Igneous ▲▲

NAS Backup: Igneous to Google Cloud Platform
Accessible cloud backup protection at any scale

In today's data-driven world, unstructured data is growing at double-digit rates every year, and legacy data-protection solutions are unable to keep up. At the same time, enterprise data centers are running out of space and costs are continuing to rise. Public cloud platforms offer unlimited capacity and a variety of performance tiers, but data-centric organizations find that incorporating cloud storage into their backup strategy can be challenging, and they still need to find ways to limit costs.

With a data-management strategy that combines data protection from Igneous with Google Cloud Platform (GCP), even the most space-constrained enterprises can easily manage onsite and cloud backup operations using a single intuitive web interface. With Igneous DataProtect, you can reduce secondary storage, free up data center space for your primary workloads, and streamline operations while reducing costs. Igneous offers seamless interoperability with GCP's Cloud Storage services – enabling a cost-effective backup solution to any storage tier – with a few simple clicks.

How It Works

DataProtect includes a multi-threaded scan engine that can discover and index hundreds of thousands of files per second, and a data-movement engine that organizes data into dozens of parallel streams that can use all available network bandwidth between your NAS systems and your Cloud Storage tiers. During the entire process, Igneous also monitors overall NAS performance and adjusts itself automatically to protect production workloads.

The net result is a backup solution that is uniquely positioned for unstructured data protection at any scale, capable of running 24x7 without affecting business services.

GCP's Cloud Storage offers economical data-protection solutions to safeguard your critical data against loss. With a data-protection solution built using the combined features of Igneous and Cloud Storage, enterprises can keep up-to-date copies of their data in the cloud, enabling flexible backup options, and easy recovery of lost data.

Together, Igneous and GCP allow you to back up unstructured data stored on your primary NAS systems. Customers can adopt a software-only or hybrid deployment.
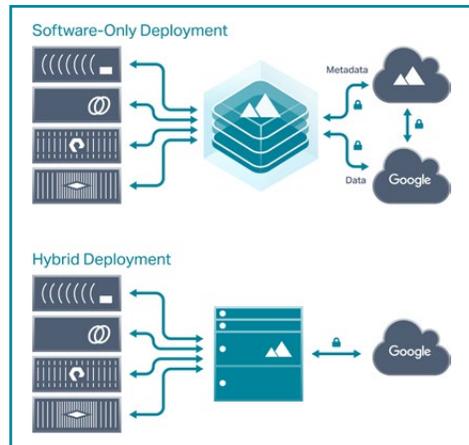
KEY BENEFITS

A combined data-management strategy that leverages Igneous DataProtect and Google Cloud Platform, delivered as-a-service, provides the following benefits:

Backup flexibility
With full support for any Cloud Storage tier, and with simple policy-driven data movement, DataProtect lets data owners move data quickly and easily to the cloud, delivering reliable data protection that's simpler than tape-based backups.

Cost-effectiveness
By leveraging the flexibility of Cloud Storage tiers and Igneous' data-movement efficiency, DataProtect provides comprehensive backup protection at a lower cost than tape.

Data protection at scale
Manage petabytes of data and billions of files, both locally and in the cloud. DataProtect delivers high-speed data movement, latency sensitivity to prioritize production workloads, and seamless cloud interoperability, eliminating the backup window from consideration and enabling 24x7 data protection, even in the largest environments.

Operational simplicity
With an as-a-Service delivery model, Igneous remotely monitors system performance and service telemetry in customer data centers, letting customers focus on business operations without spending additional administrative cycles to manage and monitor backup, archive, and migration jobs.

Backup Flexibility for Any Use Case

With Igneous' powerful, flexible backup capabilities, data owners and administrators can create backup policies that leverage Igneous' own data-movement engine and GCP's Cloud Storage to meet any requirement, such as:

- Remote sites backing up to different regions and tiers
- Flexible deployment options – software-only via virtual machine or hybrid deployment with cached on-premises storage
- Scalable backup with single-pane-of-glass management, even for large data-center deployments
- Dual-write policies to split backup between different locations.
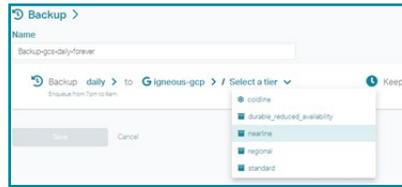
Always-On Flexibility with Google Cloud Storage

Cloud Storage offers a series of storage tiers, each of which comes with a particular price point that reflects its availability and performance levels.

