

110011010

010111010

111100100

000101101

100110010

Collector

110011010

010111010

111100100

000101101

100110010

Spy



MELTDOWN & SPECTRE FOR ARMED PEOPLE

MELTDOWN: THE ATTACK

3

1















▶ Meltdown needs some preconditions

▶ The **secret** is in the cache (value: 3)

▶ Both **Spypy** and **Collector** can read grey memory blocks

RAM

“IT’S A 1”

“IT’S A 2”

“IT’S A 3”

SECRET ("3")



grey box:
memory block
tested by **Collector**





allowed to
read?



Gamechene





SECRET ("3")





MELTDOWN: THE ATTACK



MELTDOWN: THE ATTACK

110011010
010111010
111100100
000101101
100110010

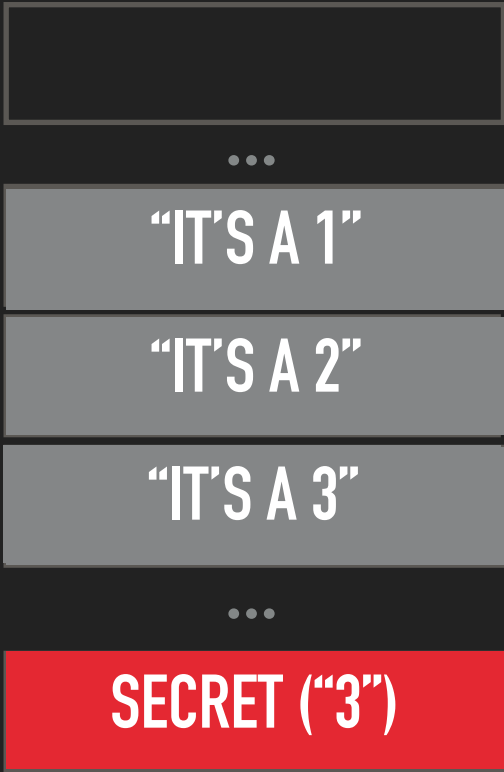
Spy

110011010
010111010
111100100
000101101
100110010

Collector



Cache



RAM

MELTDOWN: THE ATTACK

110011010
010111010
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000101101
100110010

Spy

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100110010

Collector



grey box:
memory block
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allowed to
read?



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