud



“La gestione di petabyte di informazioni
sta diventando comune.
Le metodologie di backup tradizionali
non sono più in grado di far fronte a tali
volumi di dati”

—2020, IDC, Worldwide Data Replication and Protection Software Forecast, 2019–2024: Rough Waters Ahead

The Ransomware Pandemic



FBI

Ransomware market will be

+\$1 BILLION

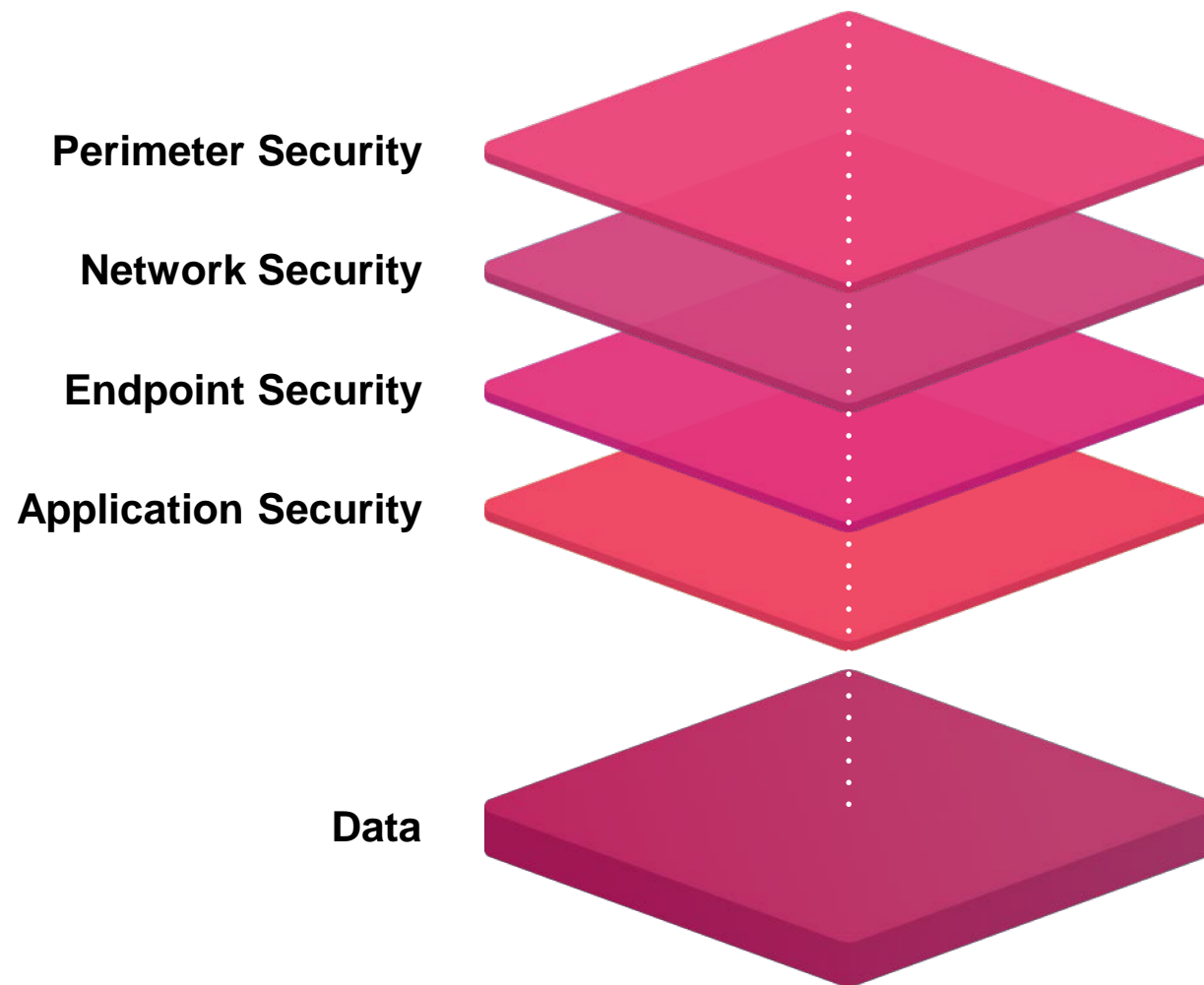




