

ABSTRACT

Data storage in remote servers has become popular in recent years with an increasing number of enterprises using services such as Amazon EC2 and github for storing valuable (and potentially private) data. Privacy of this data is essential. One such tool for ensuring complete privacy of server-hosted data is by deploying an Oblivious RAM (ORAM) [] for accessing data. An ORAM effectively “hides” the data access patterns of a user by making all access patterns computationally indistinguishable.

ORAM technology has advanced rapidly in recent years [2–5] with PathORAM [4] achieving the near-optimal bandwidth lower bound established in [1]. In spite of these promising developments, ORAMs are yet to become feasible for deployment on commercial clouds.

In this paper, we attempt to make PathORAM [4] more practical by reducing the average latency of concurrent client queries. This is achieved by using multiple parallel threads for fetching and eviction of data. We show an improvement in query response time proportional to the number of threads used.

1. REFERENCES

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