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CYBERCONVERGED DATA SECURITY WITH RACKTOP & HPE

RACKTOP®

RACKTOP
HPE Complete Partner

- Completeness: RackTop's technology completes and complements the HPE portfolio
- Confidence: RackTop is a proven solution that minimizes deployment risks

ABOUT RACKTOP

RackTop believes everyone should be able to protect their data as if it were a national secret.

- Founded in 2010 by U.S. Intelligence Veterans

- Headquartered in Washington, DC Metro Area

- 100% U.S. Based Customer Support

- TS/SCI Cleared Engineers

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CYBER SECURE NAS = CYBERCONVERGED

BrickStor SP is a data storage solution for unstructured data.

Built by NSA engineers.

So, every organization can protect their data as if it were a national secret.

Full Featured Network Attached Storage

Ransomware Prevention & Remediation

Insider Threat
Data Theft & Spillage

Compliance
(NIST, RMF, CMMC, ITAR)

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THREAT LANDSCAPE

Storage systems are a hacker's paradise.

Security products protect the network. But the bad guys steal data, not the network.

What's protecting the data?

Ransomware damage exceeded **$11B** in 2019. The cost of data loss due to cybercrime is projected to eclipse **$2.5T** by 2021.

Over **80%** of the data in an organization is unstructured, inadequately protected, and stored on systems using **90's security technology**.

34% of data breaches involved insiders, an increase of 47% over the past two years. **55%** of organizations consider the privileged user the greatest risk.

It takes traditional tools **7 months** or longer to detect a data breach.

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THE NEXT GENERATION OF STORAGE IS CYBERCONVERGED

- Based on our experience, we know **legacy storage** is the weakest link when it comes to data security
- Our platform solves that problem by baking in security, so you can easily address modern day challenges like encryption, data theft, and compliance without sacrificing performance
- BrickStor SP gives admins and ISSOs insight and intelligence they haven't had before
- BrickStor SP gives infrastructure teams the tools they need to secure their data without added cost, complexity, or human resources

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ZERO TRUST

- WHY: IT landscape is empowered by a connected world that is more susceptible to malicious activity.
  - Microsoft Exchange – Exploited by Chinese.
  - Solar Winds - CISA say this is one of many Russian supply chain attacks.

- Embrace Zero Trust guiding principles.
  - Never Trust – Always Verify
  - Assume breach – Operate and defend resources with assumption that an adversary already has breached.
  - Verify Explicitly - Access to all resources should be conducted in a consistent and secure manner.

- RackTop Cyberconverged platform provides tools and insight to implement ZERO TRUST today.

BENEFITS FOR FEDERAL DEPLOYMENTS

- Prevent against insider threat and administrative misconfiguration
- Easily remain in compliance with STIGs, quickly achieve approval to operate (ATO) and pass SSP audits
- Meet dual encryption requirements for field or mobile deployments
- FIPS and HSM support with included policy based crypto framework and key manager
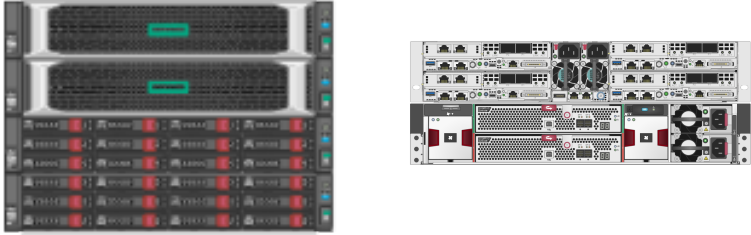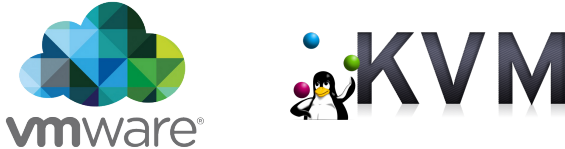- Maintain data compartmentalization and prevent spillage

KEY FEATURES

File Services
(SMB 3, NFS 4.2)

File Indexing and Secure Restore

User Behavior

BRICKSTOR SP

encryption

compression

deduplication

Policy-Based Snapshots

WAN Optimized Replication

Ransomware Protection

Audit Reports

REPORT

Transparent Data Movement
to the cloud

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SOFTWARE STACK

BrickStor SP Operating System

CLIENT PROTOCOLS	DATA STORAGE SERVICES	SECURITY SERVICES	COMPLIANCE SERVICES
NFS v3 **NFS v4.1** **NFS v4.2 with security labels** **SMB 2.1** **SMB 3 with FIPS Encryption** **iSCSI**	**Inline Compression & Deduplication** **Immutable Snapshots** **Block and File Replication with WAN Optimization** **File Indexing** **Quotas & Reservations** **Transparent Data Movement (S3 cloud tiering)** **Multi-tenancy**	**KMIP Compliant Key Manager** **FIPS Encryption** • In flight and at rest • Volume based with key rotation **User Behavior Audit and Analysis** **Data Label Security** **Crypto Shred** **Granular Access Controls** **AD/LDAP Integration**	**Access Control Reports** **Storage Profile Policies** **Security and Encryption Audit Reports** **User Behavior** **Data Protection & Retention Policies** **Change Control Auditing**

