

HIBALL

HELMHOLTZ International BigBrain
Analytics & Learning Laboratory

WP4 – Identifying & Overcoming Challenges in
European Bouerrau Installations on HPC Systems
Prof. Dr. – Ing. Morris Riedel

27 May 2021 | Steering Board Meeting



UNIVERSITY OF ICELAND
SCHOOL OF ENGINEERING AND NATURAL SCIENCES
FACULTY OF INDUSTRIAL ENGINEERING,
MECHANICAL ENGINEERING AND COMPUTER SCIENCE

Mitglied der Helmholtz-Gemeinschaft

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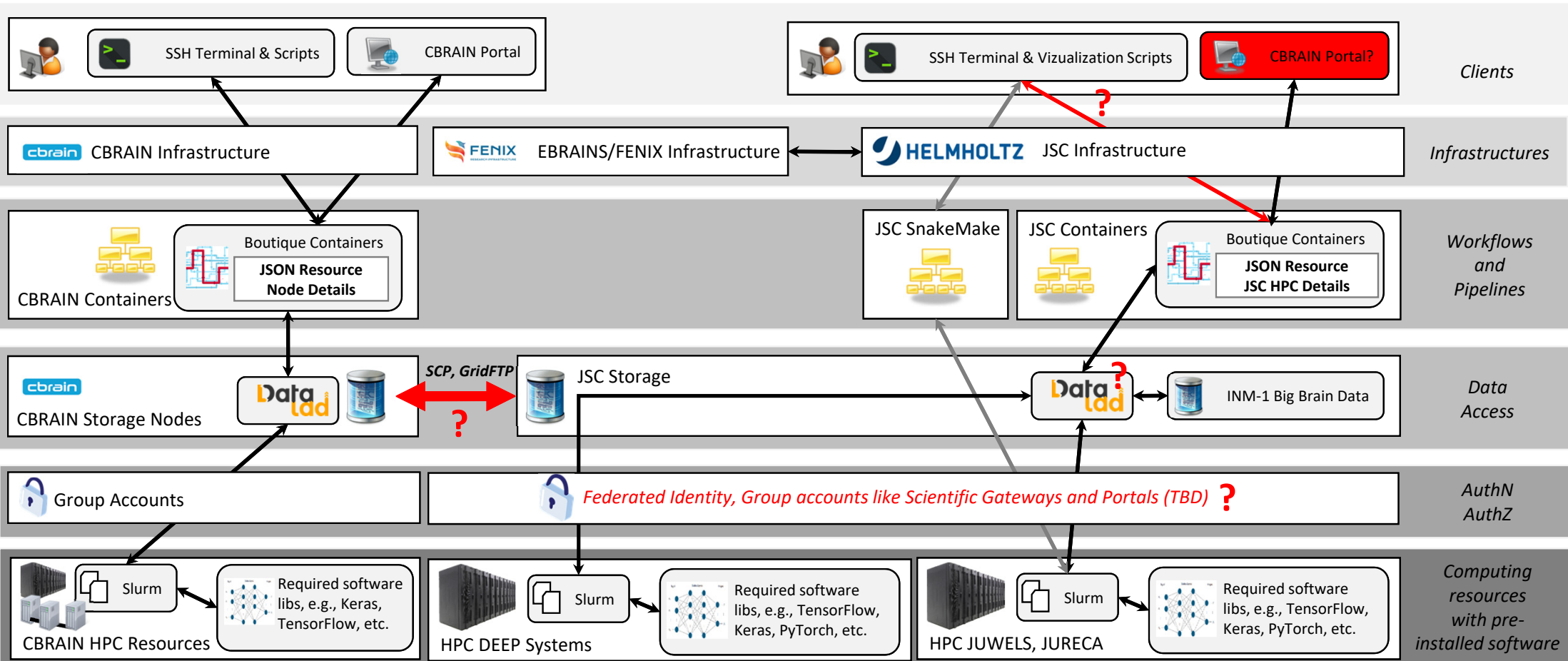
CIFAR



