



**TAL
TECH**

METAMEX NFT MARKETPLACE PLATFORM DEVELOPMENT ON THE ELROND BLOCKCHAIN

Vladimir Andrianov
Business Information Technology

**TALLINN UNIVERSITY
OF TECHNOLOGY**

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INTRODUCTION

INTRODUCTION

1. Web 3.0

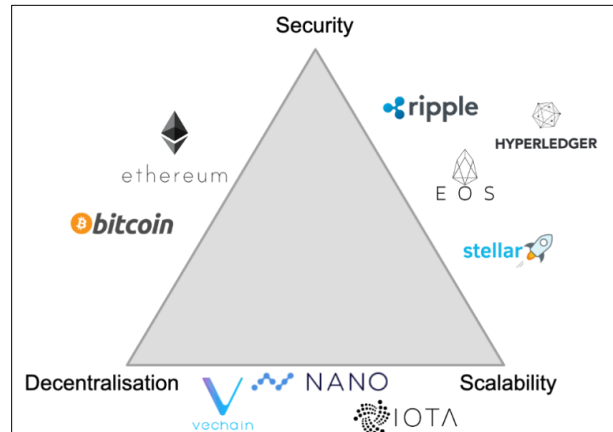
- Decentralized
- Transparent
- Blockchain

2. Elrond

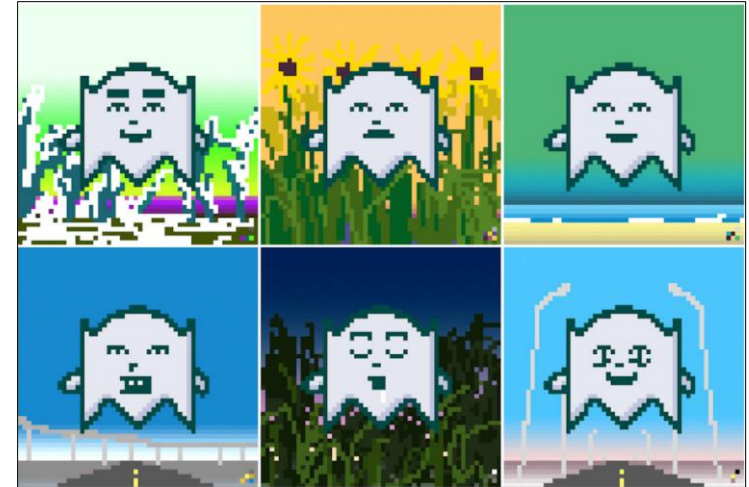
- Third generation blockchain
- Secure Proof of Stake
- NFT, smart contract support

3. Community platform

- Elrond World
- Gokai Labs



Blockchain trilemma [1]



Gokai Lab's Mr. Ghost collection [2]



Elrond World community logo [3]

BACKGROUND

COMPETITION

1. NFT market

- Ethereum
- Elrond
- Security

2. competition

- Ethereum
 - OpenSea
- Solana
 - Magic Eden
- Elrond
 - eMoon

eMoon is closing its doors.

We would like to thank you all for your trust and presence, you made eMoon possible.

From the beginning, our goal was to provide a tool to the community. You've probably noticed that our first version of eMoon was a bit under-scaled to handle all the traffic that your trust in our product has generated in the past few weeks.

We have been developing a new version of eMoon - based on smart contracts - to better meet the expectations of the community for almost a month.

On Friday 02/04, someone successfully broke into our system and stole about 500 of the rarest NFTs from our wallet in 30min, before our monitoring routines detected the intrusion.


Then, as you may have followed through our twitter updates, we managed to stop his transactions by sending your NFTs back to your wallets massively.

Finally, we were able to return all the NFTs we had, including those that were stolen.

We will not continue this adventure in the NFT world. This episode was very hard on us, both mentally and physically. We handled it as best we could, and at least we have the satisfaction of returning all your NFTs.

In the meantime, we can suggest you to check out other quality marketplaces on Elrond like TrustMarket, Isengard or Deadrare.

We wish you the best for the future, and thank you again for your support.