MANAGEMENT PROTOCOLS

REST with OAUTH 2.0/JWT
SSH

DEPLOYMENT OPTIONS

From 5TB to over 6PB per cluster

- DL380 & DL360
- D3710 & D3610
- Apollo 2600 & 4200
- 3PAR, Nimble, Primera, XP
- Virtual infrastructure
- Hyperconverged (dHCI in testing)
- SSDs & HDDs

Appliance

SAS JBODs with HDD/SSD (up to 6.5PB)

Gateway

Front FC or iSCSI block arrays

Virtual Machine

Virtual machine (up to 384TB usable)

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SIMPLIFIED
To Eliminate Misconfigurations

- Secure by default
- Eliminate manual tasks
- Provision by workload
- One click fix to correct non-compliance
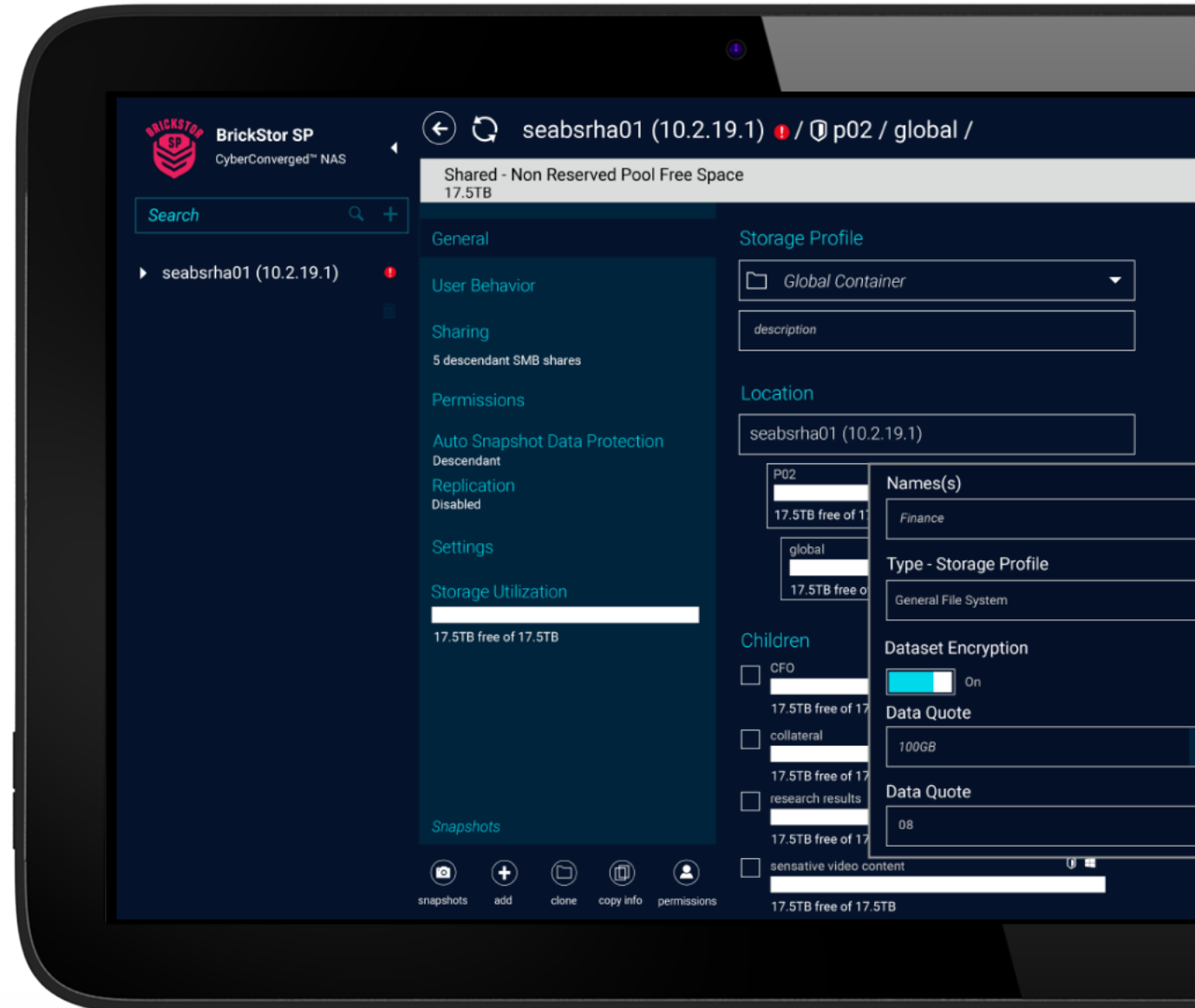
USER BEHAVIOR ANALYTICS
Detect, Defend, and Respond to Bad Actors

