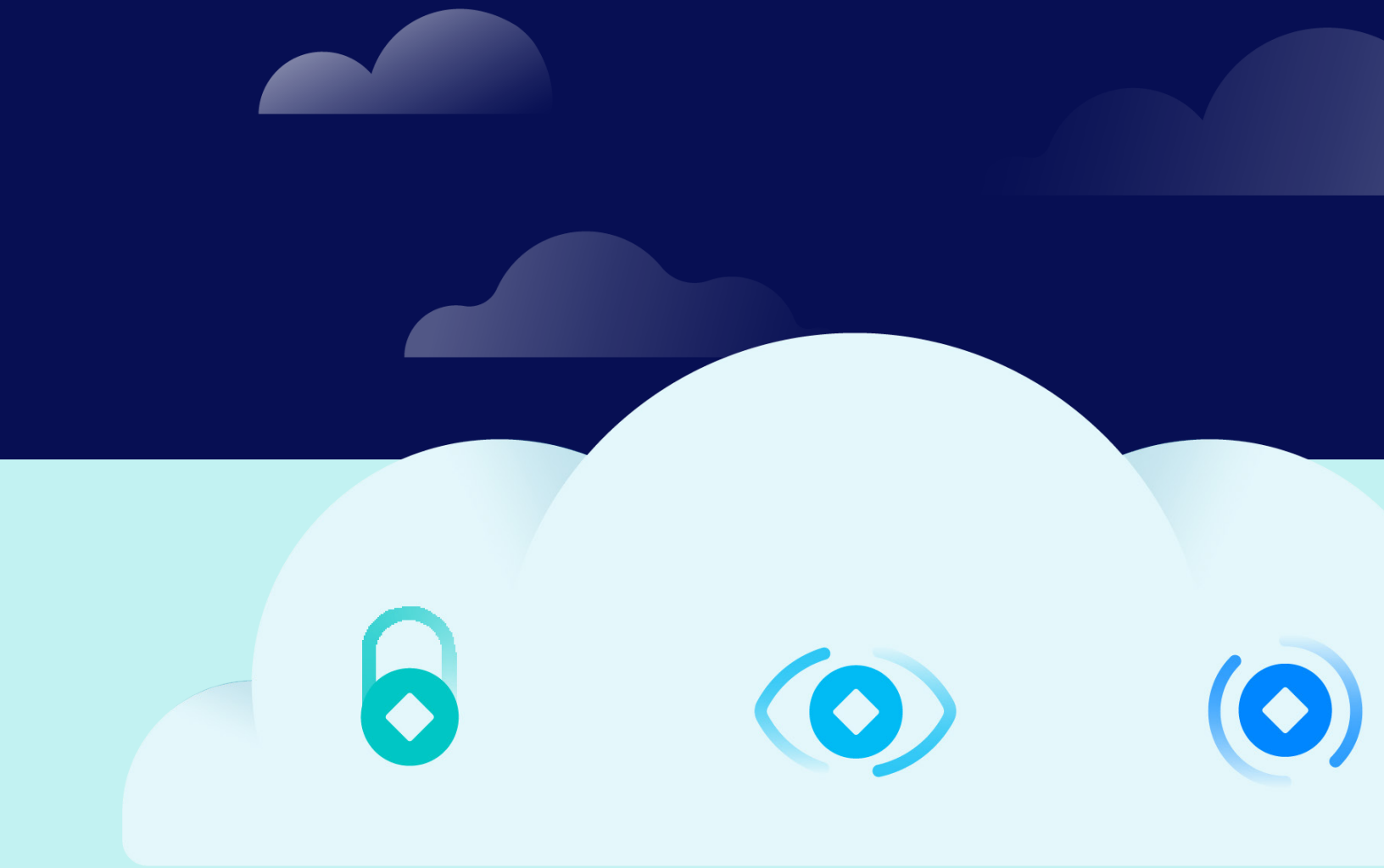
rubrik | Zero Trust Data Security™

WHITE PAPER

The Trusted Data Security Solution for Cyber Recovery



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CYBER ATTACKS: A PERVASIVE AND GROWING RISK

Digital transformation has brought significant benefits to organizations, including increased agility and flexibility, but it has also led to a rise in cyber attack vectors. 66% of organizations were hit with ransomware within the last year, according to a 2022 Sophos survey. The widespread adoption of cloud services and Software-as-a-Service (SaaS) applications has expanded the attack surface, making it more challenging to manage and secure data. Additionally, the increased use of mobile devices and remote work have made it easier for cybercriminals to launch attacks from anywhere, at any time.