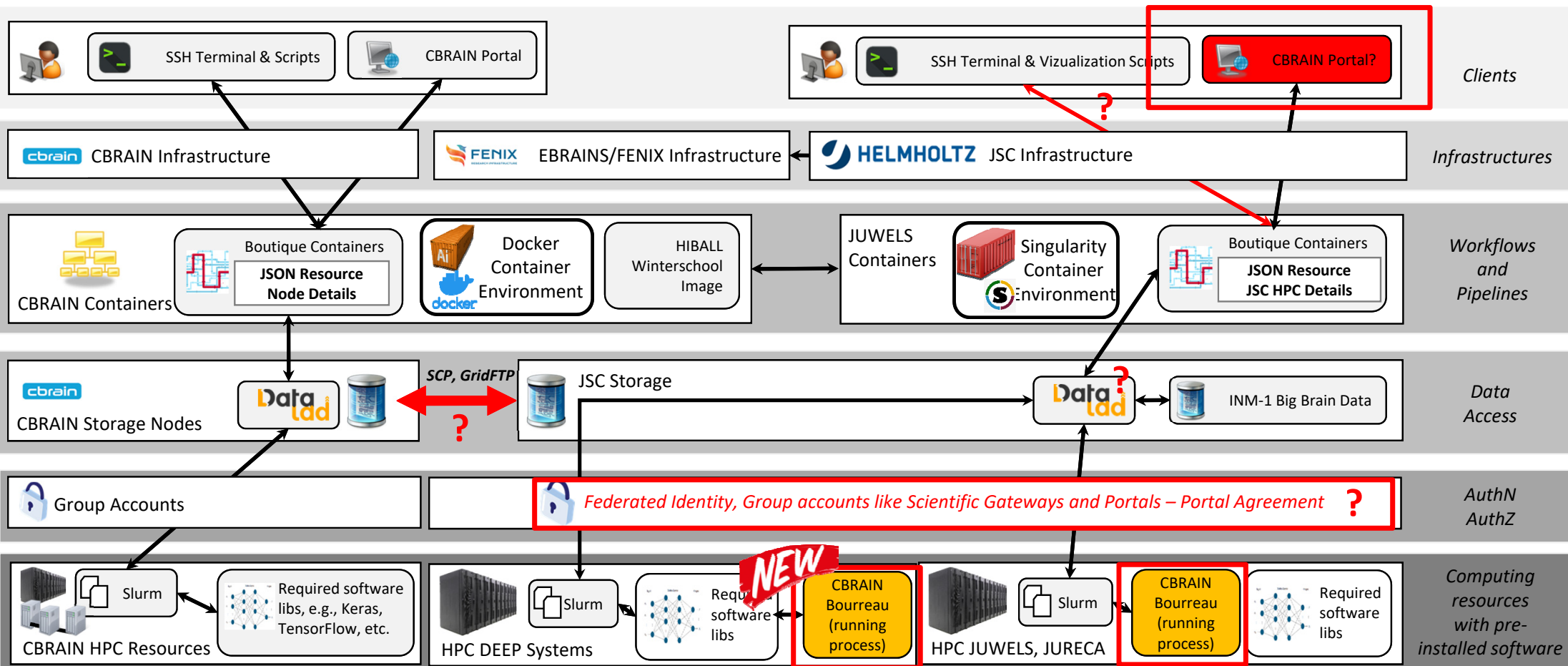
McGill



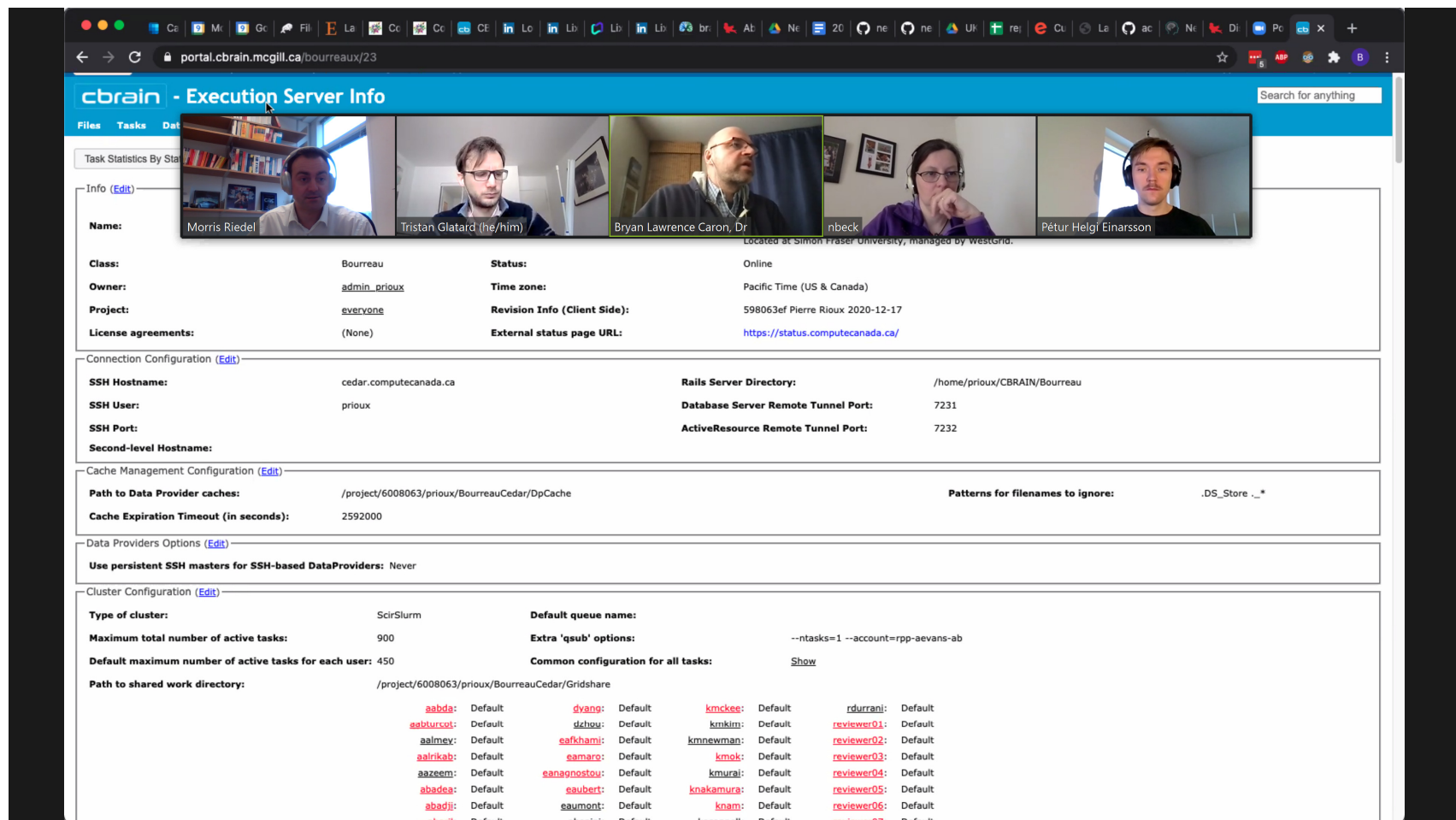
Initial Draft Architecture of Joint Infrastructure



Revised Architecture of Joint Infrastructure (working)



Lots of Meetings – Identified new Challenges



cbrain - Execution Server Info

Search for anything

Task Statistics By Status

Info (Edit)

Name: Morris Riedel, Tristan Glatard (he/him), Bryan Lawrence Caron, Dr, nbeck, Pétur Helgi Einarsson

Class: Bourreau **Status:** Online

Owner: admin_prioux **Time zone:** Pacific Time (US & Canada)

