Community Experiment

controls

compatible collection protocols

clean data: normalize values

pipelines

extract tractography

register to atlas

Community Experiment

Serverless Computing (AWS Lambda)

HPC Cluster (XSEDE)

Community Experiment

Cloud Server

Jupyter Notebook

Vertex ID

Connection Strength

0

0.5

1

(a) Definition of a community experiment with processing pipelines and data controls
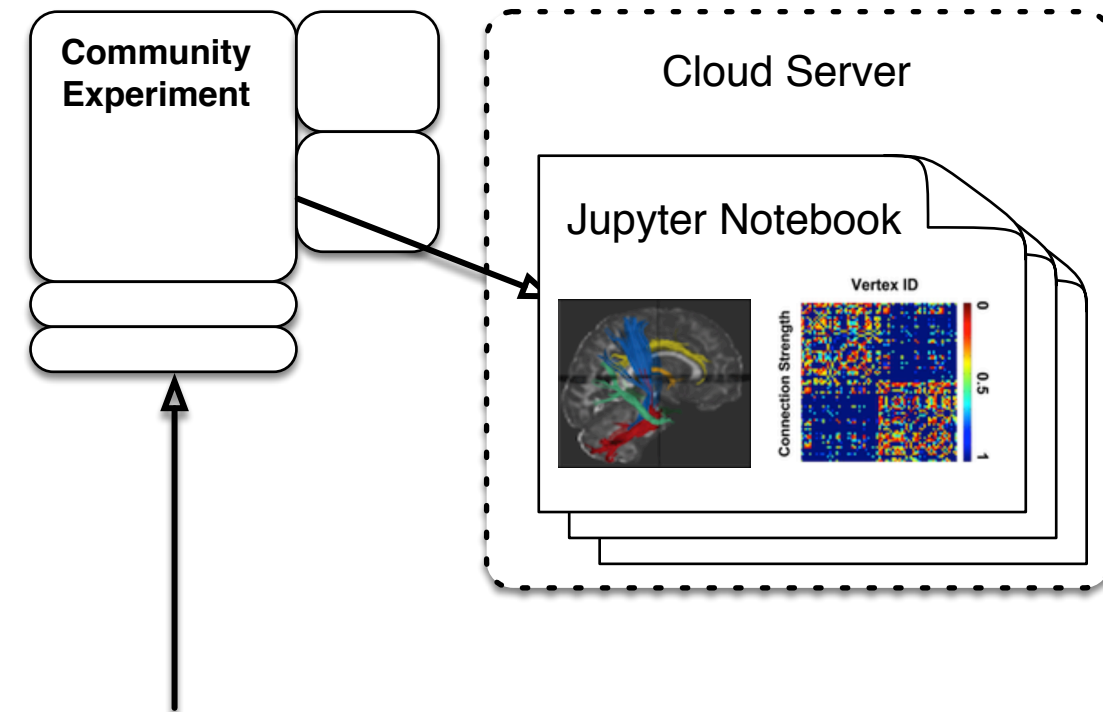
(b) Uploading an MRI image extracts tractography, uploads derived data, and runs checks against MRI input data and pipeline output.

(c) An analysis session launches a server-side Jupyter notebook that provides visualization, statistics, and interactive analysis.