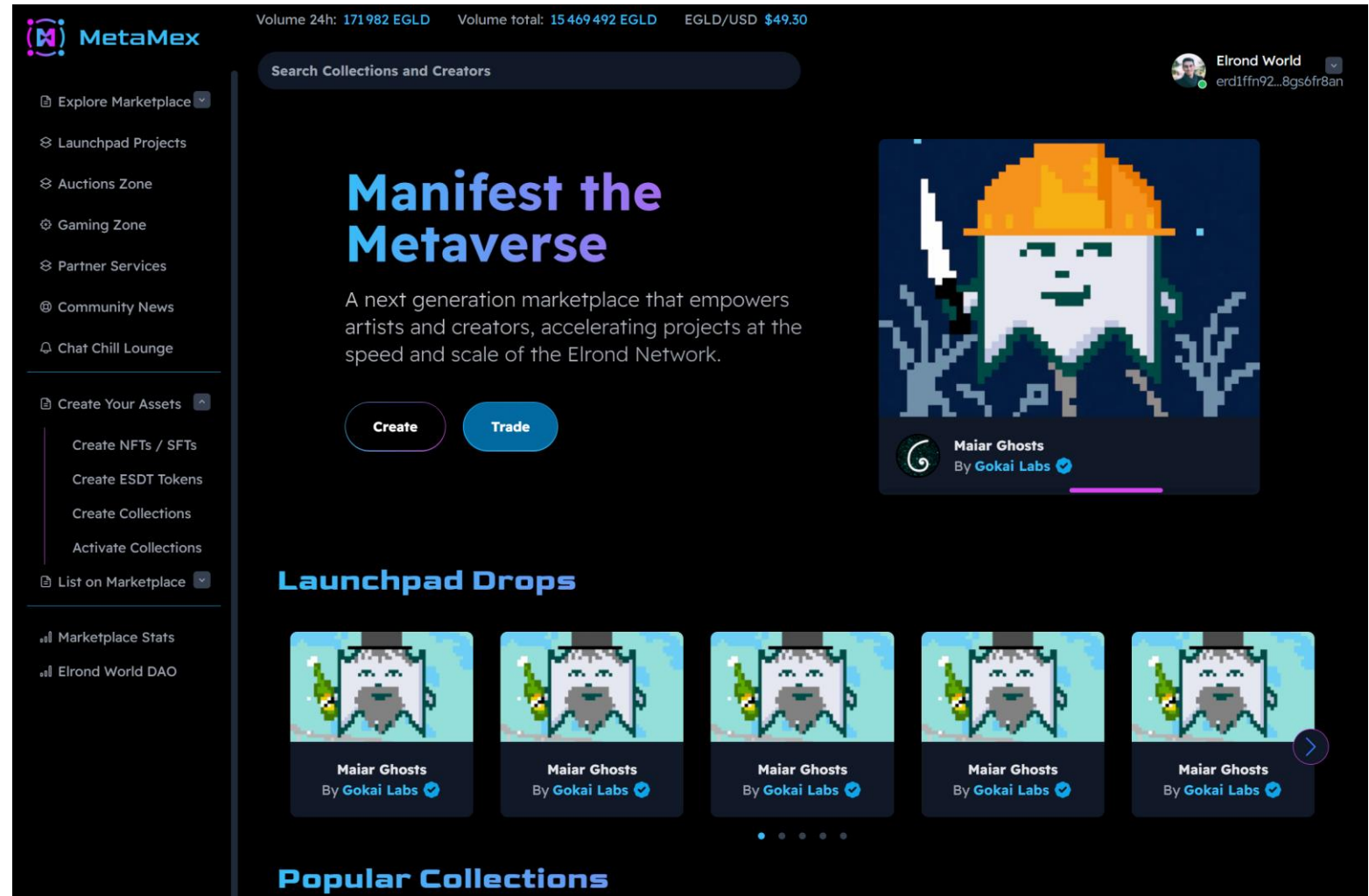
The  EMOON team.

eMoon is closing its doors [4]

METAMEX MARKETPLACE

FRONT-END

- Next.js & TypeScript
- Wallet integration
- Blog
- Assets
- Launchpad
- Drops
- DAO



