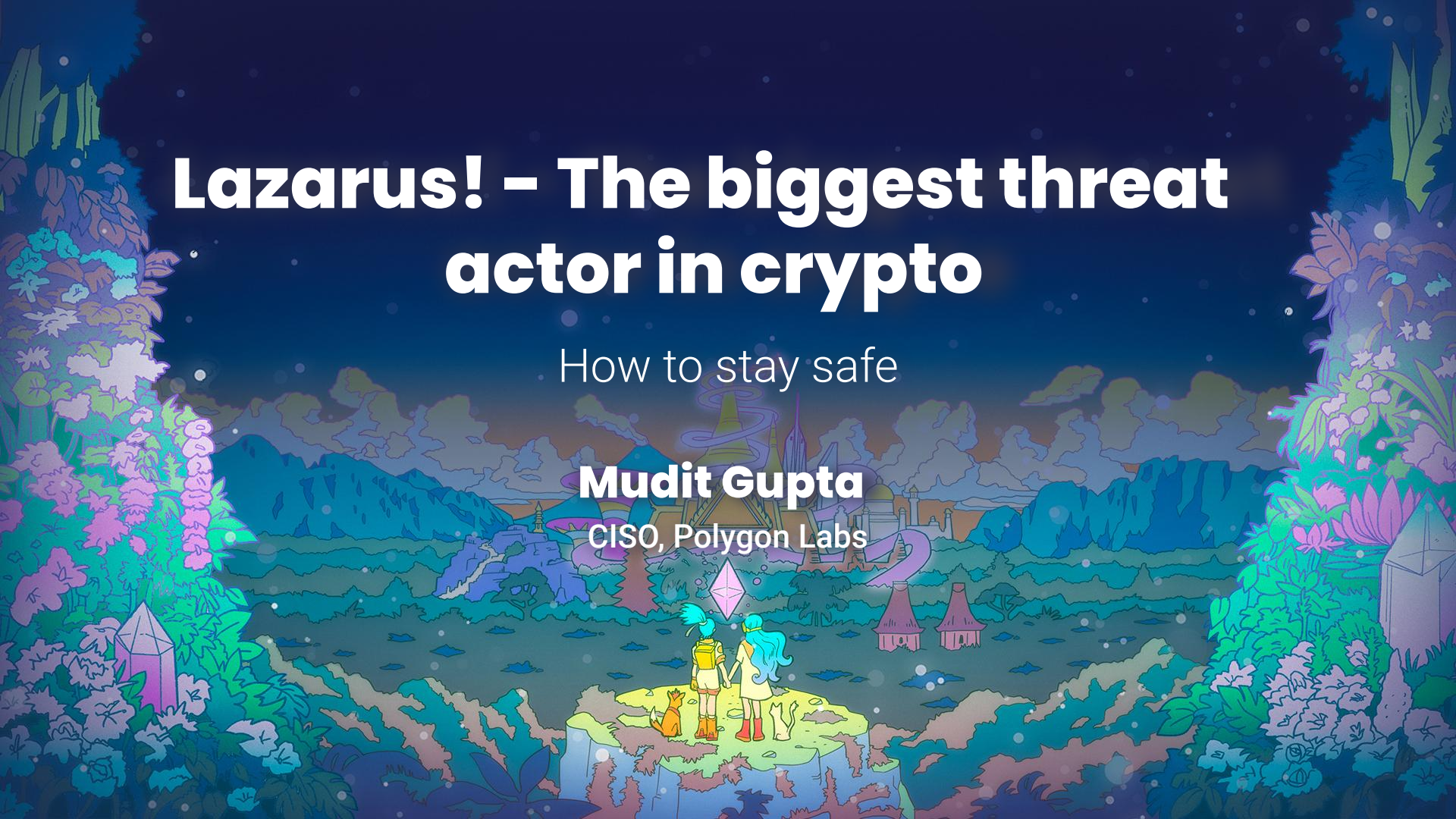
Lazarus! - The biggest threat actor in crypto

How to stay safe

Mudit Gupta

CISO, Polygon Labs



Lizard us who?

