Austrian Tier2

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Overview

- Status of the Site
- Short time goals
- Long term goals

Austrian Tier 2 at HEPHY

- Initial Investment from EGEE times
  - CMS Only
  - Hosted at the Institute
- Newcomers
  - Alice – via grant for Stephan Mayer Institute
  - Belle2 – no real investment yet …
- Manpower
  - 1 FTE & 1 Technician
- Big question
  - Soon significant investment required to renew aging infrastructure
  - How to continue in a sustainable way ?

Resources

CPU

- Supermicro TwinBlades
  - Intel Xeon E5-2680 v2 @ 2.80GHz
  - 800 CPU cores +HT
- HPE Blade System
  - Intel Xeon E5-2660 v3 @ 2.60GHz
  - 480 CPU cores + HT

Storage

- Supermicro Diskserver
- In house upgrade
  - 10 Gbit Network
  - New RAID card
  - 4/8 TB Disks
- Not all servers converted yet
- Up to now CMS only

EOS Storage

- Preparations ongoing
  - Currently liberating some old disk servers
  - In house upgrade with new components
- We aim to start operation before the summer
  - **Please bug me** to stick to my promise!
- We should deliver about 300 TB to Alice
  - Later more

Ageing Infrastructure

- Network components
- Cooling
- UPS
- Storage Servers

- Main issues in the last year
  - UPS breakdown
  - Crate with central services broken after power cut
  - SSD broken

- Under control, but cause unexpected delays in development of the site
- We think we can still run the site for about two years

IPv6

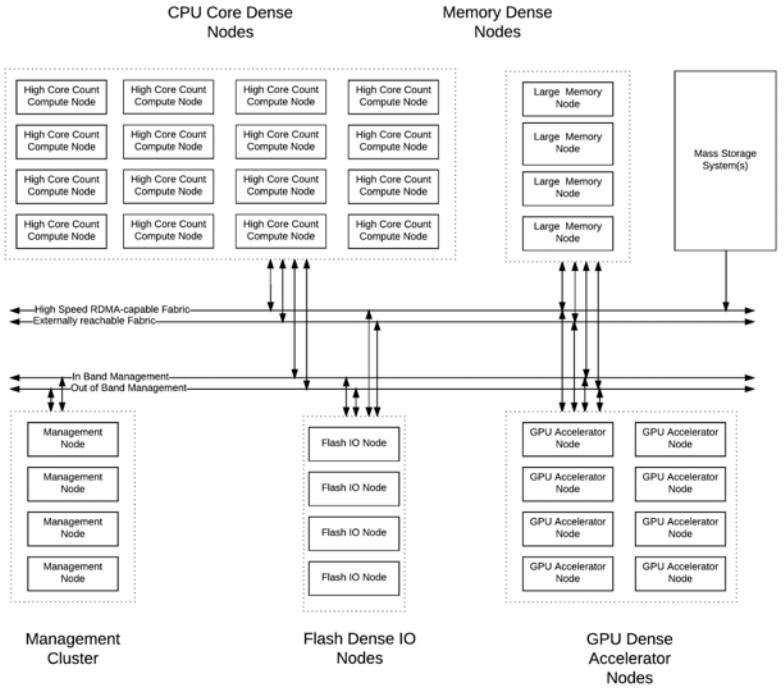
- For sure it will be supported in the next facility
  - New storage only in 2019/2020
- We started to look in the issue
- It should be possible in the current setup
- Similar item: Support for LHCONE

Plans for the future

- Collaboration with Austrian Biologists
  - Large computing needs
  - Well positioned in the Austrian Science Environment
- Joint Analysis facility
  - Next Generation Computing Platform for Life Sciences
  - HPC like infrastructure (e.g. low latency network)
  - Separate storages
- The good and the bad
  - The project was approved in principle
  - Not yet clear when the money will be available

CLIP Design

- Persistent services on a OpenStack Cluster
- Sub clusters with different configuration
  - CPU, GPU, Memory
- HEP on standard cluster