Project: everyone **Revision Info (Client Side):** 598063ef Pierre Rioux 2020-12-17

License agreements: (None) **External status page URL:** <https://status.computecanada.ca/>

Connection Configuration (Edit)

SSH Hostname: cedar.computecanada.ca **Rails Server Directory:** /home/prioux/CBRAIN/Bourreau

SSH User: prioux **Database Server Remote Tunnel Port:** 7231

SSH Port: **ActiveResource Remote Tunnel Port:** 7232

Second-level Hostname:

Cache Management Configuration (Edit)

Path to Data Provider caches: /project/6008063/prioux/BourreauCedar/DpCache **Patterns for filenames to ignore:** .DS_Store, *

Cache Expiration Timeout (in seconds): 2592000

Data Providers Options (Edit)

Use persistent SSH masters for SSH-based DataProviders: Never

Cluster Configuration (Edit)

Type of cluster: ScirSlurm **Default queue name:**

Maximum total number of active tasks: 900 **Extra 'qsub' options:** --ntasks=1 --account=rpp-aeavans-ab

Default maximum number of active tasks for each user: 450 **Common configuration for all tasks:** [Show](#)

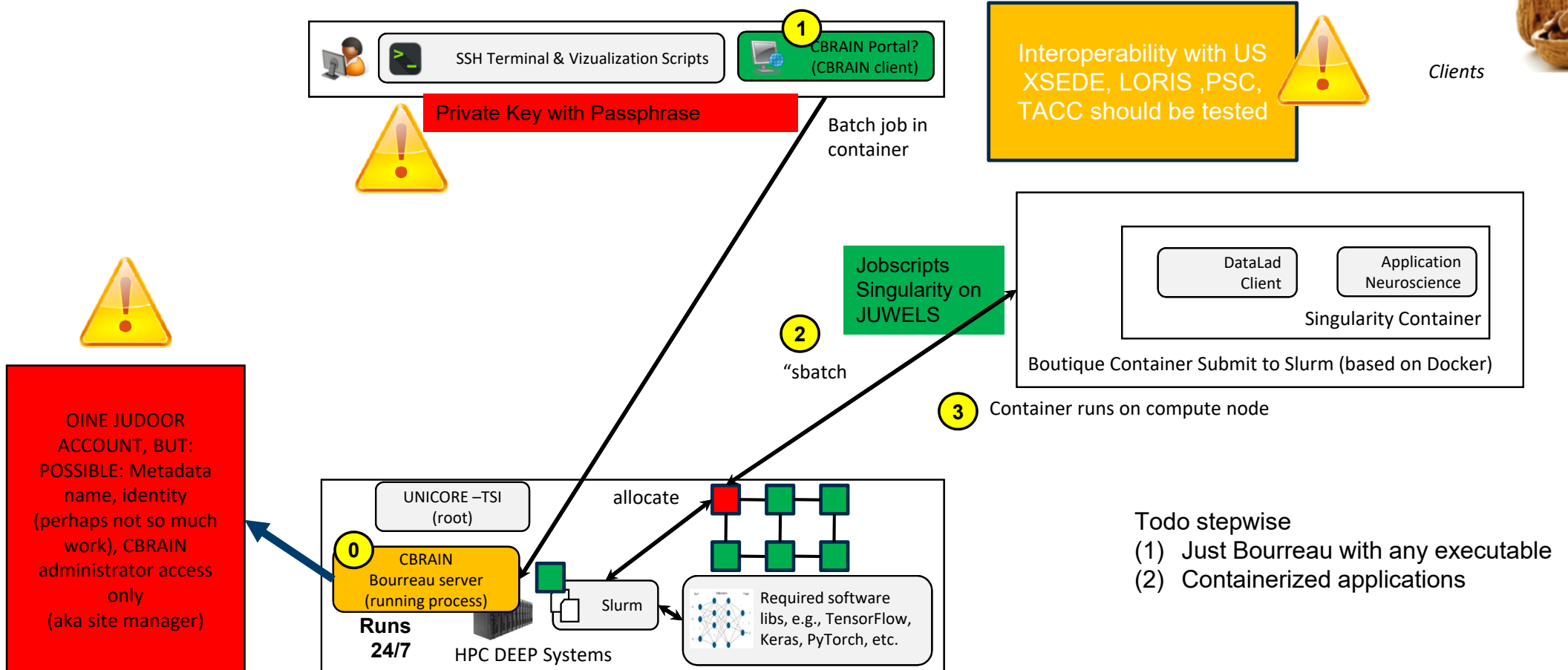
Path to shared work directory: /project/6008063/prioux/BourreauCedar/Gridshare