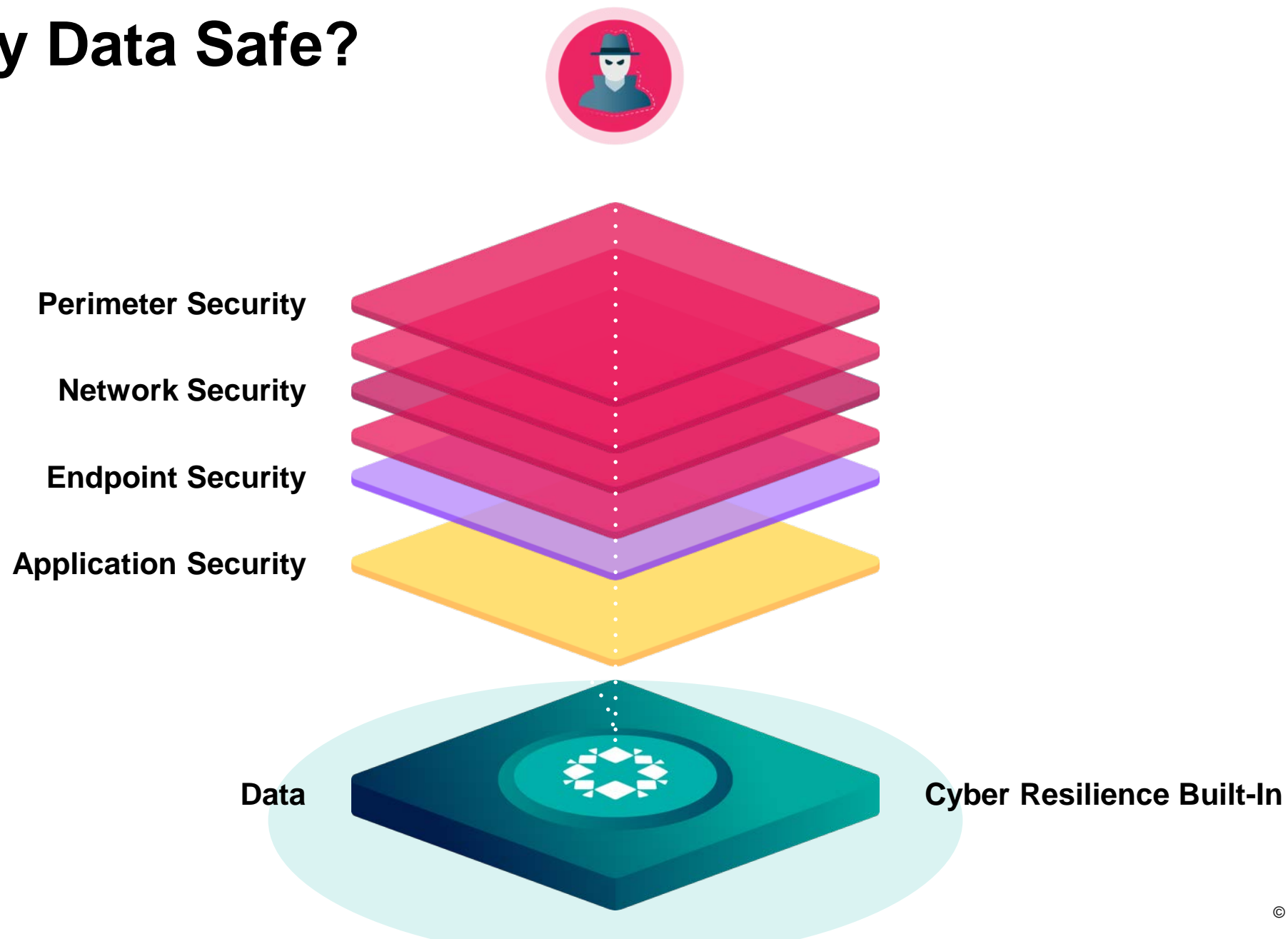
The Double Extortion Threat

- 2 years ago, only 1 cybercriminal was known to use this technique
- Today close to 20 groups of cybercriminals use it
- More than 1200 cases of double extortion in 2020
- In 63 different countries across the globe
- 60% of these happened in the US and the UK

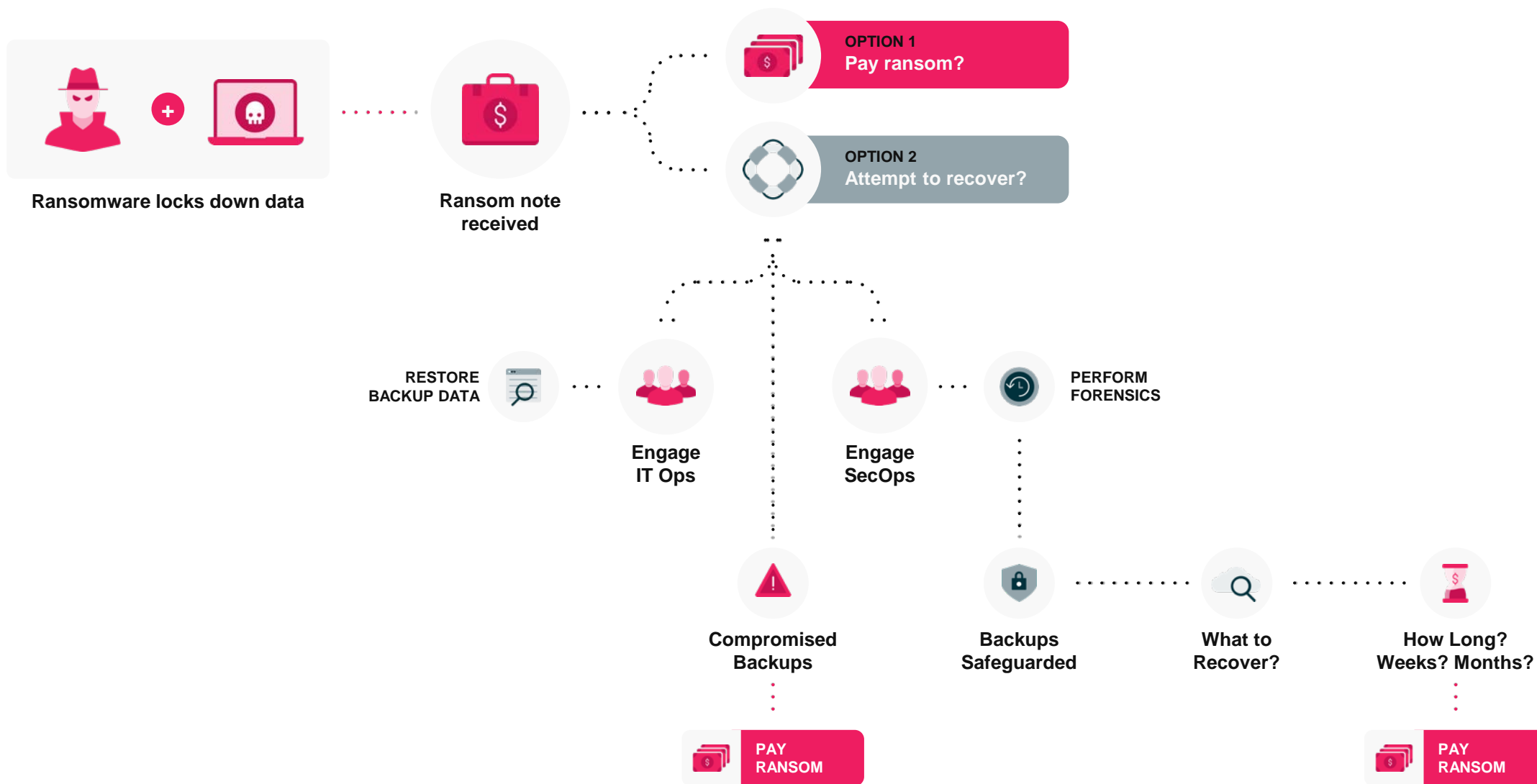
Is My Data Safe?