Who is Lazarus

- North korean hacker group
- Started out with simple DDoS against South Korea around 2009
- Started targeting banks in 2014, also hit Sony
- Focusing on crypto exchanges since 2017
- Hit DeFi jackpot in 2022 with 600m axie, 100m horizon hacks

Year	Attack Name/Incident	Losses (Estimated)	Techniques Used
2017	Bithumb Exchange Hack	$7 million	Phishing, Social Engineering, Malware
2018	Coincheck Hack	$534 million	Spear Phishing, Exploitation of Poor Security Practices
2018	Youbit Exchange Hack	Unknown	Spear Phishing, Malware, Insider Compromise
2019	Upbit Exchange Hack	$49 million	Phishing, Unauthorized Access, API Exploitation
2020	KuCoin Exchange Hack	$275 million	Social Engineering, Unauthorized Access, Exploitation of Hot Wallets
2020	Eterbase Hack	$5.4 million	Phishing, Credential Stuffing, Exploitation of Hot Wallets
2021	Liquid Exchange Hack	$97 million	Phishing, Credential Theft, Social Engineering
2021	Ronin Network Hack	$600 million	Exploitation of Validator Nodes, Social Engineering
2022	Harmony Bridge Hack	$100 million	Exploitation of Multisig Wallet Vulnerabilities, Social Engineering
2023	Horizon Bridge Hack	$100 million	Exploitation of Smart Contract Vulnerabilities, Phishing
2024	WazirX Incident	$235 million	Phishing, Social Engineering, API Exploitation

Top Crypto hacks by Lazarus

How do they do it?

Do you see anything common?

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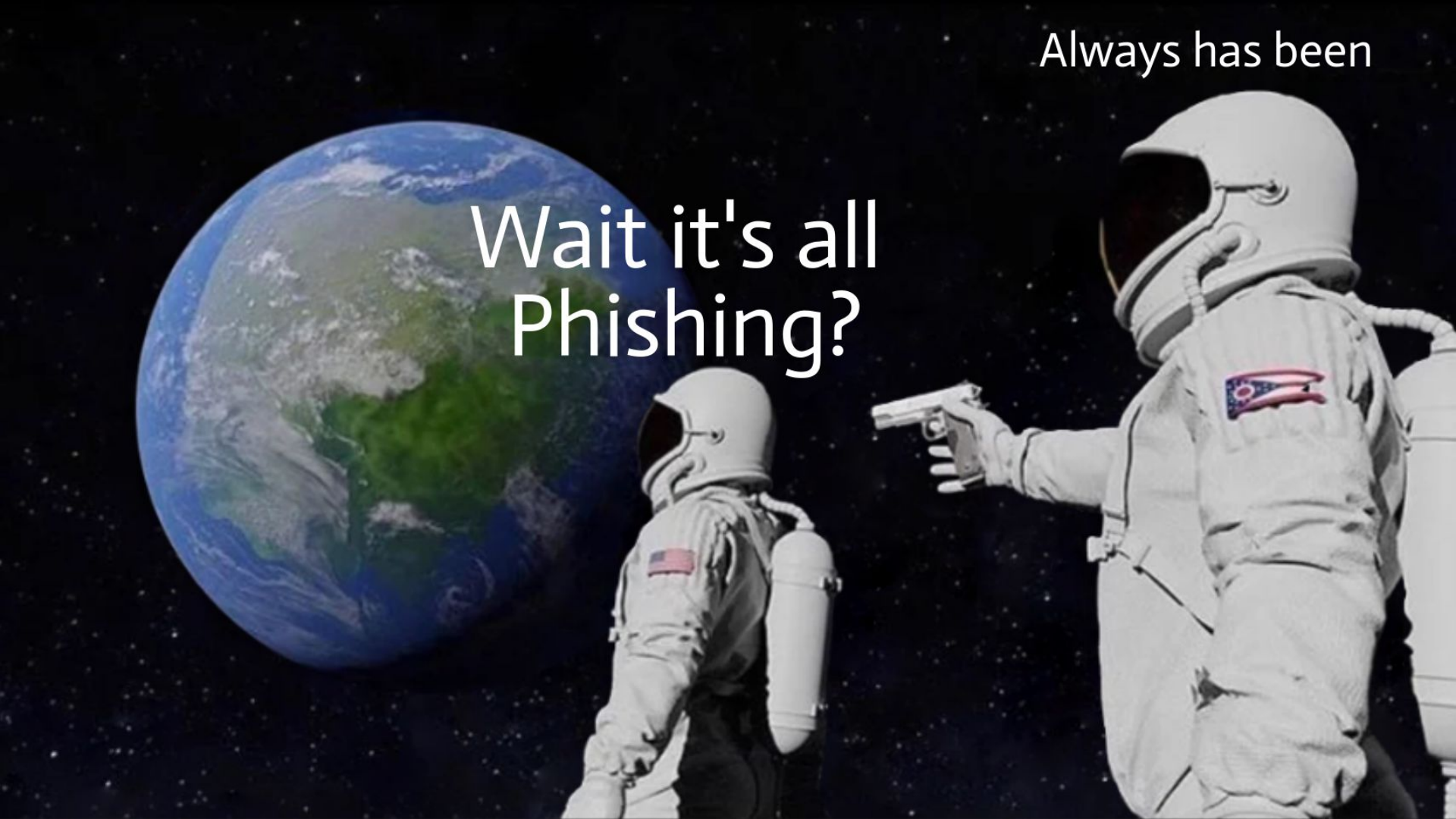