aabda: Default	gyang: Default	kmckee: Default	rdurrani: Default
gabburcol: Default	gzhou: Default	kmkim: Default	reviewer01: Default
aalmev: Default	safkhami: Default	kmnewman: Default	reviewer02: Default
aalrikab: Default	samaro: Default	kmok: Default	reviewer03: Default
aaazem: Default	saganostoy: Default	kmurai: Default	reviewer04: Default
abadea: Default	saubert: Default	knakamura: Default	reviewer05: Default
abadji: Default	saumont: Default	knam: Default	reviewer06: Default
abadji: Default	ebenini: Default	korconelli: Default	reviewer07: Default

Work-in-Progress – CBRAIN Challenges



Clients



Paper Writing (last SB Meeting)



IEEE JOURNAL OF SELECTED TOPICS IN APPLIED EARTH OBSERVATIONS AND REMOTE SENSING, VOL. 12, NO. Y, JUNE 2019

1

A transatlantic infrastructure to share and process Big Brain datasets

Petur Helgi Einarsson , Mohammad Shahbaz Memon  , *Member, IEEE*,

Morris Riedel , *Senior Member, IEEE*,

Katrin Amunts, *Senior Member, IEEE*,

Canadian Team, Alan Evans, Tristan, Bryan, Natacha Beck, Pierre Rioux, Valérie Hayot-Sasson, *Member, IEEE*,

Abstract—TBD: Later after main part of journal is written

TBD

TBD

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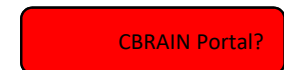
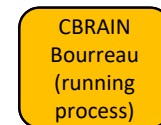
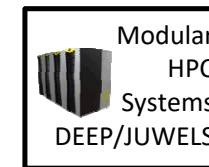
TBD

TBD

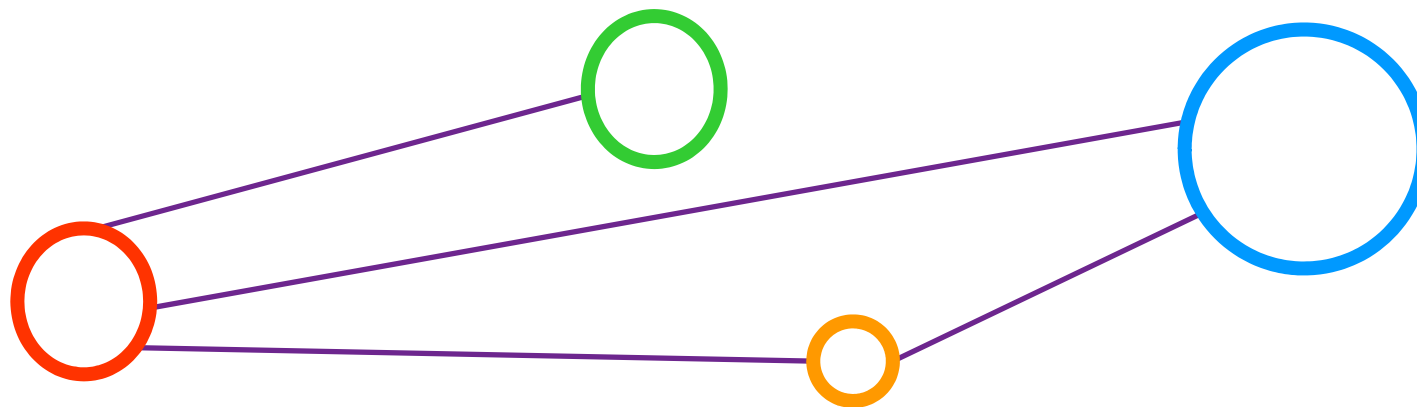
This paper is structured as follows. After the introduction, the scene is set it ...

