



UNICORN.PAPER.

RADIX

A DeFi unicorn.

At first we were miners, poker players. We could even play poker with Bitcoin. We didn't know where this would lead us. Those of us who saved our Bitcoin and didn't buy too many pizzas became filthy rich, real fast. Then Mt. Gox happened and Bitcoin died. Everything died. But it didn't really die. The market came back. We went 200x with Ethereum, 50x Icon, 100x Nano/Raiblocks, 20x Holo, 30x Quant. We caught the wave early and printed money again. We were nerds, geeks, risk takers. It changed our lives. We kept searching, analysing, reading, chatting... because it was fun and because we wanted more. More fun, more money, and more of that special feeling of being part of something groundbreaking. Then the next winter came and we had to be patient again. Bitcoin was dead again. Crypto was dead again. But the space didn't die, the market didn't die. It came back, and it came back with a new wave of interest we had never seen before. Then we found Radix. We read everything we could find. And we felt that special feeling again. We have big plans.



CHAPTER 0: Why.

Here's the reason why we're writing this: When we learned about Radix, we learned the legend behind it. This tech has 7 years of research in it and it's designed with all 3 dimensions of scalability challenges in mind. It solves Vitalik's Scalability Trilemma in a way that is impressive. Reading the Whitepaper is like poetry. Math poetry. Yes, Radix can do it all: Security, Decentralization and Scalability. Massive scalability. In fact, Radix scales linearly with demand and demonstrated >1m tps (transactions per second) in 2019 while keeping full cross-shard interoperability. It's a unicorn. Built by a reclusive, perfectionist, genius coder who said 'No' to a lot of money in 2017 when he decided to not do an ICO because 'it's not perfect yet'. Three years later it's 2020 and now it's happening. This could be the biggest thing in crypto in many years, maybe since Bitcoin. This could be the platform of the future.

Is Radix going to become a top-3 project within 24 months? We don't know, this is crypto, anything and everything is possible. But boy does Radix have superior tech. And boy is it being kept under the radar. We know why. And it will change very soon. That special feeling is back and we can't wait to see what the future holds. We have some insider info we will share with you. Fasten your seatbelts.

So what's special about Radix? Let's take 1 step back before we take 1 million steps forward.

User-to-User scalability.

Bitcoin was born. A genius idea. But then the blocks were full. People realized there was a tps (transactions per second) problem. *We need a public ledger that allows millions of people to send transactions to each other at the same time, without congestion!* This ultimately led to things like BCH and BSV.

User-to-Application scalability.

Then Ethereum was born and showed that there is more than person-to-person transactions. Look, we can also build contracts on top of decentralized ledgers! This led to ERC20 tokens and the 2017 bubble. Then the congestion of the Ethereum network, CryptoKitties, showed that there was a new problem: a User-to-Application scalability problem. *We need to build public ledgers that allow masses of people to interact with dApps!* This led to things like Polkadot, Cosmos, Solana, Avalanche, Near and soon ETH2.



Application-to-application scalability.

Then DeFi was born. DeFi = dozens of dApps interacting with each other creating a decentralized financial ecosystem. Lego blocks being combined freely and in a more and more automated way to create interesting use cases. But many decentralized platforms have a fundamental design flaw. They use sharding to scale, while ignoring that applications on different shards need to seamlessly communicate with each other. The key component that separates shards from just being independent blockchains is: communication. What's often missing is full cross-shard interoperability. You don't need that for CryptoKitties. Because it's just many users interacting with a single dApp. But you do need it for DeFi, where dApps on different shards are communicating. The lego blocks need to communicate. If you want a future-proof decentralized ledger, that is.

Imagine Compound and 1inch trying to communicate with Uniswap at the same time. Or flash loans. Even swapping tokens on Uniswap requires this cross-shard interoperability. Because each token is a smart-contract. Now if these smart-contracts (tokens) live on different shards and you process your transaction using the beacon chain in ETH2 (which will be sharded, but without full cross-shard interoperability), the price opportunity might be gone and the route would be very different. Yes you read that right, ETH2 kills ETH1's main use case: DeFi.

Future-Proof.

- I. User-to-User scalability: Ability for millions of user transactions to be processed at the same time.
- II. User-to-dApp scalability: Ability for millions of users to interact with dApps at the same time.
- III. dApp-to-dApp scalability: Ability for dApps to interact with each other at scale. Scaling requires sharding. Sharding leads to dApps being placed in different shards. All those dApps still need to seamlessly communicate with each other. At high speed and at scale (-->'cross-shard interoperability/composability').
- IV. High tps. Visa is capable of 24k tps with the usual demand at 4k tps. However, a future-proof platform requires much higher tps in order to service cross-sector use cases, not only payments. The only way to be future-proof is the ability to scale with demand, i.e. tps increases with the amount of users, beyond 1m tps (-->'linear scaling').
- V. Fast finality times. Nobody likes to wait. Slow finality/confirmation times kill use cases. Any future-proof platform must finalize transactions within a few seconds.
- VI. High degree of decentralization (it's easy to have high tps with a low amount of validator nodes/master nodes like Ripple, Stellar, NEO or EOS. The platform of the future is able to run at 1m+ tps, achieve



finality within 1-2 seconds at massive decentralized scale of 10-100k+ validator nodes (--> solving the Scalability Trilemma).

VII. Mathematical proof. Many platforms, including Radix, are still in development. That is fine, the sector is still in its early stages. However, if your platform cannot at least provide theoretical (i.e. mathematical) proof that the consensus algorithm will be secure at scale in the future, then there is a problem.

Many of today's popular platforms like Polkadot, Cosmos, Cardano, Near, Solana and, yes, ETH2 are not future-proof. In fact many of them have some blatant weaknesses. Why? Some take ages to finalize transactions. Some are mathematically unproven. Some simply don't scale to the required tps to be future-proof. Many are too centralized. Many are platforms born to solve the User-to-Application scalability problem of 2017 and they didn't foresee dApp-to-dApp communication (DeFi). Or they are older platforms that implement sharding in order to scale, meanwhile forgetting that those scattered dApps still need to talk to each other seamlessly. They wanted to solve CryptoKitties. And some of them do. But they can't do DeFi, and everything that will come after it. There are many reasons. We don't care about reasons. We aim to find Unicorns. And we did.

The Unicorn and its secrets.

Radix foresaw all dimensions required to fundamentally scale a public ledger: User-to-User, User-to-dApp and dApp-to-dApp scaling. Seamless cross-shard interoperability, at massive scale. 1-2 sec finality at >1m tps. Math proofs. Highly secure. They solved the Scalability Trilemma in a way that makes them very fit for what's required of a future-proof decentralized platform that scales across all 3 dimensions (User-to-User, User-to-dApp, dApp-to-dApp) without making any significant compromises. As such Radix is only tech that doesn't need patches or side wheels to do complex stuff at scale. They are still in development, which means we are able to participate early.

Radix is launching on Uniswap on November 17th 2020. A public Testnet is coming around January, and the Mainnet will launch in Q2 2021. The 2021 roadmap is packed with releases.

In this paper we will drop (almost) everything we've found. You will understand why nobody else is telling you these things. We've got some juicy insider info for you. We're going to drop some hints. Some very interesting people are involved. And we're going to give you one important piece of advice. You have to connect the dots yourself. Everything here is left for the few chosen ones to investigate deeper. Enjoy the trip down the rabbit hole.

