

Introduction – Phil Kershaw

International Collaborations

Future Science on Future OpenStack: developing next generation infrastructure at CERN and SKA

EOSC-hub: overview and cloud federation activities

Public Clouds, OpenStack and Federation

Technical Challenges – Containers, portability of compute, data movement	Practical challenges
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Running a Container service with OpenStack/Magnum	Aerospace and Cloud Computing
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Large scale Genomics with Nextflow and AWS Batch	Processing patient identifiable data in the cloud
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Best practice in porting applications to Cloud	Jisc ExpressRoute Circuit Service
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Demystifying Hybrid Cloud with Microsoft Azure	The Janet End-to-End Performance Initiative
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Innovative applications, usability and training	Virtual Laboratories and Research Environments
Visualizing Urban IoT data using Cloud Supercomputing	CLIMB
Accelerate time-to-insight with a serverless big data platform	CyVerse UK: a Cloud Cyberinfrastructure for life science
Azure at the Turing	EBI Cloud Portal
HPC – There’s plenty of room at the bottom	Data Labs: A Collaborative Analysis Platform for Environmental Research
Technical Challenges – batch compute on cloud	Technical Challenges – Storage
Matching cloud technologies to Theoretical Astrophysics and Particle Physics applications	Semantic Storage of Climate Data on Object Store
Hybrid HPC – on-premise and cloud	Accessing S3 with FUSE
Running HPC Workloads on AWS using Alces Flight	OpenStack Manila
OpenFOAM batch compute on AWS	Providing Lustre access from OpenStack
	Implementing medical image processing platform using OpenStack and Lustre

- Rolls – algorithm legal restrictions (govt)
 - Hard to track details within their codes
 - Can restrict what they do on which platforms
- Igor – thinking about using the lambda services into clouds
 - Functional programming perspective
- David Fergusson + ?? – conversation regarding inter-cloud provider mobility and (standards..)
 - Effort/overhead to make transition...
- Jisc cloud peerings
 - Janet IP
 - MS Azure, AWS
 - additional SLA ?
 - Difference in egress costs
 - Speak with account managers..
 - C.f. Hotel rack rates....
 - Clearer comms needed
- Jisc end-to-end
- Turing work – all in cloud, no resources of their own
 - Third-party transfers – e.g. Azure Zone to Zone

- Jeremy Yates – inter-processor latencies and comms capacities
 - Part of the HTC, HPC spectrum debate
 - Politically important
- Wrap-up discussion with commercial providers
 - Should there be an academic cloud in the commercial provider space ?
 - NB EOSC & plenary presentation
 - David F – not one, but several...
 - Shallow discussion over Janet network peerings...wrong emphasis..
- ResOps training – led by Erik van den Bergh, EMBL-EBI (parallel to session 3)
- Phil Kershaw seeking input on cloud strategy for feeding into the BEIS/UKRI positioning and ultimately into their eInfrastructure strategy
- Comments from others who were there ?
 - David Fergusson, Simon Thompson, Robin Pinning, Tim Chown...
- Cloud-SIG & WG site - presentations
- <https://cloud.ac.uk/>