Summary & Next Steps in WP4

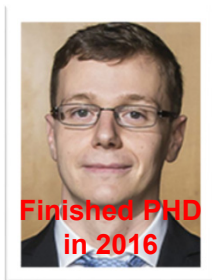
- Many Meetings
 - Joint meetings & FZJ Meetings for Portal Identity
- Progress and new challenges identified
 - **CBRAIN Bourreau** (running process) at JUWELS/DEEP:
Concept is ready, pending administrator dependencies installations, work-in-progress by **Shahbaz Memon** (FZJ, new in HIBALL)
 - Passing identity solution and ssh private passphrase implementation in Bourreau (Pierre)
 - Paper writing in process – not sure where exactly to publish (frontiers in neuroinformatics?)
 - E-LIFE? As another paper more on neuroscience aspects
- Next Steps
 - Finish the **CBRAIN setup** & testing with Containers & integrate fixes with Bourreau
 - Finish paper writing & NeuroLibre(?) → Clarify with Tristan, including analytics tools
 - Testing and validating complete pipelines with DataLad, CBRAIN, and Boutique containers



ACKNOWLEDGEMENTS



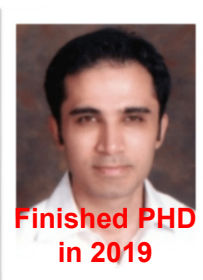
Acknowledgements – High Productivity Data Processing Research Group



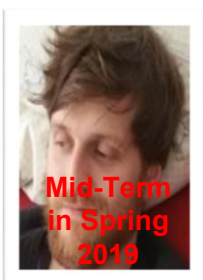
PD Dr.
G. Cavallaro



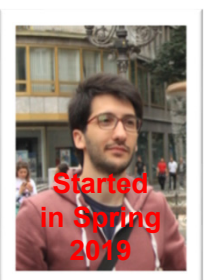
Senior PhD
Student
A.S. Memon



PD Dr.
M.S. Memon



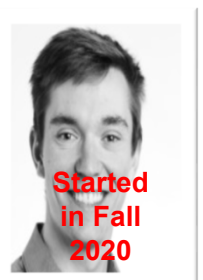
PhD Student
E. Erlingsson



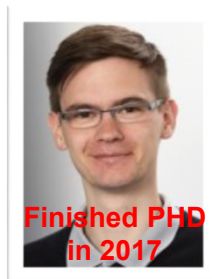
PhD Student
S. Bakarat



PhD Student
R. Sedona



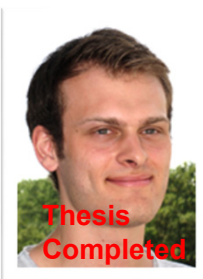
PhD Student
P. H. Einarsson



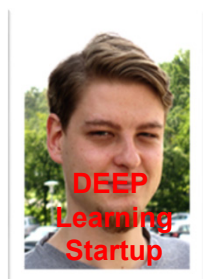
Dr. M. Goetz
(now KIT)



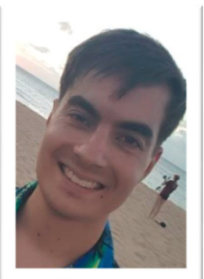
MSc M.
Richerzhagen
(now other division)



MSc
P. Glock
(now INM-1)



MSc
C. Bodenstein
(now
Soccerwatch.tv)



MSc G.S.
Guðmundsson
(Landsverkjun)



PhD Student
Reza



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