- Provides a digital painting of your organization to demonstrate assurance that everything is alright
- Quickly identify outlier behavior
- Drill down user's behavior by protocol, source, filesystem, data type, and more
- Automated response to stop threats before it is too late
- Improves incident response and reporting
- Quickly find missing folders or files
- **Integrates with SIEM and SOAR**
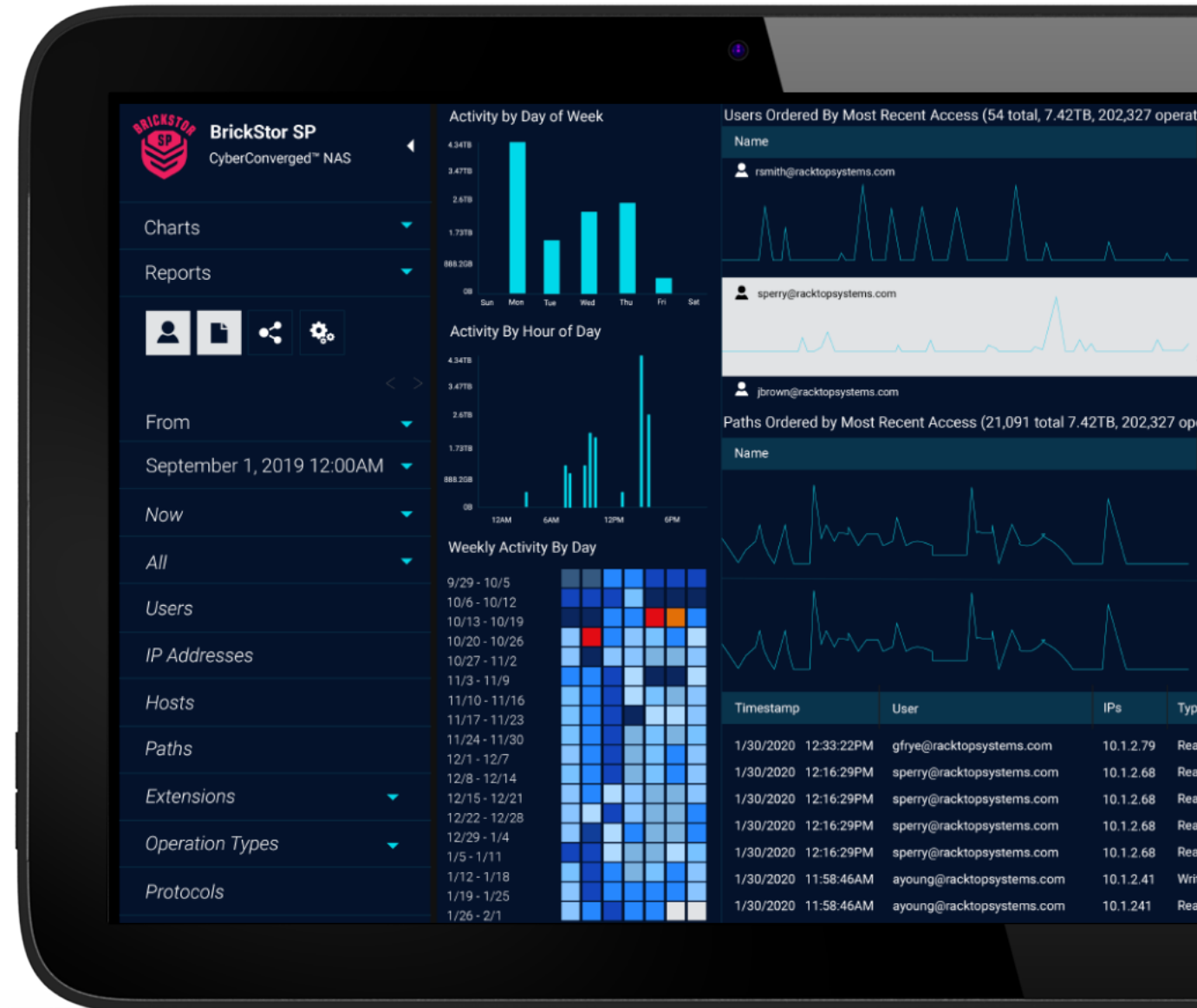
ACTIVE DEFENSE
Detect, Defend and Respond to Ransomware

