



Strong and Free:

*Building a Resilient Data
Store North of the Border*

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Overview

Background

Context

What we're trying to do

Technology Stack

Background

I have some questions for *you!!!*

**What I've learn about
two very different
organizations**

Movement

Ego

Collaboration

Sustainability

Recognition of the benefits of preservation by
decision makers

a ***Process*** for **Selecting** digital materials with
long-term value

Incentive for decision makers to preserve in
the public interest

appropriate ***Organization*** and ***Governance*** of
digital preservation activities

mechanisms to secure an ongoing, efficient
Allocation of Resources for digital
preservation activities

Locally or Consortially?

Hacking Organizations

...or how Nick is incredibly naive

Get to the point man!

What are you trying to do!?



CLOUD.SDSC.EDU

Our Context

Our needs

Small digitization projects

Mass digitization projects

Purchasing or accepting large born-digital donations

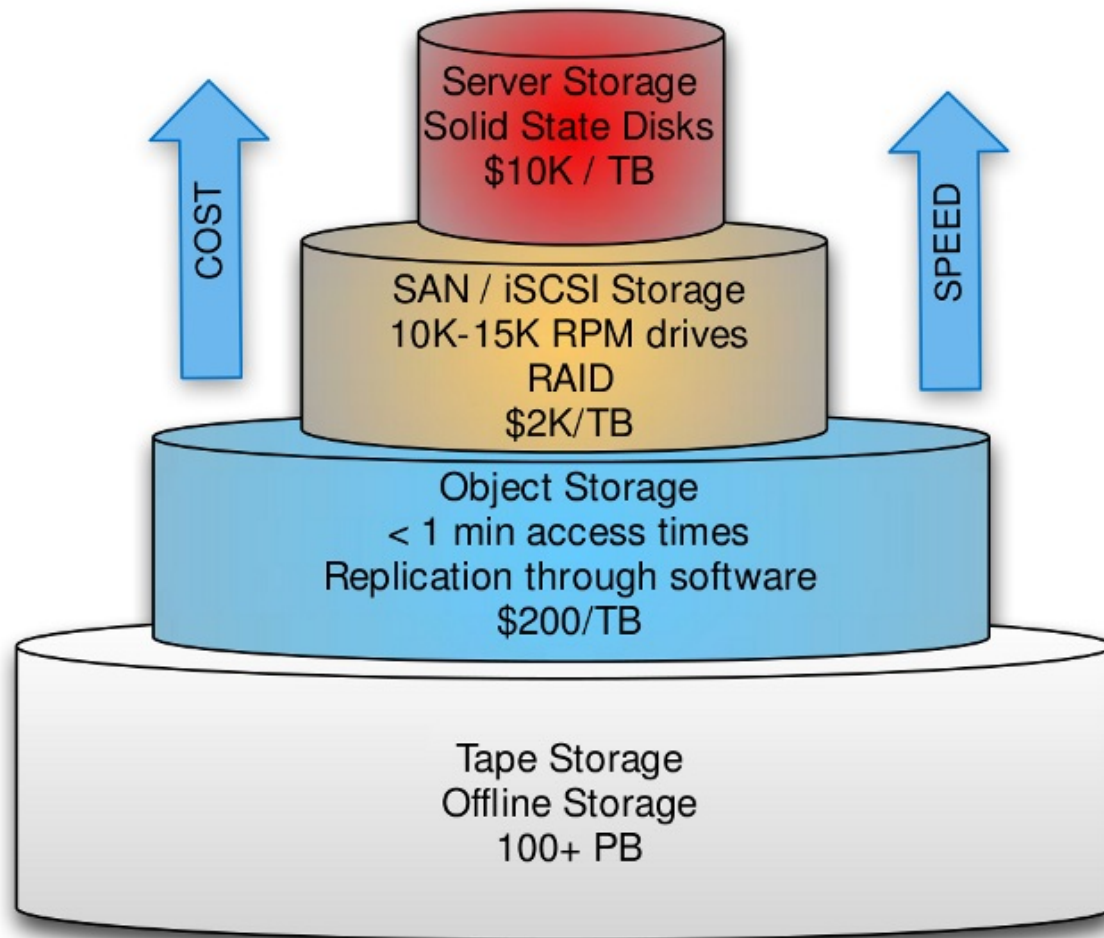
Research data

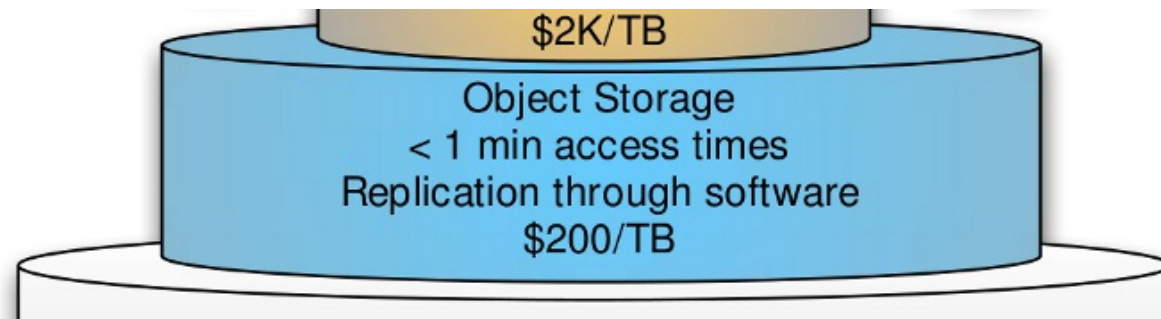
BACKUPS

!=

DIGITAL PRESERVATION

