



Ceph in the Enterprise

Tales from the Trenches

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Agenda

- **Storage Today**
- **Looking at the Future**
- **Customer Use Case**
- **Why Ceph**
- **What Went Right**
- **What Went Wrong**
- **What Comes Next**



Storage Today

- **Expensive**
- **Monolithic Vendor Lock In**
- **Centralized**
- **Proprietary**
- **Performance Oriented**



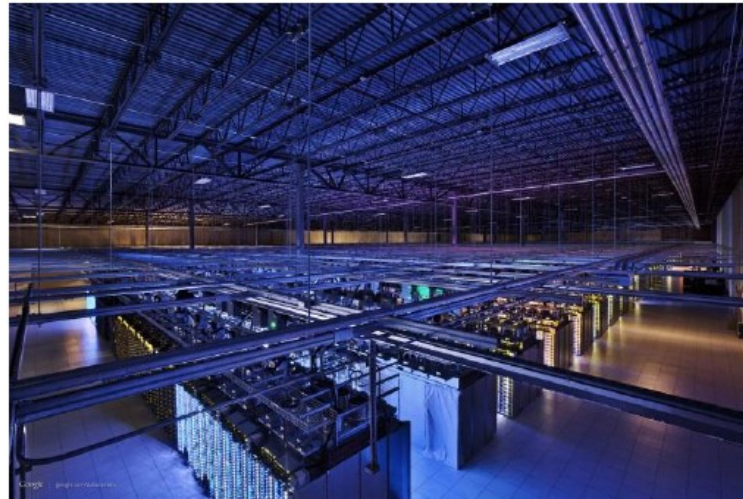
Looking at the Future

- **Data growth is enormous**
- **New use cases**
- **Distributed globally**
- **Flexible access protocols**
- **Data security needs growing**
- **Open Source integration critical**



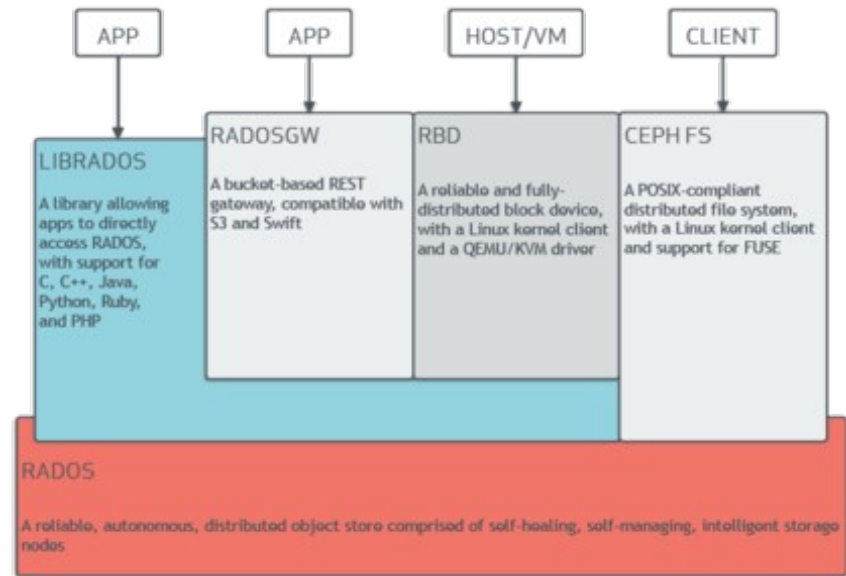
Customer Use Case

- **3 different legacy SANs**
- **2 datacenters**
- **Fully Dockerized or Virtualized workloads**
- **Push for innovation**
- **Need for flexible, scalable, and affordable solution**



Why Ceph?

- Proprietary solutions sucked
- Cost for traditional SANs too high
- Comfortable with open source solutions
- Massively scalable and reliable architecture
- No vendor lock-in
- Good relationship with SUSE
- Chance to speak at SUSECon



What Went Right

Initial storage cost cut in half

Storage growth costs down 80%

No downtime or loss of data

Pace of innovation fantastic

Excellent interaction with SUSE

End users don't know anything changed

Got to speak at SUSECon



What Went Wrong

- Didn't spec out hardware perfectly
- Datacenter availability impacted implementation
- Goals not fully defined before implementation
- Use cases changed over time



What Comes Next

- **Additional scale out of storage capacity**
- **Integration with Software Defined Everything**
- **More upgrades/more features**
- **CephFS maturity**
- **Caching tier**
- **World domination**



Other Current Customer Use Cases

- **Surveillance Video Storage (cephfs)**
- **Unstructured File Data (iSCSI file shares)**
- **Medical Imaging (iSCSI file shares)**
- **Geographically dispersed VM snapshots (iSCSI)**
- **Re-use existing hardware (iSCSI)**





We adapt. You succeed.