

The Quantum Resistant Ledger

Visionary Blockchain and Digital Asset Security



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What is the QRL?

A purpose built, industrial-grade, provably secure quantum computer resistant cryptocurrency running since 2018.



THE QUANTUM THREAT

Seven out of the top ten tech giants are either publicly competing for market dominance or involved in some capacity.

This amount of active funding by corporate and governmental entities indicate that quantum computing is **rapidly moving out of the lab** and into the **competitive sectors**.



Many companies are already offering QaaS (Quantum as a Service) which allows anyone to rent quantum computer access in the cloud.

The Quantum Threat (Y2Q) is recognised by industry leaders like IBM, Google, Microsoft, Intel, and others.

For existing blockchains, this ***will not be a simple drop-in replacement or fork because the underlying addressing scheme is vulnerable.***

NIST has initiated a process to solicit, evaluate, and standardize quantum safe cryptography.

- NSA is identifying areas that aren't post-quantum secure.
- Google is currently testing quantum cryptography that you can enable in your browser.

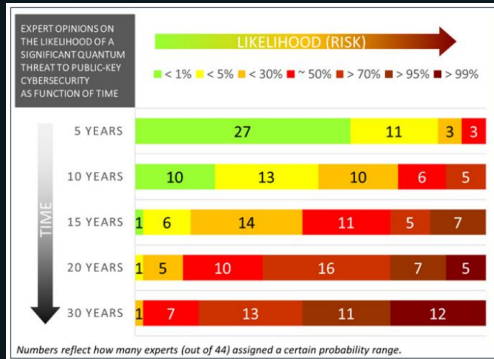
The brightest minds in the world are working on solutions to the Quantum Threat problem.



THE IMPACT ON BLOCKCHAIN

This threat impacts Bitcoin, Ethereum, Dogecoin, and 99%+ of other Cryptocurrencies.

With **and industry of trillions on the line**, if there is even a **1% chance** of quantum technology disrupting cryptography and blockchain, the risk is too high. This is a problem, considering **expert opinions see a 30% chance** of cryptographic disruption in the **next five years**.



Why won't a fork or a software upgrade fix existing blockchains?

Blockchains are immutable, meaning that in many cases, vulnerable public addresses are written to the ledger for all to view. The reason for this is so that each node can verify the validity of each transaction. Past updates which are *far simpler* in nature have easily taken close to **5 years to update**. An address migration will be necessary, which can take **several more years**, may not be possible in all cases, and may not work for all users.

The time to update & migrate might already be too late for many blockchains.



ROADMAP

2016

First quantum safe code released.

2017

Whitepaper with a working testnet.

2018

After two years of testing and multiple external audits, a full featured **mainnet was released.**

2019-future

With experience of building a pioneering blockchain, several protocol improvements and research to build out next generation **Proof-of-Stake** and **smart contracts** is underway.

Current Features

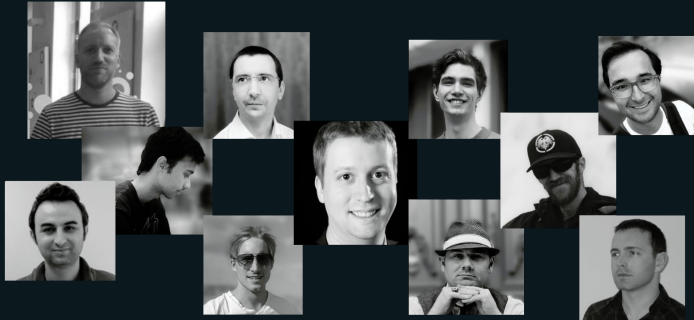
Comes with everything you'd expect from a layer-1 blockchain.

- Wide platform coverage for wallets including browser, desktop, mobile, and hardware wallets (ledger).
- Developers are treated to a great ecosystem of example code, documentation, and rich APIs.
- Always prepared for the future with crypto-agility, allowing for seamless upgrades to systems underlying wallet transactions.

And done so in a way that other blockchains struggle to do.



THE QRL CONTRIBUTORS



We are a dedicated team of code developers, PhD post-quantum cryptographers, and engineering professionals who created the first industrial-grade, provably quantum-secure cryptocurrency using an NIST-recommended addressing scheme.

Together, along with support of many key contributors, a total of **12,339 contributions** between **57 contributors** over **85 repositories** have been made, with more being made each day.



COMMUNITY

The QRL community and contributors are comprised of compassionate quantum optimistic, forwarding-thinking professionals of various backgrounds from around the globe.



1.8k



3.3k



16.3k



800



800



57

QUESTIONS?

Have any questions or would like to learn more?
We would love to hear from you.

Let's talk!

Press inquiries

press@theqrl.org

Support requests

support@theqrl.org

General inquiries

info@theqrl.org

Website

<https://www.theqrl.org/>

Markets

<https://www.theqrl.org/markets/>

Social

Discord: <https://www.discord.gg/qrl>

Reddit: <https://www.reddit.com/r/qrl>

Twitter: <https://twitter.com/ORLedgeR>

YouTube: <https://youtube.com/c/ORLedgeR>



REFERENCES AND LINKS

COMMERCIAL ENTITIES:

IBM <https://www.ibm.com/quantum-computing/>

Google <https://quantumai.google/>

Microsoft <https://www.microsoft.com/en-us/research/research-area/quantum-computing>

GOVERNMENT ENTITIES:

Intel <https://www.intel.com/content/www/us/en/research/quantum-computing.html>

NIST <https://csrc.nist.gov/news/2016/public-key-post-quantum-cryptographic-algorithms>

MEDIA:

“No! You can't just Quantum Soft fork Bitcoin! Or can you ???”

<https://www.youtube.com/watch?v=cbP2eigSxcA>

