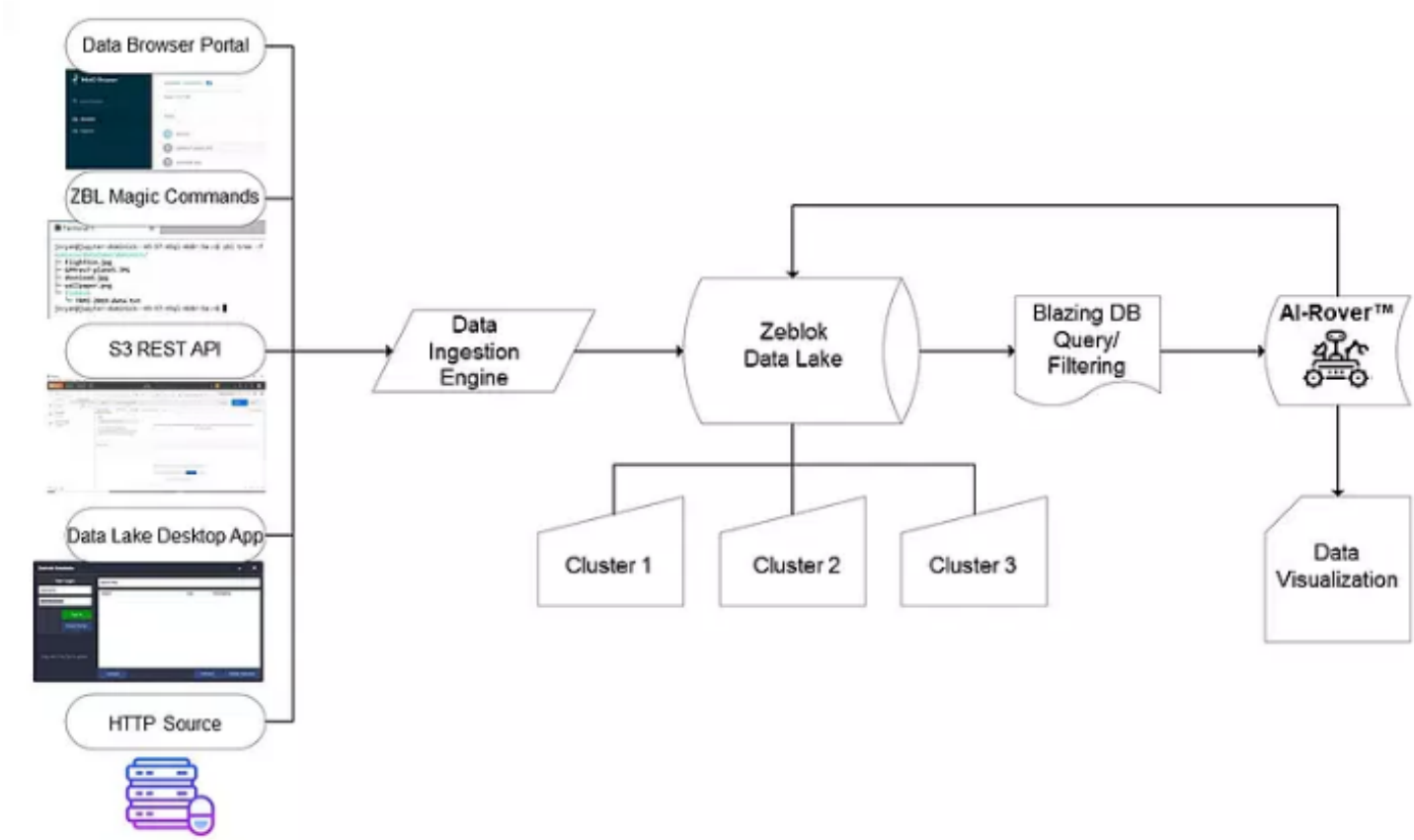
Ai-Data Lake

Overview

A data lake is a centralized repository that allows storage of both structured and unstructured data. Zeblok Ai-Data Lake is a high-performance data-store that allows you to import, filter, and instantly analyze objects. Our solution is designed for performance, scales up with your data as necessary, and can provide industry-grade SSL security and data redundancy for high availability of data at SSD speeds.

