



BLOCKCHAIN INNOVATOR ÆTERNITY CHOOSES ERLANG TO SCALE TO BILLIONS OF USERS

æternity is an open-source, distributed computing platform that builds on decentralised cryptographic P2P technology. æternity has partnered with Erlang Solutions to scale its distributed system and peer-to-peer network and bring its blockchain technology to the masses.



CHALLENGE

Founded in 2016 by Yanislav Malahov, known in some circles as “the Godfather of Ethereum”, æternity is designed to deliver productivity, transparent governance, and global scalability.

æternity raised approximately 29 million CHF in its campaign to offer blockchain technology with a consensus mechanism that is as efficient and cost-effective as possible.

Programming complex relationships for a global user base, æternity needed to handle large volumes of products and information in parallel. They also wanted to design a unique state channel to enable the off-chain verification of data and smart contracts, allowing for all transactions to be independent of each other, thereby increasing transaction speed and scalability while also ensuring increased privacy.

æternity

**CONSENSUS
STATE CHANNEL
OFF-CHAIN**



SOLUTION

æternity reached out to Erlang Solutions for support in scaling æternity's distributed system and peer-to-peer network by providing fault tolerant systems capable of scaling to billions of potential users. For this æternity intends to utilize Erlang, the domain specific language, to drive the mainstream adoption of blockchain technology.

The partnership between æternity and Erlang Solutions will also strive to tackle consensus mechanism-related challenges, which are widely identified as problematic for blockchain developers.

WHY ERLANG?

ERLANG VM
SCALABILITY
CONCURRENCY
RELIABILITY

“As scalability issues continue to plague modern blockchains, innovative, comprehensible, and truly revolutionary solutions must be pursued if æternity was ever to achieve widespread adoption.”

Yanislav Malahov, æternity founder

RESULT

By partnering with Erlang Solutions, æternity has fast-tracked its specialisation in its programming language of choice, Erlang. Today, æternity's runs proof of concepts for most of its key concepts in Erlang. This includes the blockchain itself, the contract language and VM, the oracle and governance mechanisms, as well as an old version of the consensus mechanism.

æternity continues to use and value Erlang/OTP because it allows their team to write code that can respond to many requests in parallel and without crashing. The servers with the highest uptime in the world are based on Erlang. It has been used for industrial applications for 30 years, proving itself to be a reliable and stable product.

Beyond Erlang, æternity also has a growing Elixir team who are exploring blockchain development in Elixir. Erlang Solutions has integrated its expert Erlang consultants and architects into the æternity team to support them in building a truly scalable blockchain technology.

æternity and Erlang Solutions' partnership is featured in these publications:

- + [Finance Digest](#)
- + [Blockchain News](#)
- + [Fintech Finance](#)
- + [Bankless Times](#)
- + [ValueWalk](#)
- + [CryptoNinjas](#)



MEDIA

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ABOUT ERLANG SOLUTIONS

With more than 100 specialists working out of London, Stockholm, Krakow, Budapest, and New York, Erlang Solutions has a team of software experts passionate about BEAM technologies, including Erlang/OTP and Elixir, and with an unwavering belief in the open-source future.

Offering a wide range of services from consultancy and development to architecture reviews and training, and by building trusted, fault-tolerant systems that can scale to billions of users, Erlang Solutions' technical expertise is the backbone to numerous global business operations.

LET'S TALK ABOUT:

- + Architecture, prototypes, and software development, in emerging FinTech and Blockchain environments.
- + Adapting your team skill set to the Erlang VM environment, so they can be productive as early as possible with minimal disruption.
- + Code Reviews - we'll review your code and help you make it even better.
- + Project Management - we'll provide an end-to-end FinTech solution that is professional, fault tolerant, concurrent, and reliable.

We have built scalable systems for over 300 clients to power their emerging sectors; Blockchain, FinTech, Media, Telecoms, Gaming, eHealth, and Internet of Things. Contact us to discuss your project info@erlang-solutions.com



ABOUT US



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A decorative graphic consisting of several 3D cubes in shades of purple and green, scattered across a dark purple background. One cube is prominent in the foreground, casting a shadow.

“We are thrilled to be collaborating with Erlang Solutions to strengthen our work towards overcoming these challenges and are eager to bring our ground-breaking tech to billions of users worldwide.”

Yanislav Malahov, æternity founder

ONGOING PARTNERSHIP

The partnership between Erlang Solutions and æternity is an ongoing engagement. For specific information on our results to date, please contact Erlang Solutions at info@erlang-solutions.com.