Igneous ▲▲

PURESTORAGE®

Oracle Rapid Restore with Igneous and Pure FlashBlade

Accelerating and Optimizing Oracle RMAN Replication

Igneous Unstructured Data Management as-a-Service integrates with Oracle on Pure Storage FlashBlade solutions to optimize RMAN replication, archive, and retrieval. With a few setup clicks, Igneous seamlessly adds an archive tier to any Oracle on Pure FlashBlade environment to offload older RMAN-based replicas from the Pure array to long-term storage.

Adding Igneous to your environment enables a tiered storage strategy for Oracle backups. By keeping only the most recent RMAN replicas on your Pure FlashBlade array and archiving older images to Igneous storage, you can ensure rapid recovery of your most recent backups when needed, and still have easy access to your older RMAN images when you need them, even after a year or more.

How It Works

Configuring replication to an Igneous platform is easy. Simply add the NFS export(s) on the Pure FlashBlade used for RMAN backup jobs to an Igneous backup policy configured with the appropriate retention setting (e.g. 1 year). Igneous offers high-performance data protection at any scale—even to petabyte-size data footprints —using a data-mover engine optimized for high-performance throughput and indexing, designed to scale to hundreds of concurrent jobs without impacting production workloads.

Restoring data is easy. You can either restore the target backup image from Igneous to the Pure FlashBlade array and then re-import it using RMAN restore, or use RMAN restore to import it directly from the Igneous platform.

Igneous also offers the option to archive older data to public cloud storage, letting you retain your replicas for even longer—years, if necessary. And with Igneous' highly scalable, high-performance index, you can find your data quickly and easily, no matter where it's located.

Data source   Primary   Secondary   Public Cloud
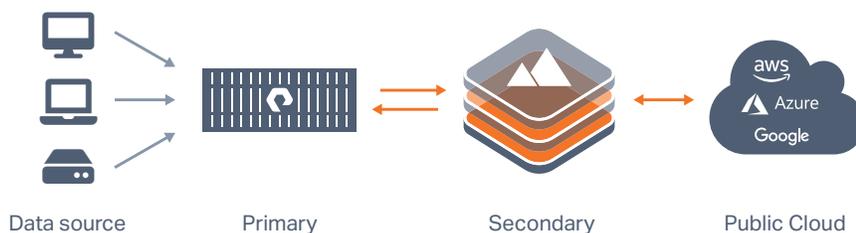
KEY BENEFITS

As-a-Service delivery
Customers don't buy or manage hardware; instead, Igneous remotely monitors, troubleshoots, and even performs software updates on its appliances installed in customer datacenters. Igneous' remote management and fail-in-place architecture dramatically reduce management overhead for enterprise IT.

Scale-out
On-premises appliances integrate highly scalable backup and archive software with scale-out index and object stores to manage billions of files.

High performance
Igneous performs highly parallel data movement, optimized for scale-out primary NAS systems from NetApp, Dell EMC Isilon, Pure Storage FlashBlade, Qumulo, and others. Dynamic throttling eliminates impact to users and applications accessing the primary storage. As such, backups can run continuously, eliminating the concept of a "backup window" where users and applications can't otherwise access data.

Search
A key problem with enterprise network attached storage (NAS) is not knowing what's there. The Igneous scale-out index store provides integrated search and discovery of all file data on primary, secondary, and cloud storage tiers.

Cloud integration
To constrain datacenter footprint and provide long-term archive storage, Igneous automates tiering or replication to other Igneous appliances and to leading public cloud providers like AWS, Microsoft Azure, and Google Cloud.

Sizing Guidelines

We offer simple sizing guidance for most environments, even up to petabyte-level scales. With a 30-day retention policy on your Pure FlashBlade storage, and a 1-year retention on Igneous, you'll need 12TB of Igneous capacity for every 1TB of FlashBlade storage used for RMAN backups.

This table shows the Igneous platform you'll need to support the FlashBlade configuration you're using in your environment.

Pure FlashBlade Config	Pure Capacity (TB)	Igneous Config	Igneous Capacity (TB)	Igneous Size (Rack Units)
7 x 17	119	1 x 426TB Databox + 1 ASR*	426	6
15 x 17	255	2 x 426TB Databox + 1 ASR	852	10
7 x 56	392	3 x 426TB Databox + 1 ASR	1,278	14

*ASR = Application Service Router

Backup Features:

- API integration with Pure Storage FlashBlade to provide:
  - Read-consistency via snapshots
  - Automated permissions provisioning
  - Automatic discovery of exports
- Multi-protocol permission recognition in mixed-mode storage environments
- Dynamic resource throttling via latency aware data movement to protect production system performance
- Highly parallel data movement and scan operations
- Point-and-click policy-driven backups
- Baseline and then Incremental Forever backups run more quickly and efficiently
- "Virtual Full" restore interface presents complete view of data at any point in time
- Search to recover backup data via direct download, or restore to primary NAS
- 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
- Replication to other Igneous systems and cloud storage for off-site redundancy

Archive Features:

- Automated archiving job management
- Archive data at the system, export, or directory level
- Automated notification upon job completion
- Archive to Igneous and cloud storage locations
- Search to restore archived data via direct download, or restore to primary NAS
- Index archived data on ingest

Cloud Tiering Features:

- Lifecycle management across Igneous and cloud locations allows for expiration by date or number of versions
- Cloud storage integration with Amazon Web Services, Microsoft Azure Blob Storage, and Google Cloud Platform
- Efficient data movement to cloud storage
- Replication between Igneous and cloud storage locations for off-site redundancy
- Search the Igneous InfiniteINDEX to restore with enforced file permissions to restore with enforced file permissions

About Igneous:

We deliver the only UDM as-a-Service solution enabling data-centric organizations with visibility, protection and data mobility at scale, wherever datasets and workflows live. Our customers see, organize and understand all of their unstructured data – anywhere. Our customers protect petabytes of data on a single cloud-native platform – at scale. Our customers automate movement of datasets – for everyone needing them. We combine all UDM functions into a single, API-enabled, cloud native solution.

To learn more about the Igneous backup and archive workflow, contact us:

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