

**Implementing Custom Backend for Interacting With MetaTrader API And Providing Custom User Interface For Customers & Support Staff**

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# Description

This project aims to provide the FundedMax copy trading platform the ability to get custom data from Metatrader servers using Manager API and process the data to generate reports for platforms’ customers as well as making easier for support staff to view customers’ status in order to increase automation of the existing processes. In future, this would open doors to implement custom logic and processing on any data that MetaTrader would provide us.

We decided on two phases for the project.

# Phase 1

In phase 1, we would re-implement what is already deployed (written in Python) to a .NET framework, which is the default framework for working with MetaTrader, while also correcting deficiencies in current system including a proper database solution for keeping customer data (Currently using Google Sheet) and establishing connection to the real server. Our intention is to create a solid and modular infrastructure in order to:  
1- Be scalable to support more customers and data without slowing down noticeably.

2- Future modules can be easily added to extend functionality without changing the underlying structure of the code.

The deliverables for this phase are:

1- The backend code to connect to companys' MetaTrader demo and real servers and get raw data

2- The backend code to process this data to generate currently available reports (e.g. user goals) and connecting it to currently deployed frontend. After this, the old Python code can be discarded. The change in updating the user equity and balance to increase the update pace would be implemented as well.

3- Modernizing the customer database (Currently done in Google Sheet) by migrating to a managed database solution along with an intuitive control panel (i.e.Support Portal) for support staff to both view customer data as well as making changes (add / edit / delete). One final part of this support staff UI is to allow support staff to see the server status as well as restarting it if need would be.

# Phase 2

In phase 2, we would add new features that FundedMax wants to provide its customers. These include:

1- New reports:

1-1 Statistics Table: including win-rate, average profit, average loss, profit factor, etc.  
1-2 Each Symbol Trade Volume

1-3 Trade History: including the ability to download report  
1-4 Consistency Table

1-5 Profit and Loss Diagrams

1-5 Logs of IP addresses used in trading (Note that this feature may not be possible due to restrictions on user privacy / inadequate permissions on MetaTrader part, but we assure you that if its possible through the API, we would implement it)

2- Increased update speed:

Due to using the native .NET framework and having more time to spend on the infrastructure part, we ought to reach update times that would be lower than the current system. This combined with using a better server (nearer to MetaTrader server itself and even better on AWS), we are looking forward to cut the update time in half and hopefully getting a stable (99%of time) under 5 seconds and even hope to reach sub second.

FundedMax can ask for features that are out of this projects’ scope and we would offer a time and budget for each feature. If approved, we can add the feature to our timeline.

# Phase 3 (Optional)

Having known the FundedMax growth and its vision, we think that in near future the company needs to provide additional services to its customers in order to make it easier for them to use the platform as well as presents itself as a well established and credible trading platform. These are why some of the additional modules can be added to this project after phase 2 is completed:

1- Competition platform among users  
2- Setting triggers for events such as when losses may terminate user  
3- Mobile applications for both iOS and Android

4- More reporting options and live charts

# Support

After phase 2 ends, we have dedicated one month of free support to ensure the users (customers and support staff) wont face difficulties in using the new system. Any bug reported in this period will be fixed as soon as possible.

For extended support, we provide 3, 6 and 12 month plans. These are only for fixing any issue for the current system and minor changes (e.g. colors). The supporting rate is an industry standard of 25% of total project value in projects done in USD and 50% for projects done in local currency per year. 6 Month plan is 15% and 3 Month is 10% respectively.

# Team

For the backend we estimate that we one fulltime backend developer along a senior part time developer, both expert in C# and .NET framework are needed.

For Frontend, we need a part-time frontend developer expert in either ReactJS or Svelte and a part time UI/UX designer. The frontend team would design the support portal as well as enhancing the customer profile page.

For system integration, testing and overall DevOps we need a part time senior developer as well.

# Time

We plan phase 1 to be completed in 5 weeks and phase 2 in 4 weeks. There is also one month of testing and free support at the end. Overall, we think the project would take 3 months from start to finish.  
Migration of previous system to current one would be possible after phase 1 ends which would be around of Tir. We plan the migration to have virtually no downtime for users of the system.

Some important milestones would be:

1. Start: Ordibhesht 24th

2. End of Phase 1: End of Khordad

3. Migration to new system: Tir 7th

4. End of Phase 2: End of Tir

5. End of Project (after free support period): End of Mordad

# Budget & Payment Plan

We have calculated the budget based on the cost-plus method. We expect our full time contractors to earn 20M / month and parttime ones 10M / month. With a simple calculation, the total cost of development comes to:  
1. Backend development: (1 \* 20 M / month + 1 \* 10 M / month) \* 2 months = 60 M

2. Frontend development: (1 \* 10 M / month + 1 \* 10 M / month) \* 2 months = 20 M

3. DevOps and integration: (1 \* 10 M / month) \* 2 months = 20 M

For the one month free support period, we expect to pay around 30 M based on how much support work is required.  
Combined, our costs of development would equal to 130 M

With a standard markup of 25% in USD and 50% in local currency, The total payable for FundedMax would be equal to:

3000 $ or 195 M Tomans

FundedMax can pay either based on USD or local currency. The bank account for payment would be given to FundedMax at the start of project. If USD is preferred, FundedMax can transfer the money based on the exchange rate at the time of each transfer.

Our suggested payment plan is:

1. 15 % at the start of contact

2. 35% at the end of phase 1

3. 20% at the end of phase 2

4. 30% at the end of project (after one month of free support period).

# Notes

- If any functionality can’t be implemented due to restrictions on MetaTrader part, we can’t take the responsibility of not implementing it. We would do as much as we can by using the support method provided by eightcap (using slack) to try and implement all the functionalities listed here.

- For server and other infrastructure, we would provide suggestion for the FundedMax to precure.

- All the source code will be sent at the end of project alongside the deliverables to FundedMax.

# Deliverables Summary

1- Backend application

2- Customer database

3- Support Panel

4- Customer profile page to show the reports

5- Configuring server to deploy all of the above