

FIM4R Update: US Projects

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InCommon Adoption of R&S + Sirtfi

incommon.org/federation/info/all-entities

InCommon FEDERATION BETA

Federation Info: [About](#) [Organizations](#) [Entities](#)

Federation Info: Entities

IdPs (487) **SPs (3984)**

[A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [X](#) | [Y](#) | [Z](#) | [Other IdPs](#)

A

- [A. T. Still University](#)
- [Adventist University of Health Sciences](#)
- [Allan Hancock Joint Community College District](#)
- [Allegheny College](#)
- [American University](#)
- [American University of Beirut](#)
- [American University of Sharjah](#)
- [Ames Laboratory](#)
- [Amherst College](#)
- [Andrew W. Mellon Foundation, The](#)
- [Appalachian State University](#)
- [Argonne National Laboratory](#)
- [Arizona State University](#)
- [Athena Institute - AD \(CI\)](#)
- [Auburn University](#)
- [Augsburg College](#)
- [Augusta University](#)
- [Azusa Pacific University](#)

InCommon Entity Categories

| Entity Category | # of SPs | # of IdPs |
|--------------------------|----------|-----------|
| hide-from-discovery | 0 | 39 |
| research-and-scholarship | 74 | 54 |
| research-and-scholarship | 0 | 83 |

incommon.org/federation/info/all-idps-certified



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InCommon Certified Identity Providers

The following IdPs are certified under the InCommon Assurance Program:

| Identity Provider Name | Certification |
|---|---------------|
| Ohio State University | sirtfi |
| University of Chicago | sirtfi |
| University of Maryland Baltimore County | bronze |
| Northwestern University | sirtfi |
| Virginia Polytechnic Institute and State University | bronze |
| University of Illinois at Urbana-Champaign | sirtfi |
| Massachusetts Institute of Technology | sirtfi |
| University of Nebraska-Lincoln | sirtfi |
| Fermi National Accelerator Laboratory | sirtfi |
| Southern Methodist University | sirtfi |
| Harvard University | bronze |
| University of Nebraska Medical Center | bronze |
| The George Washington University | bronze |
| Temple University | sirtfi |
| XSEDE | sirtfi |
| National Center for Supercomputing Applications | sirtfi |

InCommon LLC
<http://incommon.org/>

Questions? Visit our [FAQ](#) or contact [<info@incommon.org>](mailto:info@incommon.org)

New IdPs open to all researchers: NCSA, XSEDE

★ R&S

★ Sirtfi

★ ECP

★ MFA (Duo opt-in)

★ Self sign-up (Google ReCAPTCHA)

The image displays two side-by-side screenshots of web-based login portals. The left screenshot shows the XSEDE login page, which has a dark blue header with the XSEDE logo and tagline 'Extreme Science and Engineering Discovery Environment'. Below the header is a white login box titled 'Login to CILogon' containing fields for 'XSEDE Username' and 'XSEDE Password', a 'Don't Remember Login' checkbox, and a red 'Login' button. The right screenshot shows the NCSA login page, which has a white header with the NCSA logo and tagline 'NATIONAL CENTER FOR SUPERCOMPUTING APPLICATIONS UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN'. Below the header is a white login box titled 'NCSA Web Authentication' containing fields for 'NCSA Username' and 'NCSA Kerberos Password', a 'Don't Remember Login' checkbox, and a blue 'Login' button. To the right of the login box is a green CILogon logo and text explaining its purpose and providing links for account management. Both pages have a footer with contact information and navigation links.

XSEDE
Extreme Science and Engineering
Discovery Environment

Login to CILogon

XSEDE Username

XSEDE Password

☐ Don't Remember Login

Login

Contact help@xsede.org for assistance.