Is My Data Safe?

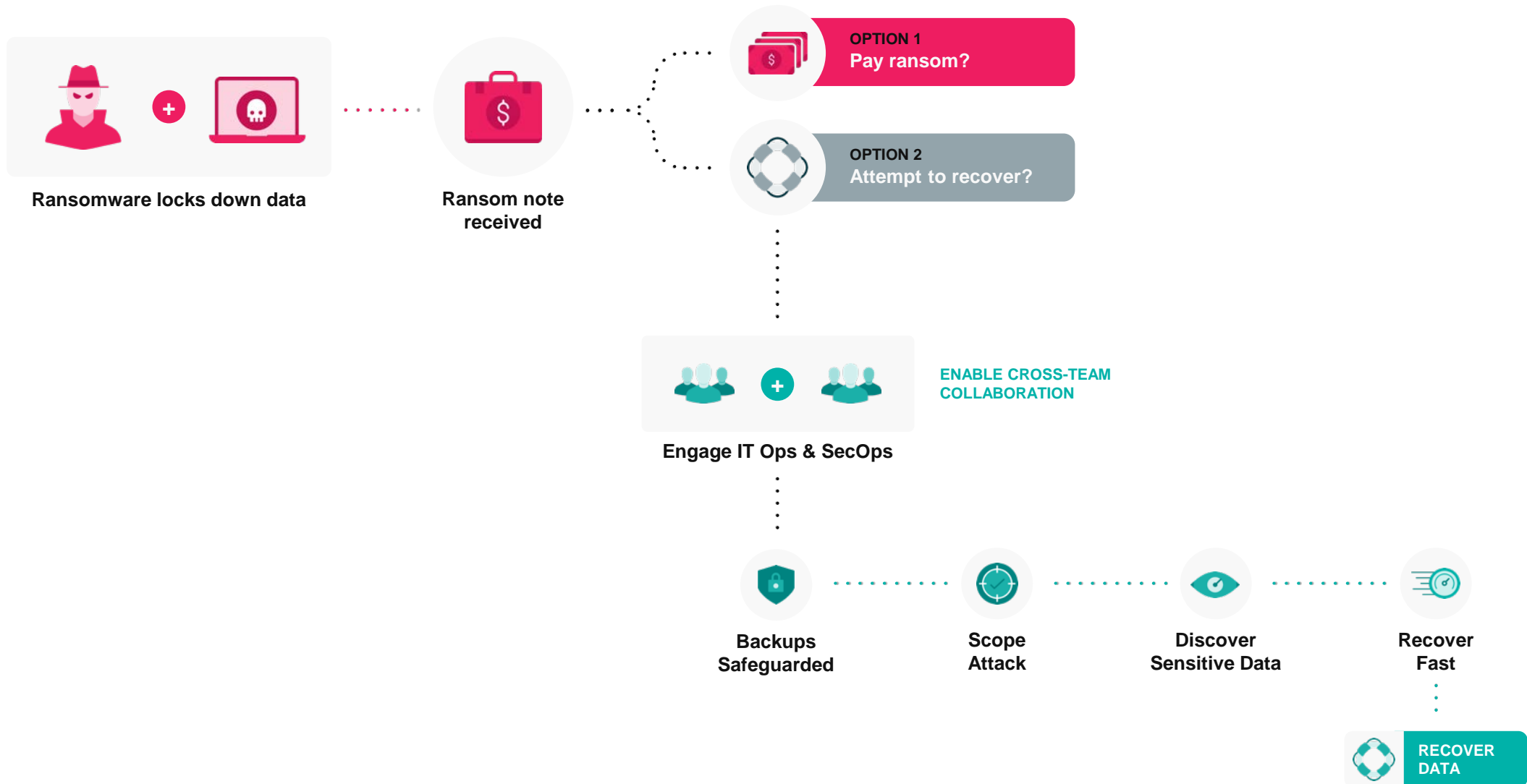


Today's Threat





Security at the Point of Data

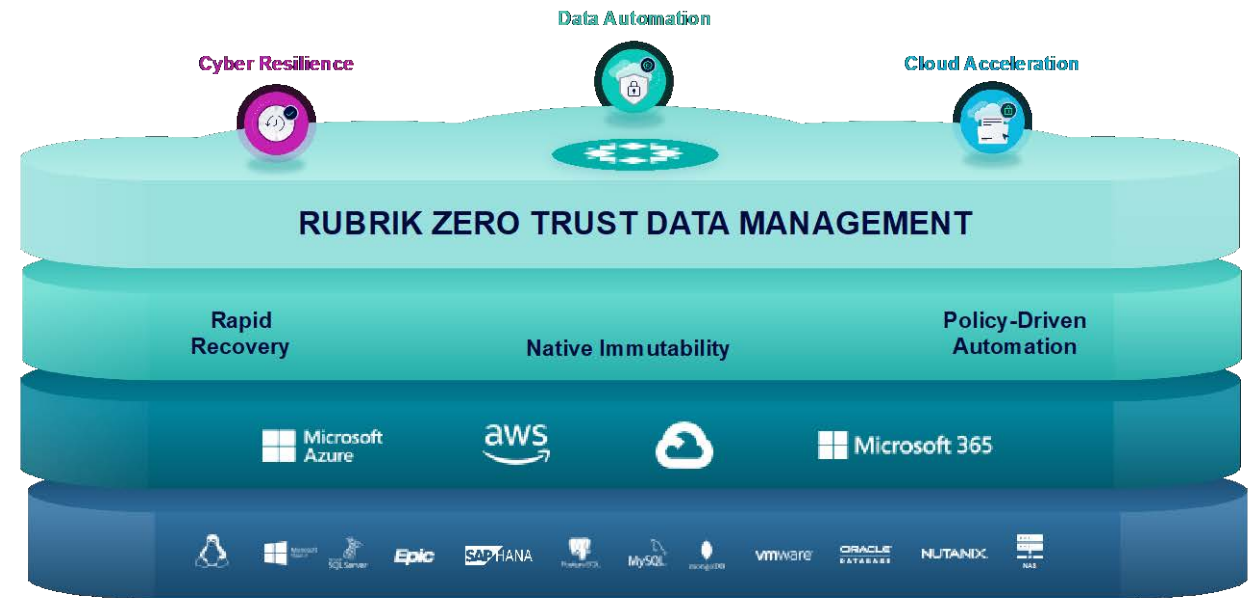
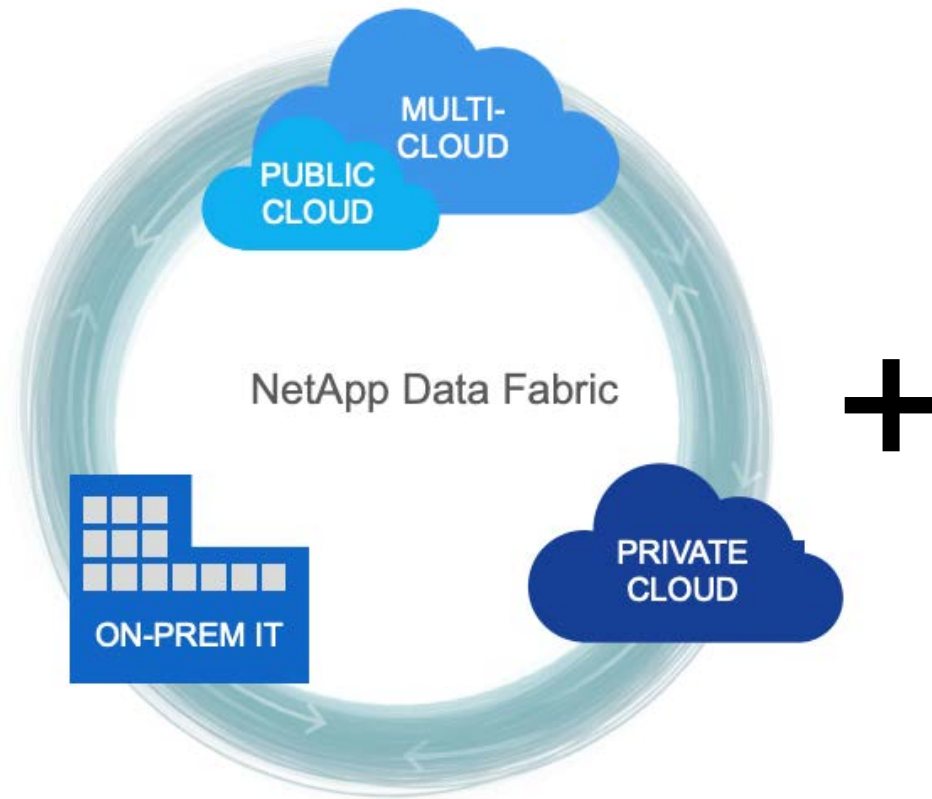









Rubrik & Netapp Better Together



NetApp + Rubrik Strategic Partnership



NetApp at a glance

Q1FY22 Results			Q1FY22 Product Highlights	
Revenue Total \$1.46B = Product \$730M + Support & Other Services \$649M + Public Cloud \$79M			 All-flash array business \$2.8B Run rate ↑ +23% Year/Year	 Public Cloud services \$337M Run rate ↑ +89% Year/Year
 Earnings per share GAAP EPS \$0.88 Non-GAAP EPS \$1.15	 Returning cash to shareholders Share repurchases \$100M Dividend \$112M	 Generating cash Free cash flow (up 2% Y/Y) \$191M Cash from operations \$242M		



For full financial data, non-GAAP reconciliations and cautionary language regarding forward-looking statements, please refer to NetApp's fiscal year 2022 first quarter press release issued on August 25, 2021 available at investors.netapp.com.

FFA annualized net revenue run rate is determined by products and services revenue for the current quarter, multiplied by 4. Public Cloud annualized revenue run-rate (ARR) is calculated as the annualized value of all Public Cloud customer commitments, with the assumption that any commitment expiring during the next 12 months will be renewed with its existing terms.

Industry-leading solutions with an open ecosystem of partners



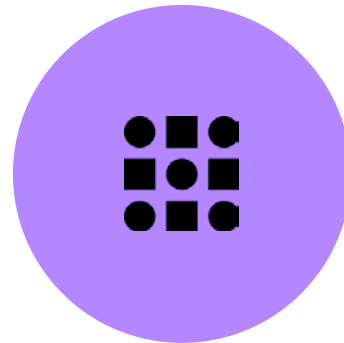
- **Global** cloud-led, data-centric software company
- **Founded in 1992**, headquartered in Sunnyvale, California
- **Fortune 500 company** (NASDAQ: NTAP)