- **Real time response and incident management**

- Detect and stop data exfiltration and ransomware

- Block accounts and hosts from accessing data

- Remediate and track through incident

- Alert and report to other systems
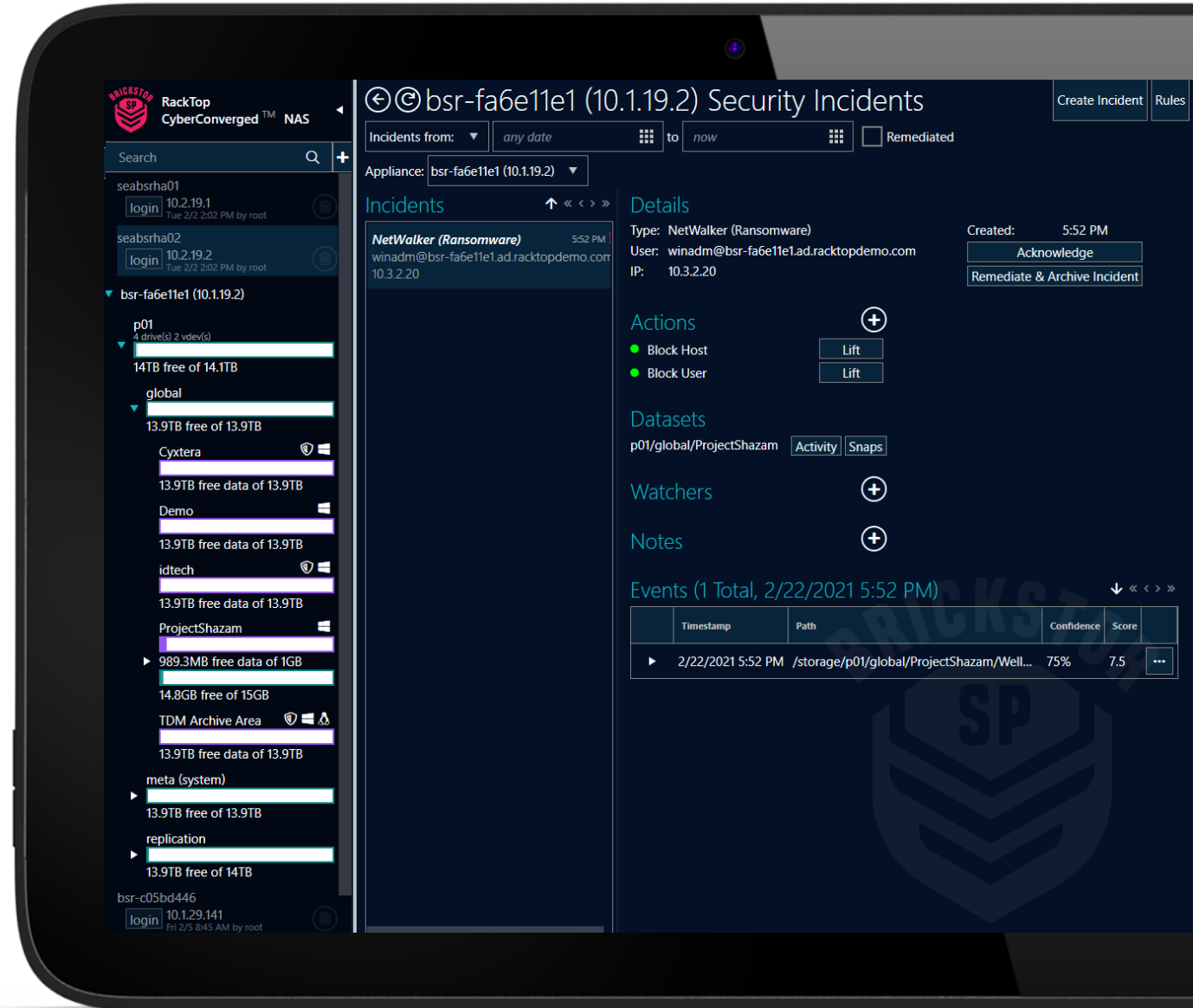
FIGHT RANSOMWARE WITH ACTIVE DEFENSE

