Blockchain Security
About ISE

know thy enemy

we do.

ISE Proprietary
What is blockchain?

- A decentralized database
- Chain of records called “blocks”
  - Blocks contain transactions
  - Transactions signed with private key
  - Timestamped and linked to previous blocks via cryptography
  - Later blocks validated and added by nodes with encrypted digital fingerprint (hashing)
Bitcoin

- Cryptocurrency powered by blockchain
- First major use of blockchain (2009)
- Satoshi Nakamoto
- “Bitcoin: A Peer-to-Peer Electronic Cash System” (10/31/2008)
Other uses

• Smart contracts
• Medical records
• Financial services
What are your business objectives?

• To obtain funding
• To capture market share
How can security help with these objectives?

- Conveys authenticity
- Robust security increases the quality of your product
- Security also is a market differentiator
Lack of developers and dev/technical resources

- Diminished or no security
Current Mood: First-movers win...

• Secure products win
  – Over $1 billion in cryptocurrency stolen in 2018
  – By Q3 of 2018, amount stolen was 3x that of total stolen amount in 2017
Current Mood: Only blockchain developers will do...

- In reality, a skilled developer will do.
  - Development delays
  - Overlooking developers with security chops
Current Mood: Threat actors are the biggest threats to security...

• Umm, development practices are the biggest threat to security
  – Development mistakes
    • Time constraints
    • Lack of resources
    • Other internal pressures
The Remedy

• Stay in your lane
  – Hire skilled developers
  – Time to gain blockchain experience
  – Engage a 3rd party security firm