- **\$5.41B FY20 revenue**
- **38,000+ customers** around the world
- **Industry-leading cloud and enterprise data center** solutions and services
- **10,800+ employees + 5,400 partners** helping customers thrive in a hybrid multicloud world
- **98 offices in over 30 countries**

How NetApp delivers value to customers

Data Fabric



Support and protect On Prem investments leveraging on **Cloud connected future-proof** solutions



Enable customers moving **Enterprise Apps** to **Cloud**



Simplify Hybrid Multi-Cloud operations leveraging on **data management expertise**



Support Customers to adopt a **Cloud Native approach**



Simple-Integrated-Automated Chaos Free

 Cloud Manager

Build
Hybrid
Cloud in
minutes

CLOUD CONTROL & ANALYTICS


Gain total visibility into
infrastructure and applications


Monitor
Optimize
Ransomware
Protection
Privacy


One-Tap Compliance
Instant Data Classification
Significant Time & Savings



CLOUD STORAGE

 Connectivity across Clouds

 High Performance DBs

 SAP on Azure/GCP

Up to
70%
Savings


CLOUD COMPUTE


Up to
90%
Savings


Automation to
improve performance,
reduce complexity and
optimize costs



CLOUD DATA PROTECTION

 Disaster Recovery & Backup

 Kubernetes
Protection

 Synchronization across Clouds

Fully
integrated
Cloud

CLOUD REMOTE SERVICE

Remove data "islands"
and achieve real-time
collaboration

Full
Software
Defined

Next-Gen end-user computing
at up to 50% less than
competitive alternatives



 **NetApp™**
Data Fabric




ROBO



DATA CENTER



PRIVATE CLOUD

 Tier Storage to save money

Flash
Hybrid
Cloud
Connected



Rubrik & NetApp Help You...

