September Week2

PROGRESS

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Cache-in-the-Middle (CITM) Attacks: Manipulating Sensitive Data in Isolated Execution Environments

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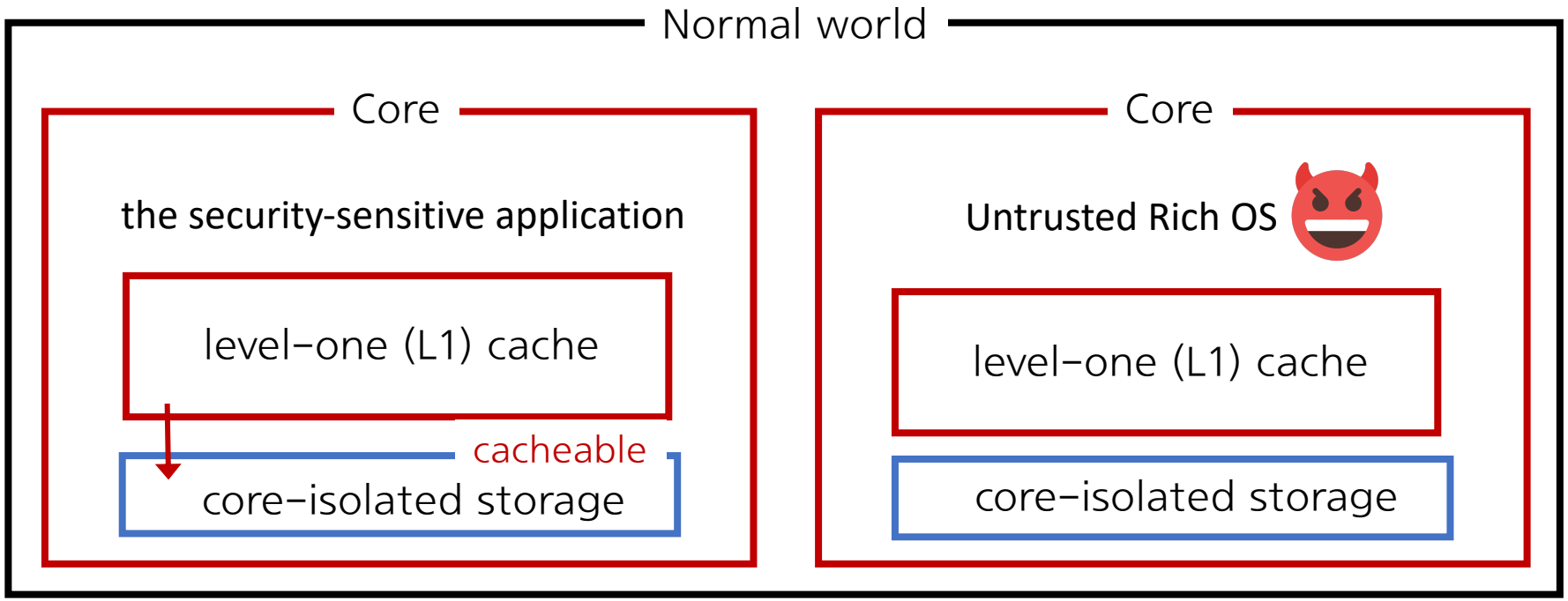
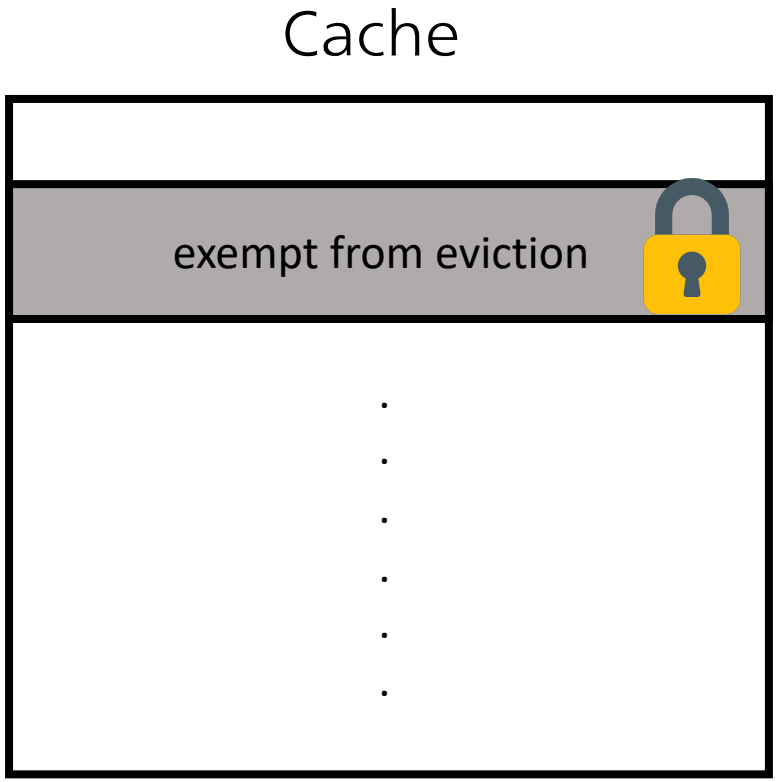
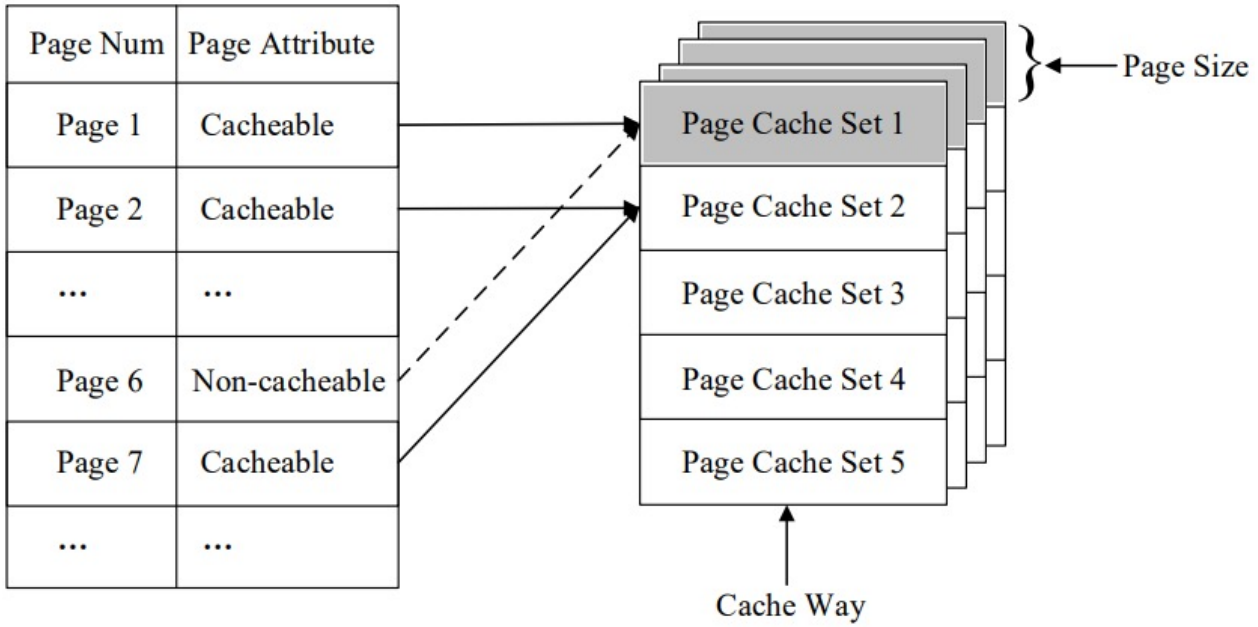
Type II. Bypassing security measures during IEE "switch out" process

