

# CRYPTO ALLIANCE



**CRYPTOALLIANCE**



**SPHINX**

<https://linktr.ee/sphinx.org>

An open-source post-  
quantum blockchain layer 1

Problem of Large scale QC threat into primitive cryptography;

1. EC(DH, DSA)/ RSA will be broken =
  - Shor's algorithm in  $O((\log N)^3)$
2. Hash-Function SHA2/3  $y^{2^{256}} = H0(h2^{256}(x))$  will be broken =
  - Grover's algorithm in  $O(2^{256/2})$
  - BHT algorithm in  $O(2^{256/3}) + \text{qRAM}$
3. AES will be broken =
  - Grover's algorithm in  $O(2^{256/2})$
  - BHT algorithm in  $O(2^{256/3}) + \text{qRAM}$
4. Deterministic CSPRNG will be broken =
  - Grover's search in  $O\sqrt{N}$
5. Passphrase will be broken =
  - BHT algorithm in  $O(2048^{12/3}) + \text{qRAM}$

Solution of Large scale QC is only migration into PQC;

1. HBS will give us  $O(2^{128}) \approx 2^{52}$  years against QC.
2. Hash-Function  $y^{2^{256*2}} = H_0(h^{2^{256}}, h^{3^{256}}(x))$  increase hardness against =
  - Grover's algorithm in  $O(2^{\frac{256}{2}*2})$ .
  - BHT algorithm in  $O(2^{\frac{256}{3}*2}) + \text{qRAM}$ .
3. AES + FHE might be helpful against =
  - Grover's algorithm in  $O(2^{256/2})$
  - BHT algorithm in  $O(2^{256/3}) + \text{qRAM}$
4. qRNG will help but there is no individual hardware exist yet =
  - Grover's search in  $O(\sqrt{N})$
5. Passphrase ( $2048^{12}$ ) + Base32 Passkey ( $2^{4,199,040*8}$ ) will help =
  - BHT algorithm in  $O(2048^{12/3}) + \text{qRAM}$

## Roadmap;

1. Build team (Founder, co-founders, engineers, github maintainer)  
⇒ Sphinx-Core.
2. Qrypto Alliance Legal registration ⇒ Sphinx Foundation .
3. Website Development.
4. Global Community Developmet.
5. Adjust/ Accelerate existing idea and code base.
6. Technical Development ⇒ Relase Whitepaper.
7. Raising Fund.
8. POS, SVM, MPC/ MPS, ZK, PQC ⇒ Blockchain development.
9. 100M **\$SPX** Coins Issuance.
10. Testnet.
11. Mainnet.