Always has been
Wait it's all Phishing?

Social Engineering

Social engineering techniques

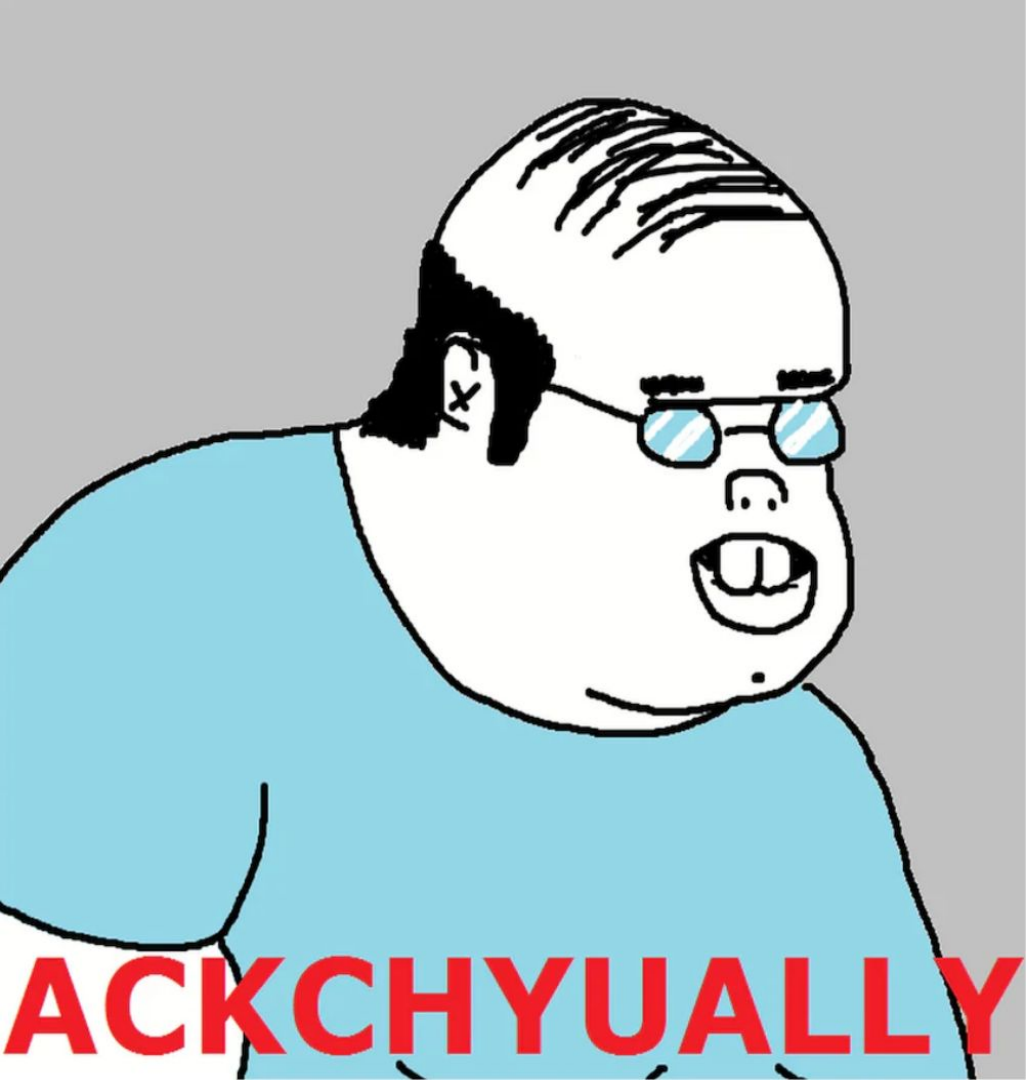
- Getting hired at your company
- VC Investment
- News interview
- Job listings
- Fake video call
- Malicious PDFs
- Malicious extensions
- Malicious feedback site
- Fake advertisements
- Fake airdrops
- Fake Docusign
- Fake order placed
- Fake discord verification
- Fake exchange listing
- Package delivery problem
- Quid-pro-quo
- Fake devcon side event ticket
- Tons more.....