Simply Integrate to Protect



Protect

Prevent attacks and minimize data loss or downtime.

Accelerated backup and disaster recovery

Data security and retention

Data efficiency and reuse



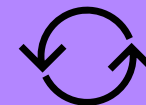
Detect

Proactively identify internal and external threats.

Scope anomalies

Storage performance abnormalities

Assess risk



Recover

Quickly restore data and applications.

Operational recovery

Data recovery

Disaster recovery



Our Approach: Zero Trust Data Management



Native Immutability

Data is air-gapped and cannot be accessed or encrypted by ransomware



Scoped Anomaly Detection

Assess what data has been impacted and determine blast radius of attack



Sensitive Data Assessment

Discover if sensitive data is at risk



Expert Guided Recovery

Automated recovery playbook to get your application the nearest clean data, with sequencing order and recovery type

Three Pillars of Immutability



Distributed Immutable Filesystem

Provides tight controls over which applications can exchange information, how each data exchange is transacted, and how data is arranged across physical and logical devices.



Zero Trust Cluster Design

Never assume trust with any other member of the cluster or external entity. Require certificate-based mutual authentication for secure communications.



Authenticated APIs and Tools

Require authentication to all endpoints that are used to operate the solution, including Role Based Access Control (RBAC) or Multi-tenancy features.



