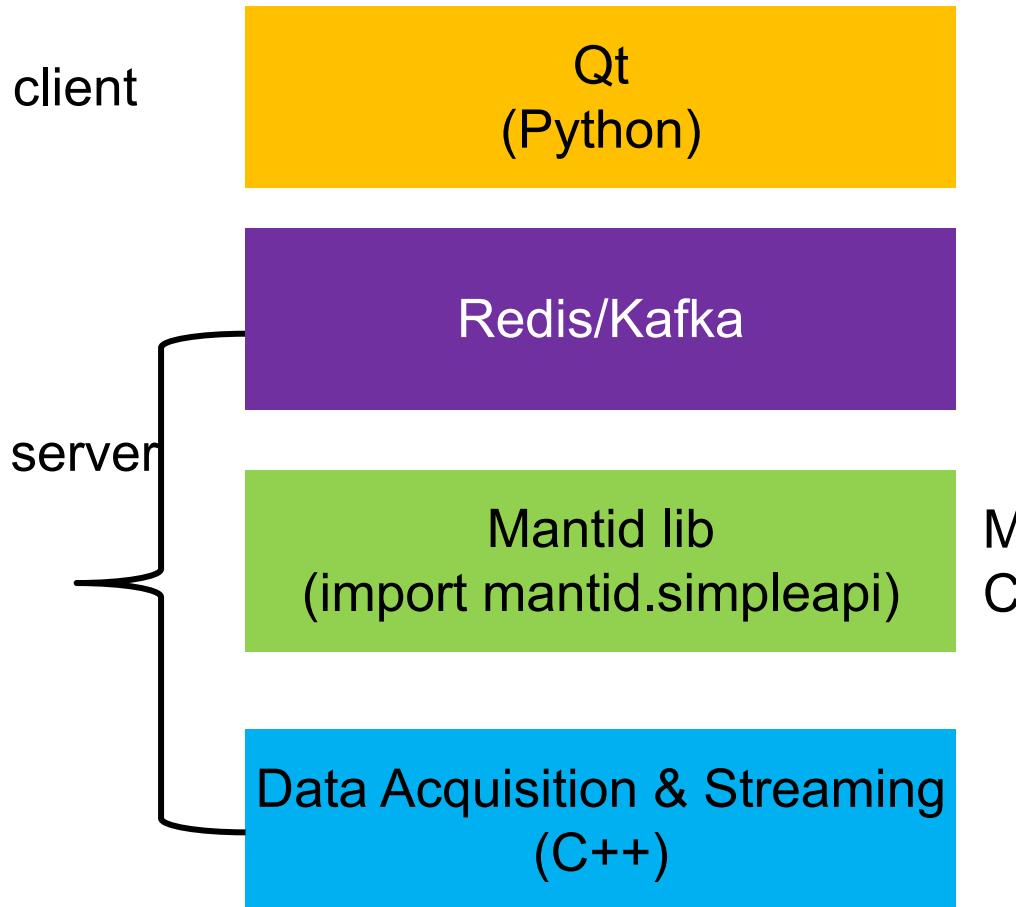


# Using Mantid at CSNS

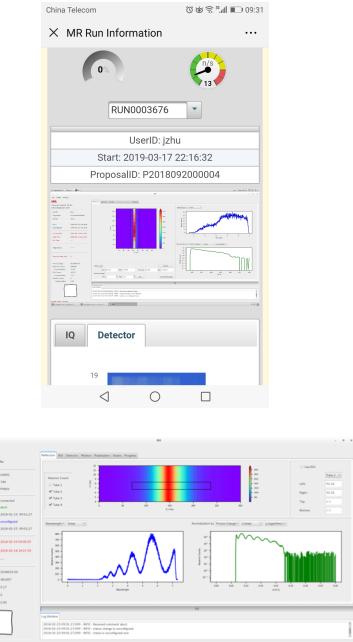


- 1 Data Analysis and Visualization for each instruments  
Online Experiment  
Web Viewer
- 2 Data Reduction for users  
Web Portal by Cloud  
Web Portal by Flask

