I4 Reading Group

Tobias Distler

Lehrstuhl für Informatik 4
Verteilte Systeme und Betriebssysteme

Friedrich-Alexander-Universität
Erlangen-Nürnberg

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Windows Azure Storage

- Goals
  - Strong consistency
  - Global and scalable namespace/storage
  - Disaster recovery
  - Low cost of storage
- Characteristics
  - Supported data abstractions: Blobs, queues, tables
  - Separation of data storage from VM-based computation
  - Replication across different geographic regions
- Paper

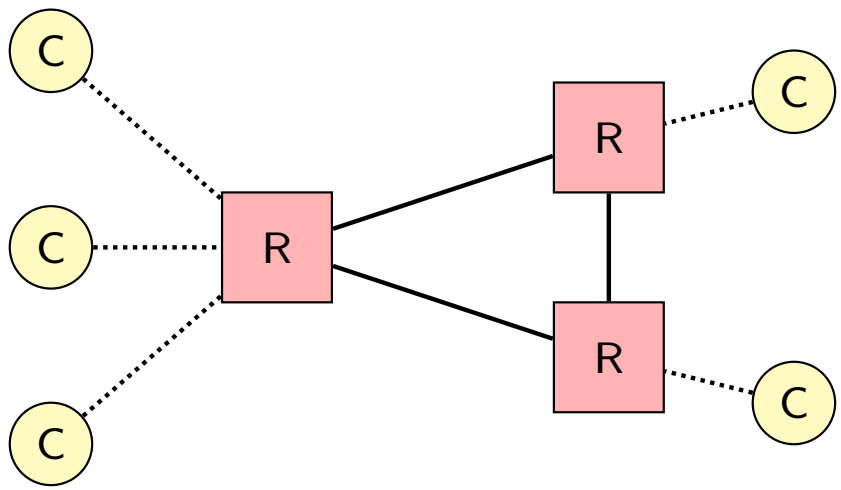
Brad Calder, Ju Wang, Aaron Ogus, Niranjan Nilakantan et al.
Windows Azure Storage: A highly available cloud storage service with strong consistency
Proceedings of the 23rd Symposium on Operating Systems Principles (SOSP '11), pages 143–157, 2011.

The CAP Theorem

- Theorem

> You can have **at most two** of the following properties for any shared-data system

  - Strong **C**onsistency
  - **A**vailability
  - Tolerance to network **P**artitions



- Reference

Eric A. Brewer
Towards robust distributed systems
Proceedings of the 19th Symposium on Principles of Distributed Computing (PODC '00), page 7, 2000.