How to stay safe from Social Engineering

- Phishing awareness trainings and phishing campaigns
- Be Skeptical of Unsolicited Communications
- Verify Identities Independently
- Avoid Clicking Suspicious Links or Attachments
- Use Strong, Unique Passwords
- Enable Two-Factor Authentication (2FA) and avoid SMS
- Keep Software Updated
- Educate Yourself and Others
- Limit Personal Information Sharing
- Report Suspicious Activity

YOU ARE GOING TO GET PHISHED

Layers of Security



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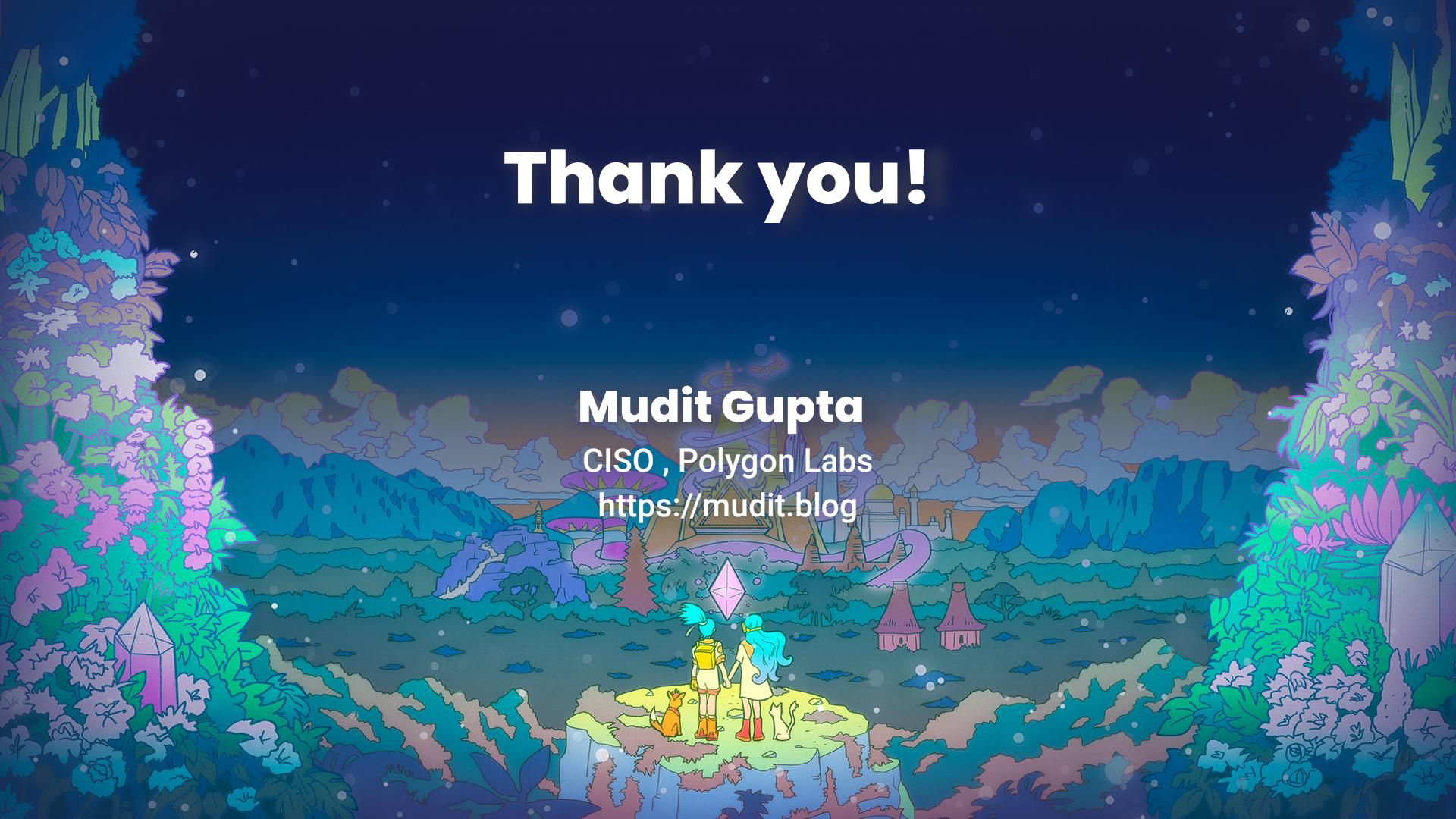
What layers?

- Principle of least privilege
- Multiple factors of authentication
- MDM/EDR
- Security monitoring and alerting
- No single point of failure
- Secure architecture
- Minimized trust
- Safe custody
