

Federating Clouds in OpenStack

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Objectives:

Investigate the requirements of scientific users of cloud technologies

Deploy a federated cloud IaaS testbed within the Ibergrid collaboration

Provide a unique user friendly interface for the services



AuthN/AuthZ service

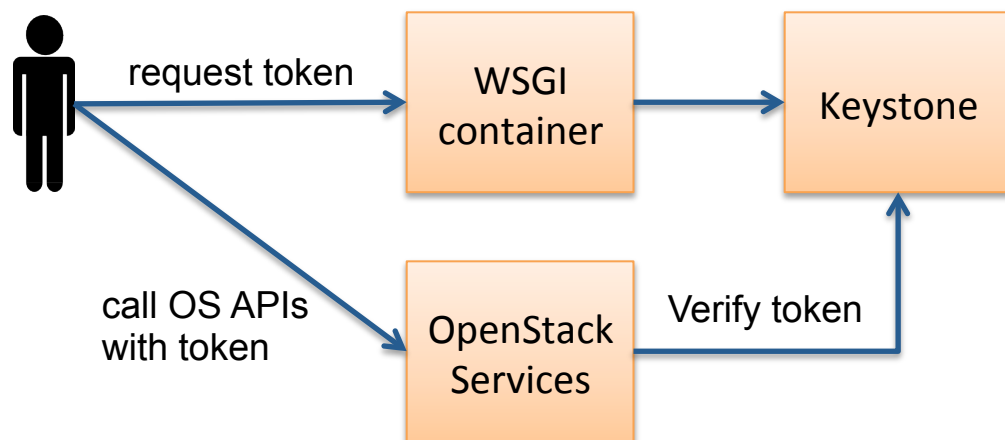
Extensible with WSGI filters

VOMS module:

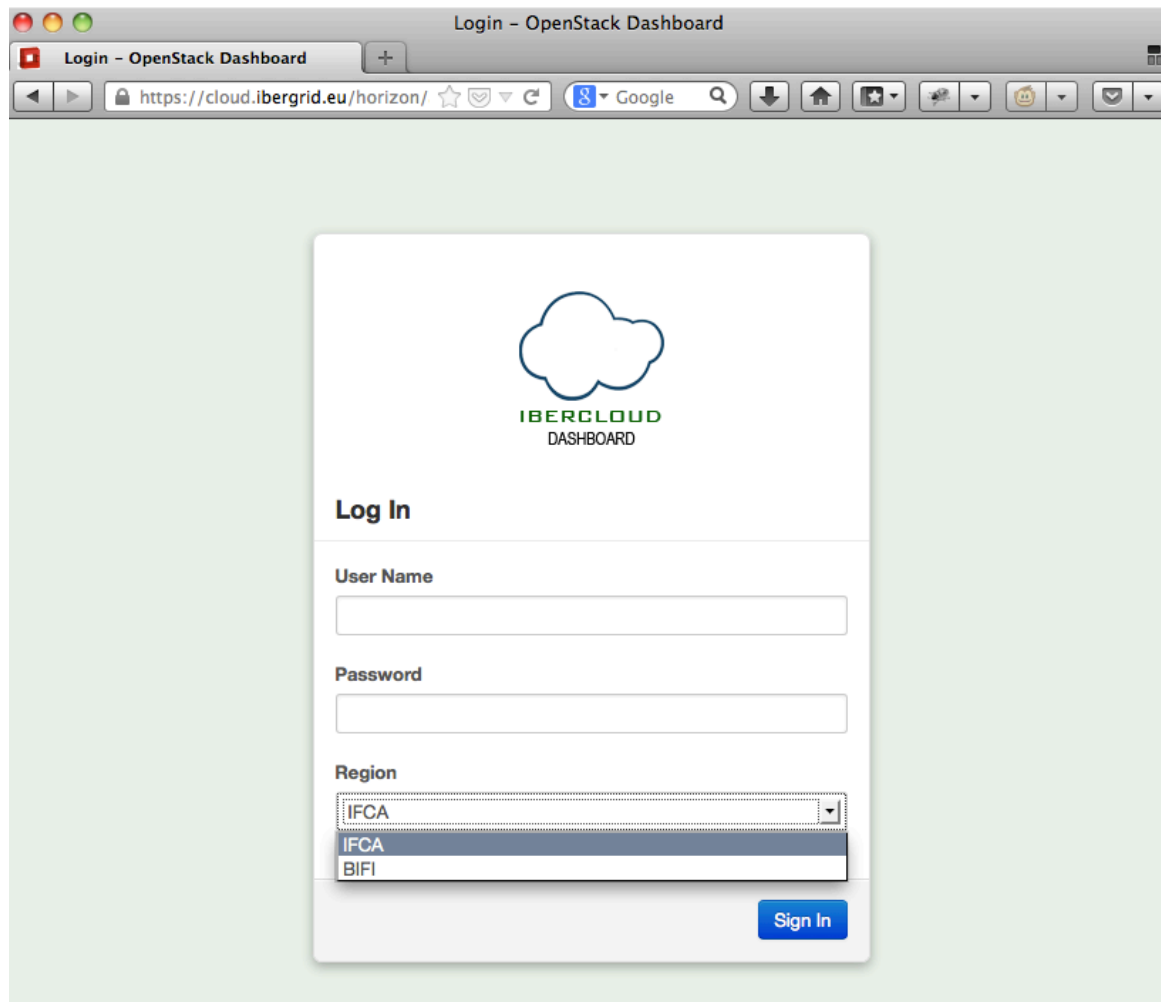
- used in FedCloud
- intercepts Keystone calls and extracts proxy info mapping it to local users/tenants

