

Zero Knowledge doesn't mean Zero Ethics

...

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Who am I?

Joshua Marpet

Infosec Therapist/Infosec Megaphone

The guy with the hat (It has it's own twitter account) @quadlinghat

Human Hacker – Serial Entrepreneur – Frustrated Techie

@Quadling

Google me.

Zero Knowledge System

Mathematical Proof - Zero-knowledge proofs and verifiable secret sharing are vital for multi-party secure sharing.

Cryptography system - The idea behind zero-knowledge~ness is that the verifier does not learn anything except that a statement is true.

Web or server based service

Uses

Files

Code

Checking patients into a hospital.

Zero knowledge, Healthcare, and Blockchain, oh my!!



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OPINION

Interactive and zero-knowledge proofs for better patient interactions with blockchain technology

Zero-knowledge proofs, when combined with blockchain technologies running on smart contracts, have the potential to prove patient health information without the verifier ever learning anything except that a statement is true.

Information Security Ethical Conundrums

Is the NSA ethical?

FBI?

Geek Squad?

Echelon/SIGINT/etc etc etc

Child Porn/ISIS/Terrorism - Free Speech?

No-platforming, unpopular opinions, KKK, Anti-gunners, Pro-life/Pro-choice - Is there a line?

Free Speech - Legal or Illegal?

Some topics may be legal to discuss, but illegal to advocate or call for.



Zero Knowledge Ethics

Can you build a Zero Knowledge system with ethical and legal considerations?
Can you respect privacy, whilst still respecting the law?

Ways to remain within the law

No content management by employees.

“Can you give me a hand?”

“Here’s my SSH secret key!”

“I don’t understand, can you remote in?”

Very clear Terms of Service and Acceptable Use

In provisioning process, checkbox, “Will you be hosting illegal content?”

Ways to be a ~~douche~~~~freighter~~-bad service provider

- Monitor your customer's content
- Be Inconsistent
- Be unresponsive to questions
- Be unresponsive to LEO's
- Be unresponsive to Abuse@*provider.porn*



Why do we care?

PMITA Federal Prison

Proper culture of service providers, and service consumers

Respect privacy? I do, with considerations.

Respect the law? I do, with considerations.

Questions

Joshua Marpet

@quadling -

I check this only infrequently, because I discovered my wife actually likes to talk to me.

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Most of the time, on the NOVA Hackers list, 303 list, Metzdown Cryptography, security metrics, dailydave, and some others. Eminently Google-able.

If you can't find me, you ain't looking.