MetaMex main page

BACK-END

- Golang
- DDD
- Profile data
- File storage
- API

The screenshot shows a REST client interface with a GET request to `https://website-backend-p4gb7.ondigitalocean.app/api/profile?profile_wallet_address=erd1fuzd2j9ql4jg88s4n5smwkwtscdtlzk7eujne6m29du4t6hwrccs2g04x2`. The response is a JSON object with the following data:

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> profile_wallet_address	erd1fuzd2j9ql4jg88s4n5smwkwtscdtlzk7eujne6m29du4t6hwrccs2g04x2	
Key	Value	Description

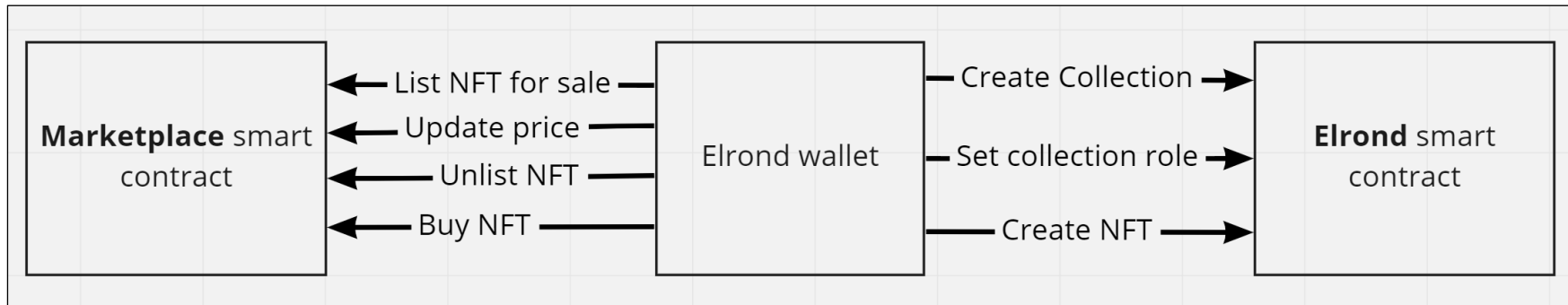
The response body is displayed in JSON format:

```
1 {
2   "profile_wallet_address": "erd1fuzd2j9ql4jg88s4n5smwkwtscdtlzk7eujne6m29du4t6hwrccs2g04x2",
3   "profile_name": "Builder",
4   "profile_bio": "Builder Builds!",
5   "profile_banner_file": "https://marketplace-storage.fra1.digitaloceanspaces.com/profile_banners/erd1fuzd2j9ql4jg88s4n5smwkwtscdtlzk7eujne6m29du4t6hwrccs2g04x2.webp",
6   "profile_image_file": "https://marketplace-storage.fra1.digitaloceanspaces.com/profile_pictures/erd1fuzd2j9ql4jg88s4n5smwkwtscdtlzk7eujne6m29du4t6hwrccs2g04x2.png",
7   "profile_website": "MetaMex",
8   "profile_twitter": "ElrondWorld",
9   "profile_discord": "ElrondWorld",
10  "profile_telegram": "ElrondWorld",
11  "profile_facebook": "ElrondWorld",
12  "profile_instagram": "ElrondWorld",
13  "created_at": "January 2022"
14 }
```

Profile data response

SMART-CONTRACT

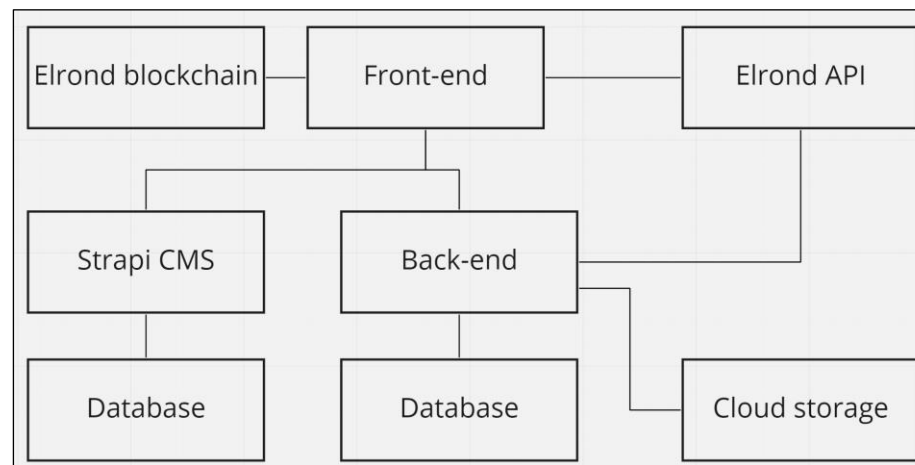
- WASM
- Rust
 - Methods
 - View functions



