



# Alfa Algorithms technical capabilities



# Who we are

Alfa Algorithms is an advanced **algorithmic software development house** that offers new and progressive technologies.

The main specialization for Alfa Algorithms:

- Solutions for Fintech institutions
- IT for Finance
- Custom software development
- Machine learning and Data analysis
- Complex mobile applications development



# Our technologies and tools

## Common:

- Docker
- PostgreSQL
- MariaDb
- Cassandra
- Mongo
- Rancher
- MySQL.DB
- Redis
- RabittMQ
- OAuth
- NodeJS
- JavaScript 6-7
- C++
- Python

## Java:

- Tomcat
- spring; spring boot; netty; jni
- Hibernate; jdbc

## Pytnon:

- Flask
- Django
- AsyncIO
- Pandas
- Petl
- TensorFlow
- Keras
- SciPy
- PyTorch
- NumPy
- Rancher

## WEB Frontend:

- Vue.js
- React.js
- SPA based on
- Baobab
- Saas
- Webpack

## DB:

- MySQL
- Redis
- PostgresSQL

## Package managers:

- Npm packages
- Sbx packages

# Our technologies and tools

## iOS:

- Swift
- RxSwift
- Moya
- SciChart
- Pushwoosh/FCM
- Firebase
- Crashlytics
- MVVM

## Android:

- Kotlin
- Java
- RxJava2
- Coroutines
- MVVM/MVP
- Clean Architecture
- Data Binding
- Dagger2/Koin
- Pushwoosh/FCM
- Firebase
- Crashlytics

## Infrastructure:

- Linux
- Kybernetes
- docker
- NginX

## Cloud platforms:

- Amazon Web Services
- Google Cloud
- Microsoft Azure

## Flow:

- Git
- Jenkins
- Jira

## Blockchain:

- Blockcypher
- Etherscan
- web3.js
- Bitcoin, Ethereum, et
- Bitcoin.d
- Parity
- Solidity

