Project Design Phase – Part 2

Third-Party API'S

Team ID	NM2023TMID04427
Project Name	Project – Tracking Public Infrastructure And Toll Payments Using Blockchain

Top 8 Blockchain API's For Developers
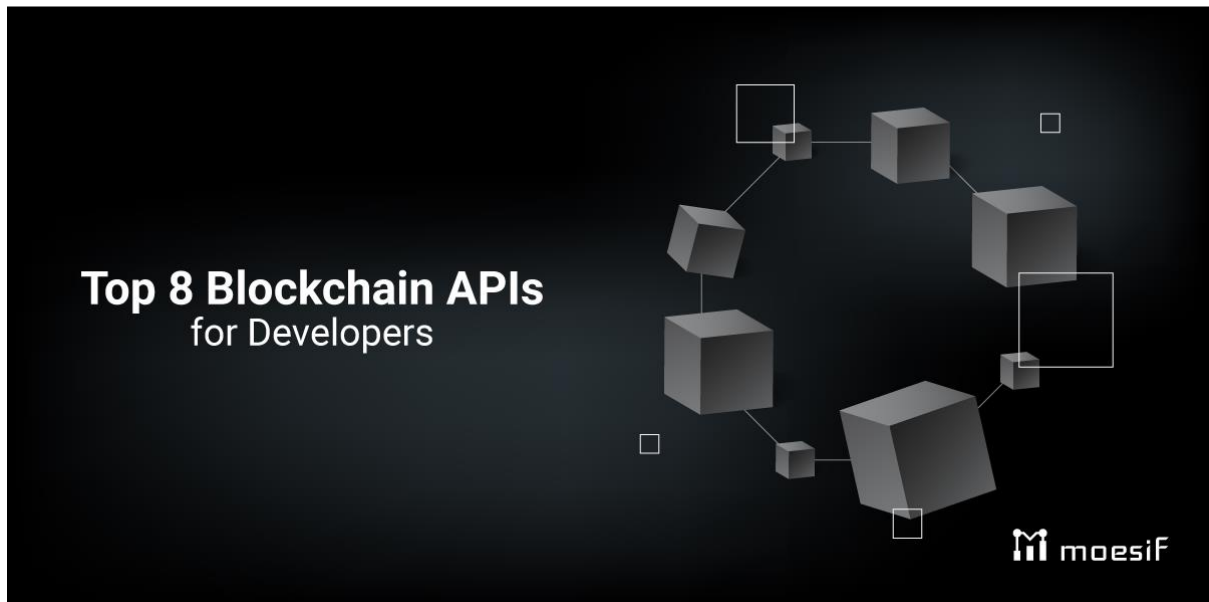
Developers are always looking for new ways to make their applications more secure and efficient. Blockchain APIs are one way to do this. A blockchain API is an application programming interface that allows developers to interact with a blockchain. By using a blockchain API, developers can access the data and functionality of a blockchain without having to build their own blockchain platform. This can save time and resources, as well as provide a more secure environment for development.

What is blockchain

A blockchain is a digital ledger of all cryptocurrency transactions. It is constantly growing as "completed" blocks are added to it with a new set of recordings. Each block contains a cryptographic hash of the previous block, a timestamp, and transaction data. Bitcoin nodes use the block chain to differentiate legitimate Bitcoin transactions from attempts to re-spend coins that have already been spent elsewhere.

What Are The Benefits Of Using Blockchain Apis

Blockchain APIs offer a number of benefits for developers. They can help to streamline the process of developing applications and make it easier to integrate with other systems. In addition, Blockchain APIs can provide access to data that is stored on the blockchain, making it easier for developers to create applications that make use of this crypto data.

Blockchain APIs can also help to reduce the costs associated with developing applications. By making it easier to access data stored on the blockchain, developers can avoid the need to build their own infrastructure to support their decentralized application. This can lead to significant savings in both time and money.

Finally, Blockchain APIs can help to create a more open and accessible ecosystem for applications. By making it easier for developers to access data and functionality provided by other applications, Blockchain APIs can help to create an environment where applications can interoperate with each other. This can lead to new and innovative app development being created that would not be possible without the use of APIs.

The Best Blockchain APIs for Blockchain Development

There are a number of different blockchain APIs available for developers, each with its own advantages and disadvantages.

Blockcypher API

The **BlockCypher API** is one of the most popular blockchain APIs available today. It offers a simple interface that makes it easy to get started with blockchain development. allowing the developer to interact with Bitcoin, Etherum, Litecoin, and Dogecoin on a variety of platforms.

- Data Addresses. Transactions, Blocks, Smart contracts.
- Interactions. Create Transactions. Decode transactions. Interact with contracts. Deploy contracts.

- Notifications. Transactions webhook. Block webhook. Double spend webhook. Websocket.
- Advanced Features, Multisig. Segwit Support. Confidence factor.