THE BUSINESS IMPACT OF RANSOMWARE

Ransomware attacks can be crippling. Ransom payments can cost millions of dollars without any guarantee that paying the ransom will restore impacted data. Beyond the cost of the ransom itself, attacks can also result in downtime, lost revenue, recovery costs, reputational harm, regulatory compliance requirements, loss of customer goodwill, increased cyber insurance premiums, and more. All in all, total costs are often in the millions of dollars, with full recoveries taking weeks to months. Ransomware cost the world $20 billion in 2021 and that number is expected to rise to $265 billion by 2031. The impact is clear: when an organization's data is down, its business is down.

LEGACY BACKUP: UNTRUSTWORTHY FOR CYBER RECOVERY

Many organizations still rely on legacy backup as their last-resort cybersecurity option. However, these systems often lack critical security features and are not designed to protect against modern cyber threats. Amongst all the weaknesses and deficiencies of legacy backup, here are a few reasons why it cannot be trusted for cyber recovery:

- Legacy backups are vulnerable to cyber attacks. Organizations that use legacy backup likely have open storage protocols, which can expose their data to unauthorized access and manipulation by hackers. This is particularly problematic when coupled with windows operating systems, and multi-factor authentication that's not deployed or enforced. Without proper authentication and access controls, cyber attackers can exploit vulnerabilities in these systems to gain unauthorized access to sensitive data and compromise an organization's security posture.
- Legacy backups do not provide critical insights or visibility into what data is at risk or what has been affected during a cyber attack. As a result, organizations can't respond promptly and effectively to the incident. The task of determining what data has been lost or compromised can be overwhelming and can take weeks or even months to complete, extending costly downtime.
- Legacy backups were designed to restore individual files, virtual machines, or databases from a known point in time associated with a disaster. However, with cyber recovery, it can be incredibly challenging to determine what to restore, when the attack occurred, how far the bad actor went, and the extent of the damage they caused. This piecing together of information is very time-consuming and can significantly delay the recovery process.

- Cyber recovery also requires a whole new level of concern around sensitive data. Unlike legacy backups, determining the scope of the attack and potential sensitive data exposure is crucial for cyber recovery, especially where organizations are required to notify compliance units such as GDPR.
- Legacy backups do not offer protection against the reinfection of malware. In a cyber recovery scenario, restoring backups that contain malware to a clean environment can trigger the attack all over again, potentially causing even more damage and data loss. The aftermath of such an attack can be devastating for organizations, causing them to lose money and customer trust for months or even years to come.
- Finally, legacy backup systems don't provide organizations with the capability to simulate and test their recovery processes, which leaves them in a precarious position in the event of a cyber attack. Organizations have to rely on luck or chance to restore their systems fully, leading to potential data loss, system downtime, and significant reputational damage.

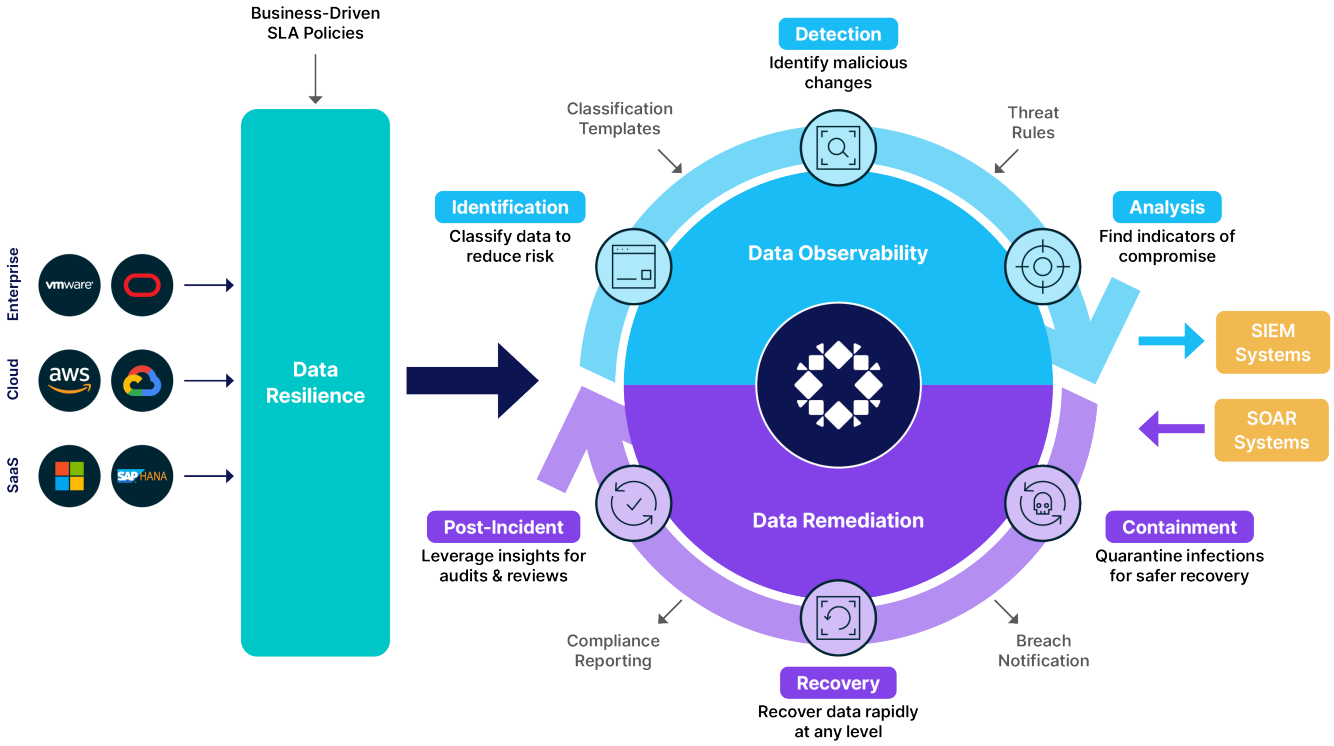
It's clear that legacy backup systems are no match for modern cyber threats. In today's competitive environment, organizations cannot afford to be complacent about cyber recovery and must invest in solutions specifically designed for cyber recovery to avoid significant pain in the long run.