# White label WebTrader Solution

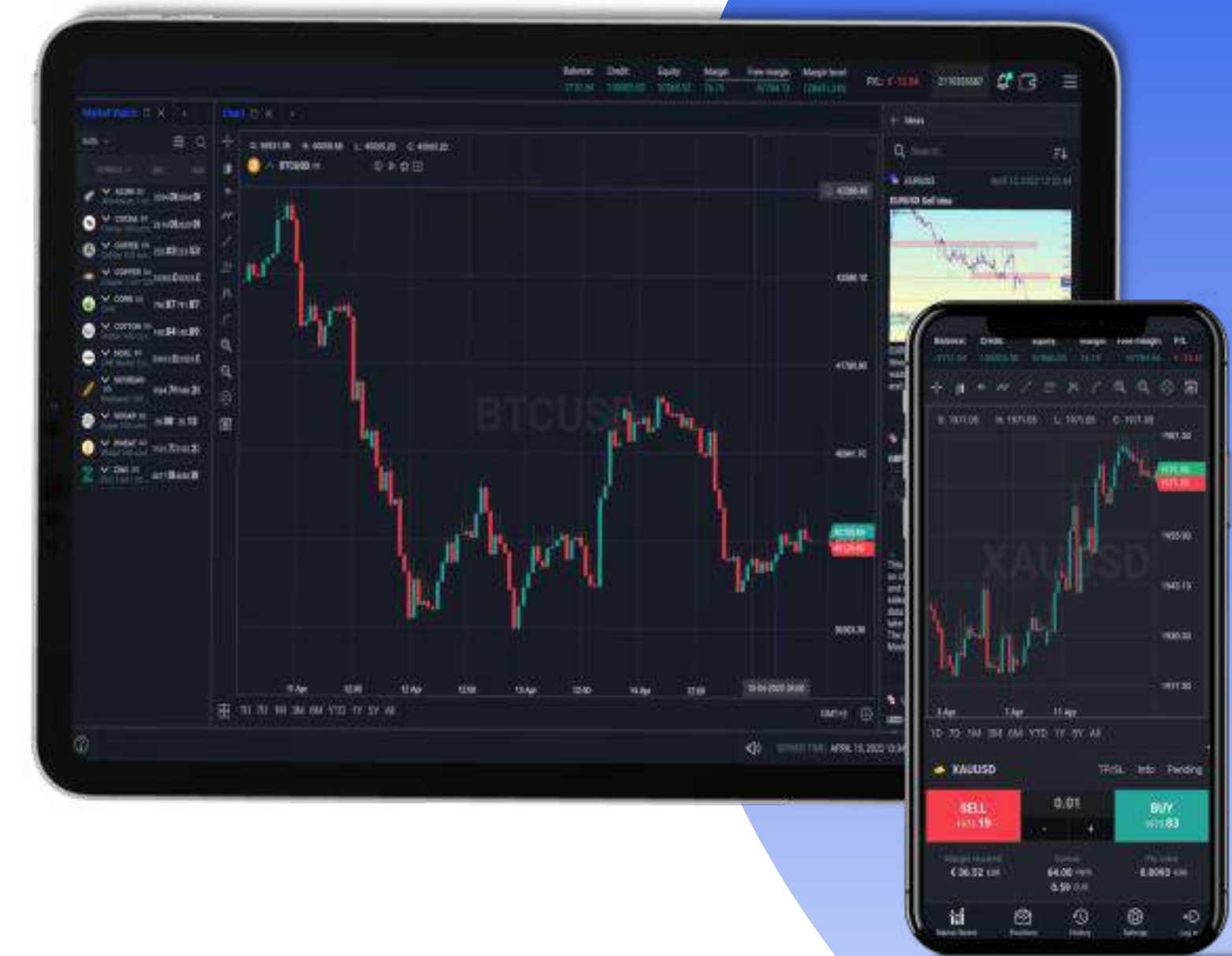
## Webtrader and Mobile App

Intuitive trading interfaces for Web and Mobile devices with a variety of trading tools and additional features such as proprietary news channels covering many sources and filtering by various parameters, trading ideas and signals – all combined in one system.

A lot of customer data allows us to upgrade our interface accordingly.

### What does the white label version include?

- trading platform
- adaptive mobile version
- trading plugin (can be developed separately, by individual agreement)



# Custom software development for **Fintech Institutions**

End-to-end back-end solutions and web interfaces

Customized mobile solutions

User behaviour analytics

Automated traders conversion and retention tools integration

Mobile and Web events analysis

Solutions for banking sector (data analysis, ML solutions)

