



 safespring

SUNET-Dagarna

NAMN

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E-POST

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DATUM

2020-10-08





1. Allmän orientering
2. Uppdatering av status på tjänsterna
3. Backup, Compute, Storage
4. Paus, ca 10:00
5. Safespring Private Cloud
6. Paus, ca 11:00
7. SND

Agenda



Safespring, din säkra källa för infrastrukturtjänster

- Svensk leverantör av infrastrukturtjänster med hög grad av säkerhet, integritet och närhet till kunden.
- Alla sites är direkt anslutna till de akademiska nätverken, SUNET, UNINETT och NORDUnet.
- Tjänsterna erhålls av SUNET antingen i en publik tjänst (resurs per timme) eller ifrån Privat moln
- Tjänsterna är baserade på OpenStack för Compute och Ceph för lagring.
- Ny plattformrelease rullas ut just nu.



Allmän orientering

Compute



Storage

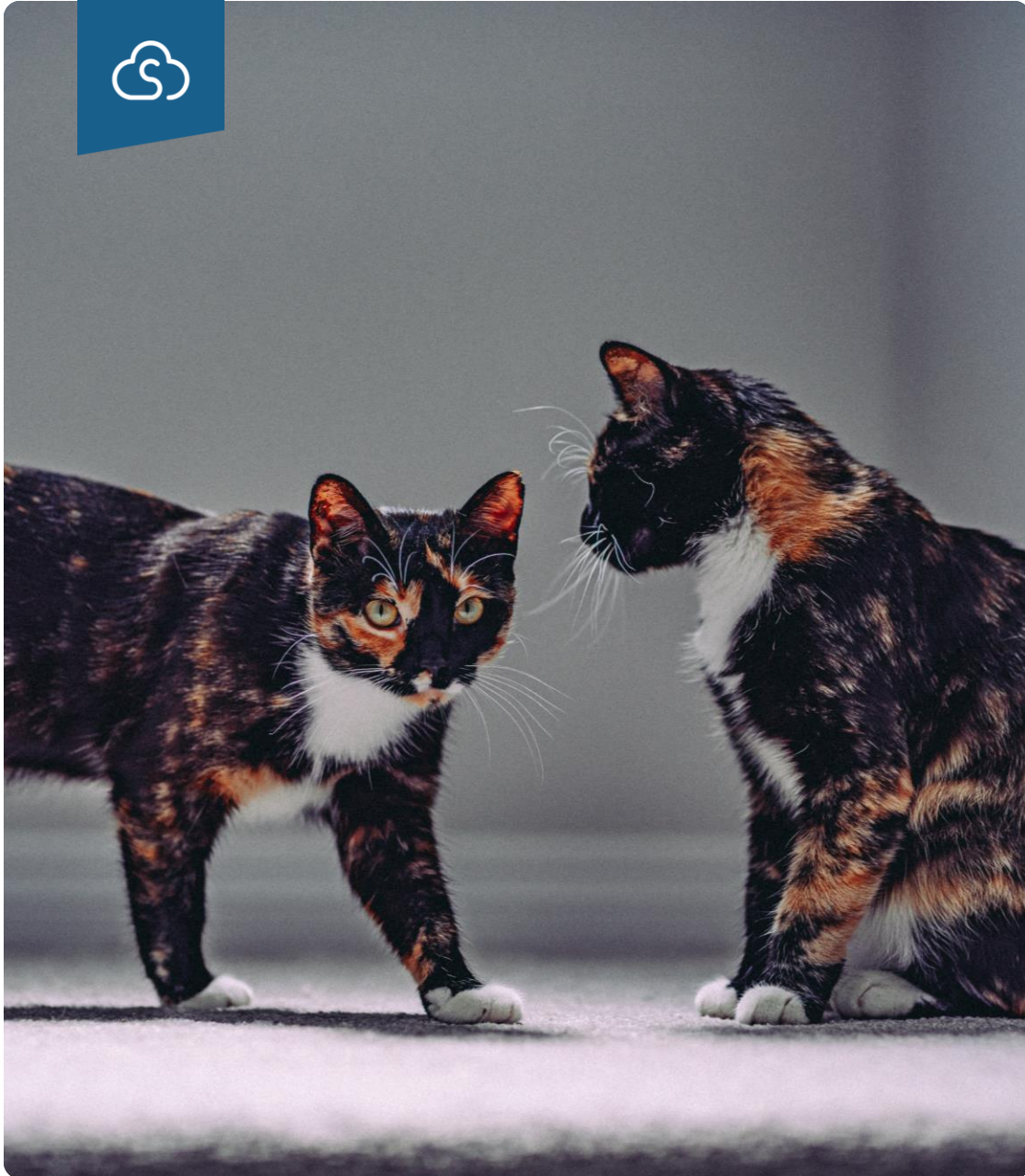


Backup





Safespring Compute

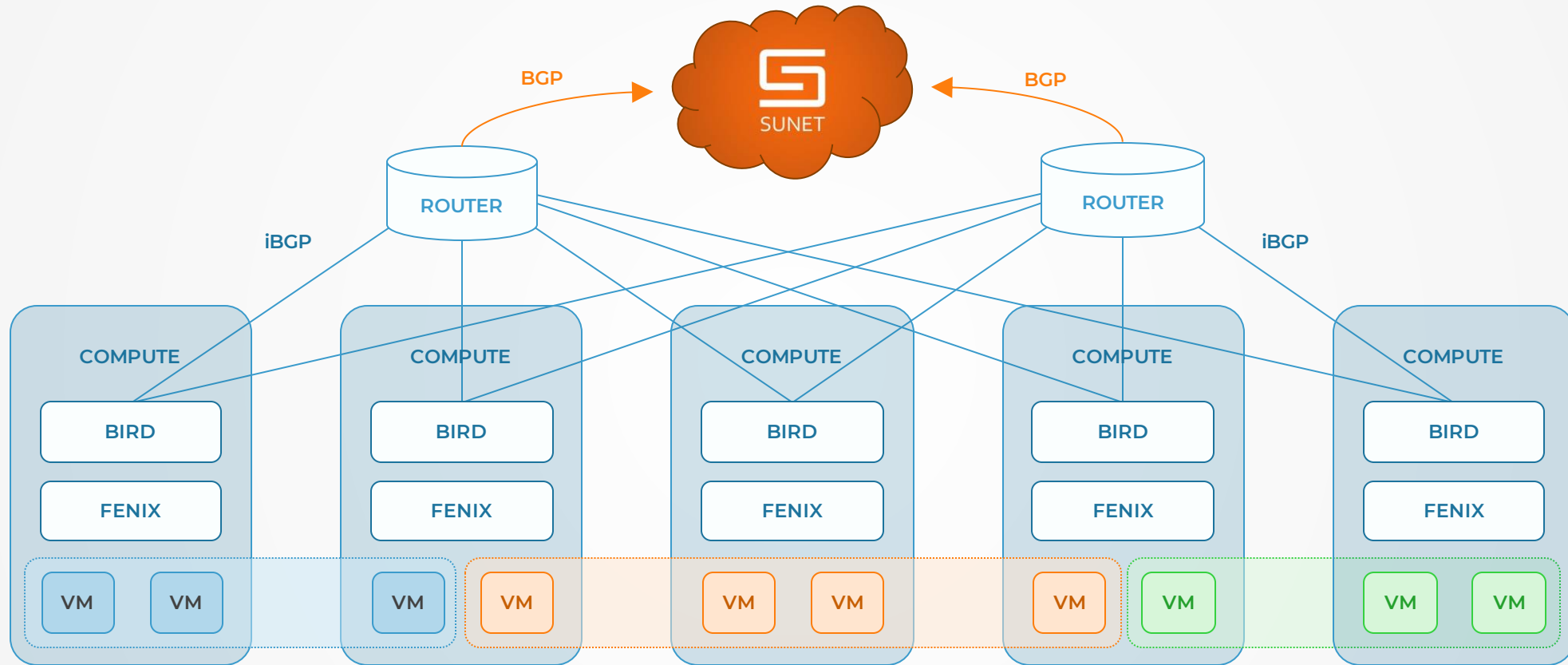


Ny release

- Calico som nytt nätverkslager – vad innebär det?
 - *Minskad komplexitet*
 - *Bygger på BGP – distribuerad lösning istället för centraliserad*
 - *Tre färdiga nät som täcker behoven*
 - *L3-baserad lösning – IP till IP kommunikation*
- Flavors
- Tillgänglighetsfunktioner
 - *Server Groups*