**NATIONAL CENTER FOR
SUPERCOMPUTING APPLICATIONS**
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

CONTACT US

NCSA

NCSA Web Authentication

Login to CILogon

NCSA Username

NCSA Kerberos Password

☐ Don't Remember Login

Login

CILogon

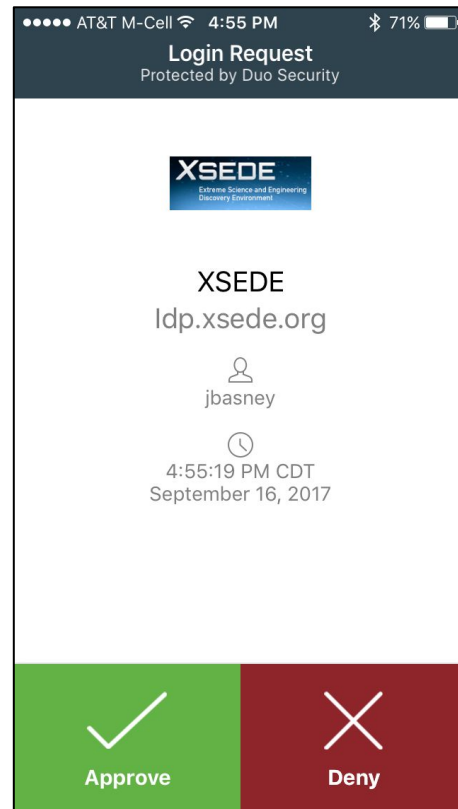
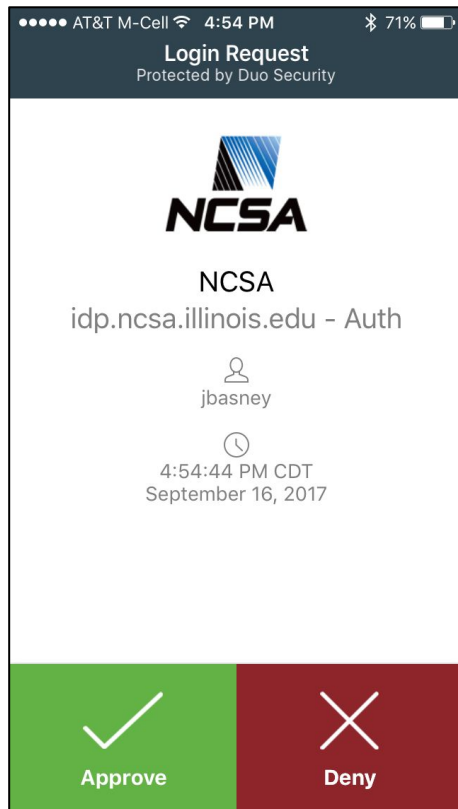
CILogon facilitates secure access to CyberInfrastructure (CI).

- Sign Up For An Account
- Register for Duo
- Forgot Your Username?
- Forgot Your Password?
- Send Email To Get Help

NCSA | **NCSA HOME** | **SITEMAP** | **CONTACT NCSA** | **NCSA INTRANET**

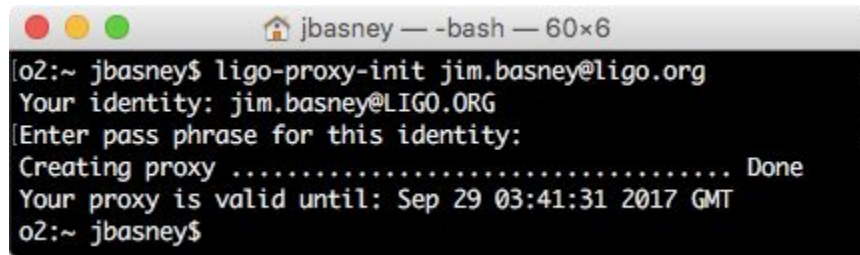
Contact help+idp@ncsa.illinois.edu with questions regarding this page.
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ECP + MFA



ECP in use

- XSEDE's Global Federated File System (GFFS) - Genesis II software
 - <https://portal.xsede.org/software/gffs>
- LIGO's ligo-proxy-init / ecp-cookie-init
 - 250+ active users
- Fermilab's cigetcert
 - 300+ active users
 - <https://github.com/fermitools/cigetcert>

