

# SaTC: CORE: Small: Collaborative: Hardware-assisted Plausibly Deniable System for Mobile Devices



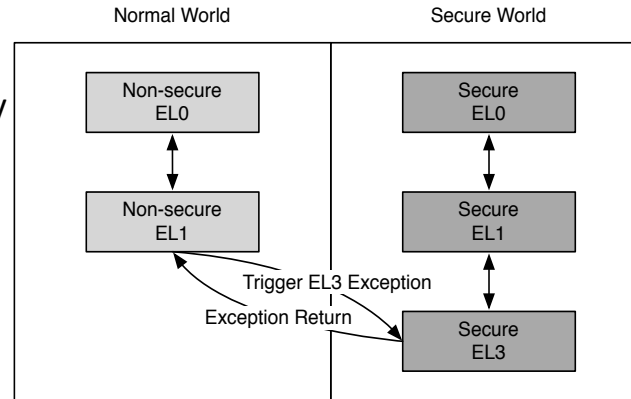
WAYNE STATE  
UNIVERSITY



Michigan Tech

## Challenge:

- The existing plausible deniability encryption (PDE) systems for mobile devices are built at the block layer and suffer from raw flash snapshot attacks or side-channel leakages leading to deniability compromise

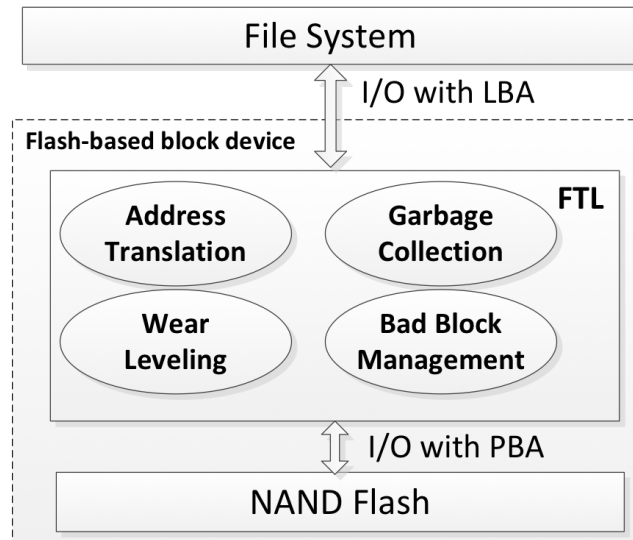


## Scientific Impact:

- Efficient (low-overhead) and effective (high deniability) hardware-assisted solution that leverages existing hardware features such as flash translation layer (FTL) firmware and ARM TrustZone

## Solution:

- Data Hiding Techniques in Flash Translation Layer.
- Strong Isolation and Fast Mode Switching
- Integration of Project Components and Evaluation



## Broader Impact:

- PDE systems in future commercial mobile devices
- Regional Cybersecurity Education Collaboration (RCEC), a new educational partnership on cybersecurity in Michigan
- Teaching material for K-12 students in the WSU and MTU summer camps

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