Seamless Accessibility From Almost Anywhere

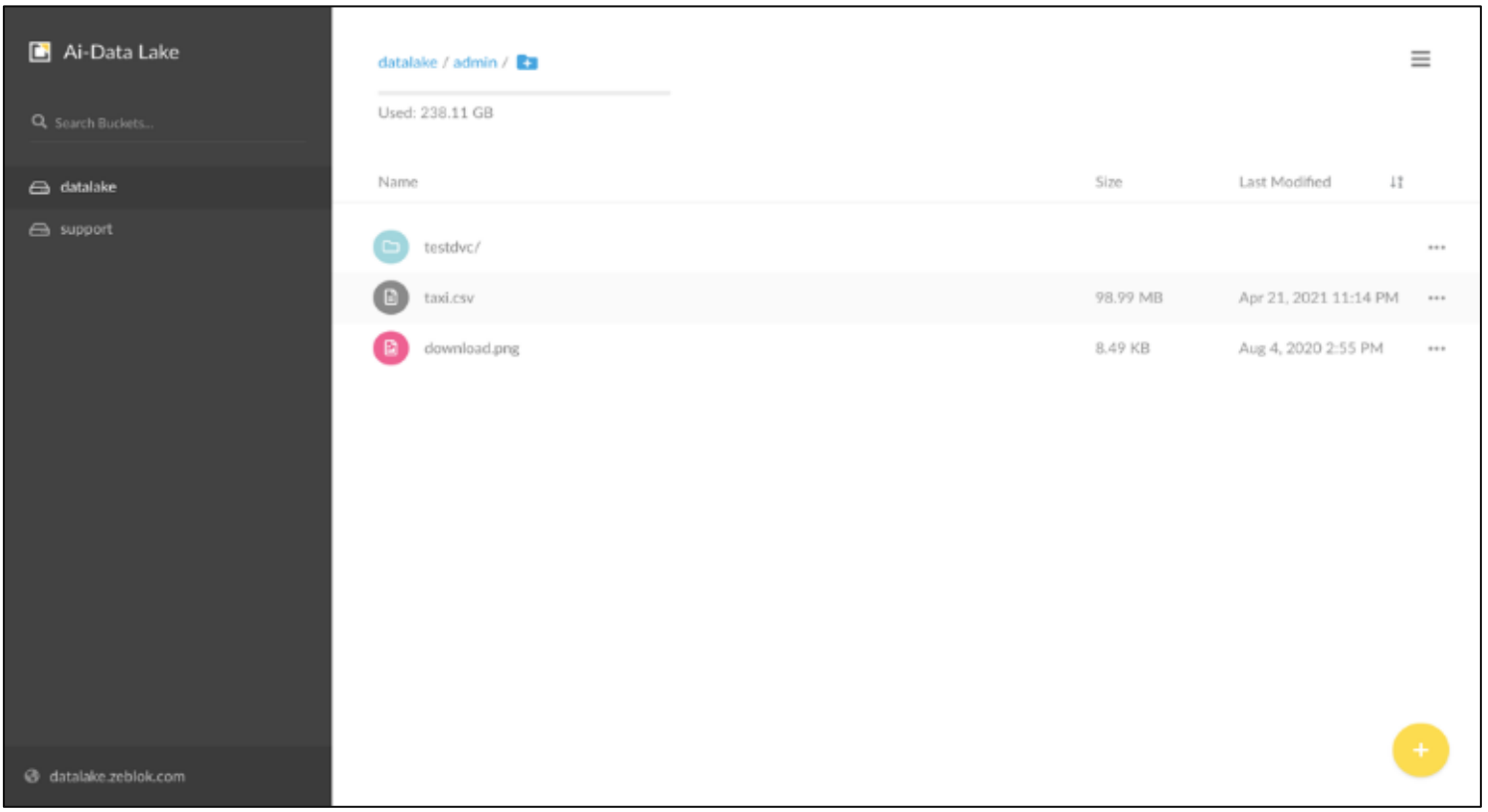
Zeblok Ai-Data Lake handles the tasks of data pipelining, analysis, and propagation so you can focus on what matters most. Whether you are ingesting images, video data files coming from IoT sensors at Edge locations through 4G/5G low latency network or uploading large CSV files, Zeblok Ai-Data Lake has you covered, with unprecedented data acceptance, performance and compatibility.



