Modern Storage Meets Cyber Resilience: The Rubrik and Pure Storage Solution Architecture for Unstructured Data
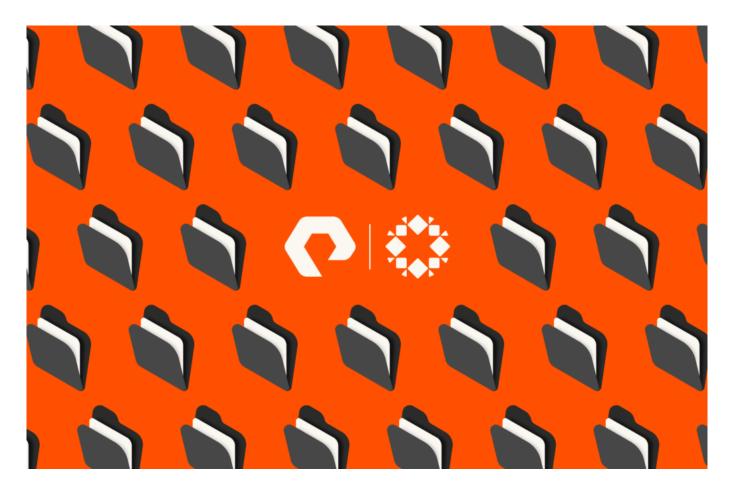

According to [projections from UBS](#), data volumes will reach as much as 660 zettabytes—or 129GB per person on Earth—by 2030. In addition, IDC reports that an estimated [90% of that data is unstructured](#) or doesn't follow conventional data models, making it harder to store.

Unstructured data poses both an opportunity and a challenge for organizations worldwide. The opportunity lies in its potential to drive artificial intelligence (AI) and machine learning (ML) powered decision-making and support innovative technology like generative AI (GenAI).

Then, there's the challenge: Many organizations still depend on legacy systems

that are ill-equipped to keep pace with the scale of unstructured data and cannot unify or secure critically important data. The opportunity unstructured data affords also makes it a target for cybercriminals. Unstructured data is highly susceptible to ransomware attacks due to its volume, critical nature, and often insufficient protection.

Pure Storage and Rubrik are expanding their partnership to offer a holistic and secure reference architecture that tackles the challenges of managing and securing unstructured data at scale. As a result, organizations of all sizes can experience data storage and cyber resilience with unmatched efficiency and simplicity to manage exponential data growth, eliminate performance bottlenecks, and bolster protection against sophisticated threats.

The Challenge: How Legacy Data Storage Places Limits on Unstructured Data

Many organizations continue to struggle with outdated file systems that have, over the decades, built up multiple layers of protocols and management tools. This buildup has resulted in inflexible and complicated data storage, hindering their ability to swiftly and securely utilize new technologies, such as AI. Unlike modern data storage solutions that can scale dynamically, legacy systems compel organizations to add more layers or arrays, further complicating data storage. Consequently, these outdated approaches present operational and security issues.

Securing this data has also been challenging, and it's clear legacy backup solutions are not up to the task. Rubrik Zero Labs observed that 93% of organizations have reported encountering significant issues with their existing backup solution. Traditional backup methods, such as Network Data Management Protocol (NDMP), weren't engineered to handle the sheer volume of today's unstructured data sets or their throughput requirements. Organizations attempting to use traditional backup methods for their unstructured data may risk data loss from incomplete data protection or backup failures. Worse yet, Rubrik Zero Labs reported that attackers tried to affect the backups in 96% of attacks and were at least partially successful in 74% of those attempts.

The Opportunity: Modern Data Storage and Cyber Resilience for Modern Unstructured Data Needs

Today's applications need real-time file services that can dynamically adapt to data storage needs. This means eliminating the need for new arrays, offering high data availability, and providing security controls to ensure unstructured data is neither lost nor becomes the target of bad actors. A modern data storage solution unifies block and file services in a single storage pool while optimizing capacity through deduplication and compression. It ensures high availability with advanced data recovery and protection features, preventing performance bottlenecks.

In an era where protecting data is of unprecedented importance, cyber resilience enables the securing of unstructured data at petabyte scale with rapid and efficient backup and recovery.

Imagine if your unstructured data is not just protected, but truly secure. When critical data is secured by immutable backups, cyber threats can't compromise that data, and applying threat analytics can accelerate recovery to get your business back online when it matters most.

Pure Storage and Rubrik Are a Perfect Match for Modern Unstructured Workloads

Organizations require a complete reference architecture solution that delivers performant, secure storage and cyber resilience at petabyte scale.

With Pure Storage, data owners can manage their unstructured data with speed, agility, and efficiency. Through Pure Storage® [FlashArray](#)™, organizations can gain complete protection of their file-based workloads. FlashArray File offers multiple security measures, such as always-on encryption and tools that track and isolate file access. In addition, Pure Storage [FlashBlade](#)® gives organizations a cost-effective solution for large unstructured data repositories with features that can uplevel data access and retrieval performance.

The [Pure Storage platform](#) also offers built-in disaster recovery to protect

unstructured data after an incident. This recovery feature is part of the [Purity](#) operating environment through ActiveDR™, which allows continuous replication across disparate data centers. Pure Storage also offers [SafeMode™ Snapshots](#), which protect data from alterations due to internal mistakes or malicious attacks.

To help customers achieve cyber resilience, Rubrik delivers secure, unstructured data protection at petabyte scale. Legacy backup approaches are not optimized to handle today's massive unstructured data sets—lacking both the performance for large-scale environments and the security features needed to combat modern cyber threats. Rubrik NAS Cloud Direct is purpose-built to scale seamlessly, delivering high-performance protection and management for even the largest deployments. With policy-driven automation, enterprises can simplify data protection at any scale, ensuring efficiency without compromising security.

Rubrik's solution is designed for granularity, allowing organizations to rapidly recover anything from individual files to entire file shares and restore data to any location within their infrastructure. Its zero-trust security framework further fortifies data protection, featuring air-gapped, immutable, and access-controlled backups. Built-in encryption and anomaly detection provide proactive defense, enabling businesses to swiftly identify threats and execute targeted recoveries. With Rubrik NAS Cloud Direct, enterprises gain the confidence to manage and secure their ever-expanding unstructured data with unmatched scalability and performance.

[Read the white paper: "Unlocking the Power of Unstructured Data with Rubrik and Pure Storage"](#)

Preparing for the Future of Unstructured Data

As the volume of unstructured data hits the petabyte range, organizations will need storage and cyber resilience solutions that can handle modern workloads' scale, speed, efficiency, and security. Pure Storage and Rubrik are coming together to enable organizations to take their unstructured data—regardless of volume—and unlock its potential while remaining cyber resilient. For more on the Pure Storage and Rubrik partnership, [register for the joint webinar](#) on April 2.