Storage Hierarchies







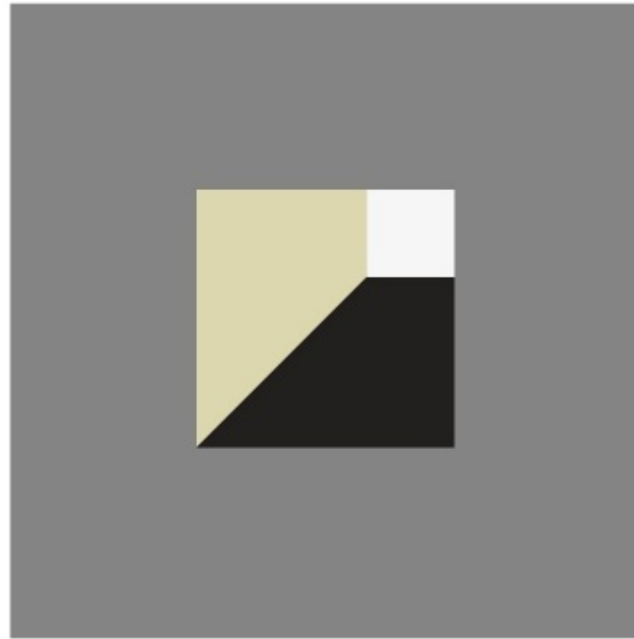
amazon
web services™





BACKBLAZE





PORTICO

Community Storage Clouds

Components

Commodity hardware

Middleware replication and restoration

Geographic diversification

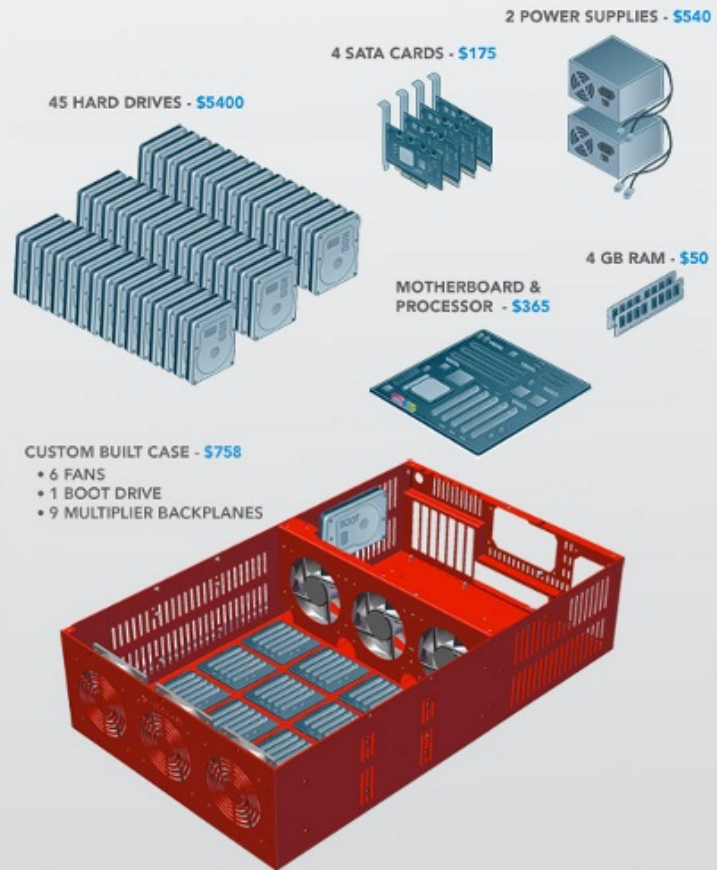
Block and object storage using a common API

Remote management

Scalability

BACKBLAZE STORAGE POD

MAJOR COMPONENTS LIST







What is OpenStack?

"Infrastructure as a Service"

"...massively scalable cloud operating system..."

... oh god the cloud

With a local OpenStack you could...

... easily spin up server space for projects

... do that fun Big Data stuff you've heard
about

... do lots of backups

OpenStack Swift

**How OpenStack Swift
(and S3, and etc) differs
from traditional storage**

Traditional storage:

A drive (or logical group of drives)

Namespace similar to existing (C:, /home)

Not easily expandable/adjustable

OpenStack/swift/S3

Not mounted as traditional drive

Can be grown/shrunk more easily than,
say, a RAID array

exists 'out there'

Is addressable via a REST interface

Contact

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