## IT for **Finance**

Integration with the external systems

Architecture and system design

Trading applications solutions

Enhanced user experience in trading

Business analysis and research

# Machine Learning and Data analytics

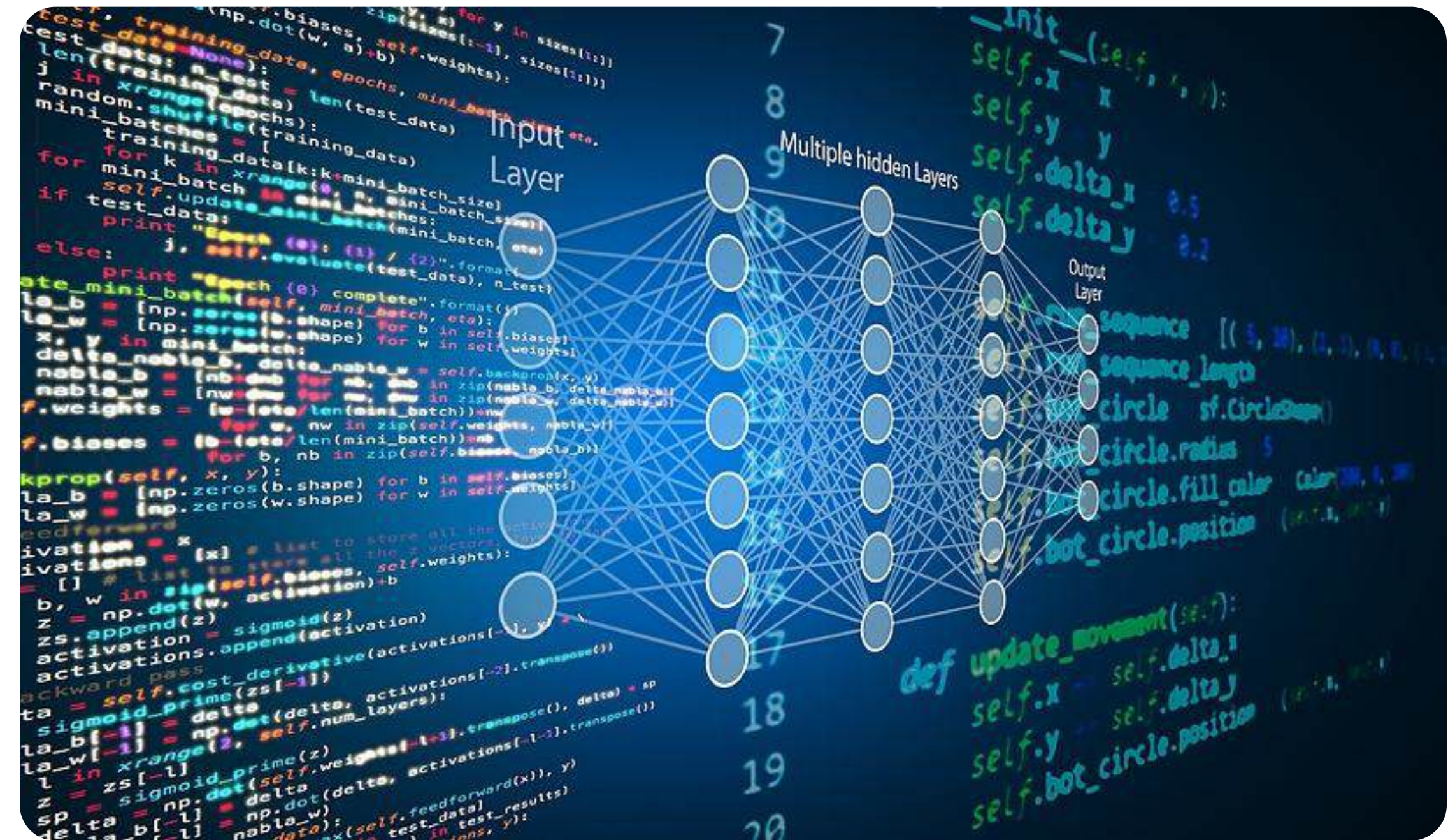
Financial data, market sentiment and news analytics fusion

Knowledge discovery in large data sets

Process optimization and forecasting

Data classification, nonlinear regression and clustering in multi dimensional systems

Real and offline data anomalies detection



# Complex Trading **Mobile Applications** Development

Fintech applications for brokers and affiliates

Integration with CRMs and other external services

Integration with mobile events analytic tools

Smart mobile notifications system





# White label Solutions

## Crypto Gateway

It is the payment solution that automates processing of cryptocurrency for anyone who wants to expand the payment methods available on their own website. Our company can integrate with the business of our Clients within one day and allow their clients to deposit and pay for the services in cryptocurrency through an API.

**Average delivery for the ready fully functional version**

within 1 day, after getting all the needed information

**Available cryptocurrency for the gateway:**

BTC; ETH + BNB

**What is necessary from the Customer side:**

Public keys for the wallets where all funds will be stored and 3 methods (creating a deposit, confirmations limits and confirmation of the deposit) which will be used in our API