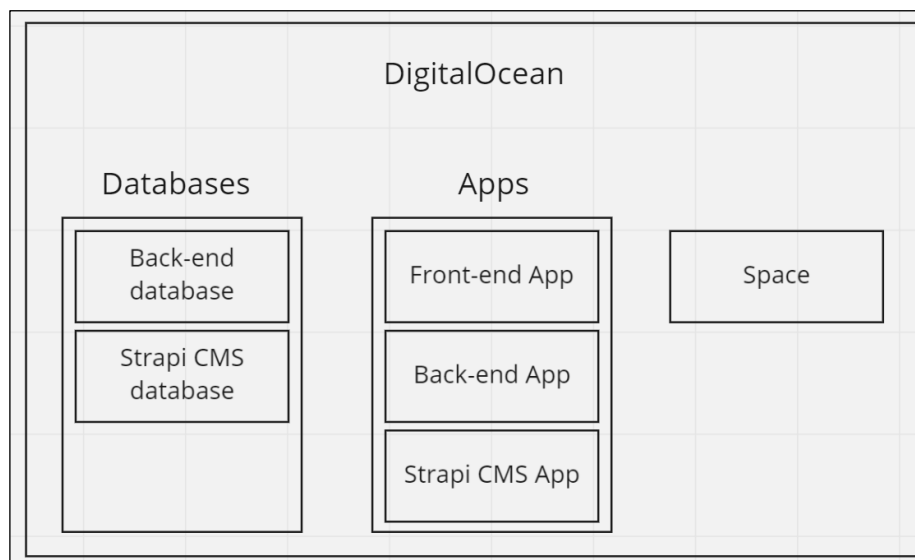
Multi smart contract architecture

DEVOPS

- Hybrid Application
- Digital Ocean
 - Apps
 - Domain
 - Components
 - Docker
 - Space
 - CDN
 - Cluster
 - Managed Database