constrain the memory

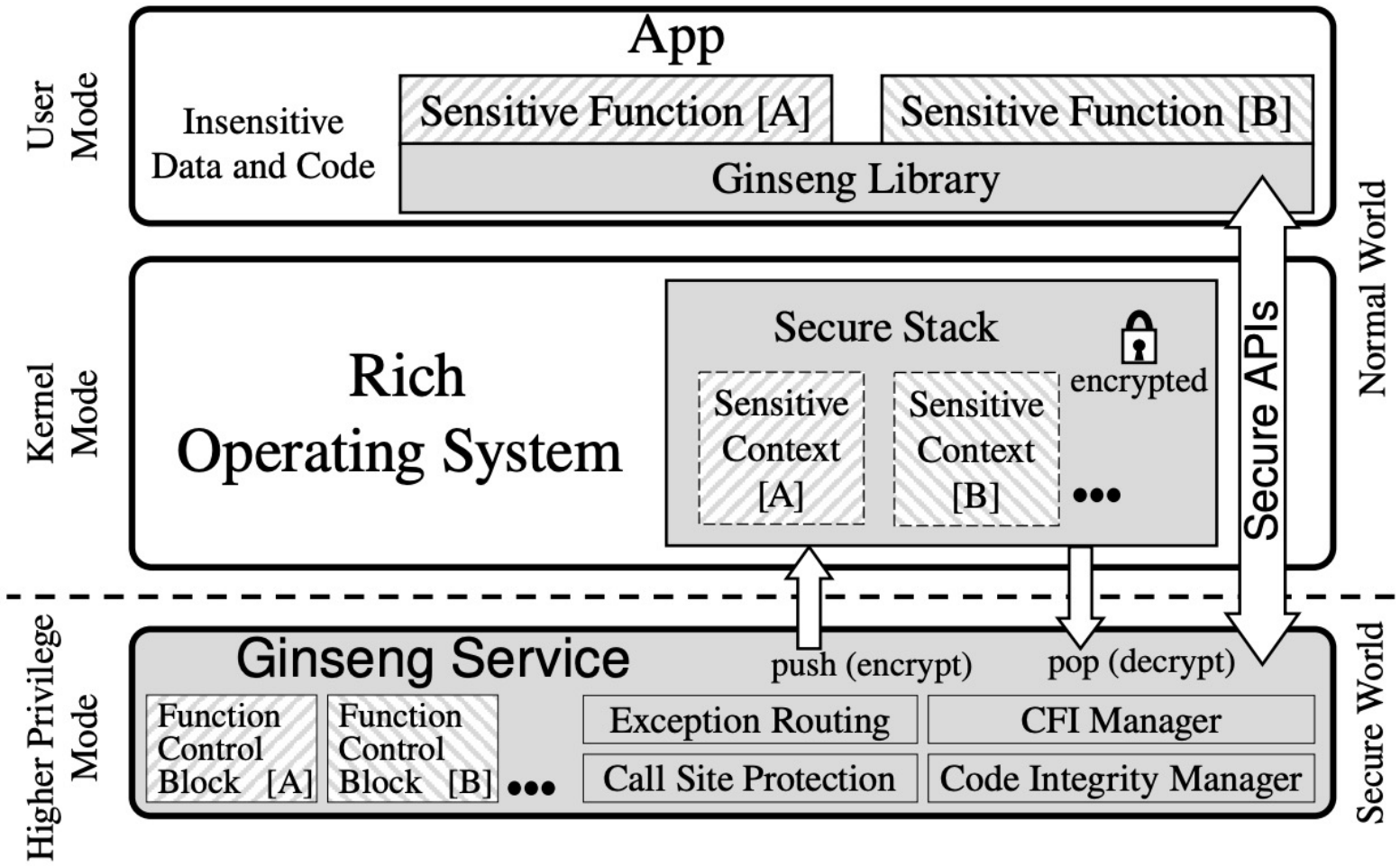


Cache Lockdown Technique

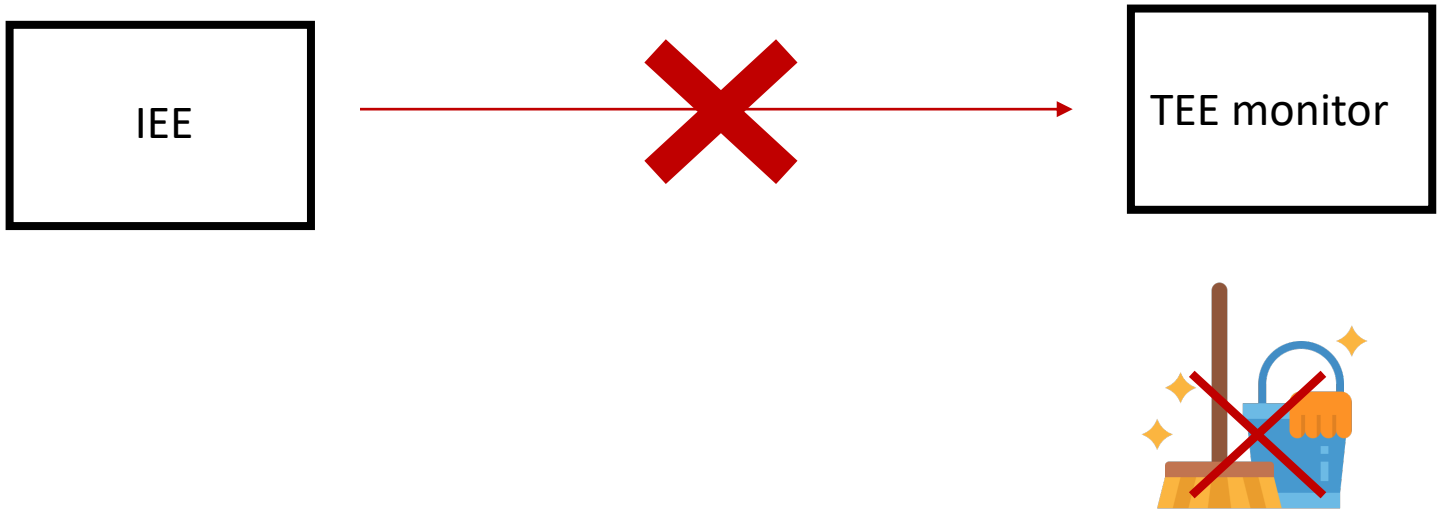




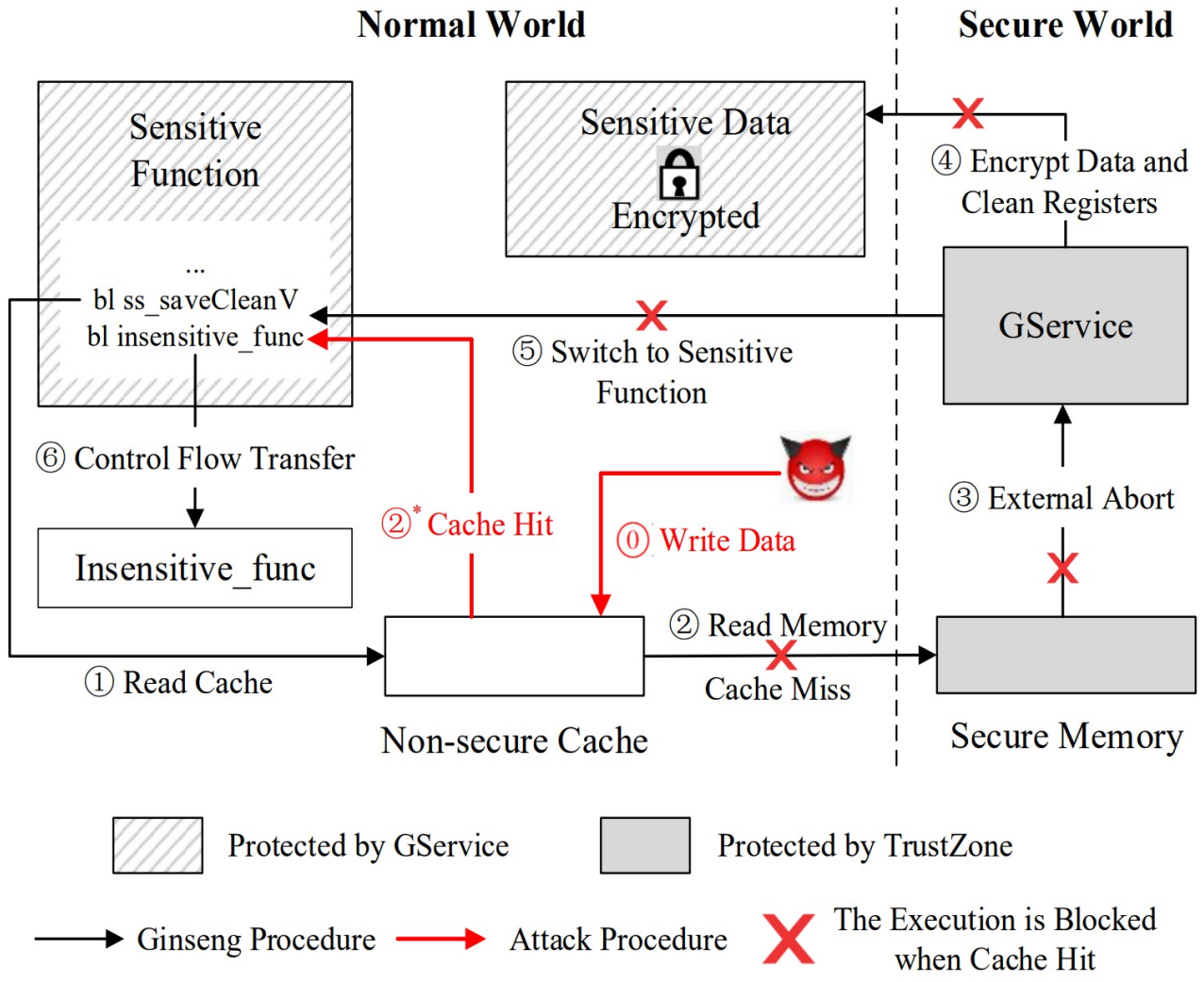
Ginseng: Mapping to Non-Secure Cache



bypass the data cleaning



Attacking Procedure



2. the reading and writing operations are not synchronized between memory and cache

(Type II attack)

-> synchronizing the reading and writing operations between memory and cache