But:

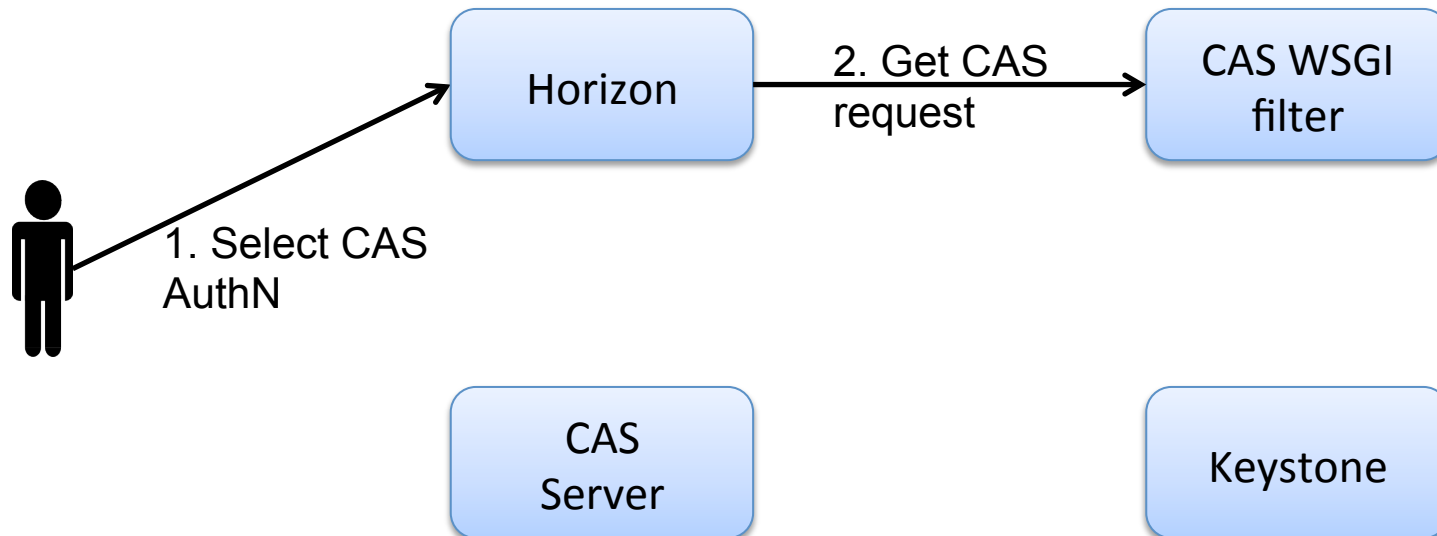
- certificates not user friendly
- not straight forward in the browser

