Espeo
Blockchain

Trade, tax **analytics and tracking tools**

for CoinTracking

CASE **STUDY**

CT
CoinTracking™

Goals

- Build a platform that analyzes trades, reports on profit and loss in real time, the value of coins, realized and unrealized profits, reports for taxes and much more.

- Develop and scale a platform that enables all types of investors to manage their transactions with products tailored to their needs and that meets today's security standards in particular.

Approach

- Adapted payment system to comply with PSD2 regulation, especially Strong Customer Authentication (SCA).

- Introduced new languages and tools: Amazon SQS and KMS, Go language.

- Added subscription system (auto-payments) for corporate users and new type of user account: expert account.

- Implemented a queue system.

Results

- Diagnosed and solved problems of scale.

- Better control over the number of running tasks, created more micro-services to scale the solution better

- CoinTracking offers by far the most features on the market and is a leading tax and tracking tool.

What was **the industry context?**

CoinTracking was founded in 2012 and went online in April 2013 as the world's first cryptocurrency tax reporting tool and portfolio manager. The company was started with the goal of making cryptocurrency traders' lives easier - not only during tax season.

Since its inception, CoinTracking has accumulated over 1,153,000 users with currently 41.5 billion US-Dollars total worth of all portfolios. Its worldwide professional network consists of more than 160 tax advisors and tax lawyers to assist with international tax filing.

Why did CoinTracking choose **blockchain?**

Prior to CoinTracking, people that were trading Bitcoin and other cryptocurrencies didn't have adequate tools for doing their taxes. They had no other option than to cobble together spreadsheets and keep track of every transaction manually.

Since CoinTracking could populate cryptocurrency trading information automatically, it instantly filled a critical niche. Instead of manually typing in every buy or sell order, CoinTracking users could import their trading data through exchange APIs or CSV files. However, CoinTracking wanted further development.

This is where Espeo Blockchain steps in.

What was the **role of Espeo Blockchain?**

We began our work by consulting and defining the scope of the project, as well as selecting the right blockchain technology which would fit the CoinTracking project best.

We adapted the payment system to comply with PSD2 regulation, especially Strong Customer Authentication (SCA), added a subscription system (auto-payments) for corporate users, and a new type of user account: an expert account.

Espeo introduced new languages and tools such as Amazon SQS and KMS, Go language, and diagnosed and solved scale problems. We implemented a queue system in order to have control over the number of running tasks, created more micro-services to scale better. The safety was also enhanced by adding encryption of sensitive data.

Whatsmore, we divided the existing application into micro-services that we scaled horizontally.

This was to answer the demand for ever-growing performance levels. We refactored and added new features to mobile applications for iOS and Android.

Additionally, Espeo handles the cloud infrastructure and is, among others, responsible for auditing and securing the environment and infrastructure configuration, analyzing and solving performance problems, and integrating the infrastructure and website with Espeo's monitoring system and maintenance process including periodic security reviews and system software updates.

What **technologies** did we use?

Strong Customer Authentication - SCA is a requirement of the EU PSD2 Directive on payment service providers. It regards security of electronic payments and is followed by Regulatory Technical Standards (RTS) that express obligations.

The main requirement is to provide MFA or 2FA (multi- or two- factor authentication) as an electronic authentication method which grants access to the financial data or performing transactions.

What **technologies** did we use?

Amazon SQS - It is a distributed message queuing service that supports sending messages via web service applications as a way to communicate over the Internet.

SQS provides highly scalable hosted message queue that enhanced performance and reliability of exchanging the data. It helps organizing micro-service communication.

What **technologies** did we use?

KMS - AWS Key Management Service is an AWS-managed service for creating and controlling the cryptographic keys that are used in the project. This is a secure and resilient tool that uses hardware security modules (HSM) to protect and validate app users' keys.

Go language - Go is a programming language developed by Google and built to serve multiple programming purposes. It is used in modern web apps to create dependable and efficient software that can be efficiently scaled.

About **CoinTracking**

CoinTracking was founded in 2012 and went online in April 2013 as the world's first cryptocurrency tax reporting tool and portfolio manager. The company was started with the goal of making cryptocurrency traders' lives easier - not only during tax season.

CoinTracking analyzes trades and generates real-time reports on profit and loss, the value of your coins, realized and unrealized gains, reports for taxes and much more. With the prices for 20,400 coins and assets, giving their clients a complete overview.

Fast facts:
- 1,176,000 Active Users
- 25,000 CPAs & Corporate Clients
- 13 Years of Historical Data
- Coin Trends for 20,400 Coins
- $41.5B Total Value of all Portfolios

About **Espeo Blockchain**

Espeo Blockchain is a certified Hyperledger Fabric **provider building enterprise-level solutions and an** active member of the Hyperledger community**. With over a decade of experience, our expert team turns concepts and ideas into leading products.**

Innovative ideas need an experienced consultancy. We are fully aware of blockchain benefits and limitations and are here to fully recognize what business value this technology can bring to your business. As expert blockchain consultants, we will walk you through the **full lifecycle of project planning** and development.

Our team has worked on the public and private blockchain projects. Now let's hear about what you're building.

Espeo Blockchain

Thank you!

Poznań / Helsinki