# Tor Hidden Services

Aggregate statistics about the number of hidden service descriptors from multiple HSDirs

Median statistics to ensure robustness

**Problem**: Computation of statistics from collected data can potentially de-anonymize individual Tor users or hidden services

# Private Tor Statistics

**We rely on:**

- A set of authorities
- A homomorphic public-key scheme (AH-ECC)
- Count-Sketch (a variant of CMS)

**Setup phase**

- Each authority generates their public and private key
- A group public key is computed