

# BLOCKCHAIN SOLUTION

for a group of gambling providers

**Domain:**  
Gambling

**Budget:**  
19,000\$

**Team:**  
front/back-end developers

A start-up company which aimed to arrange the collaborative work of gambling providers.

**Duration:**  
2 months

## Challenge

The idea was to bring gambling providers together so that even small companies, functioning within their own countries, would get an opportunity to enter the worldwide market and could make secure, transparent deals.

## Tasks

- to create a blockchain platform, that would be transparent and verifiable for participants and auditors;
- to develop a high-performance solution, which could handle millions of queries and provide real-time statistics;
- to give all the participants an opportunity to work in partnership, i.e. sell each other's products and share the profit according to the number of sold items;
- to make cryptocurrency a payment means with the possibility to exchange it for fiat money;
- to program and deploy smart contracts.



## Solution

As long as one of the customer's main requirements was high-speed performance of the platform, we've decided to develop a solution on the basis of Hyperledger framework with Raft consensus algorithm. It allowed to ensure scalability, instant transactions and an opportunity to control the interaction between nodes to guarantee the privacy of the transactions.

\*instinctools team created an architecture of the project with specific nodes for the platform and its audit and the possibility to add new nodes if need be.

All in all, our contribution to the project can be expressed in the following:

- writing White Papers;
- adding participants to the network;
- deploying chaincodes;
- implementing and deploying backend;
- writing versionable API for external integrations;
- making the system covered with tests for more than 90%;
- implementing and deploying responsive graphical user interface for each role.

We also conducted stress testing which showed that the system can successfully stand even the exceptional, not to say ordinarily high, load.

## Key features

- load balancer for adding records in batches and making sure that a batch is successfully saved;
- validation of new records to avoid duplicates;
- canceling bets if the participant has rights to do it and it's not too late;
- records sharding to process the information faster;
- dynamic adding of participants;
- flexible GUI for changing rules and new shards creation;
- notary service to prove consistency;
- real-time statistics;
- a blockchain explorer to check every change on UI;
- functionality verification for the auditor

## Value

As a result of the solution provided by \*instinctools, each member of the system got a whole new level of credibility. All the records and rules are now in a shared database and are run by a trusted execution environment. Every participant including an independent auditor can validate the data and calculate wins to make sure nobody cheats. The project has become a real win-win solution for both the providers and the users: simple configuration rules make new games creation easier and fast calculations, in their turn, enrich general user experience.

## Technologies



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