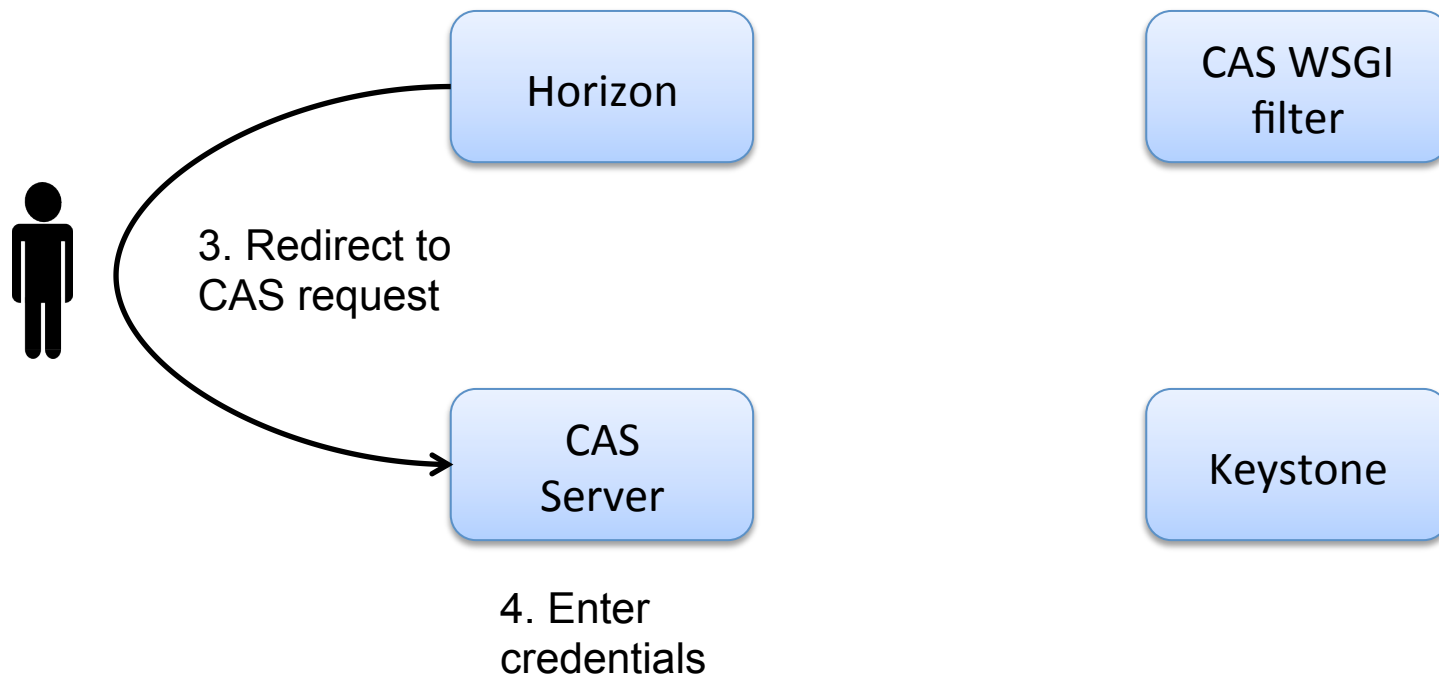


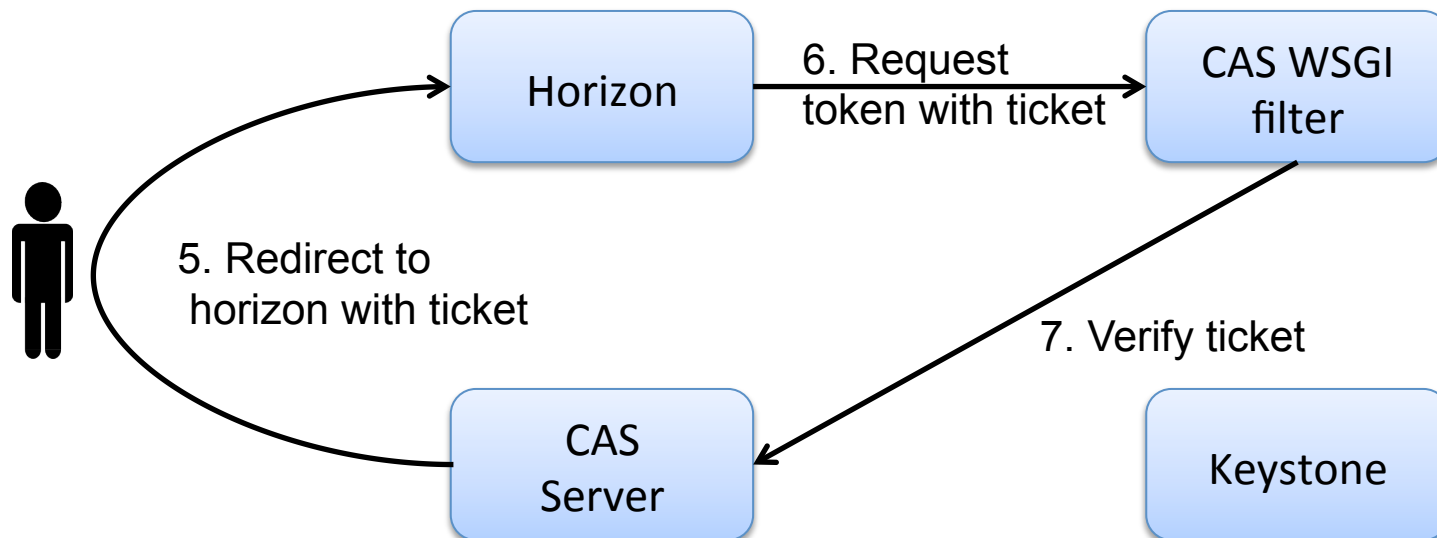
- Read only LDAP WSGI module
- Automatic user creation at the site with a configurable tenant
- Change between sites without re-entering credentials
- Dashboard retrieves unscoped token for all sites and keeps it in user profile
- Leverages region support of OS Horizon

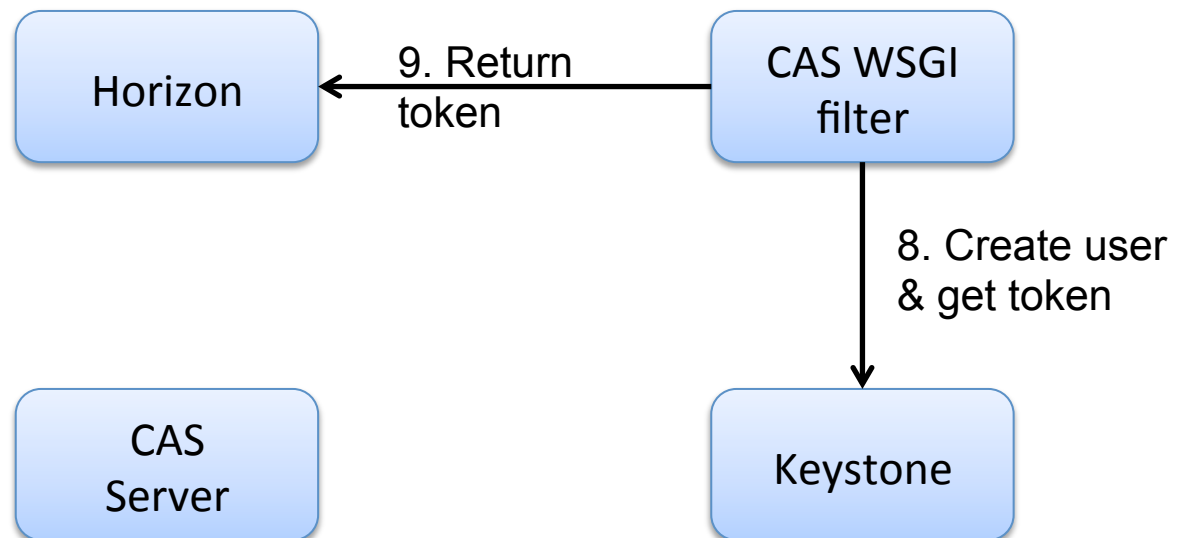


- Support for institutional identity:
 - Federated Keystone by University of Kent
 - code not yet officially included in OS
 - not easily deployable in production Keystone
 - Our approach:
 - try not to disrupt site operations: middleware filter checks credentials and creates users in keystone if necessary
 - New CAS (Central Authorization Service) & SAML modules









- Ibercloud - <https://cloud.ibergrid.eu>
- Fork it!
 - https://github.com/enolfc/keystone_cas
 - <https://github.com/alvarolopez/keystone-ldap-ro>
 - https://github.com/enolfc/django_openstack_auth
 - <https://github.com/enolfc/ibercloud>