# White label Solutions

## MOBILE Trading applications

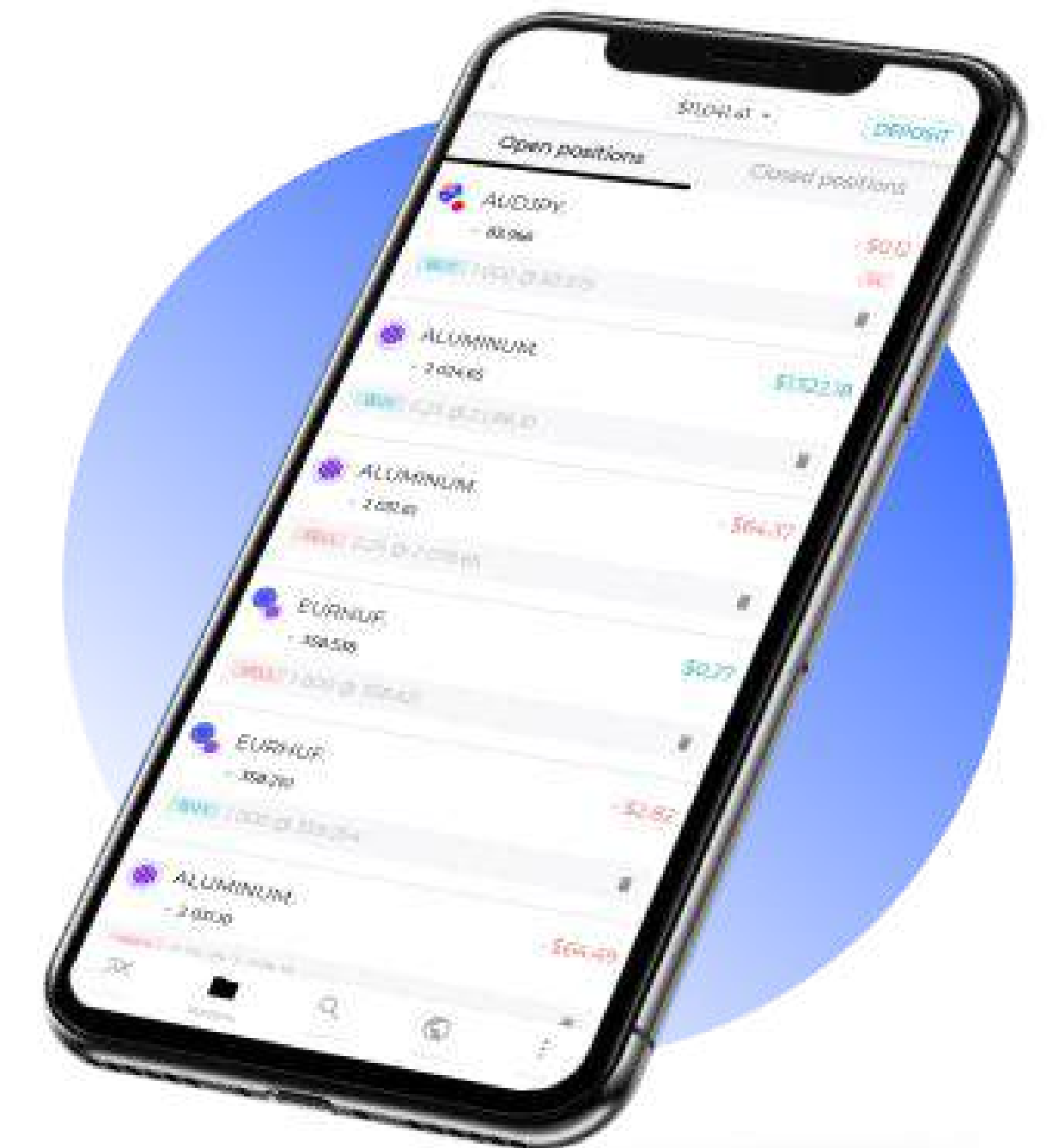
The mobile application can be developed for both platforms – Android and/or IOS. Our company can provide the automated trading via mobile apps that is clean and clear for the clients, with a simple and easy-to-use interface.

Average delivery for the ready fully version

up to 2-3 months

### What is necessary from the Customer side:

- store accounts (Play and itunes)
- marketing information (text + graphics)
- legal information (legal entity credentials, PP, TC etc)
- 3rd party services accounts (statistics, tools, push services etc)



# White label Solutions

## Mobile Trading applications

The mobile trading app include the following functionality:

### BACKEND:

- Trading backend connector(MT4/MT5)
- Trading connection health monitoring
- Data feed caching (server feed history)
- Authorization using MT4 ID
- Authorization using email
- Support messages
- Pushes on positions closing, pending orders opening
- Push notifications
- Push-to-update feature

### FRONTEND:

- Chart with Candle/Bar/Lines mode
- Switching by time intervals / candle size
- Choose volume
- Set SL/TP as a money value
- Switching On/Off the display of open positions
- BUY/SELL positions opening/closing/modifying
- Deposits in a Webview
- Face/Fingerprint ID (for IOS)
- Multi-languages (EN/RU by default)
- Display different balance fields (Balance, Free margin, Margin, Equity, Margin Level)
- Connection indicator
- Markets / Indicators (MA, BB, SAR, Fractals, etc.)
- Apple watch simple app

# Contacts

We leverage the edge of the best knowledge and experience across Israel, Europe and CIS countries.

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