# REPLICATION
Secure Replication & Disaster Recovery

- Encrypted in flight and at distant end
- Priority per dataset
- WAN-efficient
- Bandwidth throttling
- WAN acceleration
- Replicate to S3 or other NAS with file reflection
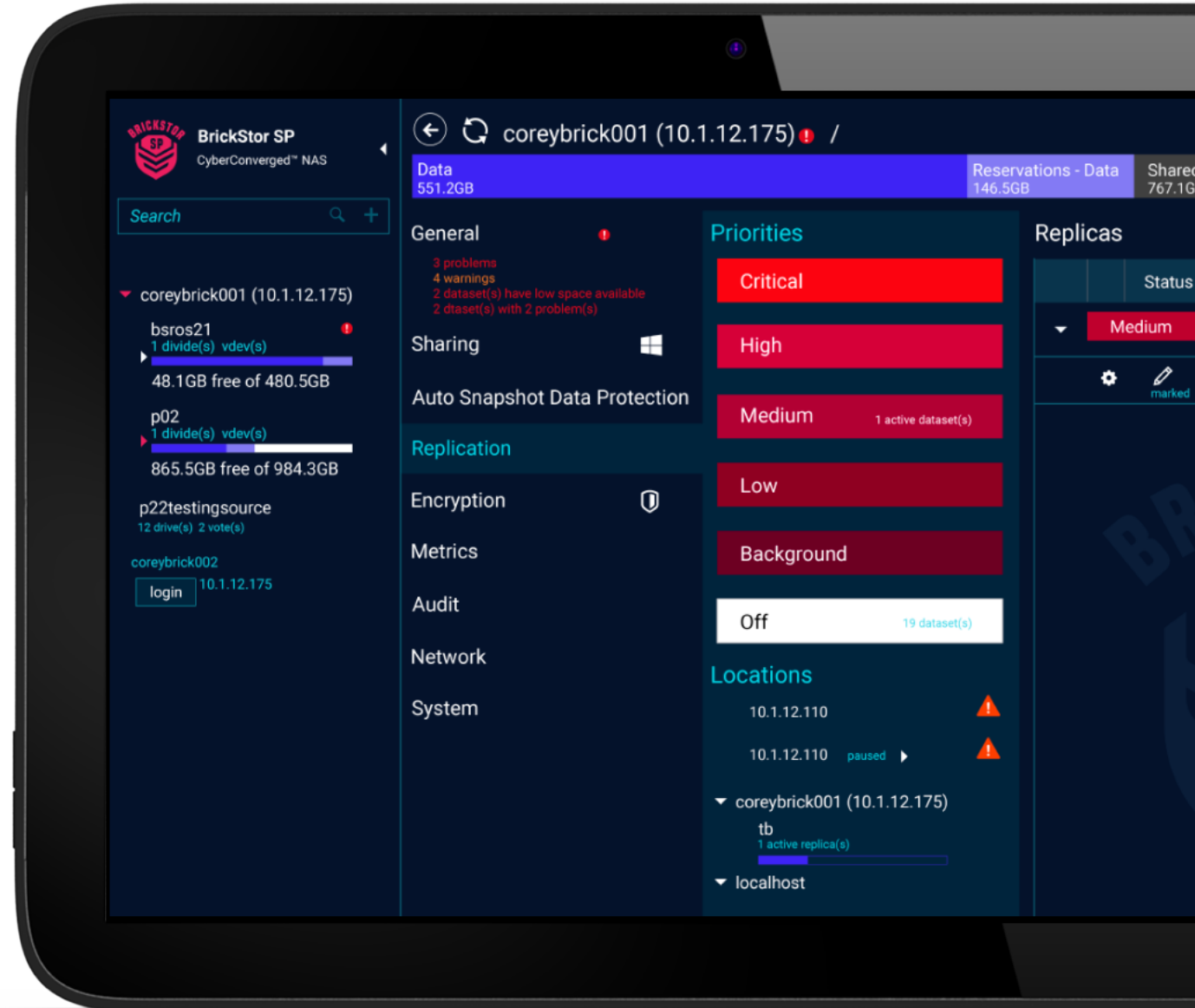
METADATA INTELLIGENCE
Quickly Locate and Restore

- Quickly find all versions of any file across local or remote snapshots
- Fully indexed search for files, folders, and metadata
- Quickly compare file versions and identify changes
- Restore individual files or entire datasets with a single click
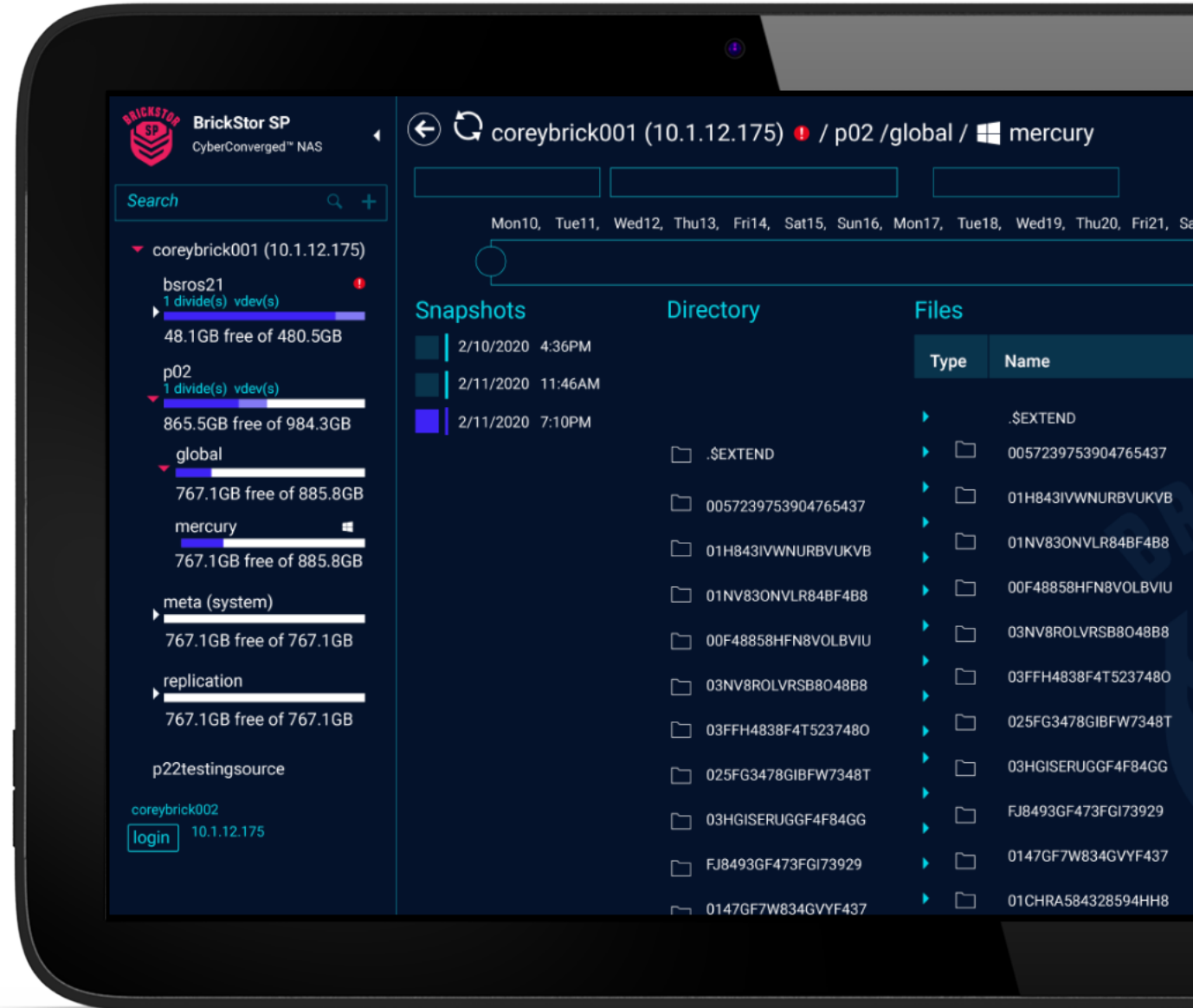
TRANSPARENT DATA MOVEMENT
Secure Data Tiering