Scope Anomalous Events with Precision



Powerful workflows to investigate suspicious changes to your files

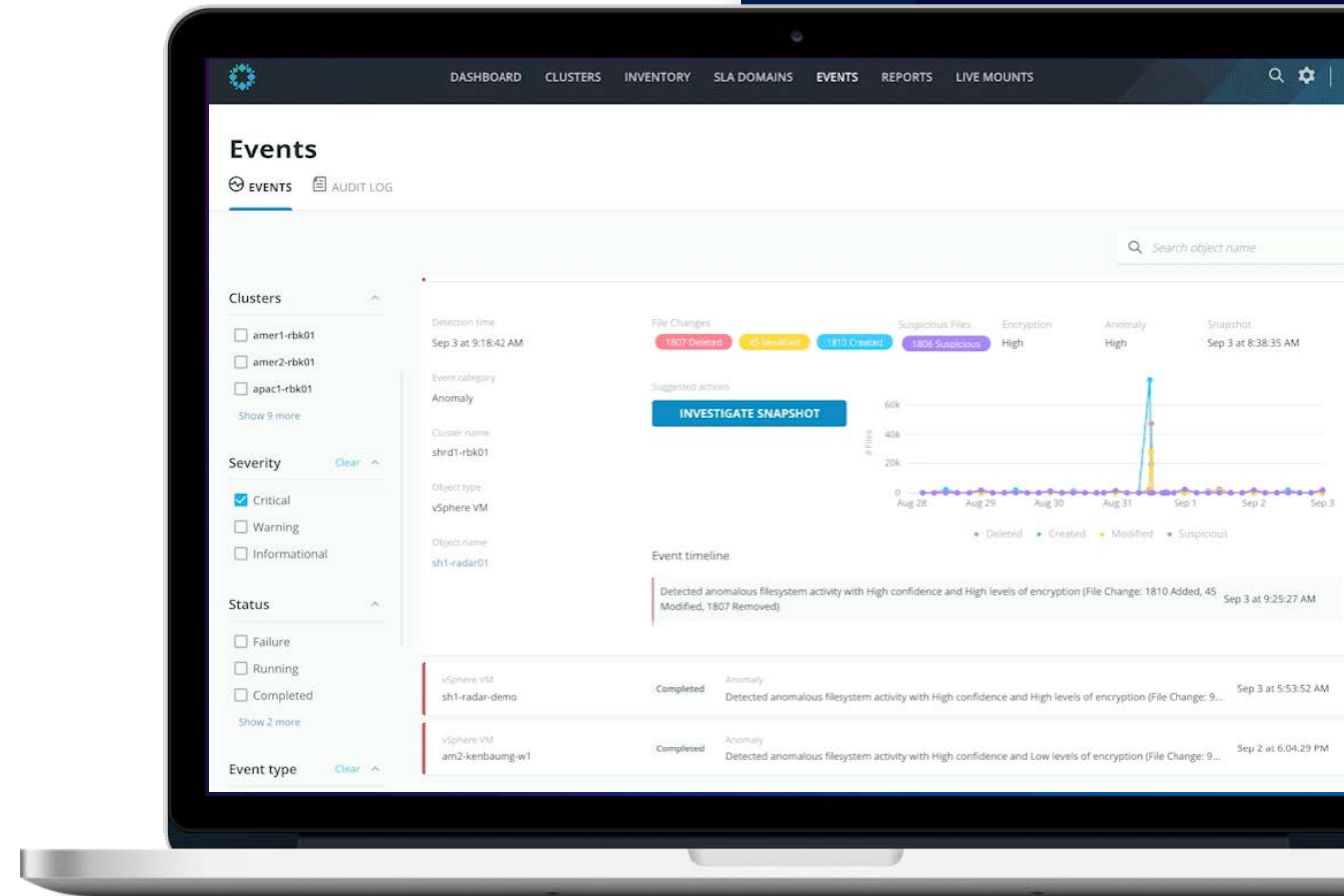


Pinpoint timing of data anomalies and scope of an attack



Engage pre-defined ransomware playbooks for orchestrated recovery

RADAR





Identify High-risk User Activity to Protect Sensitive Data

SONAR



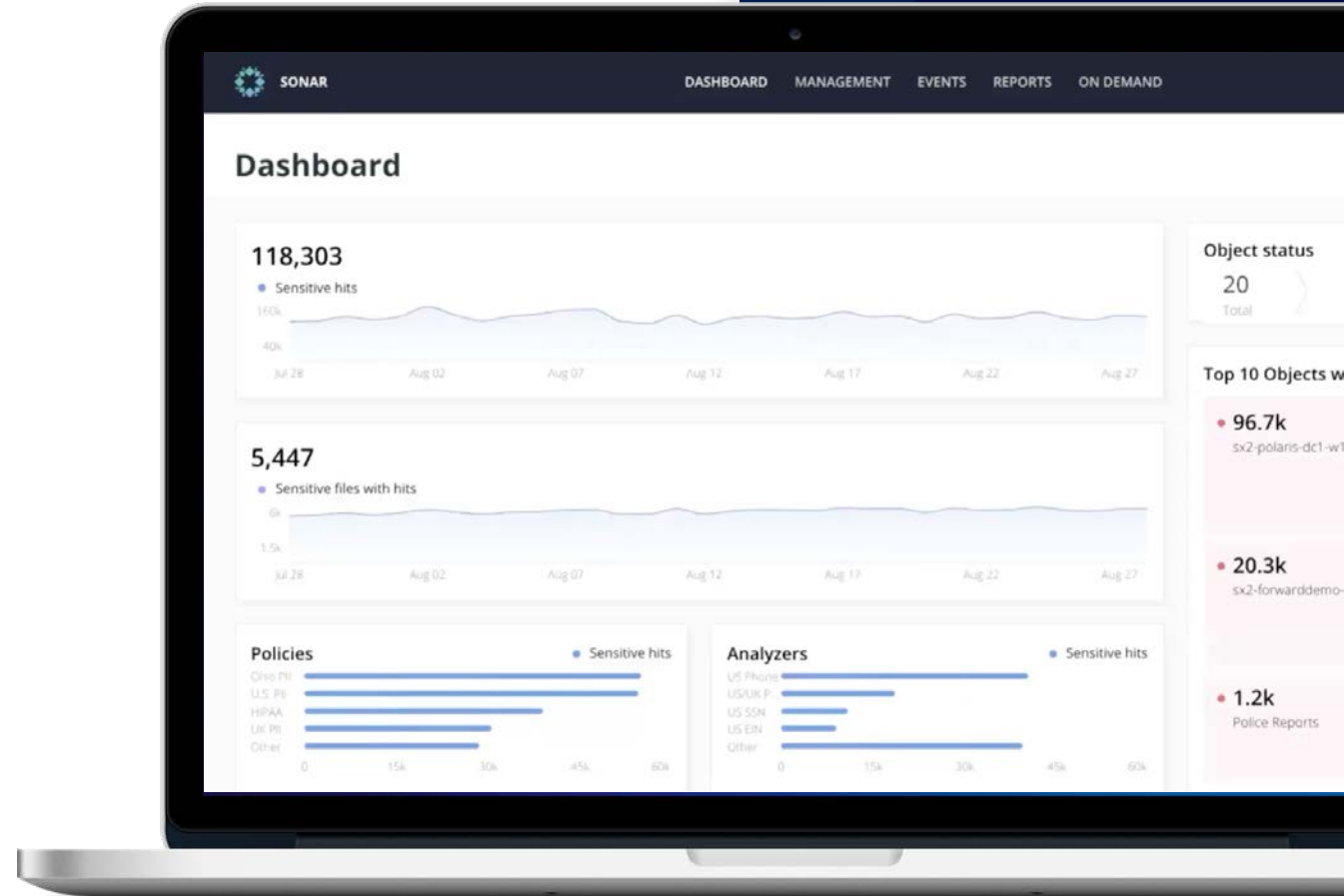
Quickly scan for regulated data



Correlate user access with data deletion or modification



Proactively mitigate sensitive data loss





Rubrik & NetApp Integrations and Use Cases





Simplified Protection

Automate lifecycle management across NetApp primary and secondary storage or public cloud

Broad Application Support

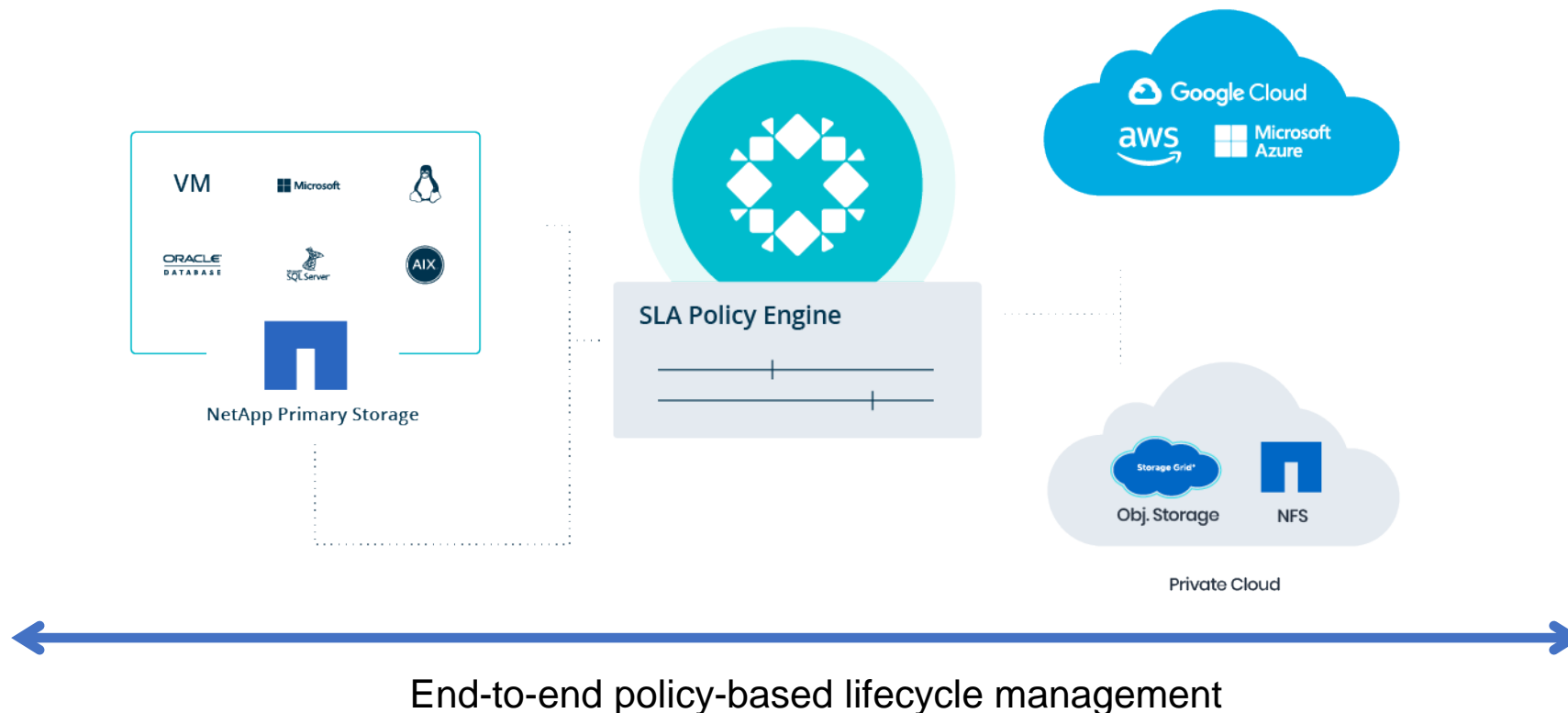
Native integrations for physical and virtual apps on NetApp ONTAP