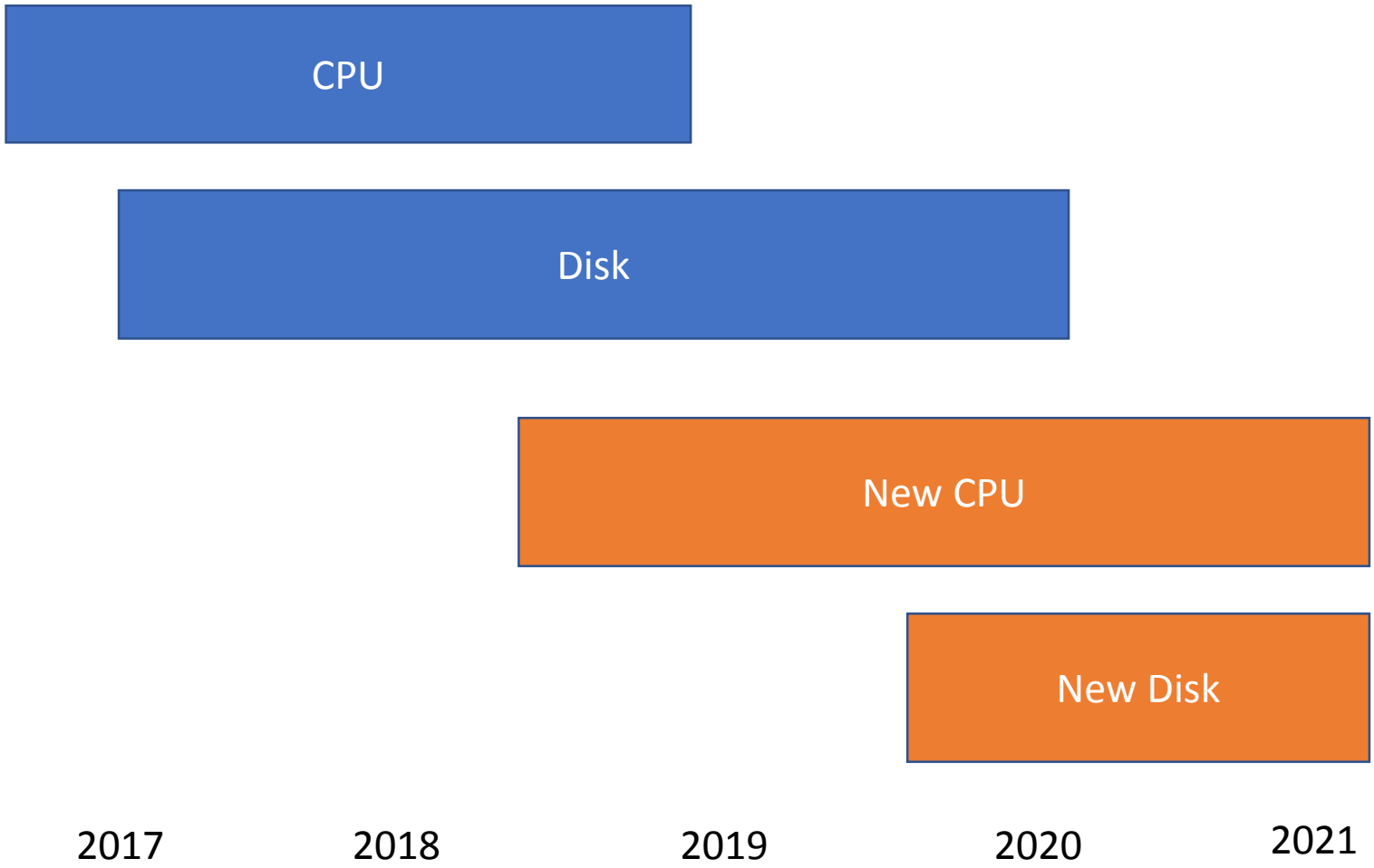
Main technical issue

- Our Biologists like Debian

- Linux Containers will be essential
  - Singularity
  - (or Docker or Shifter)

- I do not yet know
  - Integration with batch system/CE
  - CVMFS
  - EOS

Provisional Timescale*



* Assuming funding can be obtained

Conclusion

- Vienna is running now Alice jobs for about a year
- Storage will be available in foreseeable future

- Plans on how to continue in two to three years are progressing
  - Waiting for a confirmation from the funding agencies