Encrypt and tier data to the cloud

- Securely leverage Cloud Object Stores (S3)
- Eliminate cloud data theft
- Reduce on premises footprint
- Reduce storage costs
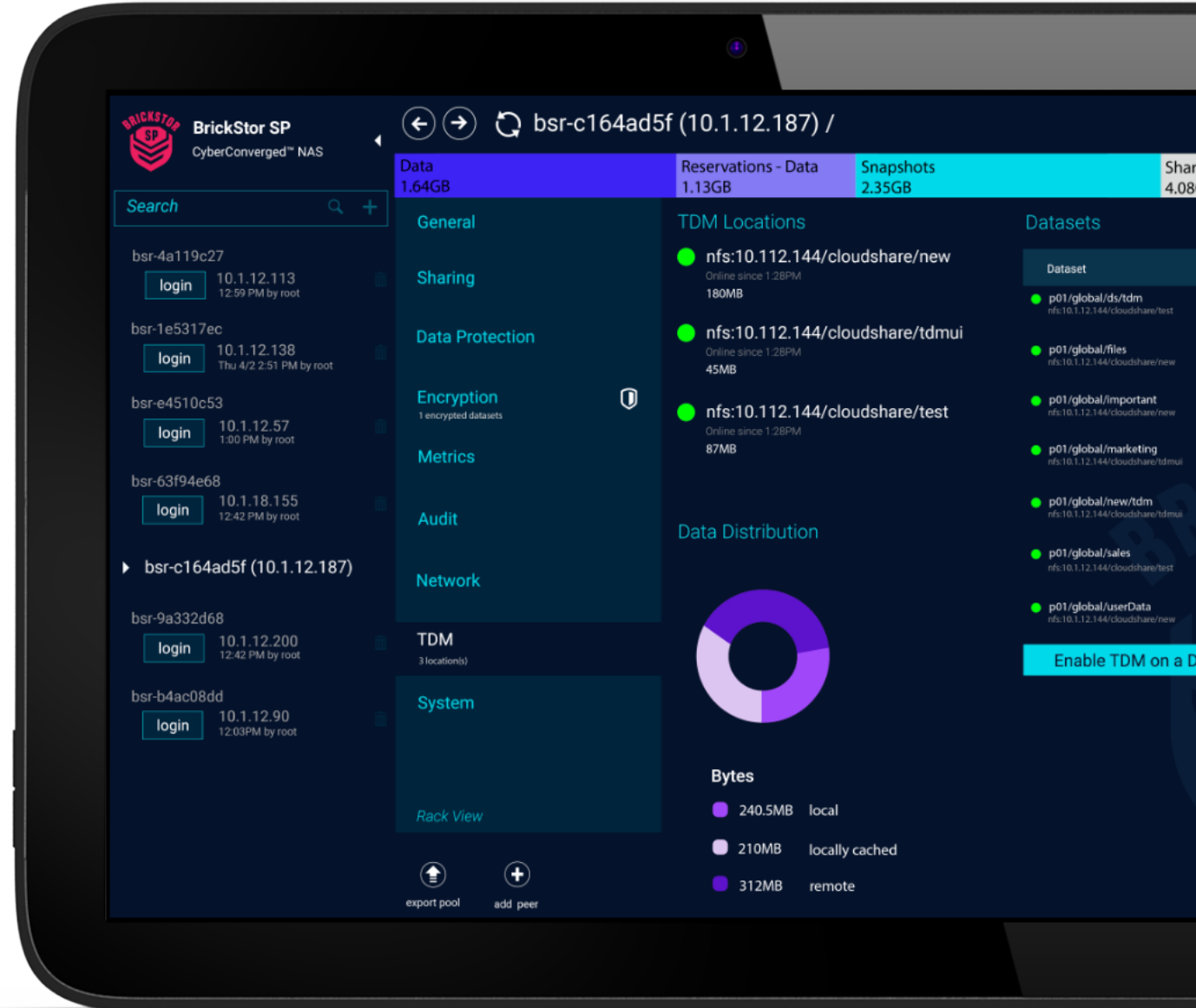
ENCRYPTION KEY MANAGEMENT
KMIP Key Orchestration