Policy-based Automation

A single policy engine for automated protection across hybrid cloud

Hybrid Cloud Flexibility

Support for public cloud and on-prem NetApp NFS and object storage tiers





Our Approach: SLA-driven, Cross Cloud Data Protection

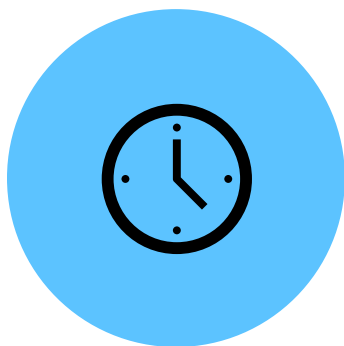
- **Automated SLA policy engine**
Replace 1000s of backup jobs with just a few policies
- **Consolidate remote and branch office**
protection with local backup, replication to a central site, and archive to cloud
- **Extend automation via API**
Easily integrate with existing tools for automated monitoring, provisioning and config management
- **Scale-out architecture**
Add capacity one node at a time for better economics and more reliable performance





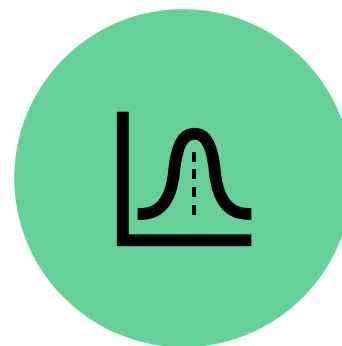
Two factors affect data protection performance

Density



Discover what data has changed
and identify what to protect

Capacity



Large datasets require more
resources (cost) and time to copy
and to protect data



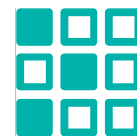
A Modern Approach to NAS Protection

Our non-NDMP design is the foundation of our modern approach for NAS



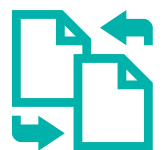
Industry-standard Design

Rubrik leverages industry-standard protocols to overcome key challenges



True Incremental Forever

Our approach reduces storage costs, backup windows, and RPOs / RTOs



Native Format Backups

Storing data in its native format enables significantly faster RTOs



Full Rubrik Capabilities

Rubrik extends replication, archival, global search, and more to NAS



Solving The Capacity Challenge

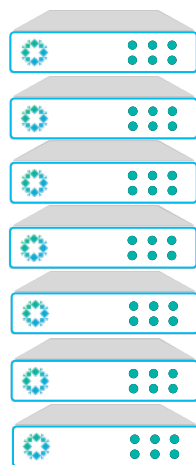
Reduce TCO by mobilizing NetApp NAS directly to the archival location

Sample NAS Environment

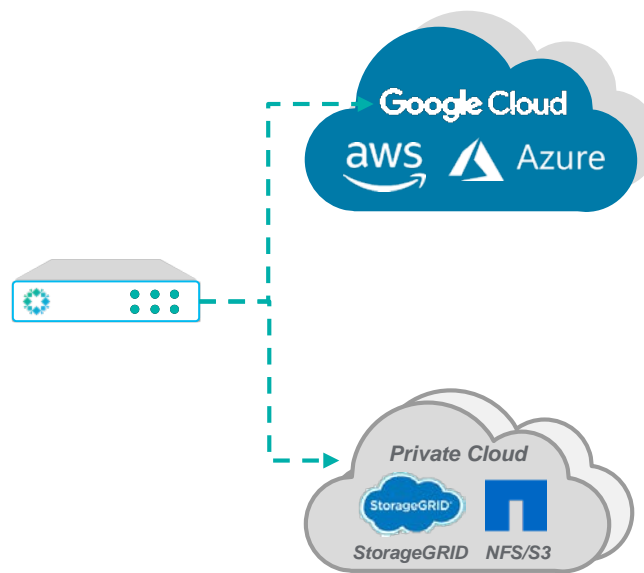


1.2 PB
Billions of Files

Before



After



- All of the magic of Rubrik, along with more flexibility with your NAS end target.
- Rubrik will take the index of the NAS fileset and store the metadata per user-defined SLA policy.
- Rubrik will 'direct' the NAS fileset onto the one of three targets: Public Cloud, NFS Store, or Object Store.
- User will be able to search for the NAS metadata using Rubrik's global search capability



Solving the Density Challenge

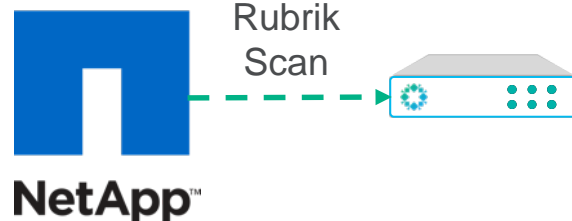
Reduce RPO by leveraging NetApp SnapDiff API for faster NAS backup

