

# **SLATE** Deployment Plan & Updates

Lincoln Bryant  
University of Chicago

# SLATE

- **S**ervices **L**ayer **A**t **T**he **E**dge
- Distributed service orchestration platform
- Kubernetes-based
- Start with a single server and scale as needed
- Loosely federated, share projects/users/applications across institutions

# State of **SLATE**

- Three sites operational (UM, UC, UU)
- API server and client relatively stable at this point
  - Adding features as needed by use-case
- Web portal under development
- Platform monitoring under development
- Application catalog starting to gel
  - XCache, HTCondor CE, Squid, various other apps stabilizing
- Best practices evolving and being documented

# SLATE Deployment for US ATLAS

- We want to build an XCache-based caching network for US ATLAS
- SLATE-based deployment will simplify operations and allow for rapid development and debugging
- SLATE services already operational at MWT2/UChicago and AGLT2/UMich
- XCache application already in SLATE catalog
  - Ilija is developing & testing daily

# SLATE Hardware

Standard SLATE config:

<http://slateci.io/docs/slate-hardware/container-host.html>

- (2) Xeon Silver 4116 (48 HT cores)
- (12) 32GB RDIMMs (384 GB RAM)
- (1) 1.6TB NVMe
- (8) 8TB disks
- (1) 256GB BOSS card
- (1) 2x10Gb NIC

Do we need to add more spinning disk, solid state, or network to the edge nodes to facilitate caching?

# Deployment options

All sites will need to purchase & deploy hardware suitable for SLATE services

Two options for installation:

A) Follow documentation for setting up Kubernetes/SLATE (needs updates)

<http://slateci.io/XCache/k8s-deployment/>

B) Alternatively, I can SSH to your machine (e.g. via DRAC) and do the entire setup for your site

# Timeline

- End of December
  - SLATE hardware quoted & purchases started
- End of January
  - SLATE hardware installed
- Early to Mid February:
  - SLATE software configured (via docs or Lincoln remotely installs it)
  - Site joins SLATE federation
  - Ilija deploys XCache at all US ATLAS sites - demos to inform events in March:
    - ATLAS Sites Jamboree, **March 6-8, 2019**
    - HSF/WLCG/OSG AHM, **March 18-21, 2019**