- Internal key manager with audit and automatic key rotation
- Replicate keys for backup
- Encryption and Decryption are transparent and don't require user intervention
- Integrates seamlessly with KMIP key servers
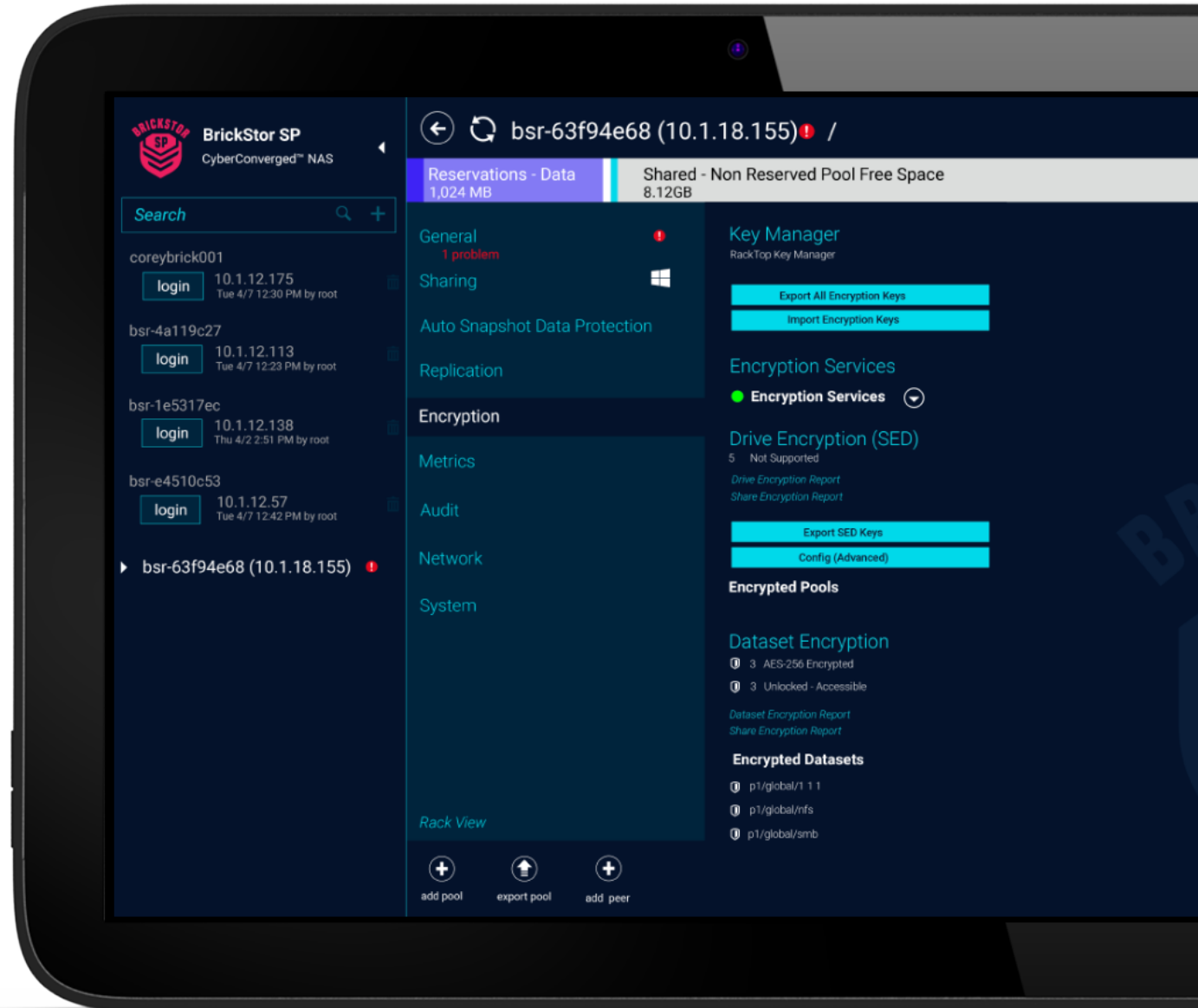
CONFIGURATION TOOL
To Eliminate Misconfigurations

- Generate HPE BOM in seconds
- Eliminate manual configurations
- Provides HPE Hardware and RackTop Software SKUs
- Configs can be modified by RackTop SE to meet customer requirements

https://racktop.sharepoint.com/sites/HPE

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Appliance Configuration Tool
V 2.00 9/15/2020

Availability	HA	1) Select HA or Non HA
Array Type	Hybrid	2) Select Hybrid or All Flash
Usable TB	107	3) Select Usable Capacity
NAS Network	10/25 Gig	4) Select Network Speed
Support	3 Year	5) Select Years of Support
Install	Remote	6) Select Install Type

