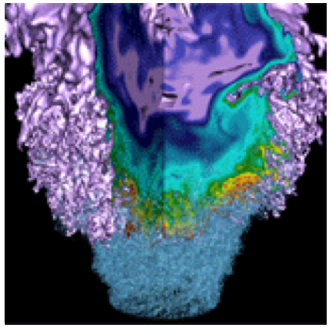
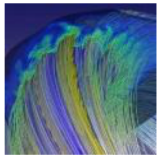
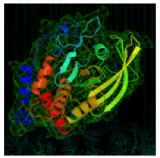
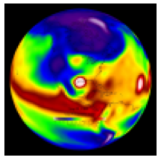
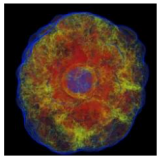
Introducing Iris

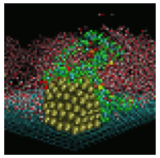












Debbie Bard

Group Lead, Data Science Engagement
NERSC

SLAC Unix Town Hall, 14th Nov 2019

What is Iris?

Four Areas of Functionality:

Four Stakeholders:

Users

- Manage account details, password, tokens
- Monitor compute/storage usage

Principal Investigators (PIs)

- Manage projects, produce reports

DOE Allocation Managers

- View roll-ups by program/office

NERSC Staff

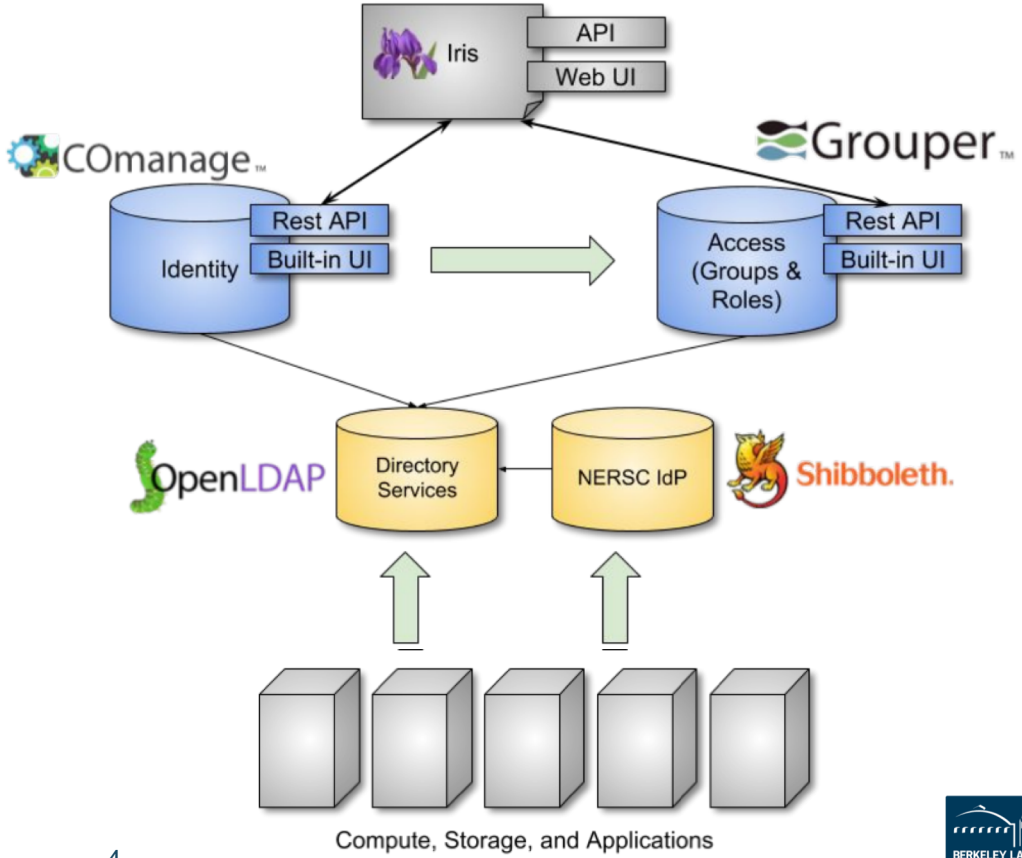
What do we need from Iris?