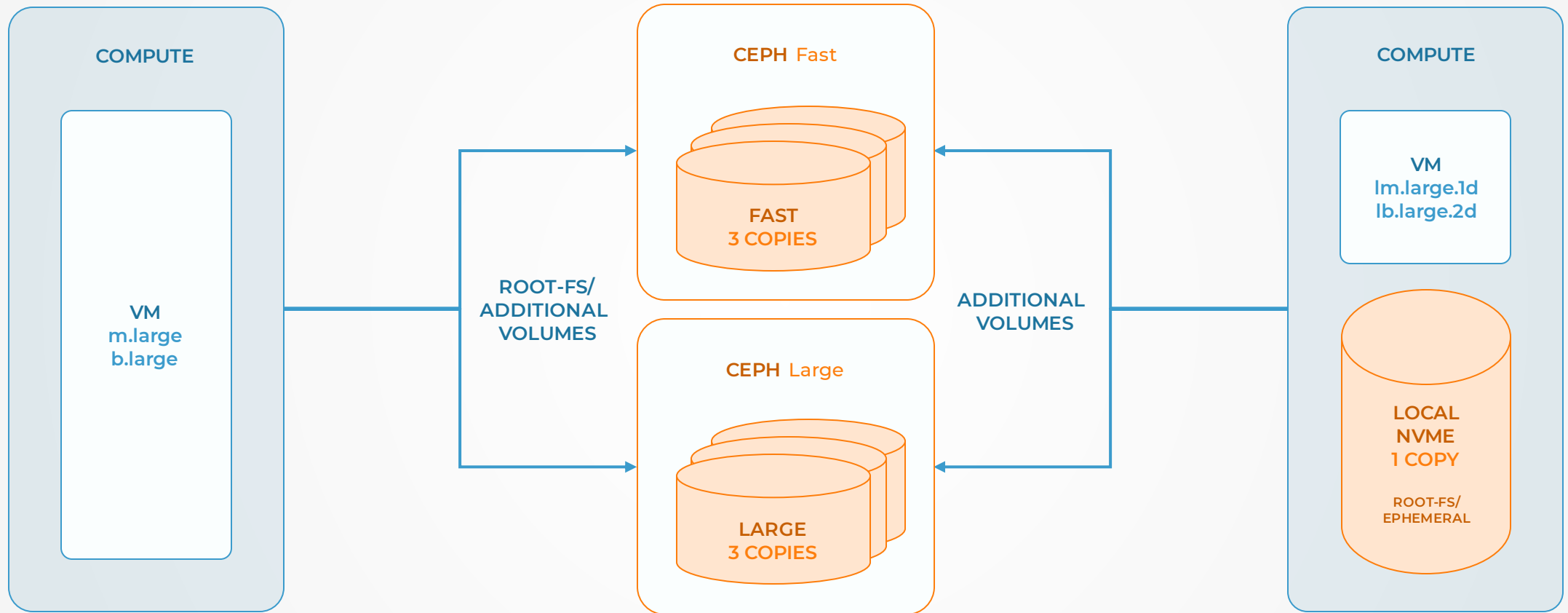


Calico



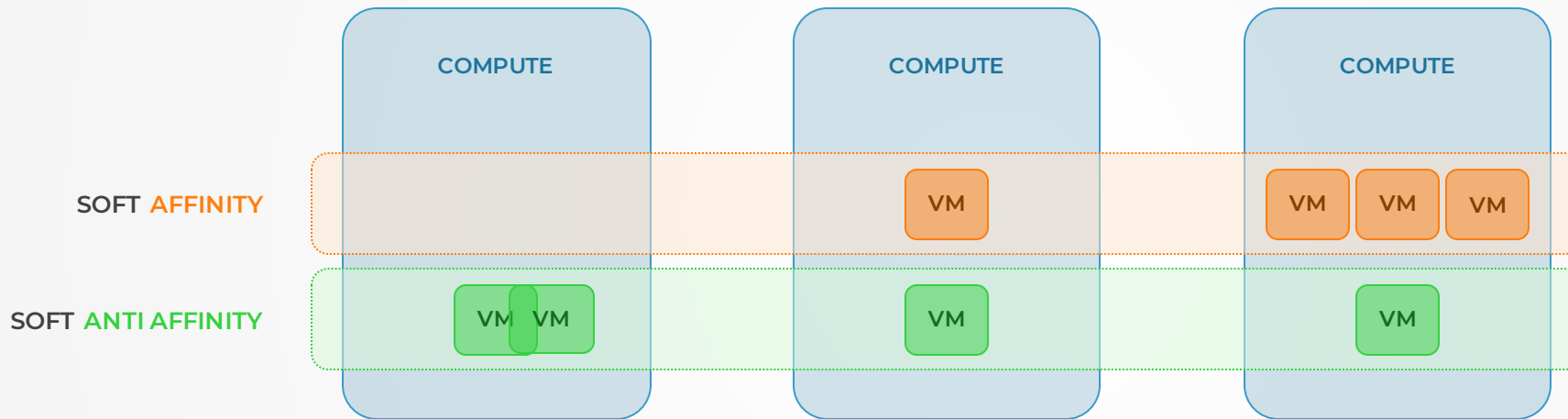


Flavors



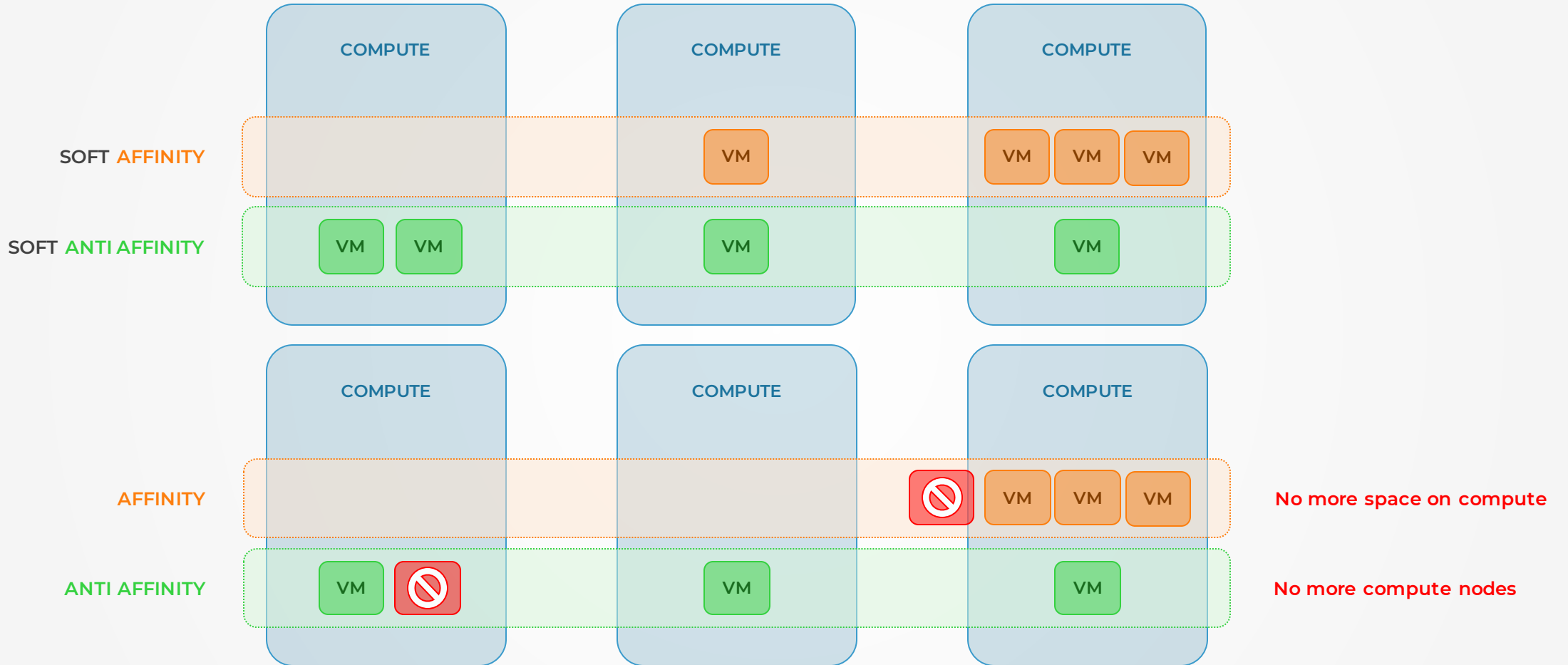


Server Groups





Server Groups

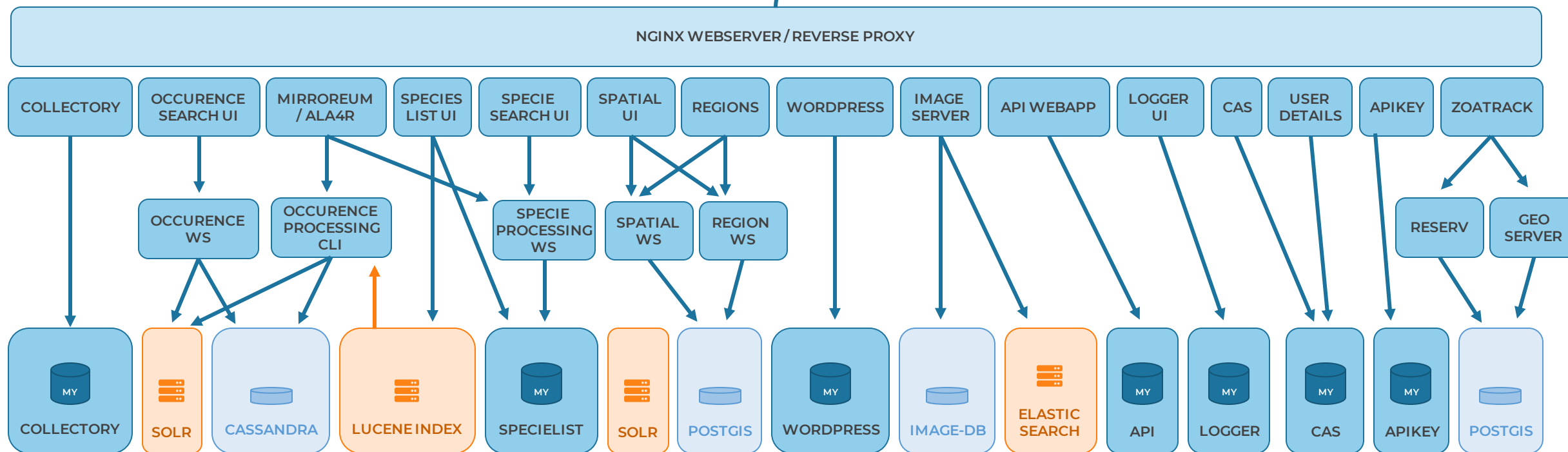




Naturhistoriska
riksmuseet

Naturhistoriska – Bioatlas

Bioatlas Sweden: <https://bioatlas.se/>
Github : <https://github.com/bioatlas/>

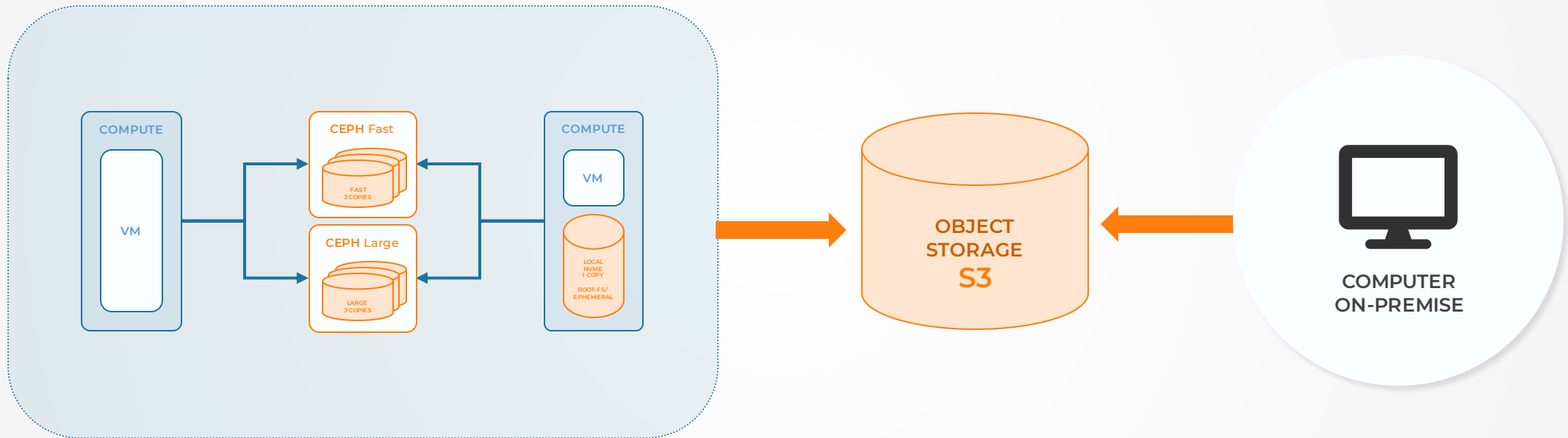




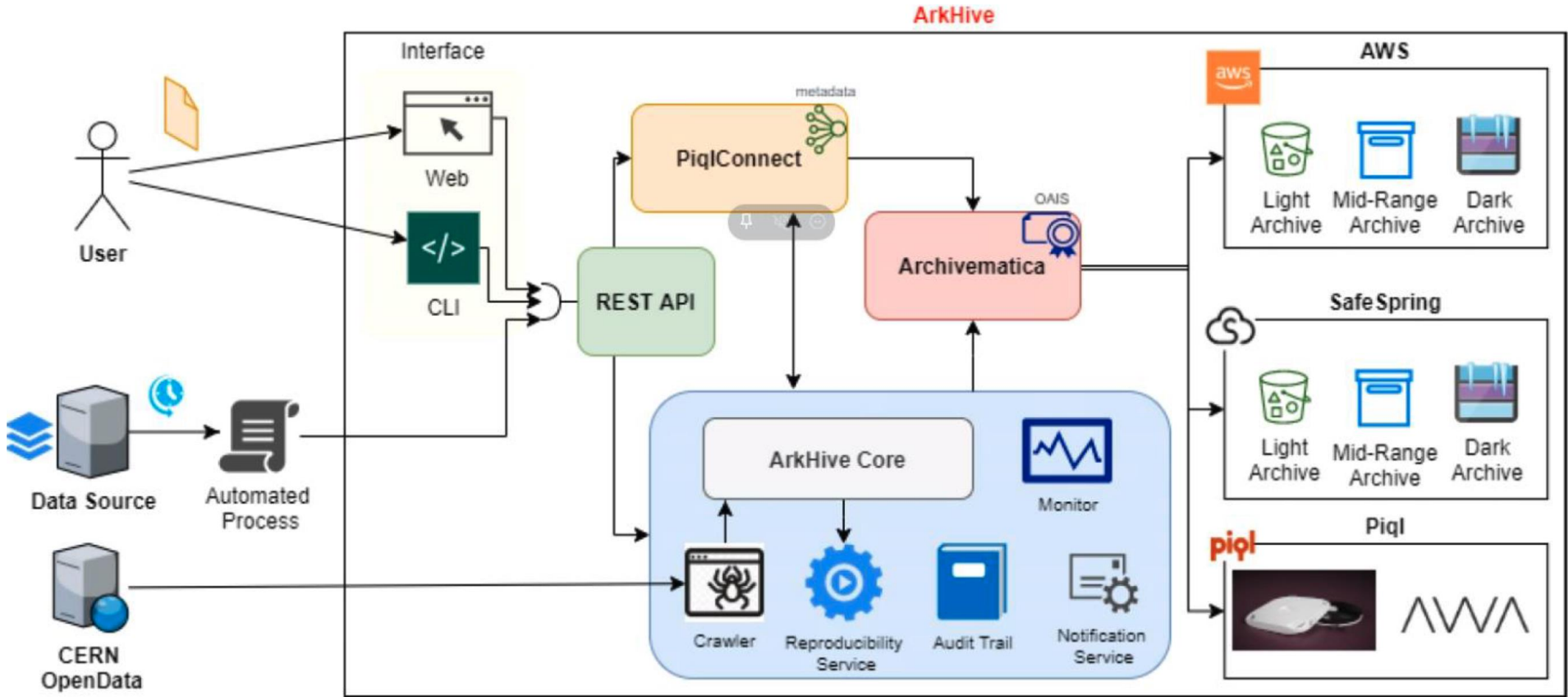
Safespring Storage



Storage types







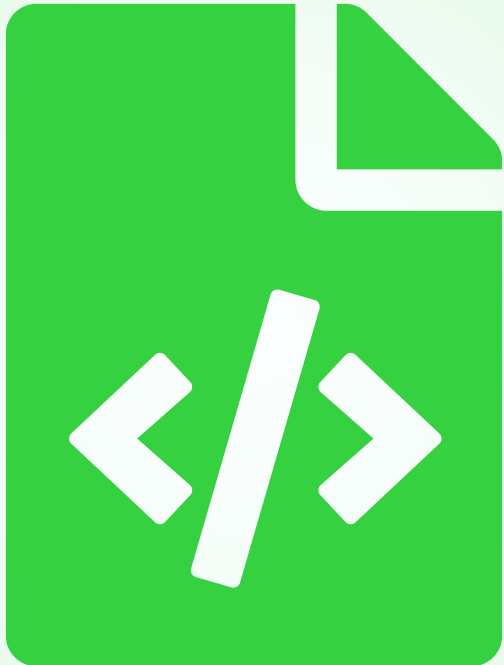


Other S3 use cases



Other S3 use cases