DATA SECURITY: THE TRUSTED APPROACH TO CYBER RECOVERY

Given this dynamic threat environment, organizations must adopt an "assume breach" mindset. Securing data is the only way an organization can truly secure its business, especially at a time when ransomware is such a pervasive threat that remains financially rewarding for attackers. IT and cybersecurity teams must ensure that data is available, safe, and recoverable in the event of an incident. Because data is the target of attackers, organizations need security at the point of data – "data security" – to keep data safe and recover it faster.

Data security is composed of three pillars:

1. **Data Resilience** – secure data from insider threats or ransomware with air-gapped, immutable, access-controlled backups
2. **Data Observability** – continuously monitor data risks like sensitive data exposure and detect cyber threats such as ransomware
3. **Data Remediation** – simulate recoveries, and surgically and rapidly recover applications, files, or objects while avoiding malware reinfection



Data security keeps data safe and makes it easier to respond to cyber attacks.

RUBRIK SECURITY CLOUD MAKES DATA RESILIENT AGAINST CYBER ATTACKS, CONTINUOUSLY MONITORS DATA RISKS, AND RECOVERS APPLICATIONS QUICKLY

Rubrik Security Cloud gives organizations a single place to secure their data wherever it lives – across enterprise, cloud, and SaaS applications.

Rubrik Security Cloud provides zero trust data security,
which is made up of data resilience, data observability, and data remediation.

DATA RESILIENCE

With Rubrik, organizations can be confident that their critical data is safe from deletion, compromise, or encryption. This is because air-gapped, immutable, access-controlled backups enable organizations to withstand cyberattacks, malicious insiders, and operational disruptions.

Data is stored in an immutable format and cannot be read, modified, or deleted. Additionally, data is encrypted in-flight and at rest, and backup data is stored in a purpose-built append-only file system.

Lastly, backed up data is logically air-gapped so it's offline and not accessible through standard network protocols. System interfaces are secure, role-based, least privileged, and protected by multifactor authentication (MFA) to further reduce the risk of intrusion.

Data Resilience services include:

- **Enterprise Data Protection –** to cyber-proof enterprise data with air-gapped, immutable, access-controlled backups.
- **Cloud Data Protection –** to cyber-proof cloud data with air-gapped, immutable, access-controlled backups.
- **SaaS Data Protection –** to cyber-proof Microsoft 365 applications with air-gapped, immutable data resilience and streamlined recovery at any scale.
- **Secure Data Archival –** to archive data securely and efficiently with an isolated, immutable cloud vault.

DATA OBSERVABILITY

Organizations using Rubrik are well positioned to recruit their data in the fight against ransomware. This is because Rubrik captures the longitudinal time-series history of data. Additionally, Rubrik manages metadata – including its content, users, and access privileges. By scanning hundreds of snapshots, Rubrik's Data Observability engine generates signals that are fed into a highly trained machine learning model – building a historical baseline against which new data can be compared to find anomalous modifications, deletions, and encryptions.

Sensitive data discovered by the observability engine can be correlated with data anomalies found earlier to determine if any sensitive data was impacted, which could pose a potential double extortion risk. And scanning the time series history of data for indicators of compromise makes it easy to find the last known clean copy for recovery operations.

Lastly, organizations can continuously assess whether their data managed by Rubrik is safe and ready to recover from a cyber attack with Data Security Command Center. From an easy-to-use dashboard with risk scores, IT and security teams can get visibility into data risks, identify security gaps, and get actionable guidance to make their data more secure.

Data Observability services include:

- **Ransomware Monitoring & Investigation –** to determine the scope of ransomware attacks using machine learning to detect deletion, modifications, and encryptions.

