FORTA KNIGHT

MAKING THE BLOCKCHAIN A SAFER PLACE

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What are rug pulls?

The blockchain is an emerging technology that allows people to easily exchange a variety of assets and create new currencies in a decentralized manner. However this is a new technology so there are few regulations and security practices in place to ensure the safety of users. This lack of security allows scams called rug pulls. Scammers create seemingly lucrative crypto tokens and convinces users to purchase them. Then, without warning, scammers liquidate buyer assets, effectively stealing their money and leaving them with useless tokens.
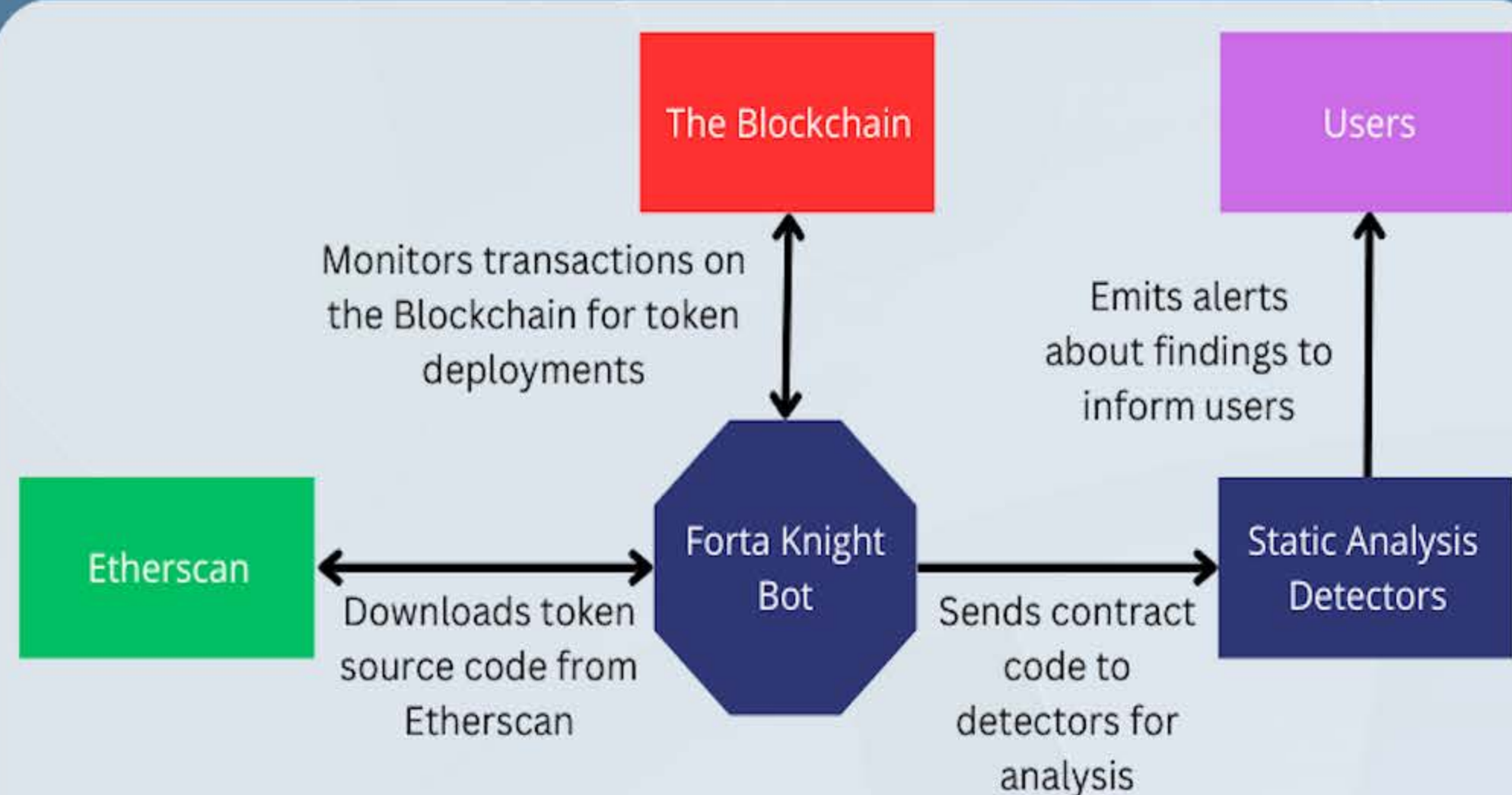
Why should we care?

From Sept-Dec 2022:
- **$11 Billion** worth of ETH were withdrawn and deposited by scammers from centralized exchanges.
- **> 200,000** scam tokens were deployed.
- **99%** of scam tokens avoid detection with traditional methods

Solidus Labs. "The 2022 Rug Pull Report." The Rug Pull Report, Dec. 2022, p. 4.

Our Solution

We worked with Forta to create the Forta Knight bot that analyzes token deployments for potentially malicious activity. The Forta Knight bot emits alerts when it detects certain characteristics present in many malicious tokens to inform users before purchasing these tokens.

We chose to use static analysis for our bot because it allows us to detect potential rug pulls as quickly as possible. This means that we can alert users about potential risks before any users have lost money.

Future Work

- Improve static analysis detectors to include control flow and value flow analysis
- Use detector results as input to a machine learning model to improve precision of alerts
- Create more detectors to detect other rug pull strategies

Analysis

Analysis Time: 1.45s

Detector Name:	Accuracy:	False Positive Rate:
Mint Detector	35/38	3/21
Burn Detector	29/32	0/12
Self Destruct Detector	3/3	0/46