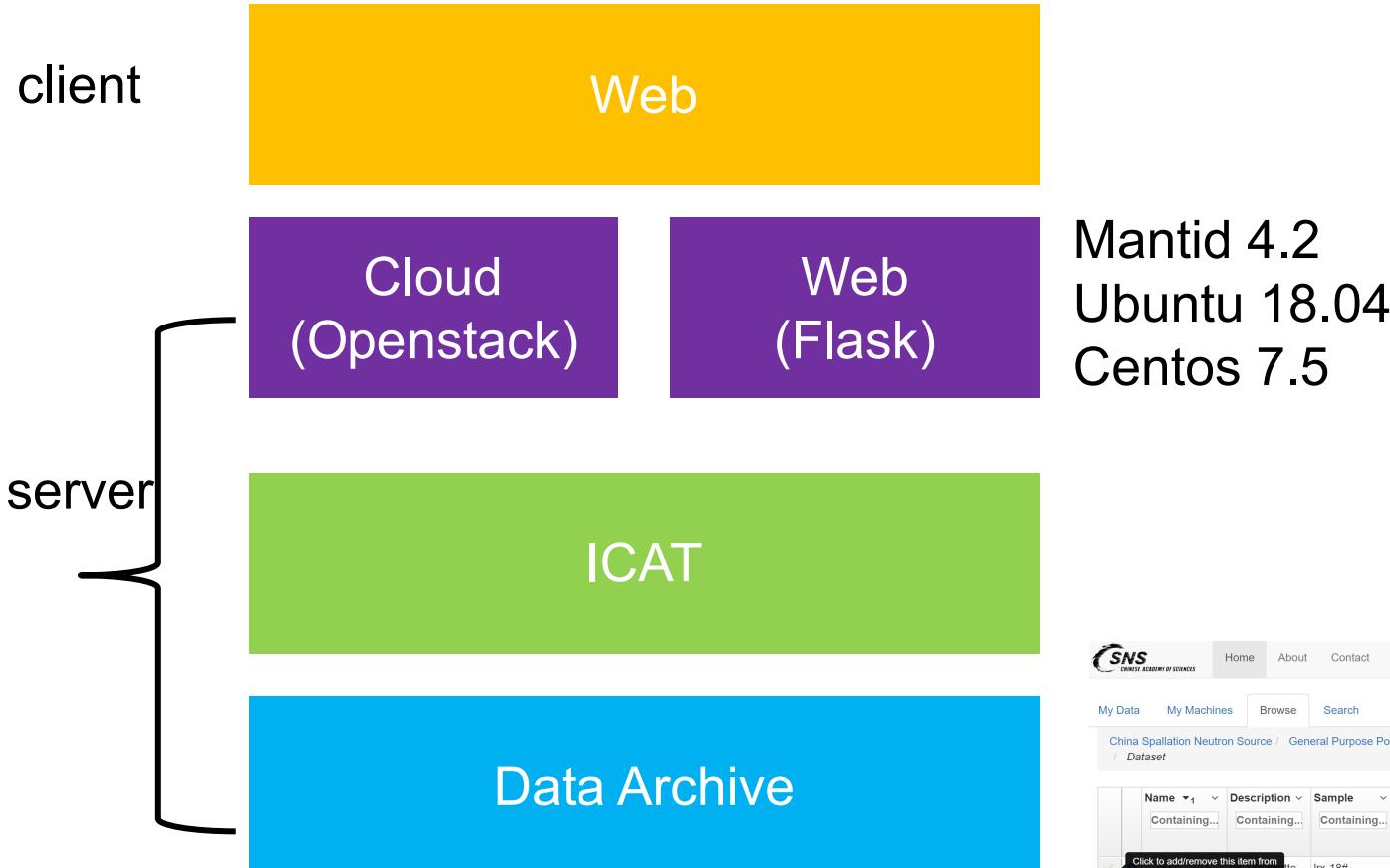
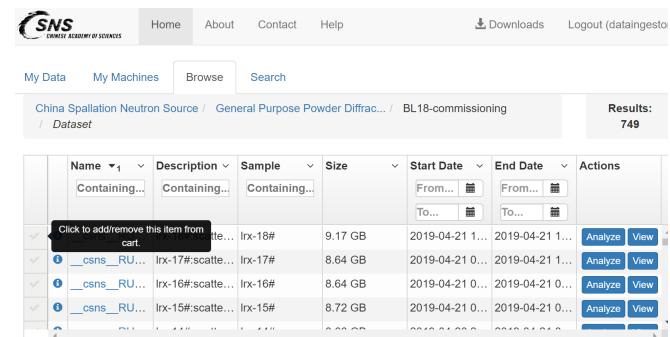
# Online Analysis and Visualization