Chain API

The **Chain API** is another popular option for blockchain developers. It offers a more comprehensive set of features than BlockCypher, making it a good choice for more experienced developers. Chain also has good documentation and support for multiple programming languages. ChainAPI has a user-friendly interface that will allow API providers ro set up first-party oracles easily. Interface is used by the API2 employees to do integrations on behalf of API providers with necessary greatly improving their efficiency and correctness.

CoinBase API

The **CoinBase API** can be a great alternative option for blockchain development. Coinbase Pro provides an API that makes it easy to carry out various tasks. This includes sourcing real-time prices, storing digital currency safely, buying or selling cryptocurrencies, and processing digital wallets. They also offer a premium option with a much more advanced API for your blockchain solution. Some of the features CoinBase API offers:

- Generate bitcoin cash wallets and addresses.
- Securely store the coins.
- Obtain real-time and/pr historical price data.
- Get notified when the payments arrive.
- Send/receive or sell/buy bitcoin cash, bitcoin, litecoin and ethereum.

Crypto API

Crypto APIs is a blockchain infrastructure provider that makes developing and managing Web 3 solutions easy and efficient. They provide Wallet as a Service (WaaS), Blockchain Data, Blockchain Events, Blockchain Automations, Blockchain Tools, and Market Data to make development easier. Developers use their SDK to access over 100 end points from a single provider for diverse solutions including digital banks, exchanges, wallets, custodians, lending products and more.

- MPC's Wallet as a Service is the best digital wallet on the market - it incorporates the top features, protection, and authorization process currently available.

- Blockchain Data- Unified access to complex and dynamic data from a single point using REST APIs.
- With Node as a Service, you'll be able to quickly deploy your blockchain technology with shared or dedicated node infrastructure. Utilizing JSON-RPC, it can be plugged into existing infrastructure and allows for an easy development environment in Javascript.
- Blockchain Automations - automatically forward any coins or tokens that are received to a preferred main deposit address.

Blockchain API

The **Blockchain API** is an additional option worth considering for blockchain development. Blockchain API is the perfect solution for providing cryptocurrency payments to your projects. The high quality of their services and capabilities make it easy to integrate. Blockchain API has been successful in integrating with over 25,000 developers. They offer many different APIs that are tailored to satisfy the needs of different customers. They have APIs for wallets, payment processing, querying data, exploring the blockchain network, analyzing crypto data and more.

Block.io API

The **Block.io API** offers a simple interface that makes it easy to get started with blockchain development. Block.io also provides support for multiple programming languages, making it a good choice for developers who want to write code in their language of choice. Don't forget to test your application thoroughly and always keep your private key confidential.

BitPay API

The **BitPay API** an international digital asset, BitPay's API allows you to perform a wide range of tasks. BitPay provides a standards-based REST interface that enables application developers to interact in powerful and secure ways with their BitPay account. Using the BitPay API, clients can manage invoices, issue refunds, view merchant records, and more.Developers may choose to call the API over HTTPS using the language of their choice, or take advantage of our code libraries.

GetBlock API

The **GetBlock API** is another popular choice for a blockchain developer to explore. GetBlock provides a simple, easy way to use the power of blockchains. Discover their high-speed running nodes and secured access to API for bitcoin and Binance's Smart Chain on blockchains, like Bitcoin, that allow you to run a decentralized app efficiently. GetBlock offers API, smart contract, and explorer data

services. It also provides a blockchain development program which has access to raw data. When you use our service, you are guaranteed speedy access over blocks, transactions, and contracts that can be achieved by simply using the base API data.

Support And Monitoring With Moesif
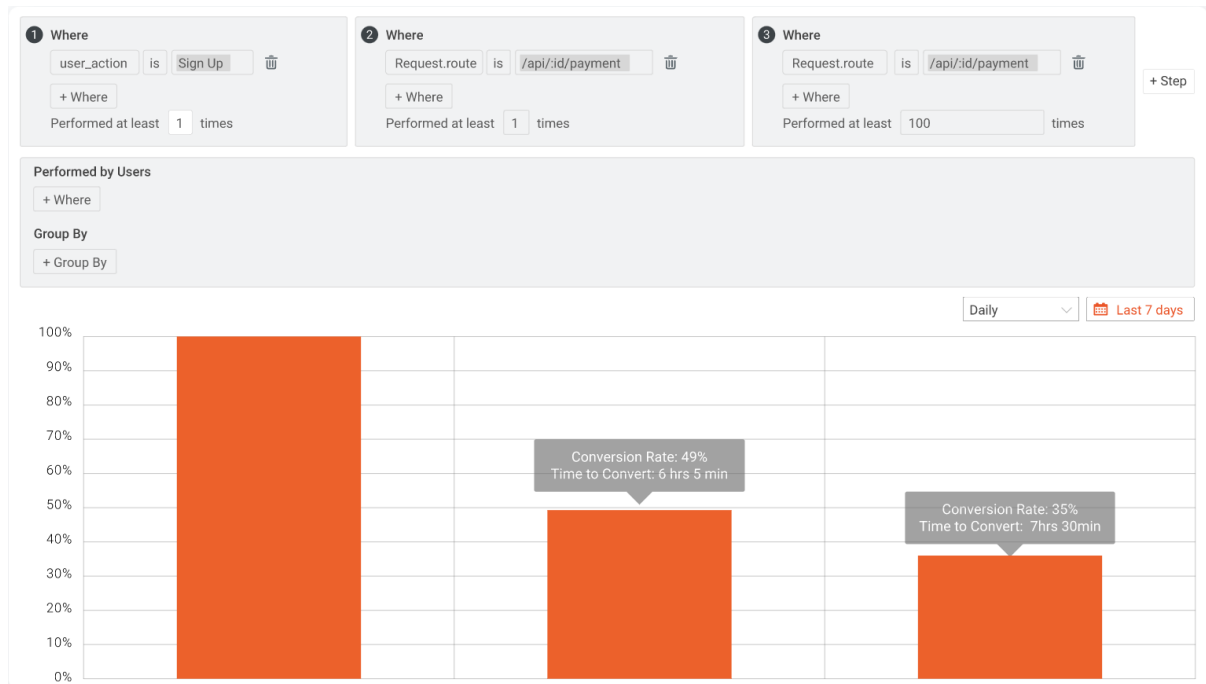
Moesif has unique features that allow you to associate each event that occurs in your app with a user and/or company. This gives a more nuanced understanding of the developer experience and how APIs are being used by each individual. A perfect example of this is Funnels and Retention.

