IRIS–HEP SSL Purpose

- Provide the Institute and the HL–LHC experiments with scalable platforms needed for development in context
- Provides access to infrastructure and environments
- Organizes software and resources for scalability testing
- Does foundational systems R&D on accelerated services
- Provides the integration path to the OSG–LHC production infrastructure
SSL: Path to Production

Provisioning of software environments and development tools.

Distributed platforms materialized with tools like containerized edge services.

Integration point with the OSG and LHC experiment services (data, analysis).
SSL Team & Resources

- Small core group to support base environment
- Dynamically draws effort from R&D pillars
- Interfaces to OSG–LHC and LHC Ops
- Organizes leveraged resources needed to scale
SSL program of work

- WBS 6.1 – creating and operating scalable cyberinfrastructure
- WBS 6.2 – establishing devOps patterns through blueprint meetings & workshops
- WBS 6.3 – participate in functional testing
- WBS 6.4 – provide database services for metrics aggregation and dashboards
- WBS 6.5 – as needed, provide backend cyberinfrastructure for training
SSL and Analysis Systems

in production (design)

gke -> ssl deployment
SSL Challenges

- community platform
- support groups and projects
- bespoke resources & configurations
- declarative & reproducible deployments
- services to build & manage artifacts
- scalable up and back down

c.f. Lincoln's presentation
SSL Opportunities

● spark adhoc collaborations across traditional organizational boundaries (e.g. experiments)
● contributions and involvement from diverse resource providers
● new modes of infrastructure development, supporting more rapid innovation
● redeployable artifacts and reproducible patterns