A terminal window with a title bar showing a home icon, the username 'jbasney', and the command '-bash' with a window size of '60x6'. The terminal text shows the command 'ligo-proxy-init jim.basney@ligo.org' being executed. It prompts for the identity, which is 'jim.basney@LIGO.ORG', and then for a pass phrase. It then shows 'Creating proxy' followed by a series of dots and the word 'Done'. Finally, it displays 'Your proxy is valid until: Sep 29 03:41:31 2017 GMT' and returns to the shell prompt.

```
o2:~ jbasney$ ligo-proxy-init jim.basney@ligo.org  
Your identity: jim.basney@LIGO.ORG  
[Enter pass phrase for this identity:  
Creating proxy ..... Done  
Your proxy is valid until: Sep 29 03:41:31 2017 GMT  
o2:~ jbasney$
```

Globus Toolkit (GSI, X.509, GSSAPI) retirement

The screenshot shows a web browser window with the URL www.globus.org/blog/support-open-source-globus-toolkit-ends-. The page features the Globus logo and navigation links: 'I want to...', 'Pricing', 'News', 'Events', 'Support', 'Log In', and a search icon. Below the navigation bar, there are links for 'HOME', 'NEWS', and 'BLOG'. The main heading of the article is 'Support for Open Source Globus Toolkit Ends January 2018', accompanied by a pencil icon. The article is dated 'MAY 26, 2017' and attributed to 'VAS VASILIAIDIS'. The text of the announcement states that starting in January 2018, the Globus team at the University of Chicago will no longer support the open source Globus Toolkit, except for its use with the Globus cloud service by Globus subscribers. It mentions that by the end of 2018, all endpoints connected to the Globus cloud service using the open source Globus Toolkit GridFTP server must migrate to Globus Connect. It also notes that at the end of 2018, all maintenance (including security patches) and distribution of the open source Globus Toolkit will be discontinued. Endpoints using Globus Connect Server or Globus Connect Personal will be unaffected as long as they continue to perform routine software updates. A note specifies that the Globus cloud service and Globus Connect are unaffected by this change and continue to grow, supported by their sustainability model. Readers are directed to a 'complete announcement and answers to frequently asked questions here' and are encouraged to contact support at support@globus.org. On the right side of the page, there is a 'globus news' newsletter sign-up form with fields for 'Email Address' and 'Full Name', and a 'Subscribe' button. Below the sign-up form, there is a section titled 'BLOG CONTRIBUTORS' listing several individuals and their post counts: Bryce Allen (1), Rachana Ananthakrishnan (6), Ruth Aydt (1), Lisa Childers (1), Paul Dave (7), and Ian Foster (5). At the bottom of the page, there are navigation links for 'OLDER' and 'NEWER' posts.

www.globus.org/blog/support-open-source-globus-toolkit-ends-

globus

I want to... Pricing News Events Support Log In

HOME / NEWS / BLOG

Support for Open Source Globus Toolkit Ends January 2018

MAY 26, 2017 | VAS VASILIAIDIS

We are announcing that, starting in January 2018, the Globus team at the University of Chicago will no longer support the open source Globus Toolkit, except for its use with the Globus cloud service by Globus subscribers. By the end of 2018, all endpoints connected to the Globus cloud service using the open source Globus Toolkit GridFTP server must migrate to Globus Connect. At the end of 2018, we will discontinue all maintenance (including security patches) and distribution of the open source Globus Toolkit. Endpoints using Globus Connect Server or Globus Connect Personal will be unaffected, as long as they continue to perform routine software updates.

Please note that the Globus cloud service and Globus Connect are unaffected by this change, and continue to grow, supported by our sustainability model.

Please read the [complete announcement and answers to frequently asked questions here](#). As always, we welcome your questions and feedback; you may contact us at support@globus.org.

