



CSC
ICT Solutions for
Brilliant Minds



Allas Object Storage



ALLAS

What is Allas?

- **Allas** is the new CSC storage service to host data for the project lifetime
 - Connected to all CSC computing and cloud services
 - Possible to upload data from personal laptops or organisational storage systems into Allas
 - Data can also be shared via Internet
- Storage space: 12 Petabytes
 - Default quota for each project is 1 TB
- Project's metadata can be arbitrary

Upload & View

Local Workstation

Web Browser

Process

CSC Super-computers

Measurement Devices

Share

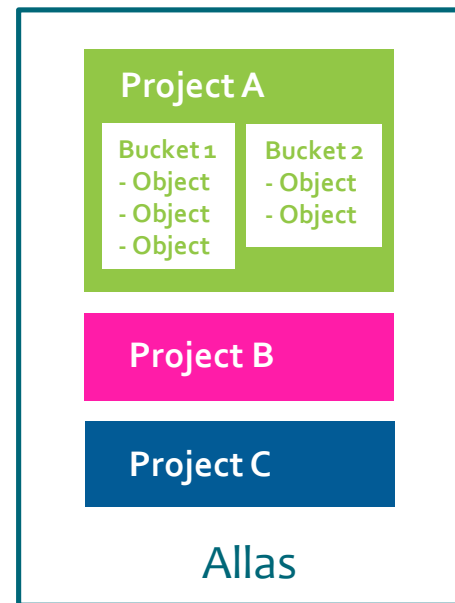


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Allas storage consists of buckets and objects

- Data is stored as **objects** within a **bucket**
 - Blobs of data, can be anything (practically, **object** = file)
 - Project may consist of multiple **buckets**
 - Only one level of hierarchy: no buckets within buckets
- Each **object** can have an URL which can be shared (for example, https://a3s.fi/project_id/my_bucket/my_object)
- **Objects** include metadata as key-value pairs



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What can you do with your buckets?

- Your objects are automatically replicated across the Allas storage system
 - No data loss even if significant part of the Allas infrastructure malfunctions
 - Deleting your objects from Allas cannot be recovered by CSC – Allas does not offer a backup service
- To process your data using Mahti and Puhti, you will have to move the data closer to the supercomputers
 - Data cannot be accessed from Mahti and Puhti using standard Unix commands (`ls`, `cp`, `mv`, etc.)
 - However, CSC offers data management tools that initially use S3 and Swift interfaces (`python-swiftclient`, `s3cmd`, `a_commands`, etc.)

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Questions?



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