Mantid 3.6  
Centos 7.5



# Data Portal

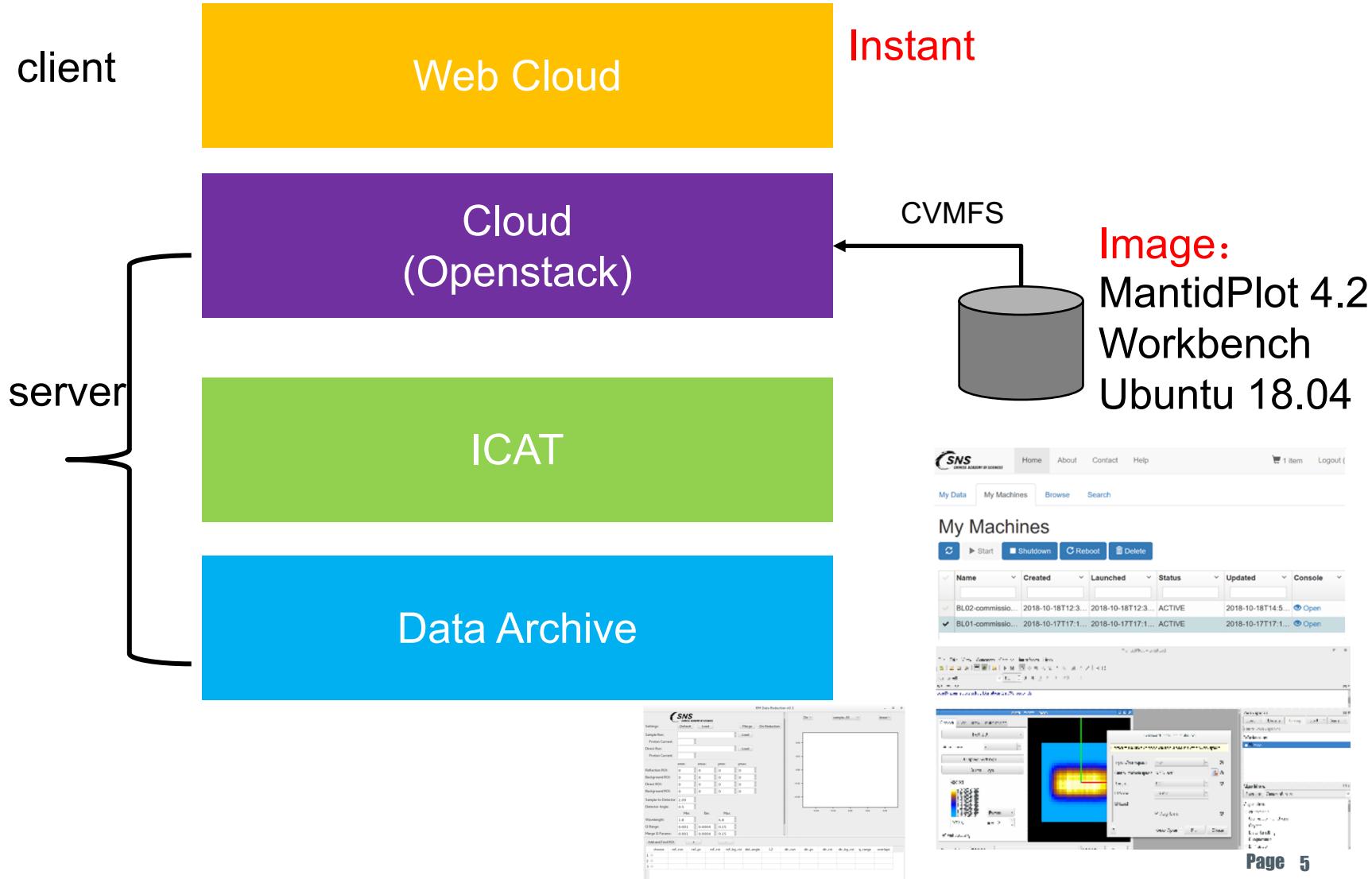



The screenshot shows the Data Portal's user interface with the following elements:

- Header:** SNS logo, Home, About, Contact, Help, Downloads, Logout (dataingest0)
- Breadcrumbs:** China Spallation Neutron Source / General Purpose Powder Diffractometer / Dataset
- Search Bar:** My Data, My Machines, Browse, Search
- Table:** A list of datasets with columns: Name, Description, Sample, Size, Start Date, End Date, Actions. One row is highlighted with a red border.
- Bottom Buttons:** Dataset Details, Dataset Type

Name	Description	Sample	Size	Start Date	End Date	Actions
Click to add/remove this item from cart.	Containing...	Containing...	Containing...	From... To...	From... To...	Analyze View
lrcsns_RU...	lrx-17#;scatte...	lrx-17#	8.64 GB	2019-04-21 0...	2019-04-21 1...	Analyze View
lrcsns_RU...	lrx-16#;scatte...	lrx-16#	8.64 GB	2019-04-21 0...	2019-04-21 0...	Analyze View
