NoSQL Data Stores

Ashish Kedia
Final Year, IT

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Outline

Introduction

- Stands for No-SQL or **N**ot **O**nly SQL

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- Distributed data storage systems
- BASE instead of ACID

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- Multi-Master, In-Memory, Insert Only, No Join

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- **Durable** The results of a committed transaction survive failures

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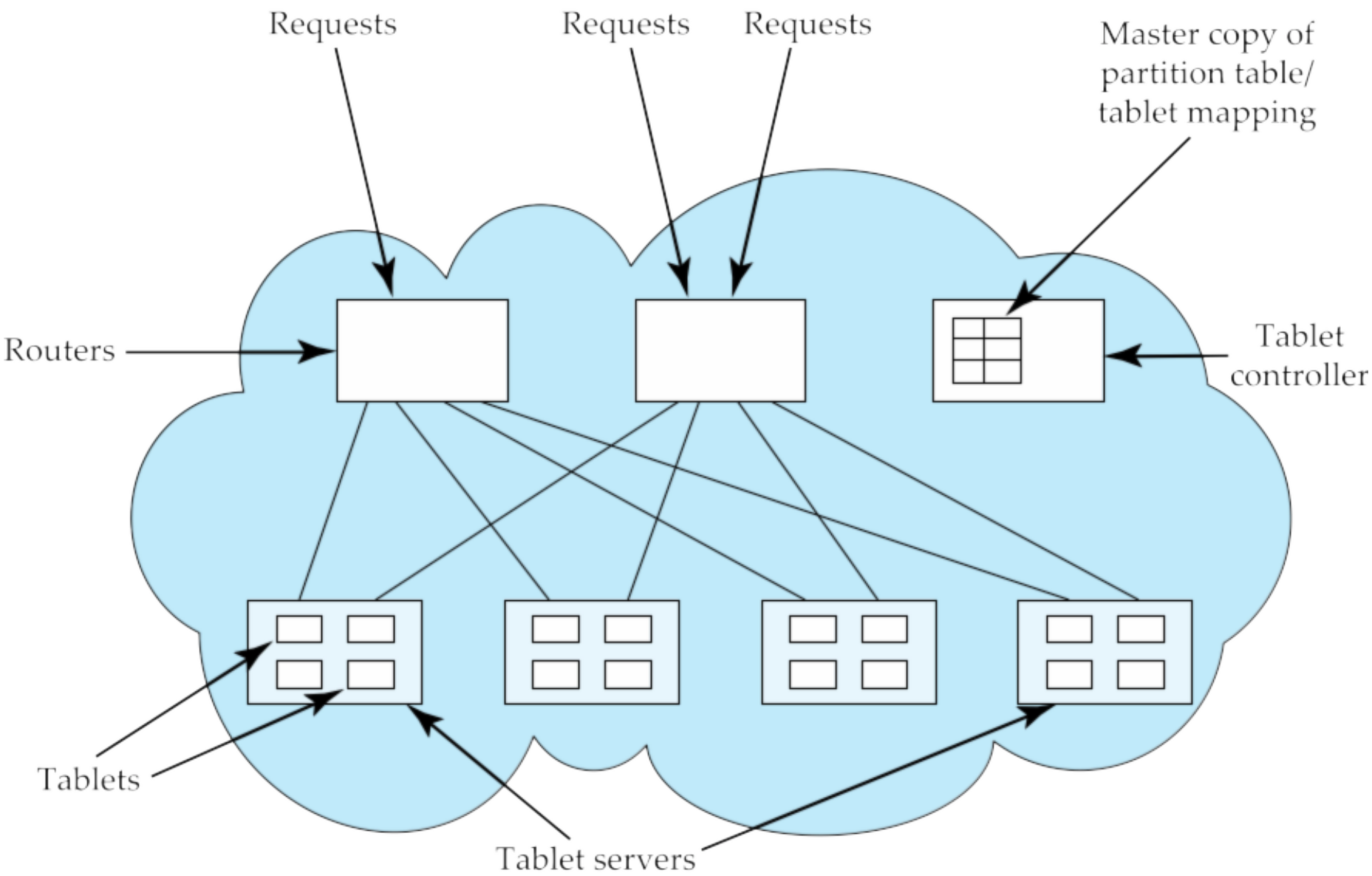
Requests
Requests
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Master copy of partition table/ tablet mapping
Routers
Tablet controller
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- Polymodel - Inheritance of Entity Type

Basic API

- get(key) – Extract the value given a key
- put(key, value) – Create or update the value given its key
- delete(key) – Remove the key and its associated value
- execute(key, operation, parameters) – Invoke an operation to the value (given its key)

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- Key Value Systems like Lucene

Tips and Tricks

- First ensure you need NoSQL. Petabyte scale websites like Quora are still using MySQL
- High Read / Update frequency 500 writes / sec / GB RAM
- Log Analysis, Creating Warehouses, Backup, etc
- Prefer Cloud Services to avoid maintenance
- Index everything properly
- Entity update close to 1 write / sec

Questions ?

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Acknowledgments

- Thank You IEEE
- Thank You Karthik Senthil
- Thank You for attending

Ashish Kedia - 12IT14