

Question 6

Communication Protocol

1. I am using prime-evict-probe methodology on the level of cache lines to build the covert channel.
2. The receiver primes the L2 cache by accessing 4096 consecutive cache lines in its context. The sender then evicts a few lines that the receiver can detect.
3. The sender evicts two consecutive lines called the “datum” lines starting from the address allocated by the huge page map. The sender then encodes the secret as a stride from this datum line and evicts that cache line.
4. In the receiver, I compute this stride to decipher the secret.