Hybrid application architecture

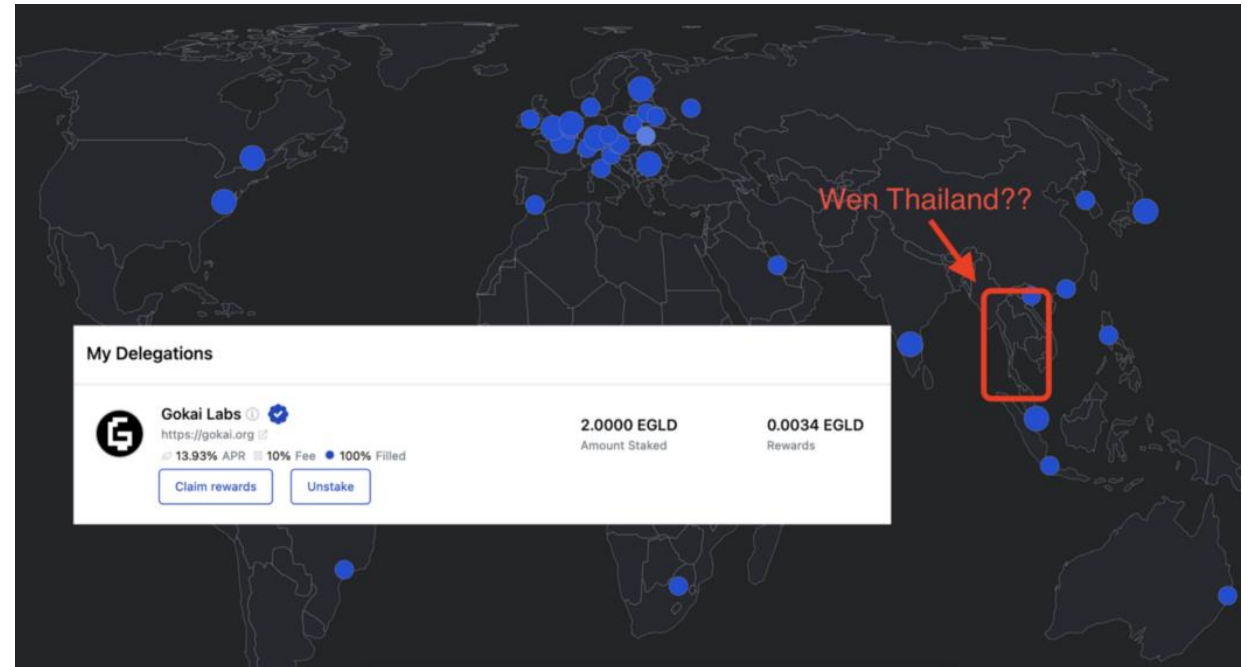


DigitalOcean components

DAO

Decentralized autonomous organization

- Distributed team
 - Europe
 - Estonia
 - Romania
 - Asia
 - Thailand
- Voting
- Treasury
- Multisignature SC



Gokai Labs Asia initiative [5]

FUTURE DEVELOPMENT DEMO

FUTURE DEVELOPMENT DEMO

<http://localhost:3000/>

CONCLUSION

METAMEX TRANSACTION FEES

Fees for ~145\$ per EGLD

Elrond built-in functions

- Create collection
- Set collection role
- Create NFT

MetaMex smart contract

- List NFT
- Buy NFT
- Update listing price
- Cancel listing
- Views
- Get listing details (View)
- Get all listings (View)

Action	Transaction fees
Create collection	Value: \$7.15 Fee: \$0.1156
Set special role (ESDTNFTCreate)	Value: 0 Fee: \$0.1081
Create NFT	Value: 0 Fee: \$0.0542
List NFT	Value: 0 Fee: \$0.0680
Buy NFT	Value: #NFT_PRICE# Fee: \$0.0217
Update listing price	Value: 0 Fee: \$0.0247
Cancel listing	Value: 0 Fee: \$0.0227
Get listing details	none
Get all listings	none

Actions and transaction fees

OPERATIONAL COSTS

Monthly infrastructure costs: 35\$

- Incl. 20% VAT: 42\$
- Space overages
 - \$0.02/GB storage and \$0.01/GB bandwidth
- Managed Database overages
 - Price grows with higher-tier clusters

CONCLUSION

- Web 3.0 marketplace
 - Community platform
 - Secure & innovative EU blockchain project
 - Efficient smart contracts
 - Full-stack development and team work
- DAO
 - Distributed team
- Future development
 - Marketing package
 - Beginner artists support
 - MEX, ESDT tokens integration
 - Staking provider

REFERENCES

1. Blockchain Trilemma. Grodzicka, H. (22.07.2020) [WWW] <https://blog.fingo.pl/blockchain-trilemma/> (26.05.2022).
2. Mr Ghost Elrond NFT around the Maia logo. Gokai Labs (04.04.2022) [WWW] <https://medium.com/@GokaiLabs/gokai-labs-mr-ghost-elrond-nft-around-the-maia-logo-44bf2099a1ee> (26.05.2022).
3. Elrond World [WWW] <https://twitter.com/ElrondWorld> (26.05.2022).
4. eMoon is closing its doors. eMoon [WWW] <https://emoon.space/> (26.05.2022).
5. Stake EGLD to become a validator of the Elrond blockchain. Gokai Labs (28.03.2022) [WWW] <https://medium.com/@GokaiLabs/gokai-labs-stake-egld-to-become-validator-of-the-elrond-blockchain-b394d620ded0> (26.05.2022).

ACKNOWLEDGEMENTS

- Thesis
 - Smart contract development
 - Blockchain platform development
- Opportunity
- Support
 - Academic
 - Personal
 - Product



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