

# IRIS Baseline 1.0 - June 2018

This document sets out a baseline set of interfaces to facilitate interoperation between user communities (UCs) and resource providers. This version was the result of agreement within the IRIS Technical Working Group in June 2018

## Requirements

A separate document (Interfaces Matrix), maps different user communities to interfaces provided by sites and can be used to determine which user communities a particular choice of interfaces will support.

To comply with this baseline, a site must provide at least Infrastructure-as-a-Service OpenStack or Platform-as-a-Service Grid as described below. If the site provides storage, then it must provide at least an S3 interface to the storage if it is providing only OpenStack, and SRM/GridFTP/xrootd interfaces if providing only Grid.

## Compute Access

In this version, all authentication is still with X.509 user, proxy, and host certificates.

### Infrastructure-as-a-Service OpenStack

- Creation of VMs (not containers or bare metal)
- OpenStack KeyStone v3 / Nova / Glance v2
- Federated KeyStone from a IDP provided by IRIS

### Platform-as-a-Service Grid

- ARC CE with HTCondor batch or with Slurm batch
- CentOS 7 or compatible
- cvmfs access to repositories requested by UCs
- Ability to run Singularity within user jobs

### Vacuum Cloud

- Run VM/Docker container definitions published by UCs

## **Storage Access**

Authentication via X.509 as above for GridFTP and xrootd.

S3

SRM, GridFTP, and xrootd as used by WLCG

WebDAV

Shared POSIX filesystem