University services for researchers

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IT for Science in a nutshell

HPC

- Development
- Support
- Maintenance
- Consulting

Consulting

- Support for research projects and groups
- CSC services
- Hardware & software

Data engineering

- Support for projects
- Data science, machine learning and deep learning environments and infrastructures

Services

- Services for research groups and departments
- · version.helsinki.fi
- VDI environments
- Cubbli and fuxi laptop images
- etc.

University HPC in 2019

- Trasparent HPC (closer to worstations and laptops)
- 8 New GPU's (P100)
- Greater Scalability (Enable 30+ node MPI jobs)
- Very fast I/O (~1Pb, peak throughput 200 GB/s)
- Up to par software stack and Development Tools (Modules)
- Lowering the Learning Curve (Tutorials, collaboration with Aalto)
- HPC Garage and Workshops
- Investor Groups for better ROI

TURSO

- Combination of Kale, Ukko2, Alcyone etc. clusters
- Part of FGCI
- For batch and interactive use
- 8+4 GPU's
- > 7000 CPU cores
- ~ 1PB storage LUSTRE (fast)



- Cubbli Linux 18, operating system for those who compute
- Software stack designed to support growing from laptop to local clusters to CSC
- Also, support for CUDA computing
- If any software is missing, please contact Helpdesk.



VMware Virtual Desktop Infrastructure (VDI)

- Provide end users access to all of their virtual desktops, applications, and online services through a single digital workspace
- All software already installed
- VMware Horizon Client is installed on Windows 10 and Cubblies
- Available virtual desktops:
 - Cubbli Linux 18
 - Windows 10 for staff
 - Cubbli GPU
 - Windows 10 GPU
- Check out: https://vdi.helsinki.fi



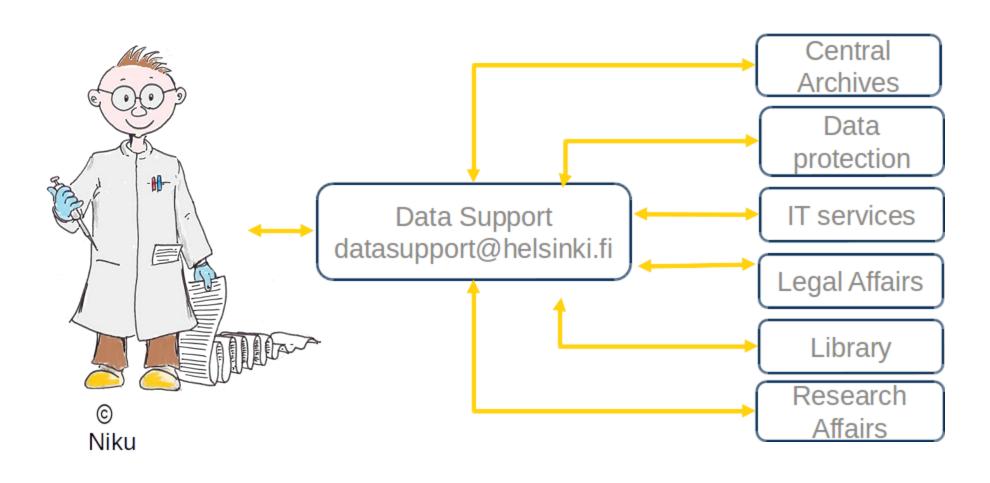
Version.helsinki.fi

- GitLab based version control system for projects
- Internal and shared projects
 - Ideal for research collaboration
- Data is backed up nightly
- Check out: https://version.helsinki.fi/

Data storage services

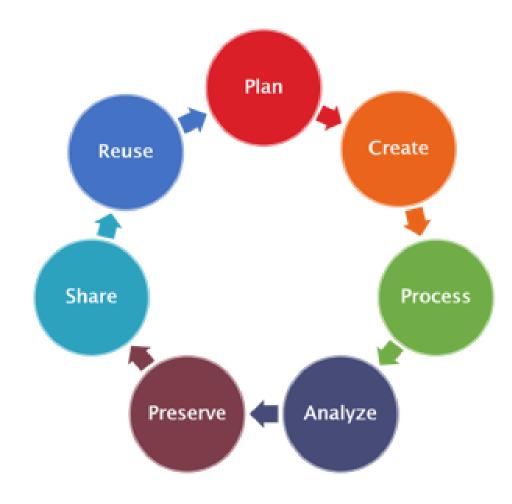
- Current services from UH:
 - Home and group folders
 - virtual servers with NAS (also for sensitive data)
 - NetApp storage cluster (also for sensitive data)
 - Private servers (also for sensitive data)
 - Local services in Kumpula
- Upcoming stuff:
 - EUDAT B2DROP and B2SHARE
 - Datacloud; UH's Ceph storage (with NextCloud or S3)

Datasupport, what it is?



Datasupport in action

- Support with data management plans (for example for Academy of Finland funding applications)
- Training
 - DMP workshops
 - RDM Basics lectures
- Solution consultants
- Data Point in the Kumpula library (on Tuesdays 9:00-11:00)
- More information:
 - https://www.helsinki.fi/en/research/university-of-helsinki-datasupport
 - https://datasupport.helsinki.fi/ or
 - datasupport@helsinki.fi



Local support for national services

- Cloud services (ePouta)
- FAIR Data: https://www.fairdata.fi/
 - IDA
 - Long term preservation: PAS
- https://dmptuuli.fi

Thank you!

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