OLDER NEWER

First year of Globus Auth, by the numbers

Support for Globus Nexus authentication discontinued

globus news

Email Address

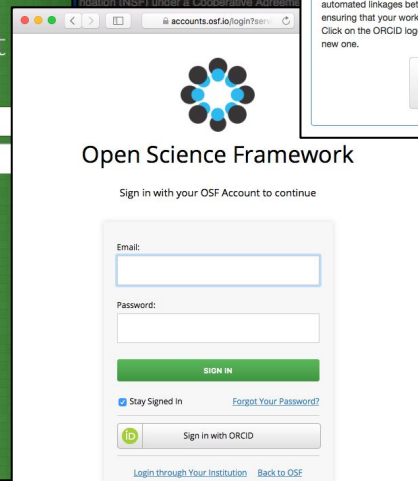
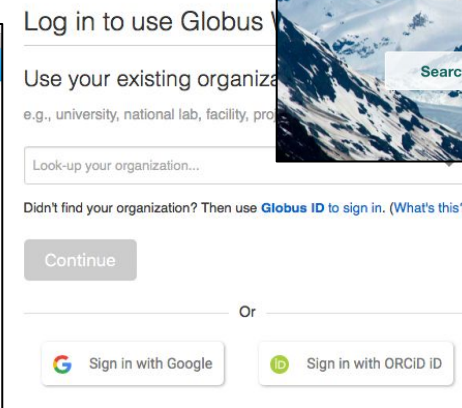
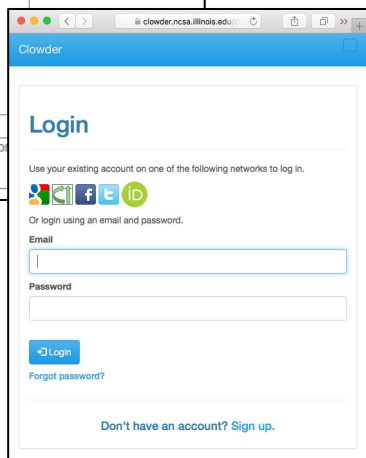
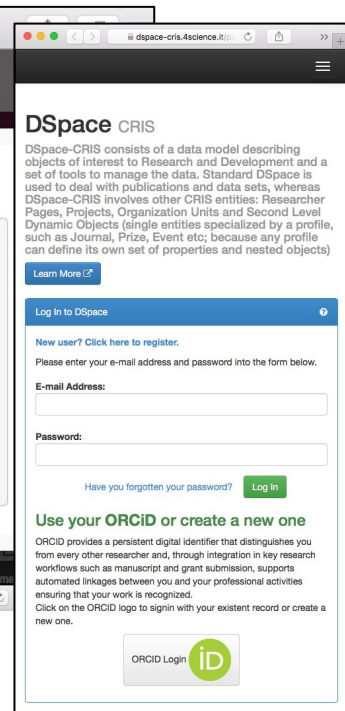
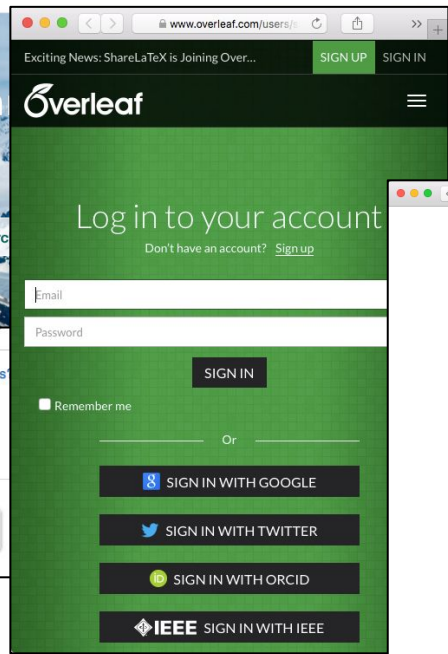
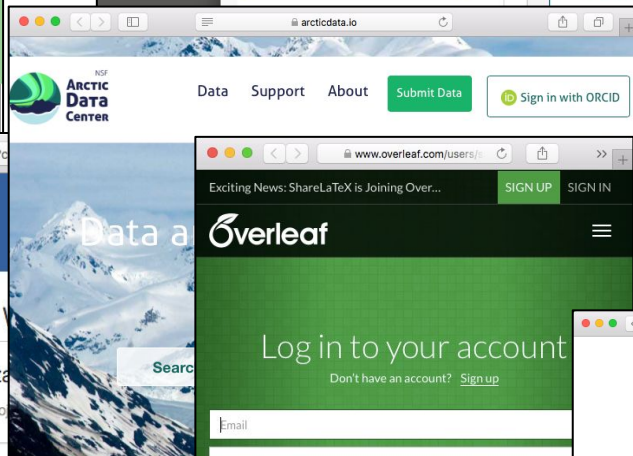
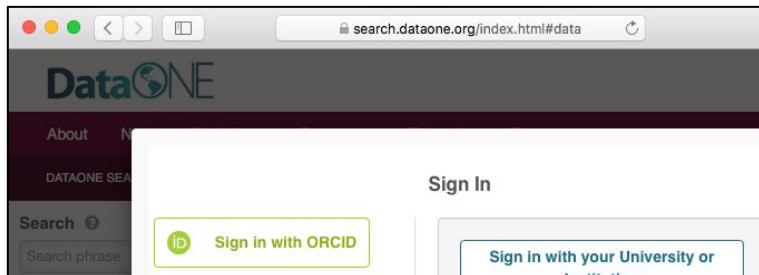
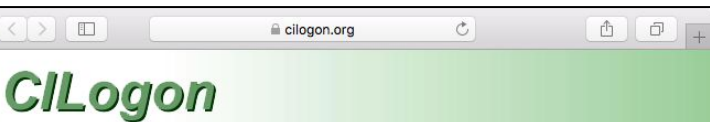
Full Name