- **Sensitive Data Monitoring & Management –** to reduce sensitive data exposure and manage exfiltration risk by discovering what types of sensitive data is present within backups, where it lives, and who has access to it. This service helps maintain compliance with regulations including GDPR, PCI-DSS, GLBA, and many more.
- **Threat Monitoring & Hunting –** to prevent malware reinfection by analyzing the time-series history of data for indicators of compromise to identify the initial point, scope, and time of infection.
- **Data Security Command Center –** to identify security gaps, quantify data risk, and provide actionable recommendations to improve data security posture.

DATA REMEDIATION

Rubrik's Data Remediation capabilities allow organizations to restore business operations quicker. Organizations can scan backups using file patterns, file hashes, and YARA (Yet Another Recursive Acronym) rules to look for indicators of compromise (IoCs) across all objects in the backup. They can also analyze a time-series history of backup snapshots to pinpoint clean uninfected snapshots for recovery. Additionally, organizations can leverage the insights that Rubrik provides to quickly recover at scale, with less risk of reintroducing malware.

Rubrik also provides orchestration of DR failover/failback testing, which enables organizations to radically simplify recovery orchestration, create and execute recovery plans to recover to the most recent clean state from uncompromised backups and to prove DR readiness.

Finally, Rubrik provides the ability to easily create, test, and validate whether an organization's recovery playbook works so that they are prepared to meet their recovery SLAs. It does this by allowing organizations to conduct their forensic investigations and cybersecurity assessments in isolated recovery environments while they restore business operations using the last-known clean snapshot.

Data Remediation capabilities include:

- **Threat Containment –** to ensure safe and quick data recovery by quarantining data infected with malware.
- **Mass Recovery –** to restore business operations quickly by recovering apps, files, or users at scale.
- **Orchestrated Application Recovery –** to recover applications quickly with pre-built workflows and disaster recovery blueprints.
- **Cyber Recovery –** to easily perform recovery testing and validation in isolated environments.

Additionally, integrations with common security solutions allow security operators to use their existing tools (i.e., SIEM and SOAR solutions) to view alerts generated by Rubrik's Data Observability services and invoke Rubrik Threat Monitoring & Hunting and Data Remediation workflows without touching the Rubrik interface. By bringing data protection and data security into a single platform with a unified control plane and integrated workflows, Rubrik Security Cloud fosters tighter collaboration between IT and Security Operations and helps reduce ransomware remediation time.

ZERO TRUST

All Rubrik Security Cloud capabilities follow the zero trust principle that users, admins, and network traffic not be trusted unless strongly authenticated. This helps ensure that Rubrik keeps data safe, aligned to standards set forth by the US government's National Institute of Standards and Technology (NIST).

WHY RUBRIK

Rubrik Security Cloud is the leading data security platform built upon a unique backup architecture that secures data. Rubrik is designed with zero trust principles to incorporate a logical air gap, secure protocols, native immutability, encryption, and access controls. With global policy-driven automation, Rubrik helps ensure data availability, policy compliance, and streamlined recovery workflows, while the data classification engine identifies sensitive data exposure and the anomaly detection engine enables faster threat investigation and prevention of malware reinfection. Additionally, the API extensibility feature facilitates collaboration with cross-functional teams by providing a shared view of data risk and threat insights across tools.

The principal economic benefit of Rubrik is reduced costs associated with combating cyber threats. Data Resilience safeguards data across environments. Data Observability makes it easy to assess data risks and remediate threats quickly. Data Remediation provides precise and automated recovery options to enable safe and efficient remediation.

ESTÉE LAUDER SECURES AT-RISK DATA FOR GROWING BEAUTY EMPIRE WITH RUBRIK

90%+ Reduction in time to backups of 10 TB+ databases

Cosmetics company Estée Lauder has over 25 beauty brands throughout 150 countries. Its IT department supports over 48,000 global employees and protects several petabytes worth of data. One of its biggest challenges is accommodating changing data and different platforms with different operating systems, especially as it introduces and acquires new brands. It is now focused on standardizing on Rubrik as the unified enterprise data security fabric across locations and for all SLA use cases as well as improving backup performance and restore times. In addition, Estée Lauder had blind spots regarding its at-risk sensitive data and often found PCI information in files where it should not have been. The team leveraged Rubrik's Data Observability engine to discover, classify, and report on locations of files containing sensitive data without any impact to production. This helped them take steps to remove and remediate the sensitive data, keeping both customers and the company protected from exposed information.

ESTĒE LAUDER

We are very impressed with Rubrik's ability to instantly recover. While other solutions were offering similar capabilities, Rubrik stood apart by the ease at which we were able to take a backup and instantly make it available through Live Mount. It was an important selling point for us, and we constantly use it to have our data readily available.

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