- Static website
 - *(content intensive)*



Other S3 use cases

- Repository for code

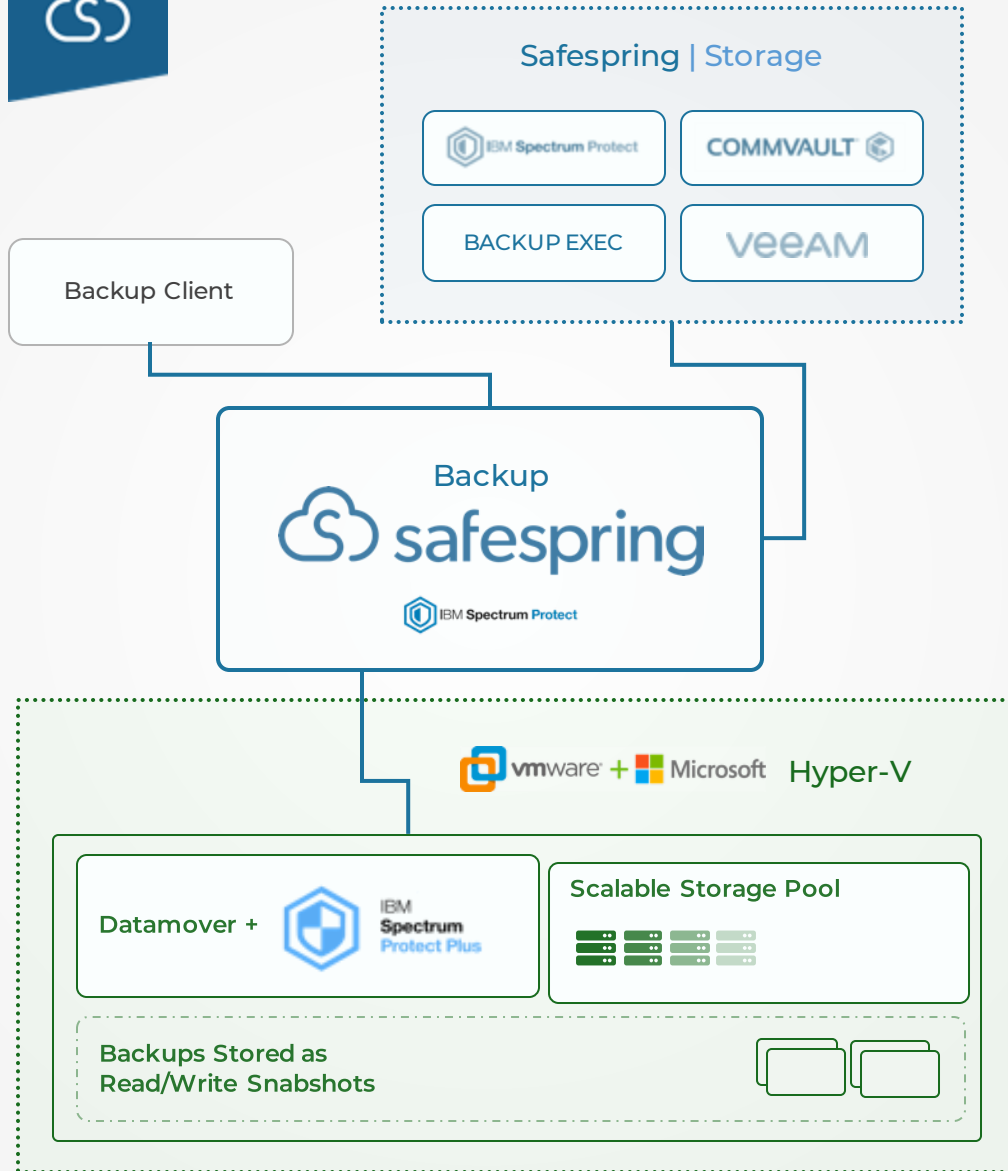


Other S3 use cases

- Simple file sharing solution

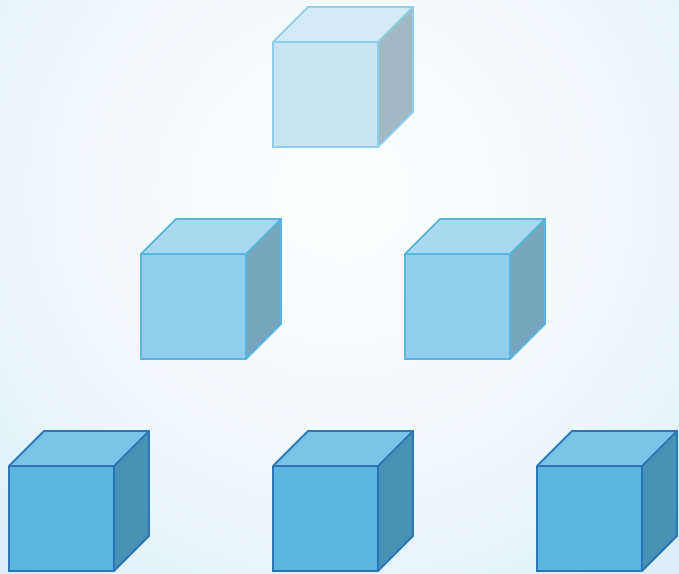


Safespring Backup



SUNET Backup

- Based on IBM Spectrum Protect
- Agent based cloud solution
- Incremental forever
- Billing after deduplication
- Can be combined with Spectrum Protect + to integrate with existing virtualization framework



Offsite backup with S3

- Keep your current backup system on site
- Use SUNET Storage for off-site
