Private Cloud Storage

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One Upon a Time...
Consistency (same view)

Partition Tolerance (node access)

Availability (data access)

Enforced Consistency

Eventual Consistency
Once Upon a Time...

(again)
Swift Tech Overview
Swift API

https://swift.example.com/v1/AUTH_acct/cont/obj
Swift’s Design

Storage Nodes
- Account Replicator
- Auditor Reaper

Proxy
- Container Replicator
- Auditor
- Updater

Consistency Processes
- Object Replicator
- Auditor
- Updater
**Legend**
- **Outward-facing (10G)**
- **Cluster-facing (10G)**
- **Controller network (1G)**
- **Out-of-band (1G)**

Diagram showing network components including:
- Proxy Rack 1
  - Proxy 1
  - Proxy 2
- Storage 1 Zone 1
  - ToR Switch (10G)
  - Account
  - Container
  - Object
- Storage 2 Zone 2
  - ToR Switch (10G)
  - Account
  - Container
  - Object
- Storage 3 Zone 3
  - Mgmt Switch (1G)

Additional components:
- Load Balancer HA (10G)
- Mgmt Switch (1G)
- Aggregation Switch
- Firewall
- Core Switch
- Core Switch
- Aggregation Switch
- Controller
- Firewall
- SwiftStack Controller
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Integrating with Clouds
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http://swift.openstack.org/  
http://swiftstack.com/openstack-swift/  