

# Igneous Hybrid Storage Cloud Backup with Microsoft Azure Data Box

## Executive Overview

The benefits of cloud backup, including scalability, accessibility, and agility, are immense. However, significant challenges lie in effectively deploying cloud backups for enterprise. To help enterprises harness the value of cloud backup while overcoming the challenges of massive scale, Igneous Hybrid Storage Cloud and Microsoft Azure Data Box combine to offer an integrated solution that accelerates data migration from network attached storage (NAS) to Microsoft Azure Storage, and manages ongoing replication and tiering to cloud.

With backup environments, the challenge of using public cloud is often seeding the initial backup before doing incrementals. Azure Data Box provides an economical way to transport those initial backups (often called “level-0’s”) into Azure Storage without worrying about network bandwidth between your on-premises environment and Azure Storage.

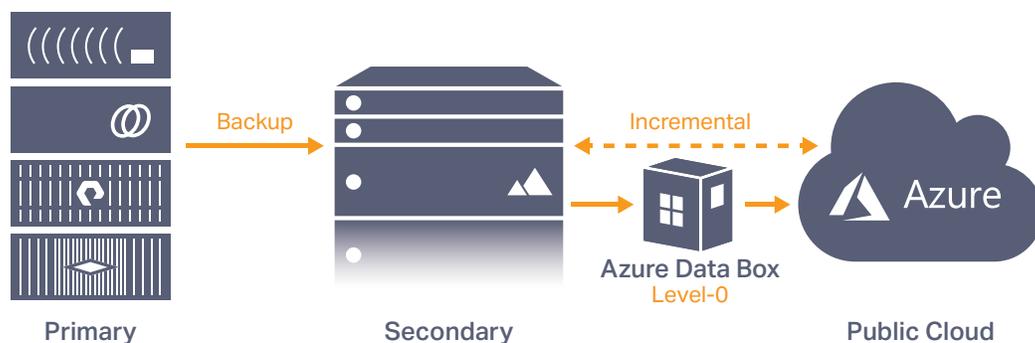
Igneous Hybrid Storage Cloud, built for managing file-based backups, provides native integration with Azure Storage, including the Azure Data Box. Together, Igneous and Azure allow you to backup unstructured data stored on your primary network attached storage (NAS) file systems, efficiently move large amounts of data to Azure Storage, and protect and manage your data with tiering and replication to cloud.

Microsoft Azure Data Box provides a secure, tamper-resistant method for quick and simple transfer of your data to Azure. Use Azure Data Box service when you want to transfer large amounts of data to Azure but are limited by time, network availability, or costs. Azure Data Box is supported by Igneous as a method to support transfers or initial sync to Azure Storage.

Igneous will help determine if you need to order an Azure Data Box based on the volume of data that needs to be replicated to Azure Storage. You can order an Azure Data Box through the Azure portal. Easily connect it to your existing network, then let Igneous Hybrid Storage Cloud load your data onto an Azure Data Box. The Azure Data Box is returned to the Azure Data Center to be uploaded to Azure.

After the level-0 backup data is transferred to Azure Storage, Igneous will replicate incremental data directly to Azure. Easily restore your data to any location, from any location, using intuitive search functionality on Igneous Hybrid Storage Cloud.

## Igneous Systems and Azure Data Box Backup Workflow



## Integrating Igneous Hybrid Storage Cloud with Azure Data Box

Igneous Hybrid Storage Cloud integrates with Azure cloud and Azure Data Box APIs. Igneous simplifies the task of migrating and replicating your data to Azure cloud storage.

**1) Create policy:** Set up a policy on Igneous with replication enabled and set the target as Azure Blob Storage.

**2) Assign policy:** Assign the policy to the export that you want to move to Azure. Once the policy is assigned, Igneous will kick off a level-0 backup of the export.

**3) Order Azure Data Box:** If the export size is sufficiently large, Igneous will recommend ordering an Azure Data Box.

**4) Set up Azure Data Box:** When the Azure Data Box gets delivered approximately one week later, follow the directions provided to set up the Azure Data Box.

**5) Restore to Azure Data Box:** Start a restore job from Igneous, setting your target as the Azure Data Box.

**6) Return Azure Data Box:** When the restore job is complete within a day or two, follow the instructions provided with the Azure Data Box to prepare and ship the Express Pod back to Microsoft.

Igneous will now begin replicating incremental changes of your export to Azure. After Microsoft receives the Azure Data Box, your data will be uploaded to Azure Blob Storage.

**7) Restore:** When you need to restore your data, search through the Igneous Search interface to locate your data anywhere it exists. Then restore it to any location, whether it's a primary NAS device or Igneous.

The screenshot shows the 'Create policy' configuration page. It is divided into three main sections: 'Backup frequency', 'Retention', and 'Replication'.  
- **Backup frequency:** A dropdown menu is set to 'Daily'. Below it, the text 'Enqueue from 7pm - 6am' is displayed with a small orange icon.  
- **Retention:** A slider is set to '1d' (1 day) on a scale from '1d' to 'Forever'. The text above the slider says 'Keep data on Igneous for 365 days, then delete data'. A checkbox for 'Enable WORM' is checked.  
- **Replication:** A toggle switch is turned on. Below it, three dropdown menus are visible: 'Azure accountname 1', 'Azure Blob Storage', and 'Select a container'.  
At the bottom, there is a 'Policy Name' field containing 'Daily-180' and a blue 'Create policy' button.

The screenshot shows a warning message in the Igneous interface. The main text reads: 'It'll take one month to complete this replication because it's 37.4TB / 300,442 files.' Below this, there is a sub-section for 'Replication' with a toggle switch turned on. A message says: 'We recommend you order an Azure Data Box.' Below that, there is a checkbox labeled 'Sent me an Azure Data Box' which is checked. At the bottom, there is a blue button that says 'Save & Create policy'.

The screenshot shows the 'Restore data' interface. It has a header 'Restore data' and two columns of information: 'Backed up on' (February 5th 2018, 3:40 PM) and 'Path' (/ProjectGamma/). Below this, there are two rows of information: 'To: Azure Data Box' and 'From: Igneous'. At the bottom, there is a blue button that says 'Create restore job'.





### About Azure Storage

Microsoft Azure Storage is a Microsoft-managed cloud service that provides storage that is highly available, secure, durable, scalable, and redundant. Microsoft takes care of maintenance and handles critical problems for you. Azure Storage consists of three data services: Blob storage, File storage, and Queue storage. Blob storage supports both standard and premium storage, with premium storage using only SSDs for the fastest performance possible. Another feature is cool storage, allowing you to store large amounts of rarely accessed data for a lower cost.



### About Igneous Systems

Igneous Systems delivers the first backup and archive solution for massive unstructured data. Designed for a hybrid world, Igneous' solution serves digital enterprises whose data is growing both on-premises and in cloud. Igneous Hybrid Storage Cloud streamlines data management, providing data protection, movement, learning, and search and discovery for enterprises with billions of files and petabytes of data on network-attached storage. Delivered as-a-Service, Igneous Hybrid Storage Cloud brings the agility of cloud to customer datacenters. Igneous' customers include leading Fortune 500 and Global 2000 enterprises. Gartner recognized Igneous as a "Cool Vendor in Storage Technologies" in 2017.

## Contact Igneous

To learn more about the Igneous Systems and Azure Data Box, contact us:

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