Subscribe

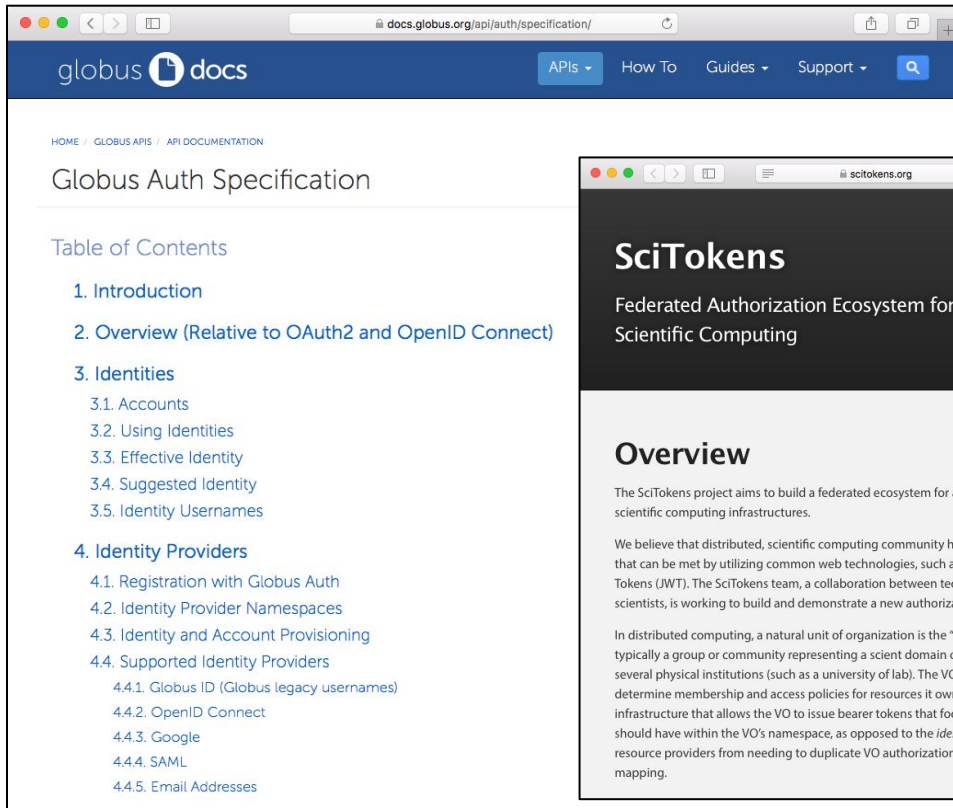
BLOG CONTRIBUTORS

Bryce Allen (1)
Rachana Ananthakrishnan (6)
Ruth Aydt (1)
Lisa Childers (1)
Paul Dave (7)
Ian Foster (5)