"Avoid building dependencies on dated, homegrown infrastructure"

- Designed in the current century! ;-)
- Easier to navigate, faster
- Responsive: works on phones, tablets
- Daily usage summary
- Job-level accounting
- Click to drill down on Projects, Users, Hours totals
- Click column headings to sort
- Easy to maintain, easy to understand, adaptable and flexible

Under the hood: IAM

- Based on InCommon Trusted Access Platform
- Designed for Academic and Research Collaborations
- Active user communities
- Consulting and commercial support options



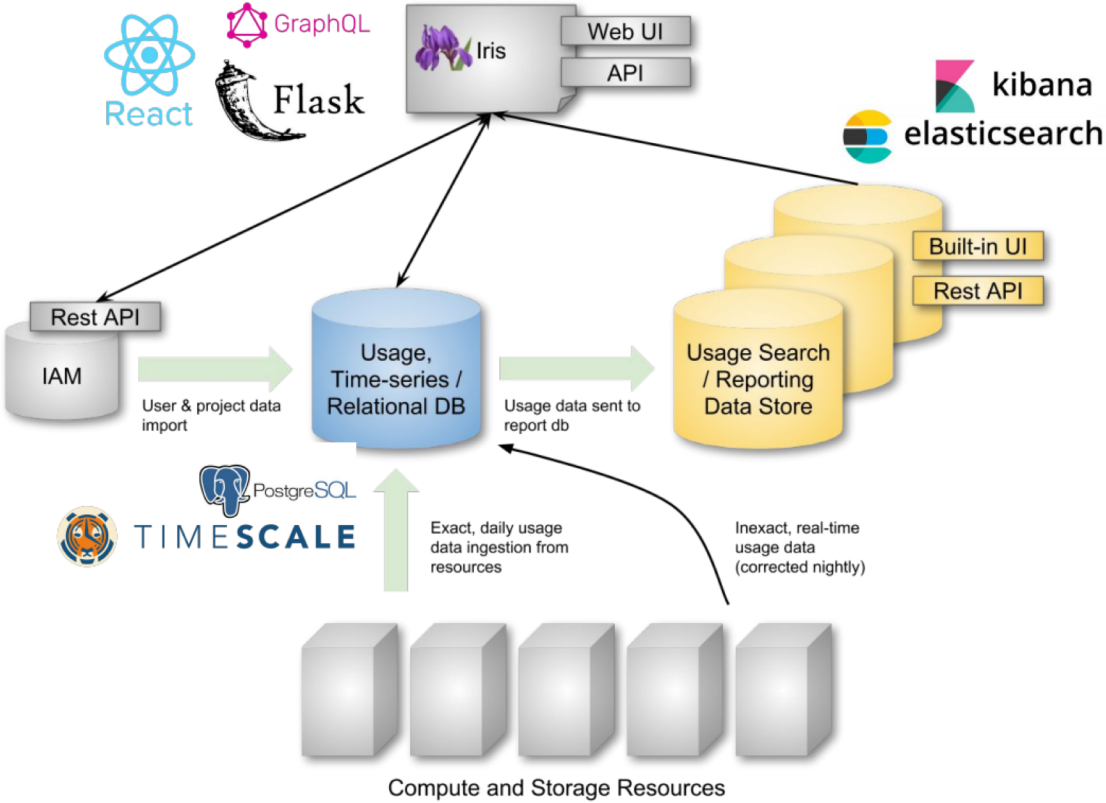
Under the hood: accounting

Modular design includes

- Modern UI, API Tools
- Time-series Database
- Elastic Backend
- Containerized deployment

System components are scalable and performant

Active user communities



Benefits to NERSC Users and PMs

This will collect raw data instead of aggregated results:

- Users can see how much each job cost
- Near real-time accounting (vs. next-day reports, today)
- Quick and easy visualizations of how compute time has been spent (this is not possible today)
- Custom DOE PM dashboard and visualizations
- Ability to get refunds for individual failed jobs
- Consistent, fast performance

Try it out at http://iris.nersc.gov/

- ✓ 2018 Q3: Kick-off, Requirements gathering
- ✓ 2018 Q4: Technology selection, Prototyping
- ✓ 2019 Q1: Pilot System Development
- ✓ 2019 Q2: Design Review with ALCF, OLCF, LIGO
- ✓ 2019 Q3: Feature completeness, Parallel operation
- ○ 2019 Q4: Testing and cutover planning
- ○ 2020 Q1: Launch

Accounting data is live and accurate
- Read-only: changes are reset nightly
- Features and navigation are still in flux

Thank You