Error Message

State   Delaware   7) Select State to obtain RackTop Contact Info

Racktop Sales Contact Info

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Configuration Summary

Usable Capacity	107 TB		Raw Capacity	160 TB
Suggested Raid	RZ2-6		Array Type	Hybrid
Server Type	DL 380		Server Qnty	2
Ram	256 GB		Rack Space	9 U
Enclosure	D3610		Enclosure Qnty	2
Drive Size	8 TB		Drive Qnty	20

GOVERNMENT USE CASES

- Organizational file shares
- Full motion video recording and playback
- DevOps
- SecOps
- Online archive
- Analysis and simulation
- Secure enclaves, MLS
- Computer forensics
- High performance computing (HPC)
- Medical image analysis and research
- Virtualized environment requiring ultra fast storage
- Intelligence Production Chain (Sensor to Policymaker)

LOWER TCO WITH CYBERCONVERGENCE

60-90% Savings
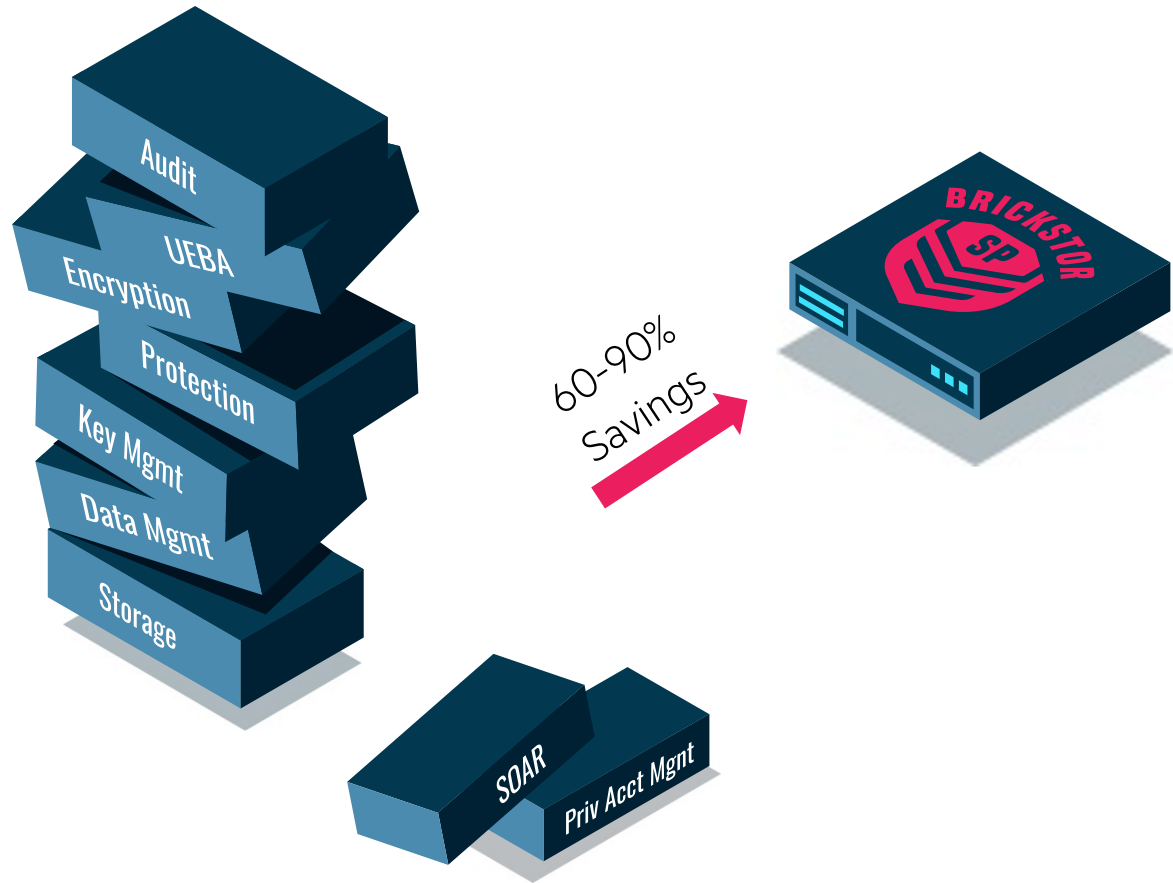
BrickStor SP

- Converges Storage and Cyber into a common platform to more effectively protect data at a significant cost savings

- Reduces risks

- Reduces third party licensing & insecure integrations

- Faster to implement

- Easier to maintain

- Eliminates attack vectors

- Eliminates performance bottlenecks

- Real-time governance

JUMPSTART PROGRAM

- RackTop's Jumpstart Program
  - Free 90-day RackTop VM License
  - Free 2nd License for replication testing
  - Free remote install
  - Includes full support
  - Fully featured and licensed BrickStor SP (base license)
  - Includes TDM active secure tiering to S3 and NFS remote systems
  - Supported virtual environments include all major converged and hyperconverged hypervisors
  - Program is limited to verified organizations in North America

THANK YOU.

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