# Object Storage: A Preferred Infrastructure for Managing Data Distributed across Geographically Separated Storage Repositories

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# Object Store: Key Mechanisms

- **Key Mechanisms**
  - Space management
    - Object store know bytes that are related
  - Attributes tightly coupled to data
    - User extensible
  - Security
    - Fine grain, Credential-based, Can be delegated
- **These mechanisms can enable**
  - Secure remote access to data
    - With or without secure channel
  - Serverless data migration
    - Not yet defined in standard
  - External Integrity
    - As attribute on object
  - Autonomous management
    - Storage knows entities

# Object Store And Grid

- **Object storage is not a grid storage solution**
  - Object store provides mechanisms not policies
- **What is missing for a solution and needs to be provided by higher levels?**
  - Directory service
  - Object placement, migration policies, replica management
  - Distributed authentication/authorization
- **These mechanism can be a preferred infrastructure for Grid storage**
  - Blocks are too low level
  - File interface contains unneeded information which needs to be managed at a higher level
    - UID/GID, name hierarchy, etc.

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