- Spider sense

How to custody safely

Safe custody

- Consider using professional custodians
- Use hardware wallets
- Do not share your mnemonic/seed phrase/private key with anyone
- Connect hardware wallets via browser wallets
- Use a dedicated (semi-airgapped) device for signing
- Verify what you’re signing on the browser wallet
- USE MULTISIGS!
- Ensure secure threshold for multisigs
- Verify hash on hardware wallets (safe-tx-hashes-util from pcaversaccio)
- Use diverse set of hardware including mobile devices for signers
- Do not ignore failures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“Number rules the universe.”
— Pythagoras

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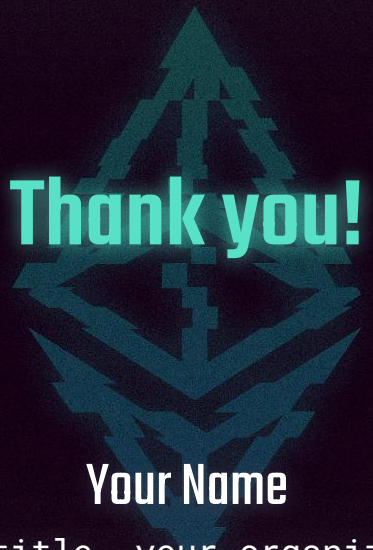

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