Easily automate your imports, with large files using various methods such as: Browser-based portal, Zeblok Magic Commands, S3 REST API, Ai-Data Lake drag and drop native Windows App, and HTTP importing.

Data Browser Portal:

Zeblok Ai-Data Lake provides secure high availability of your files and objects across a cluster of servers. Users can access and manage all their data in one place through the convenience of the data browser portal. The browser portal can securely allow a user to set permissions and upload/download/edit data of various file types and sizes. Users can see a map of files in their bucket without touching a command line.



Zeblok Magic Commands

Zeblok's Magic Commands are available in every Zeblok notebook instance to allow users easy access to a reliable object storage solution. With Magic Commands, users have an array of options that allows for a quick and easy way to add blazing fast storage to virtually any network. Magic Commands are intuitive, especially for those familiar with the common Linux/Unix file system. The command line offers users the ability to create new files, delete old ones, create new folders, share access, and more.

Ai-Data Lake CLI Commands

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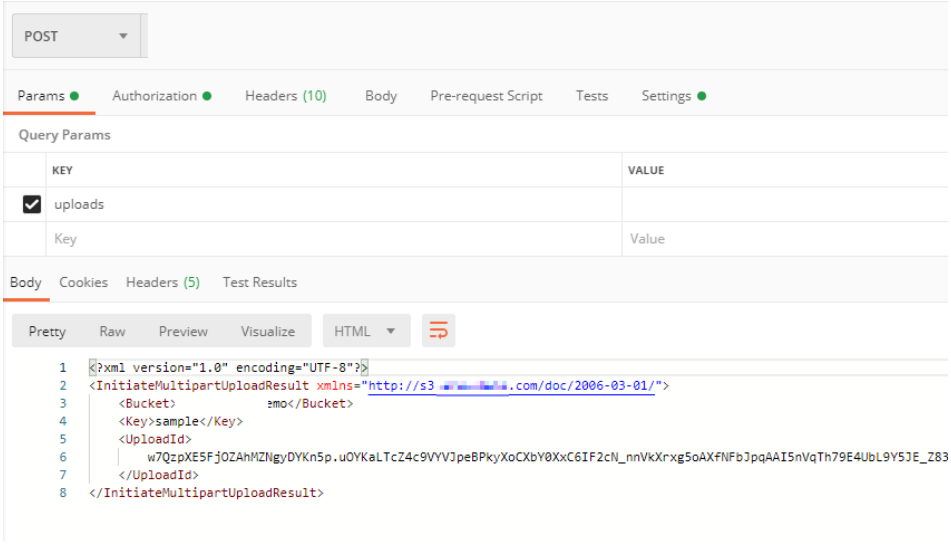
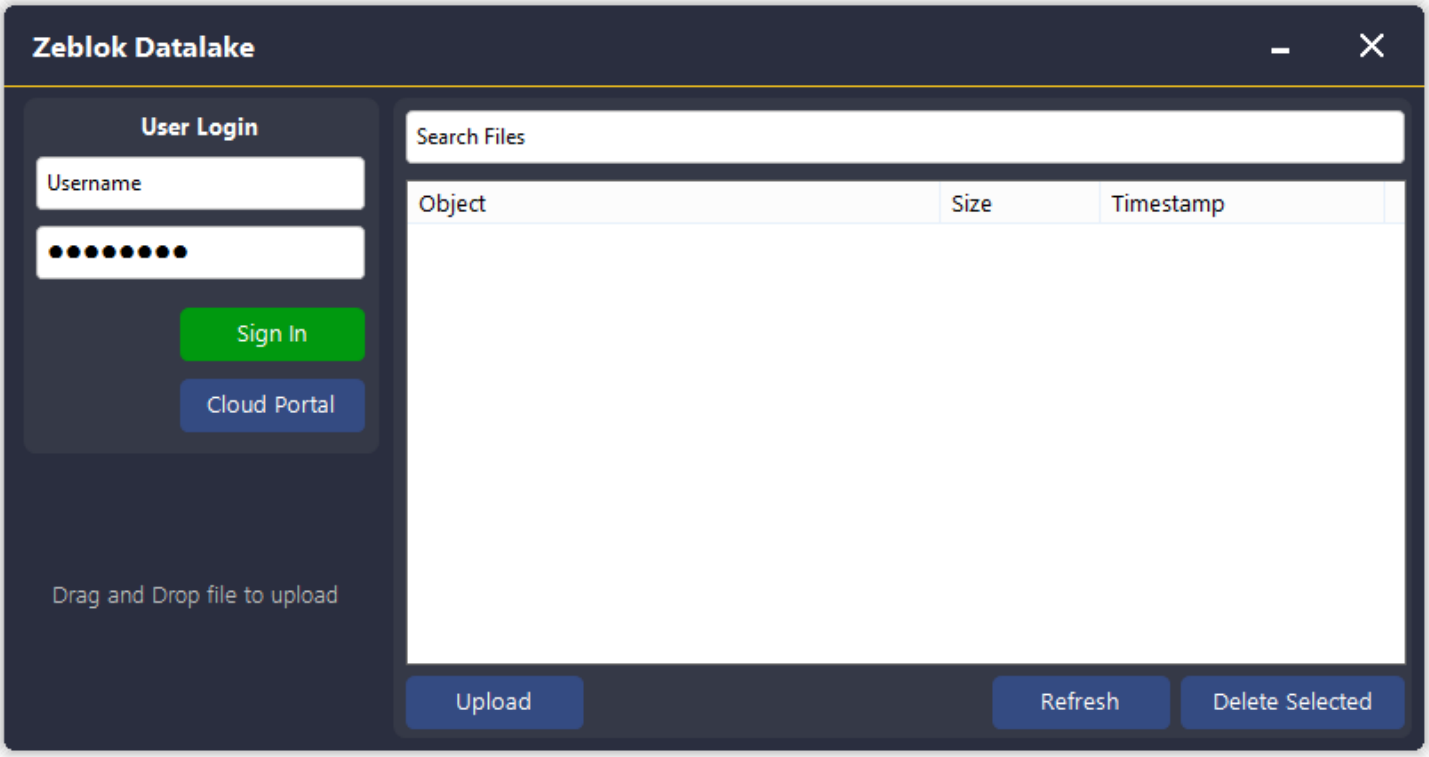
COMMANDS:
  ls          list buckets and objects
  mb          make a bucket
  rb          remove a bucket
  cp          copy objects
  mirror      synchronize object(s) to a remote site
  cat         display object contents
  head        display first 'n' lines of an object
  pipe        stream STDIN to an object
  share       generate URL for temporary access to an object
  find        search for objects
  sql         run sql queries on objects
  stat        show object metadata
  mv          move objects
  tree        list buckets and objects in a tree format
  du          summarize disk usage recursively
  lock        set and get object lock configuration
  retention   set retention for object(s)
  legalhold   set legal hold for object(s)
  diff        list differences in object name, size, and date between two buckets
  rm          remove objects
  event       configure object notifications
  ilm         configure bucket lifecycle
  watch       listen for object notification events
  policy      manage anonymous access to buckets and objects
  tag         manage tags for bucket(s) and object(s)
  admin       manage MinIO servers
  config      configure MinIO client
  update      update mc to latest release
```

REST API

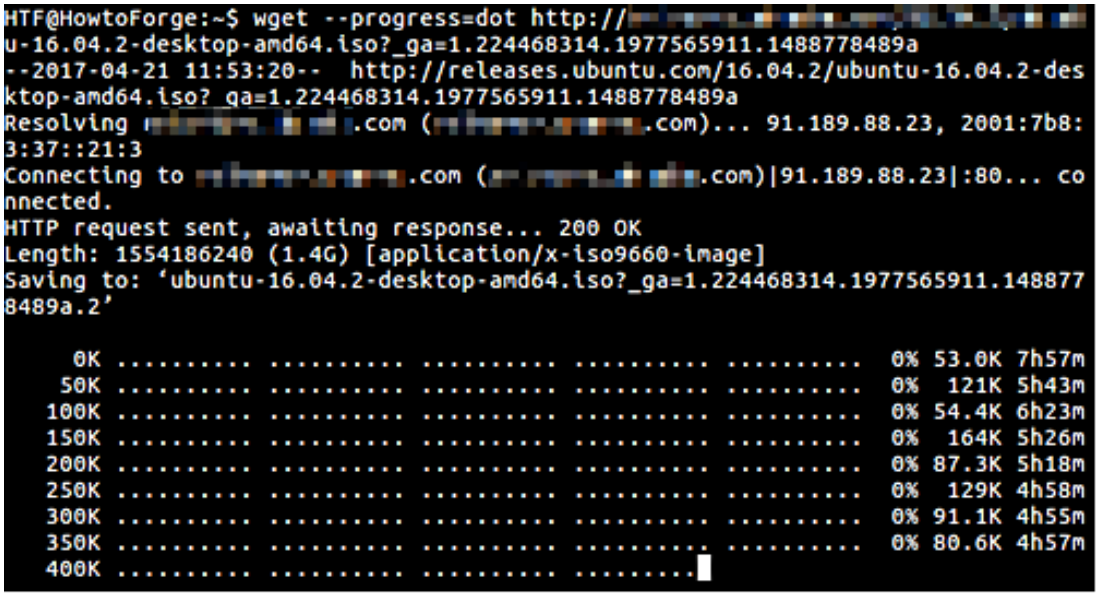