- Instead of two redundant backup systems – only one
- Only pay for what you use



Use-case: Stockholm University

- Stockholm University– two datacenters
- Before: two backup systems
- Transition to Commvault
 - Only one system in one of the DCs
 - 3 Hyperscale nodes with GlusterFS
 - SUNETS3 Storage as disaster recovery
- Simple configuration with Commvault
- Backup scheme to send once a week
- Easier investment process with frame agreement

The image shows a screenshot of a laptop screen displaying the 'Add Cloud Storage' dialog box in the Commvault software. The dialog has two tabs: 'General' and 'Advanced'. The 'General' tab is active, showing the following fields:

- Name: Safespring Cloud Storage
- Device Name: StorageDevice#
- Type: Amazon S3
- MediaAgent: cs11
- Access Information section:
 - Authentication: Access & Secret Keys
 - Service Host: s3.sto1.safedc.net
 - Access Key ID: SXI.....@
 - Secret Access Key:
 - Verify Secret Access Key:
 - Bucket: Folder|
 - Storage Class: Standard



Paus



Safespring Private Cloud



Private Cloud – Building blocks

Object Storage

- Primary service
- Cheap and scalable storage
- S3-interface

Compute

- Facilitates processing of the data stored in the private cloud
- Local NVME block storage (fast processing)
- GPU flavor optional, WIP

Block storage

- Option if more flexibility for volumes is needed
- Different tiers if necessary



SUNET Private Cloud siter

STH-B (STO3)

- Compute
 - *Ephemeral storage*
- Object storage
- Roadmap:
 - *GPU flavors*

SU-DC (STO4)

- Compute
 - *Ephemeral storage*
- Object storage



Private Cloud Current projects

- SND: Electronic Archive solution
- File sync and share solution based on Nextcloud

