License Locking

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Estimated Total Hours: 15

Plans (Past Week)

- Continue testing CryptoFP implementation locally and in GCP
- Begin looking into Centauri implementation
- Discuss alternate fingerprinting strategies to implement in addition

What Actually Happened

Work completed: CryptoFP validation on GCP; CryptoFP testing with different power settings and CPU loads and parameter tuning; started implementation of thread-based fingerprinting and shared memory area-based fingerprinting

Major challenges+roadblocks:

- Discovered occasional collisions between fingerprints for GCP machines with identical hardware settings, even when physically distinct (region/zone)
- Memory area-based fingerprinting has shown no patterns so far

Attribution:

- Andrei: CryptoFP testing with different power settings and CPU loads and parameter tuning
- Yunzhou: shared memory area-based fingerprinting
- Jacob: validation on GCP and implementation of thread-based fingerprinting

Plans (Next Week)

- Adjust the current CryptoFP implementation to reduce
  a) collisions on different machines with identical HW
  b) fingerprint variations with CPU load
- Keep looking into Centauri

Tentative:

- Develop software with CPU fingerprint
- Explore fingerprinting via multithreading

Summary/Overall Progress

Implementation of CryptoFP achieves

a) Stability on a single machine (for at least one week)
b) Stability across different power settings
c) Fingerprint differentiation between machines with different HW

Improvements:

a) Collisions among different machines with same HW
b) Variation with CPU load