Enabling API Monetization with Moesif

As an API provider, you may want to create some type of revenue with your APIs. When first starting the monetization process, you may find that the challenges are steep and complex. To solve these issues and create a smooth experience, significant customization and testing are going to be required. Thankfully, Moesif is a robust API monetization platform that can help. With unlimited options available through the platform, it's easy for you as an API provider to drive adoption and revenue from your APIs.

Customer Success using Moesif

Leading customer success for API-first or developer-focused businesses is much different from traditional enterprise software, The best API products are built in a way that make them easy to use and hands-off, meaning customers don't have to log in to the platform once it's implemented.
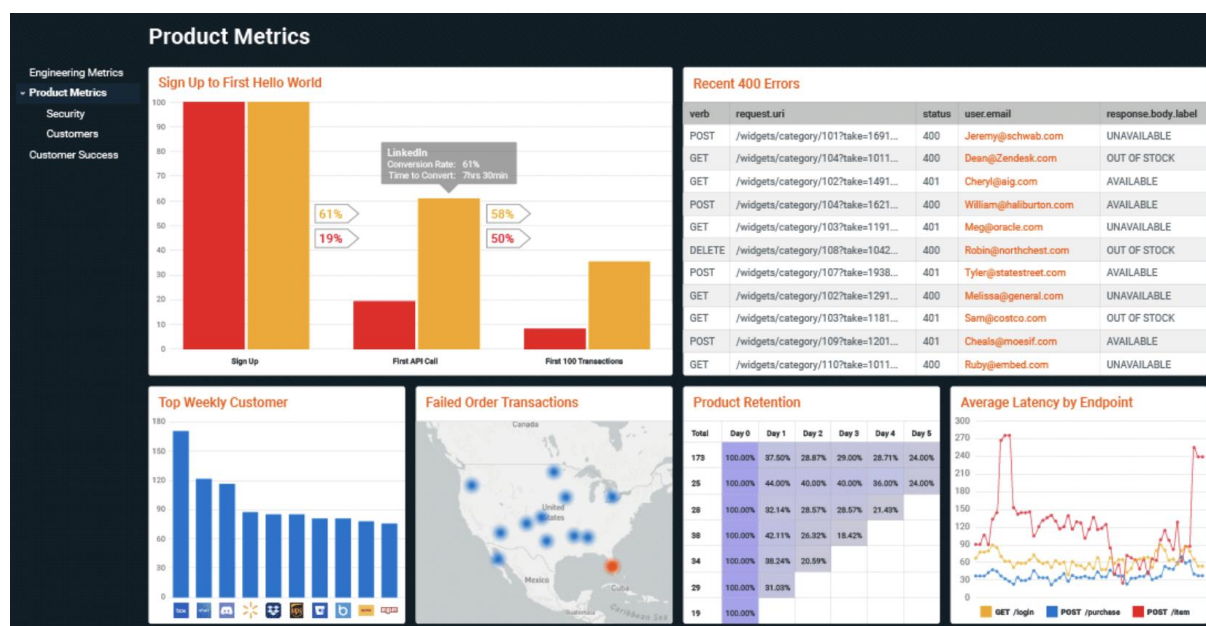
Conclusion

The Blockchain APIs on this list provide a wide range of capabilities, from allowing developers to create their own digital currency wallets, to helping them interact with smart contracts on the Ethereum blockchain. While some of these APIs are still in development, and therefore may not be as reliable as others, they all show great promise for the future of blockchain technology. In the meantime, we encourage you to experiment with all of these APIs to see which one(s) work best for your project.