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# ***Hands-on Tutorial Deploying JupyterHub with Kubernetes on Jetstream***

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# Why?

- **Jupyter Notebooks for workshops:**
  - > 50 students
  - preconfigured software + data
  - just need their browsers
- **Interactive computing for Science Gateways**
  - companion to standard Science Gateway
  - in-situ post-processing and visualization
  - no need to download results

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# *What?*

- **JupyterHub (Jupyter Notebooks for multiple users)**
- **Lots of RAM and CPU to users -> distributed**
- **Users run inside pre-packaged Docker/Singularity container**

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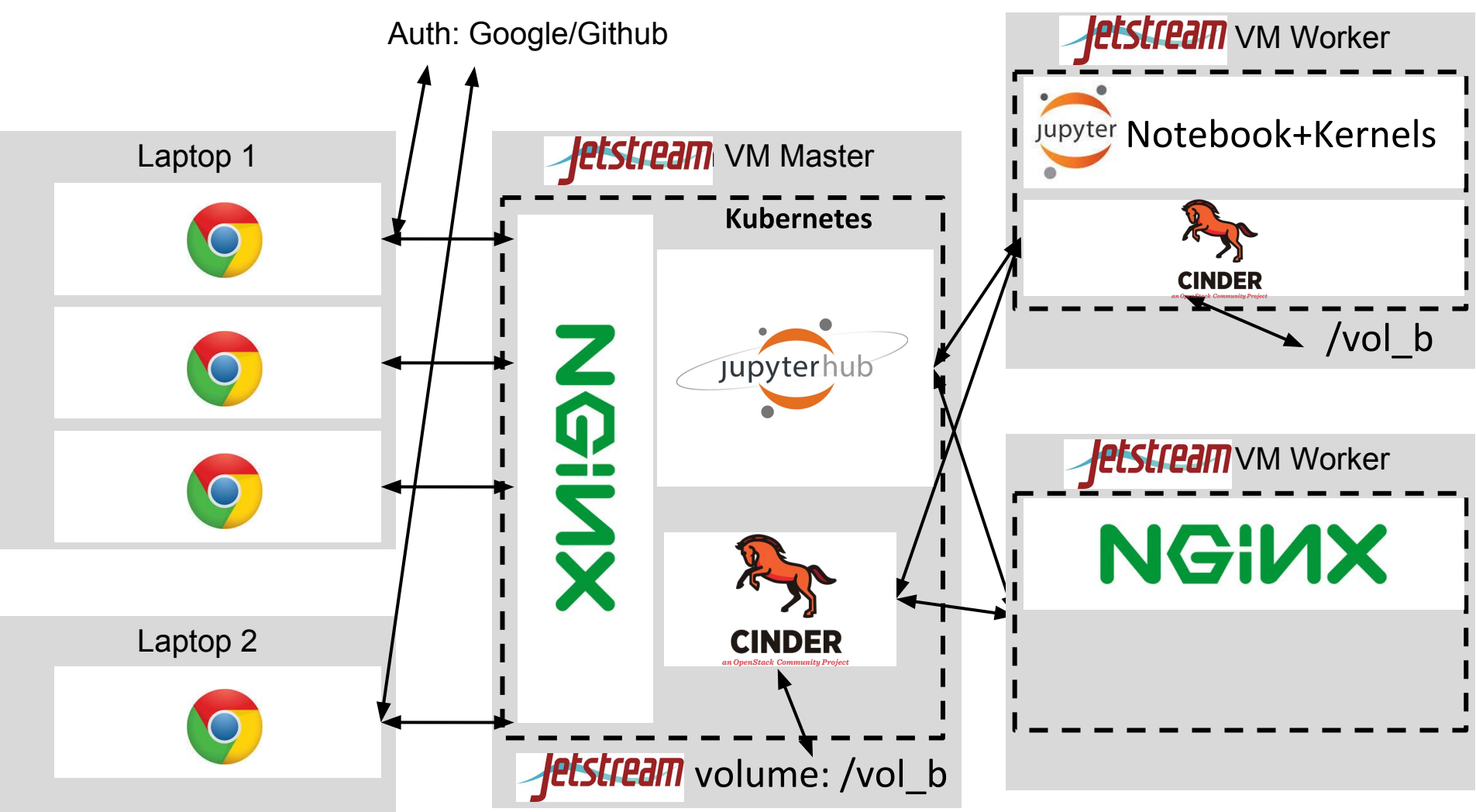
# *How?*

- **Launch Notebooks on multiple Jetstream instances with Kubernetes**

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# ***Jupyterhub/Kubernetes on Jetstream***

- **Jupyterhub runs as a Kubernetes service**
- **Users authenticate with Github/Google/XSEDE**
- **Users Jupyter Notebooks run as other containers**
- **Persistent home folders with Cinder**



# *Thank you!*

- **Full tutorial:**

<https://zonca.github.io/2018/09/kubernetes-jets-tream-kubespray.html>

- **Contact us:**

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