lrcsns_RU...	lrx-15#;scatte...	lrx-15#	8.72 GB	2019-04-21 0...	2019-04-21 0...	Analyze View

# Cloud



## Web Application

client

Web

server

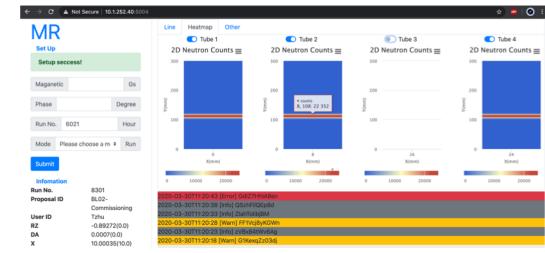
Flask

Kubernetes

Micro-services  
Mantid 4.2  
Ubuntu 18.04

ICAT

Data Archive



# Development Environments

git + gerrit

Jenkins

Centos  
Ubuntu

Windows

Mac  
Pro

# Coming Facilities of Institute of High Energy Physics, CAS

## I China Spallation Neutron Source (CSNS)

Phase I: 100 kW

- 2018-: 3 beamlines (operation)  
Diffractometer, SANS, Reflectometry
- 2019-2022 8 beamlines(under construction)  
2 PD, 1 PDF, 1 DG, 1 VSANS, 1 Engineering, 1 Imaging



Phase II: 500 kW, 9 neutron + 2 muon beamlines (planned)

- 2021(?) - 2028

## II High Energy Photon Source (HEPS)

- 2019-2025: 13 beamlines



## III Southern Advanced Photon Source (SAPS)

- 2026? planned



## To Do

- 1 git merge
- 2 build servers
- 3 MantidPlot and Workbench development
- 4 reduction for Imaging and Engineering Diffraction
- 5 contribute to Mantid