Sign In with ORCID

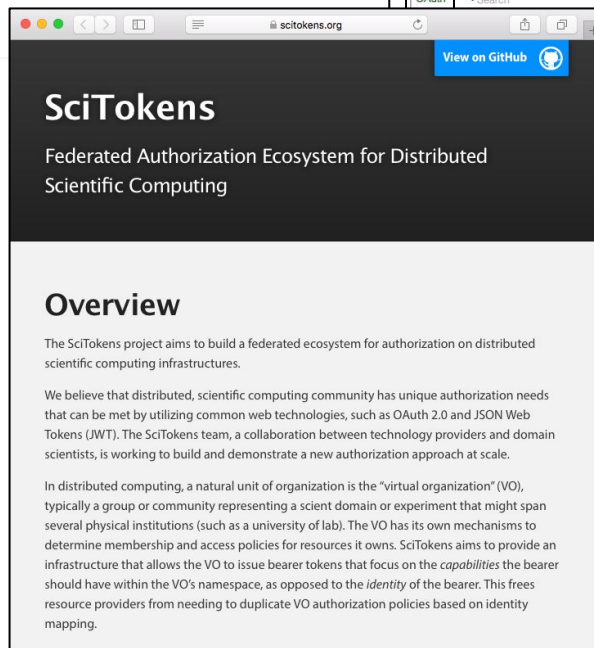


Adoption of OAuth/OIDC



The screenshot shows the Globus Auth Specification page. The header includes the Globus logo and navigation links for APIs, How To, Guides, and Support. The main content area is titled "Globus Auth Specification" and includes a "Table of Contents" with the following items:

- 1. Introduction
- 2. Overview (Relative to OAuth2 and OpenID Connect)
- 3. Identities
 - 3.1. Accounts
 - 3.2. Using Identities
 - 3.3. Effective Identity
 - 3.4. Suggested Identity
 - 3.5. Identity Usernames
- 4. Identity Providers
 - 4.1. Registration with Globus Auth
 - 4.2. Identity Provider Namespaces
 - 4.3. Identity and Account Provisioning
 - 4.4. Supported Identity Providers
 - 4.4.1. Globus ID (Globus legacy usernames)
 - 4.4.2. OpenID Connect
 - 4.4.3. Google
 - 4.4.4. SAML
 - 4.4.5. Email Addresses
 - 4.5. Email Addresses



The screenshot shows the SciTokens website. The header includes the SciTokens logo and a "View on GitHub" button. The main content area is titled "SciTokens" and includes the subtitle "Federated Authorization Ecosystem for Distributed Scientific Computing". Below this is an "Overview" section with the following text:

The SciTokens project aims to build a federated ecosystem for authorization on distributed scientific computing infrastructures.

We believe that distributed, scientific computing community has unique authorization needs that can be met by utilizing common web technologies, such as OAuth 2.0 and JSON Web Tokens (JWT). The SciTokens team, a collaboration between technology providers and domain scientists, is working to build and demonstrate a new authorization approach at scale.

In distributed computing, a natural unit of organization is the "virtual organization" (VO), typically a group or community representing a scient domain or experiment that might span several physical institutions (such as a university of lab). The VO has its own mechanisms to determine membership and access policies for resources it owns. SciTokens aims to provide an infrastructure that allows the VO to issue bearer tokens that focus on the *capabilities* the bearer should have within the VO's namespace, as opposed to the *identity* of the bearer. This frees resource providers from needing to duplicate VO authorization policies based on identity mapping.



The top screenshot shows the CILogon website. The header includes the CILogon logo and a search bar. The main content area is titled "OIDC" and includes the following text:

CILogon provides a standards-compliant OpenID Connect (OAuth 2.0) interface to federated authentication for *cyberinfrastructure* (CI). The CILogon project participates in the REFEDS OpenID Connect for Research and Education Working Group (*OIDCne*) for establishing OIDC interoperability profiles.

Client Registration

The bottom screenshot shows the Agave Documentation page. The header includes the Agave logo and a search bar. The main content area is titled "Authorization Code" and includes the following text:

The method is suitable for long-running applications in which the user logs in once and the access token can be refreshed. Since the token exchange involves sending your secret key, this should happen on a secure location, like a backend service, not from a client like a browser or mobile apps. This flow is described in RFC-6749. This flow is also the authorization flow used in our REST API Tutorial.