- **Standard –** for data that is frequently accessed, and/or stored for brief periods of time. Available in multi- and dual-regional configurations.
- **Regional –** provides comparable availability and performance levels as Standard, but in a single-region configuration.
- **Durable Reduced Availability –** similar to Standard storage, but with higher per-transaction costs and lower availability and performance.
- **Nearline –** low-cost, highly durable storage for infrequently accessed data, where higher access and per-transaction fees are offset by lower capacity costs.
- **Coldline –** intended for data that can go for a year or more without being used, with the highest per-transaction costs and lowest consumption costs.

What sets GCP Cloud Storage apart from other cloud storage providers – whose archive and cold-storage classes may require minutes or hours to first-byte access – is the immediate time-to-first-byte availability across all storage tiers.

Igneous includes native support for all Cloud Storage tiers, and can be configured to write directly to any tier by specifying it in the Igneous backup policy. Regardless of which tier is needed for a specific use case, Igneous delivers policy-driven backup services – leveraging both onsite and cloud storage as appropriate – from a single intuitive web portal.

As-a-Service Backup Simplicity with Igneous DataProtect

Igneous DataProtect simplifies and automates data protection operations, even at multi-petabyte scales with billions of files. With native support for any file protocol (including object storage), support for all NAS systems, and Cloud Storage, DataProtect simplifies backup operations for even the largest enterprises.

Igneous is the only backup solution that includes full API integration with Dell EMC Isilon™, NetApp FAS™, Pure Storage FlashBlade™, and Qumulo QF2™, leveraging each platform's specific capabilities for export and share discovery, snapshot management, file-system security, and data-path management for optimal throughput and backup performance.

About Igneous

Igneous delivers the industry's only as-a-Service solution for unstructured data management, giving data-centric enterprises visibility, protection, and data mobility at scale. Igneous' API-enabled, cloud-native solution combines all unstructured data-management services, letting organizations tap the value of their unstructured data while reducing risk and optimizing IT resource utilization.

Igneous: The right data, in the right place, at the right time.

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BACKUP FEATURES

- API integration with Dell EMC Isilon, NetApp, Pure Storage FlashBlade, and Qumulo QF2
- Seamless support for all other NAS systems, including VAST Data™, WekaIO™ Matrix™, IBM™ Spectrum Scale™, Quantum™ Stornext™, Panasas™ ActiveStor™, Hitachi™ HNAS™
- Support for NFS, SMB/CIFS, object, GPFS, and Lustre protocols
- Multi-protocol permission recognition on select storage platforms using mixed-mode storage
- Highly-parallel data movement and scan operations without impact to production workloads
- Baseline and then "incremental forever" backups run quickly and efficiently
- "Virtual full" restore interface presents complete view of data at any point in time
- Restore back to NAS with all metadata and file permissions intact
- Write-Once-Read-Many (WORM)
- End-to-end compression for throughput and storage efficiency
- Immutable objects with versioning
- Comprehensive activity logging and audit trails

CLOUD-TIERING FEATURES

- Lifecycle management across Igneous and Cloud Storage, enabling version control and expiration of old data
- Direct and native interoperability with all Cloud Storage tiers
- Efficient movement of data to cloud storage that minimizes ingress and egress transaction costs
- Replication between Igneous and cloud storage for offsite redundancy
- Direct-to-cloud backup and archive for software-only Igneous deployments, and as appropriate for hybrid environments
- Search both onsite and cloud-based datasets, with enforced file permissions, to enable self-service restore operations

Visit igneous.io for more information, and to register for a live demo of Igneous' data management services

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