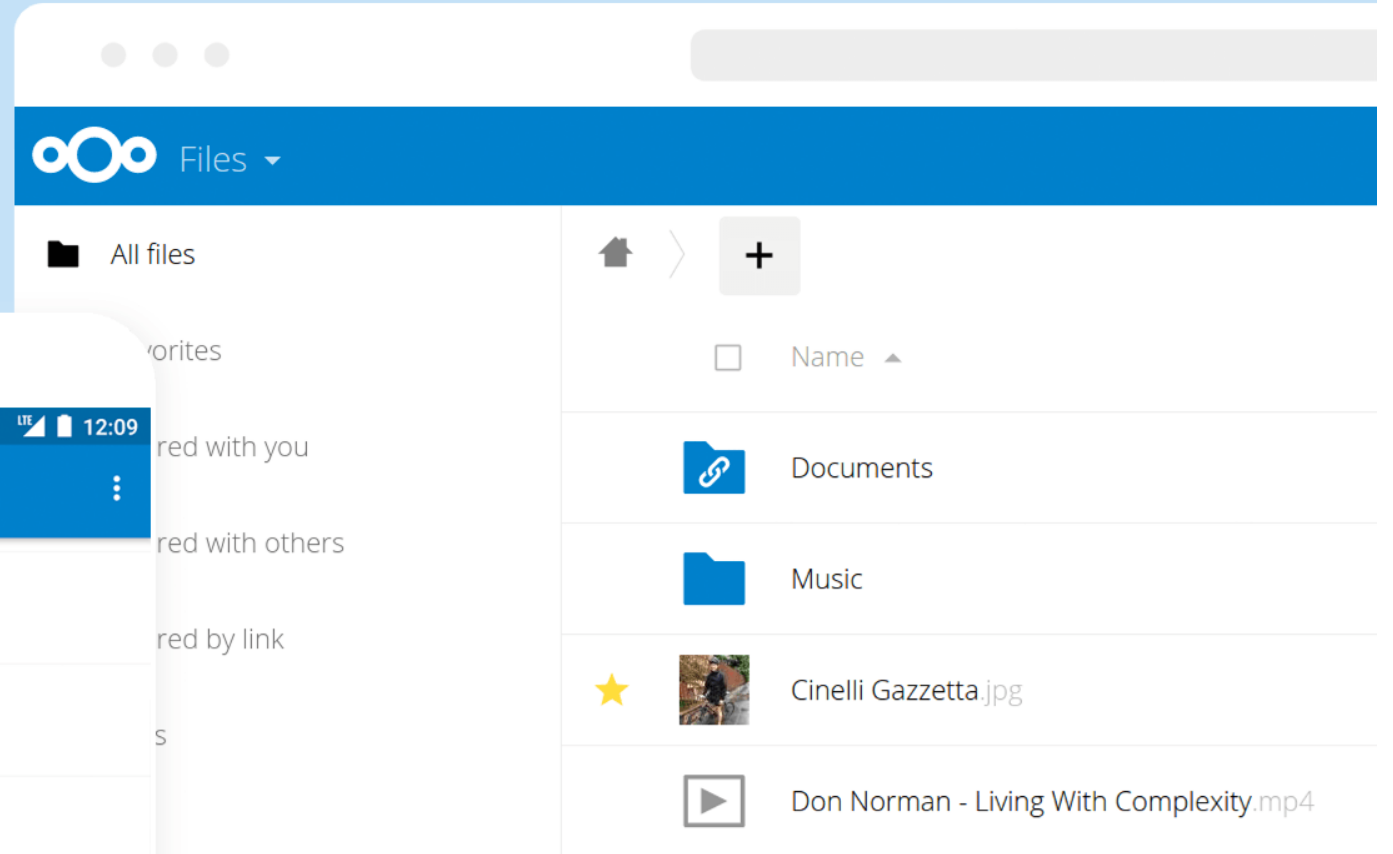
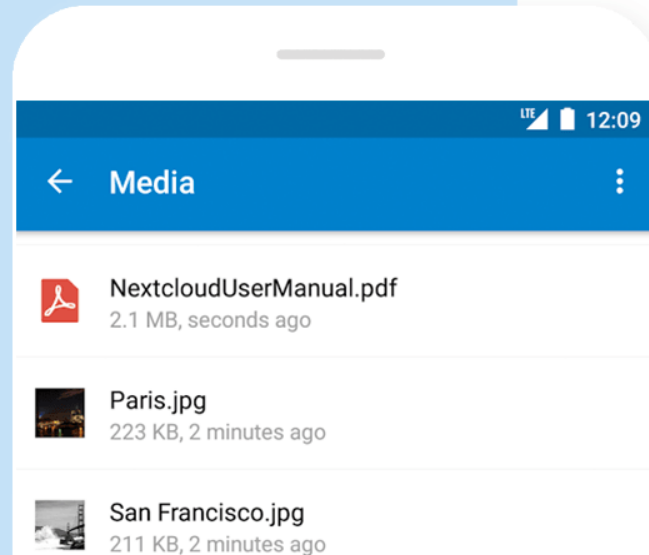


Nextcloud Solution: Design

- Built for scale
- Federated logins
- Object storage as primary storage
- Managed by SUNET NOC
- Entry level 2 PB for own site at campus
 - *Hardware owned by SUNET*
- Otherwise use SUNETs installation at STH-B (STO3)



Stockholm University: Nextcloud Project





Paus



SND

Svensk nationell datatjänst



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