**Allium Analytics**

#### **1. Introduction : What is Allium**

Allium is a comprehensive blockchain data platform designed to make blockchain data easier to access, analyze, and use for a wide range of purposes. It allows users from developers to analysts and enterprises to gain real time and historical insight into blockchain activity.

In simple terms, Allium acts as a bridge between raw blockchain data and the people or companies, who want to use data to build apps, create dashboards, perform audits, or make data driven decisions.

#### **2. Allium Products**

##### **2.1 Allium Explorer**

Allium Explorer is a powerful web based application designed for blockchain data analysis. It acts as a central hub where users can query, analyze, and visualize historical data from more than 85 blockchain.

###### **Technical Details**

* + Data Freshness: Updated approx every hour
  + Query Speed: Most query run in about 5 second

###### **Core Components & Feature**

* + Query Engine : Allium Explorer runs on Snowflake, a cloud based data warehouse platform. This ensures fast performance and scalability when querying massive blockchain datasets.
  + Schema Catalog :You get access to over 85 blockchain datasets, all available in a structured format. The data is categorized using standardized schemas, making it easy to query across chains like Ethereum, Solana, Base, etc
  + Query Runner :The Query Runner lets you write SQL queries to fetch data from Allium's indexed blockchain datasets.
* Supports parameterized queries, so you can reuse the same query by just changing inputs
* Includes a SQL formatter to automatically clean up and standardize your query code

###### **What can we do with Explorer?**

* + Run query and visualize data
  + Export results to CSV or connect with tools like Power BI
  + Explore key metrics across token, wallets, dApps and chains

###### **Uploading Data**

* + CSV Upload
* Go to "Ingest" section in the app
* Choose the csv file, name the table, and upload
* Your data become available under "Uploaded Tables"
  + API Upload
* Use the API to programmatically push your dataset into Allium.

###### **Explorer API**

We can convert our queries into REST API endpoints. This helps our apps or tools to programmatically access blockchain data.

* POST /queries/{query\_id}/run-async – Starts a query run (2,50,000 max data)
* GET /query-runs/{run\_id}/status – Check the status (running, success, failed, etc.)
* GET /query-runs/{run\_id}/results – Retrieve the data once the query has succeeded
* POST /query-runs/{run\_id}/cancel - You can cancel a query

##### **2.2 Allium Datashares**

Datashares is designed for businesses or enterprises that want to use blockchain data together with their private or internal data.

###### **What can we do with Datashares?**

* + Join our data with blockchain data.

###### **Technical Details**

* + Data Freshness: Updated every 1 - 3 hours
  + Our data remains private and is never exposed to Allium or third parties

###### **Integration Mechanism**

* + Snowflake Share : Allium offers direct access to historical blockchain data via Snowflake Shares and Allium Explorer UI. This allows to select a preferred way of querying data, whether it be through Snowflake, Allium Explorer's UI or programmatically via API. Allium provides a REST API that lets developers send SQL queries to Snowflake and get results back—useful for automation, dashboards, or backend services.
  + Databricks Delta Share
* Data is shared directly into your Databricks workspace
* Support both real time data as well as batch data
  + BigQuery Analytics Hub : Allium shares data with your Google BigQuery account via the Analytics Hub, a GCP-native data sharing platform.
  + Data Dumps - S3 & GCS : If clients want raw data, Allium can send bulk files (in Iceberg format) to their Amazon S3 or Google Cloud Storage (GCS) buckets. There's no SQL API from Allium here—but you use S3 or GCS APIs to download and work with the files as needed.

##### **2.3 Allium Developer**

Developer is a set of real time APIs that let developers and product teams build live blockchain powered applications. These APIs provide up to date wallet activity, token balances, prices and more, enabling fast and responsive app features.

###### **What can we do with developers?**

* + Fetch a wallet current token balance
  + View historical activity of any wallets
  + Get real time pricing data for the token

###### **Technical Details**

* + Data Freshness: Real Time (seconds)
  + Query Speed: 30 - 120 ms
  + Timestamp: Universal Time (UTC)
  + Prices: USD Denomination
  + Address: Lower Case

###### **Query Engine**

* + Solana data is queried via ClickHouse for ultra-fast analytics
  + Other chains are powered by PostgreSQL, enabling reliable and customizable SQL-based querying across blockchains

##### **2.4 Allium Datastreams**

Datastreams delivers real time data feed directly to your infrastructure using technologies like Kafka or Google Pub/Sub. This product is ideal for teams that need to react instantly to blockchain events.

###### **What can we do with datastream?**

* + Power live dashboard and altering system
  + Trigger automated actions based on blockchain activity

###### **Technical Details**

* + Data Freshness: Real Time (seconds)
  + Can handle high volume of events per second

#### **3. Allium Use Cases**

###### **3.1 Wallet Providers**

* Analyze wallet behaviour across multiple blockchains
* Identify wallet types
* Track wallet activity and balances in real time

**Example:** The Phantom wallet uses Allium's Developer API to monitor user activity and provide up to date information in their app.

###### **3.2 Decentralized Exchange**

* Tracks trading volume, TVL, and user growth
* Compare DEX adoptions across different chains
* Detects Sybil attacks and fake wallets during airdrop

**Example:** Uniswap used Allium to analyze adoption of their V4 release.

###### **3.3 Audit & Accounting**

* Reconstruct wallet and protocol transaction histories
* Verify balance and flow funds
* Generate tax reports and ensure financial compliance

**Example:** Companies like TaxBit use Allium for tracking wallet activity and generating tax forms

#### **4. Data Schemas**

* **Raw:** Raw data, such as blocks, logs, transactions, etc. specific to each blockchain
* **Decoded:** Decoded logs and traces for EVM chains
* **Assets:** Token transfers, balances & credit debit data
* **DEX:** DEX trades, liquidity pool and events (mints and burn) across major DEX protocols
* **DeFi:** DeFi-related verticals including lending, farms, rewards, etc
* **NFTs:** NFT trades, mints, wash trading filters
* **Metrics:** Overview metrics for on-chain activity: new & returning users, transaction activity and contracts deployed
* **Wallet 360:** Get a comprehensive understanding of users, projects, and the competitive landscape to feed the growth engine

#### **5. Data Freshness**

##### ***5.1 Raw Data***

* Update Frequency: Frequency at which data is inserted into Database
* Median Freshness: Median time between the timestamp of the original data and the timestamp of its entry into the Allium database

| Ecosystem / Blockchains | Update Frequency | Median Freshness |
| --- | --- | --- |
| EVM Chains | ~10 minutes | ~6-10 minutes |
| Bitcoin | ~30 minutes | ~30 minutes (staging) |
| Solana | ~30 minutes | ~20 minutes |
| Cosmos Ecosystem | ~30 minutes | ~20 minutes |
| Other Blockchains | ~30 minutes | ~30 minutes |

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##### ***5.2 Enriched Data***

Enriched data is data that is derived from raw data. For example, DEX trades are derived from a combination of raw logs, transactions, erc tokens data as well as prices.

| Schemas | Update Frequency |
| --- | --- |
| NFTs, DEXs, Assets, DeFi | Hourly |
| Prices | Hourly |
| DefiLlama | Daily |
| Beacon Chain Balances & Income | Daily |
| Wallet360 | Daily (Base), Weekly (Ethereum, Polygon) |
| App Users | Daily |