Sample NAS Environment



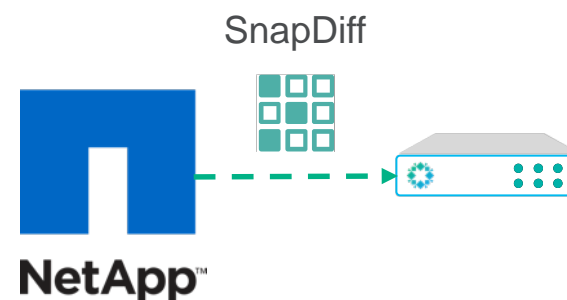
500M files
1.5% daily change rate

Before



- Rubrik scans the file set to identify changes since the last backup
- **7-14 hours** to identify changes

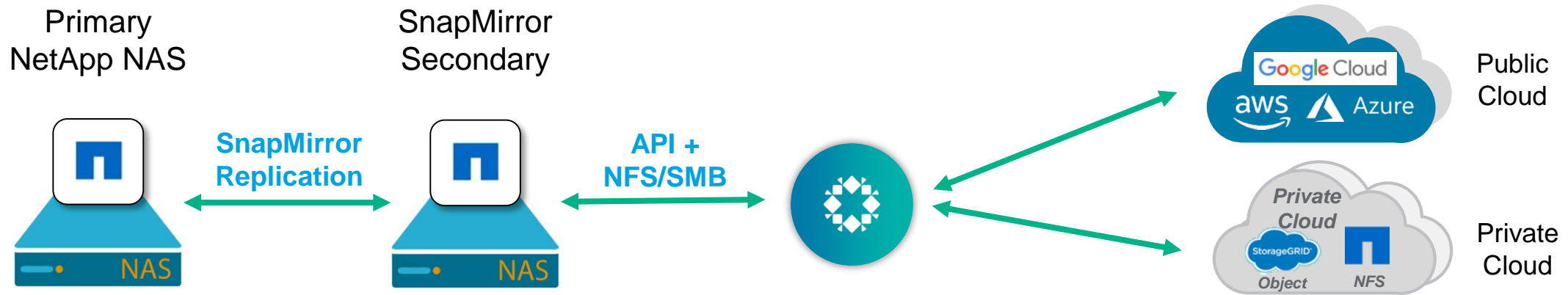
After



- SnapDiff compares the differences between previous and current snapshots and exposes them to Rubrik
- **~7 mins** to identify changes

- Rubrik calls the ONTAP API to create a new array snapshot
- Rubrik calls the SnapDiff API. SnapDiff lists the differences between the two snapshots
- Rubrik gets the list of changes since the last backup from SnapDiff and ingests changes only without scanning the file set
- When using SnapDiff:
 - The archive location **must be** either NetApp storage or public cloud
 - Data can only be restored to NetApp

SnapMirror Integration for NAS Protection*

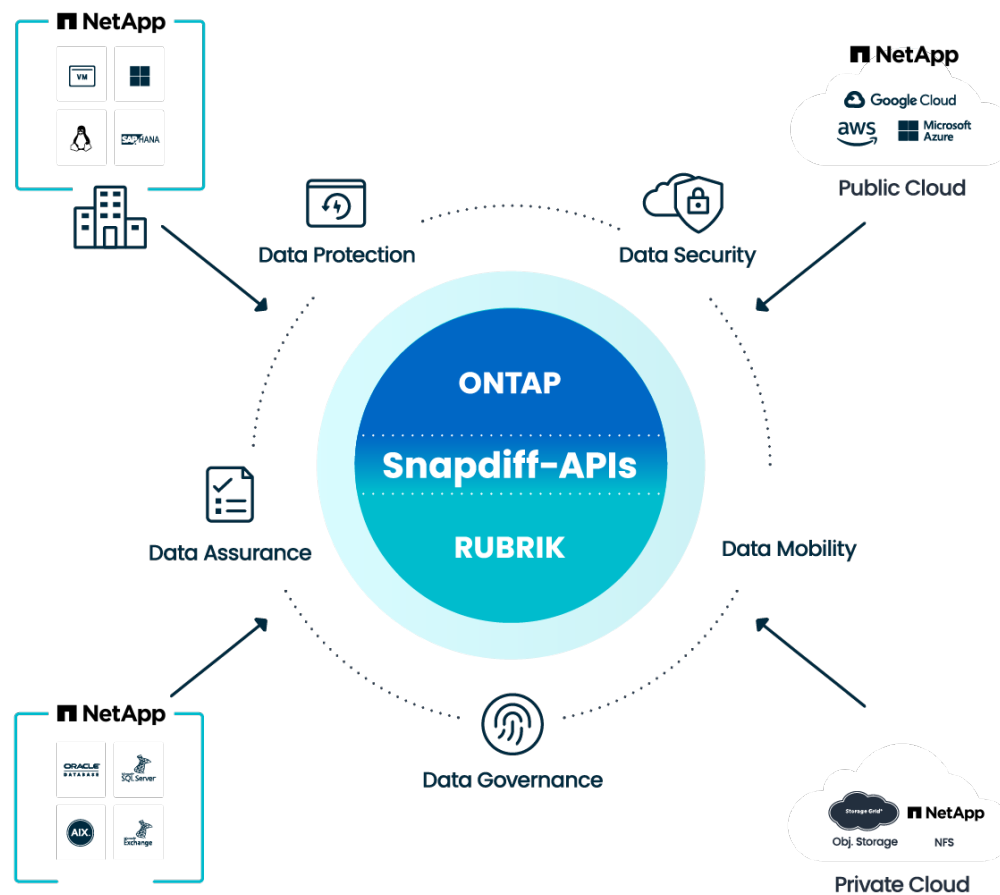


- Auto-discover NetApp NAS shares, whether they are on the primary or the SnapMirror replica
 - Simplified setup of NAS protection at scale, utilizes APIs to scan the SVMs for unprotected shares
- Backup from the SnapMirror replica
 - Offload the backup operations from the primary NetApp array
 - Leverage SnapDiff for detection of changed files to quickly create incremental backups
- Leverage Rubrik's Direct Archive capabilities to directly store data in either public or private cloud
 - Requires 10% or less of FETB of space on Rubrik, stores just the file metadata
 - Data from backups is passed through Rubrik straight to archive



Rubrik & NetApp

End-to-end Data Lifecycle Service





Thank you!