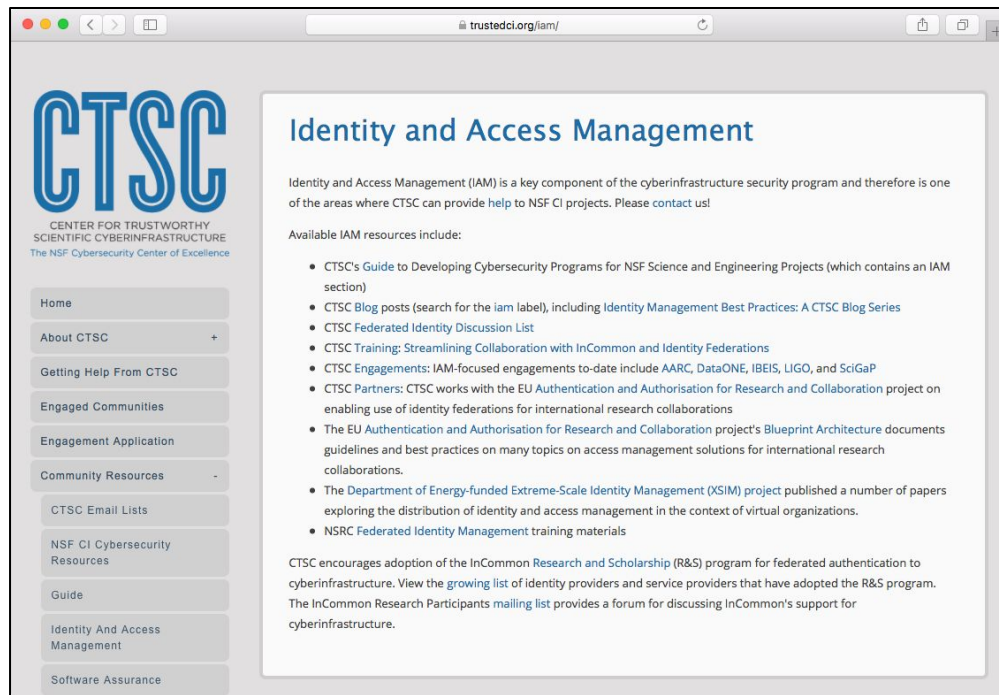
1. Your application requests authorization

A typical request will look something like this

```
graph TD
    Application -- "1. Request authorization to access user data  
(client_id, response_type, redirect_uri, state, scope)" --> Agave[Agave Authorization Service]
    Agave -- "2. Displays scopes & prompts user to login (if needed)" --> User[User]
    User -- "3. Logs in, authorizes access" --> Agave
    Agave -- "4. Returns access and refresh tokens  
(client_id, client_secret, grant_type, code, redirect_uri)" --> Application
    Application -- "5. Uses access token in requests to REST APIs" --> REST[REST APIs]
    REST -- "6. Returns requested data owned by client credential owner" --> Application
    Application -- "7. Request refreshed access token" --> Agave
    Agave -- "Returns access token" --> Application
```


CTSC IAM consulting

- Applications due Oct 2 for engagements starting Jan 2018
<https://trustedci.org/application/>
- Prior CTSC IAM engagements: DataONE, IBEIS, LIGO, SciGaP
<https://trustedci.org/iam/>
- Contact:
ask@trustedci.org



New Collaborations Leveraging Federated Identity



- From office of scholarly communication at MLA
- Development funded by Andrew W. Mellon Foundation
- Serve needs of humanists as they engage in teaching and research that benefit the larger community
- Open-access, open-source, non-profit
- 10,000+ users



- Radio telescope
- SKA Low Frequency Precursor
- Telescope in Australia
- US, Australia, Japan, Canada, ...
- ~ 400 users



Open Storage Research Infrastructure

- Pilot project funded by NSF
- Software-defined storage infrastructure
- Provide distributed, multi-institutional storage infrastructure

Thanks!

Jim Basney <jbasney@ncsa.illinois.edu>

Scott Koranda <skoranda@sphericalcowgroup.com>