Inspired by the S3 protocol originally from AWS, Zeblok's Ai-Data Lake provides a secure endpoint that enables users to programmatically upload and manage files using a REST API. The generic S3 REST API offers a unified interface for interacting with any object and provides high-performance uploads and file transfers that can be scheduled or automated between Zeblok notebook instances or external hosts (such as via cron jobs).



Ai-Data Lake Desktop Application:
The Zeblok Ai-Data Lake Desktop application is a user-friendly free file-transfer client that works alongside the cloud to bi-directionally move large files. The Desktop application is not only easy to use, but also strong, secure and fast. As such, it is an excellent option for busy data scientists, developers, and professionals who want to upload files with ease but spare the coding syntax.

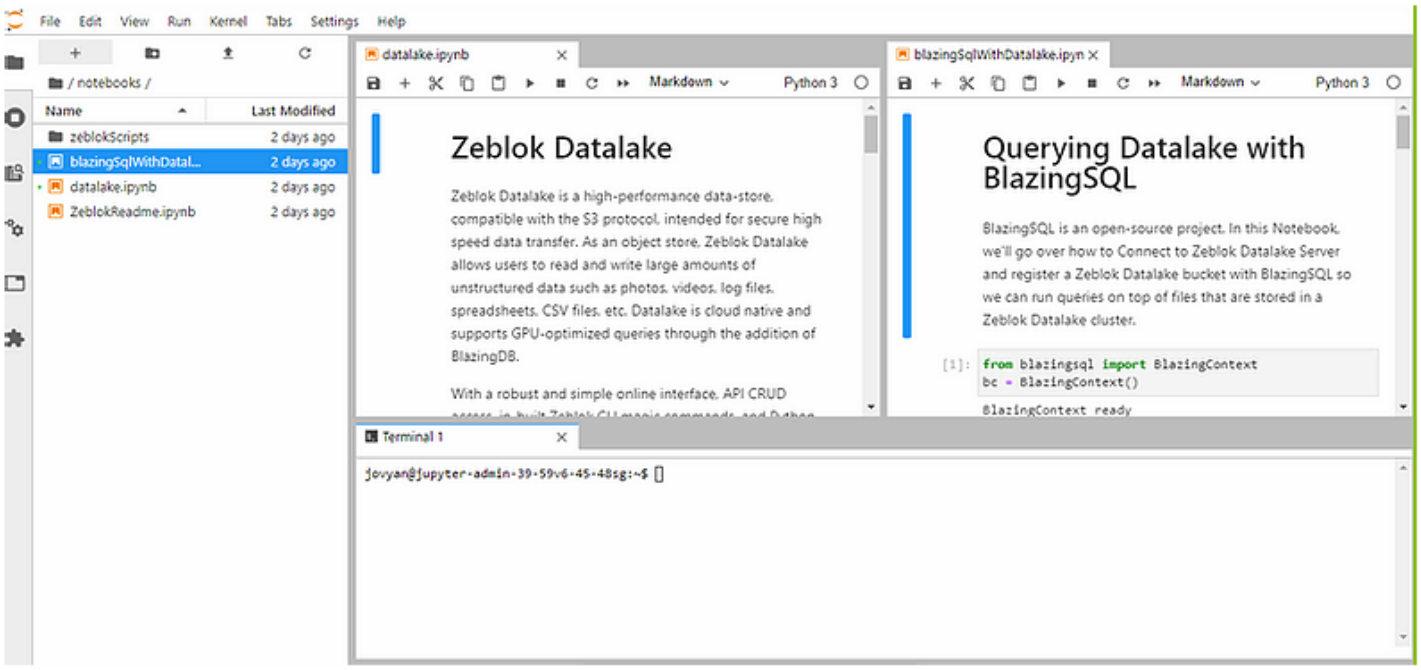


HTTP Source
Zeblok Ai-Data Lake also allows users to upload and download files from various HTTP sources without re-downloading files on the local machine. This space-saving method enables users to skip steps between upload and download cycles as desired.



Use the Ai-Data Lake From Within Any Ai-WorkStation Notebook

Access your data files residing in the Ai-Data Lake from within your Ai-WorkStation, easily integrating them into any notebook, leveraging the GPU-accelerated BlazingSQL engine.

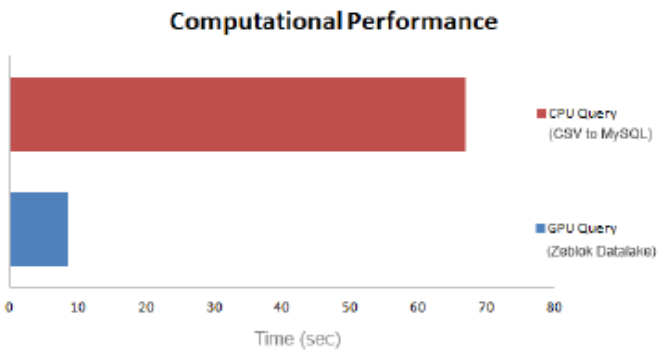


Ai-Data Lake Security

The Zeblok Ai-Data Lake platform is designed to be scalable and easy to use with a granular access control system where each user only has access to their own files. The platform features implementations for data encryption both in-transit and at-rest. With recommended SSL certificates installed, the platform offers standard bank-level encryption which is 256-bit AES, the standard for advanced cryptography. The encryption standards available in the Data Lake platform protects your data from being intercepted by third parties. Furthermore, the REST API endpoints are hardened to only operate on pre-provisioned key/secret pairs.

Blazing Fast Big Data Queries*

Run big data analytics across Zeblok Ai-Data Lake using our query-in-place GPU enhanced services. Perform blazing fast queries (up to 8x faster*), with SQL expressions and proven, curated AI algorithms from our Intelligence Marketplace to analyze data stored in your private Ai-Data Lake account across various notebooks. Export queries back to Ai-Data Lake or easily generate customized visual reports.



*When querying from 3.3 million rows of data having 49 columns to return 1000 resulting rows using 3 logic parameters.
Conventional MySQL takes 67 seconds while Zeblok Ai-Data Lake technology takes 8.5 seconds for the same query

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