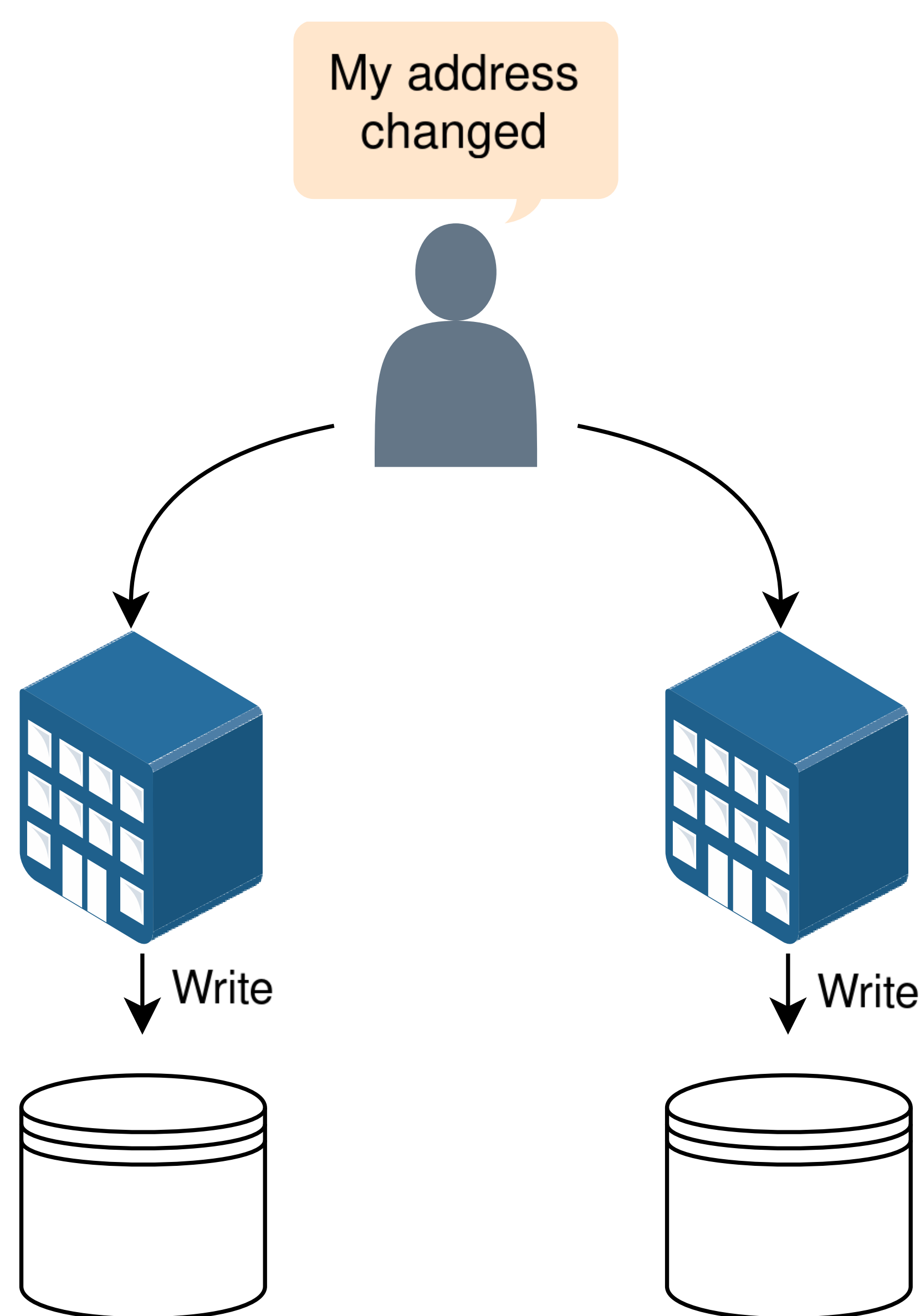


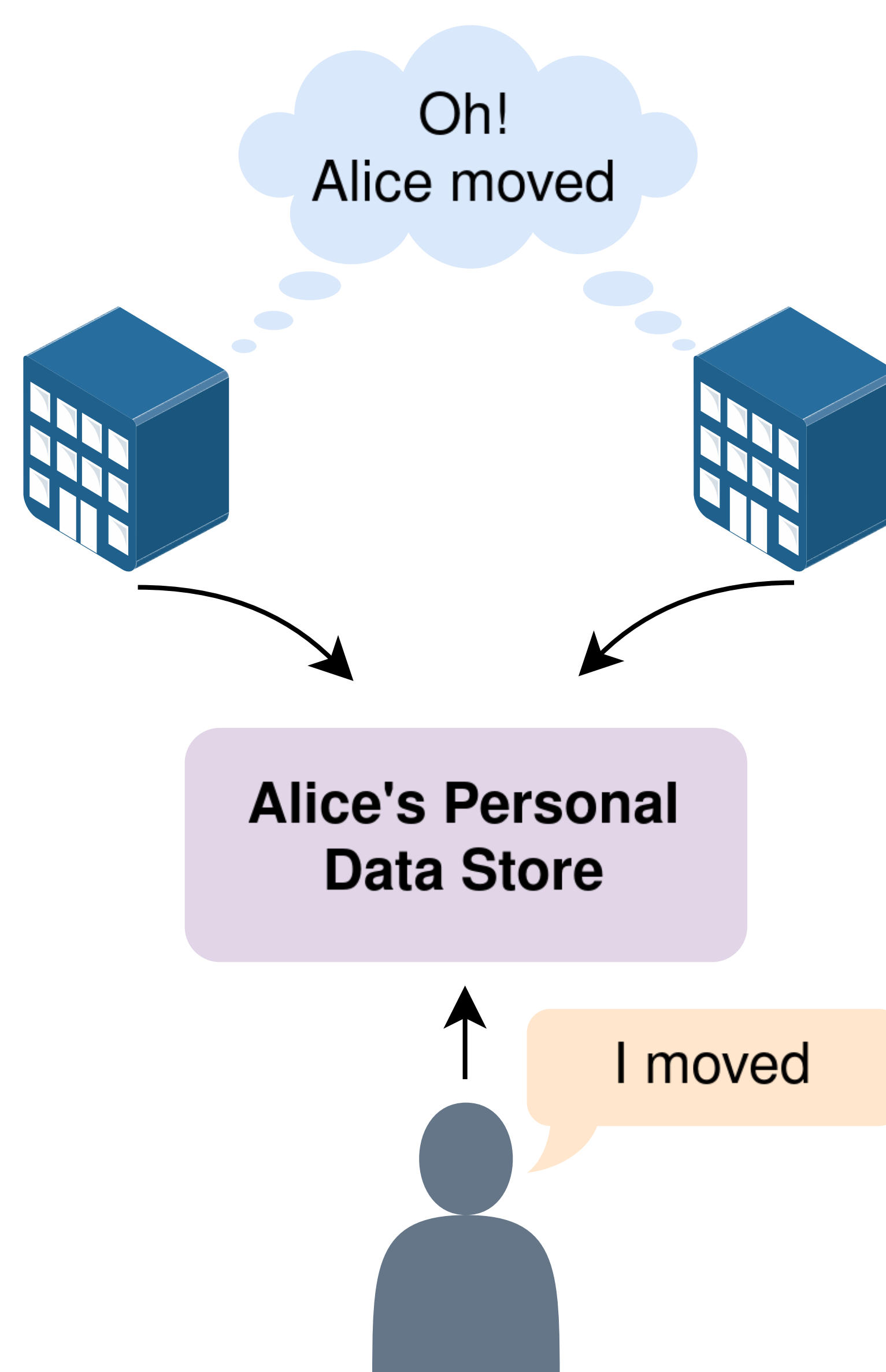
Abstracting Writes in a Personalized Decentralized Data Ecosystem

Personalized Decentralized data ecosystems shift who holds the data

Data Around Processor:



Data Around Producer:



- Relieves SMEs cost
- Data quality
- Sparks innovation
- Fine Grained Permissions
- Heterogeneous Interfaces
- No Central Management

How to cope with high heterogeneity among update interfaces?

Alice's Data

I am fast

API 1

API 2

I support transactions

I am cheaper

Bob's Data

API 3

API 4

I support short transactions

Challenges:

- What constitutes a good update interface?
- How can interfaces describe themselves?
- How can we support ACID-transactions?

Abstraction Layer

PhD Tasks:

- Formal model for explicit write semantics
- Update-query planning algorithms
- Execution model for ACID-transactions

