



# IVOA Northern Fall Interop



## Introduction to **SSO discussion**

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## • Brian's summary at Spring Interop 2021

<https://wiki.ivoa.net/internal/IVOA/InterOpMay2021GWS/AA-Updates.pdf>

### A Brief History of Tokens

- Auth Lessons, Markus Demleitner, October 2019  
<https://wiki.ivoa.net/internal/IVOA/InterOpOct2019DAL/authlessons.pdf>
- Gaia Authentication, Juan Gonzalez, October 2019  
[https://wiki.ivoa.net/internal/IVOA/InterOpOct2019DAL/GACS\\_Auth\\_jgonzalez.pdf](https://wiki.ivoa.net/internal/IVOA/InterOpOct2019DAL/GACS_Auth_jgonzalez.pdf)
- Auth Strawman, Patrick Dowler, May 2020  
<https://wiki.ivoa.net/internal/IVOA/InterOpMay2020GWS/auth-reqs-strawman.pdf>
- OAuth2 Lessons & GMS, Sonia Zorba, November 2020  
<https://wiki.ivoa.net/internal/IVOA/InterOpNov2020GWS/GMS-OAuth2-update.pdf>
- Non-browser OAuth2, Brian Major, November 2020  
<https://wiki.ivoa.net/internal/IVOA/InterOpNov2020GWS/TokensForCLI.pdf>
- Authentication Implementation Report, Mark Taylor, November 2020  
<https://wiki.ivoa.net/internal/IVOA/InterOpNov2020GWS/auth.pdf>

May 2021: Progress! (sorry if I missed anyone)



## 1. Updates and clarifications to Security Methods:

1a. Separate Security Methods into two categories: 1) ways of obtaining credentials and 2) ways credentials are accepted. (Note that Mark T. pointed out that #cookie should be in the first group, not the second one)

1b. `ivo://ivoa.net/sso#tls-with-password` - Describe how to perform a username/password POST to obtain a token

1c. `ivo://ivoa.net/sso#token` - Used by a service to advertise that tokens are accepted

1d. Provide examples of using each of the security methods

2. Authentication discovery -- allow non-browser clients to easily and programmatically discover and obtain token credentials.

2a. Providing a bootstrap mechanism for discovering a service's authentication support

2b. Use of the WWW-Authenticate header

- to convey details on obtaining tokens
- to convey auth failures

2c. Use of the Authorization header

- by clients to provide token credentials

2d. Use of the X-VO-Authenticated header

- to communicate authentication success

## Authcheck endpoint discussion:

**Use case:** a client needs to know, before starting to access a service, what kind of authentication is appropriate (and if it's needed?)

### Solutions:

- That information could come from the content of the capabilities document (securityMethod details)
- The information is conveyed by WWW-Authenticate challenges. An end-point to provoke such a WWW-Authenticate challenge is needed. Proposals:
  1. an end-point exists: <http://dc.g-vo.org/tap/authcheck>
  2. use the VOSI capabilities end-point to provoke the HTTP challenge

The Single Sign-On recommendation is on github:

<https://github.com/ivoa-std/SSO>

To open new discussion topics open an issue in

<https://github.com/ivoa-std/SSO/issues>

To propose modifications create a pull request referring to a corresponding issue

# Backup slides

# SSO Update: StandardID Clarifications

Separate standard IDs for Security Methods into two groups:

## // Methods of obtaining credentials

```
ivo://ivoa.net/sso#tls-with-password  
ivo://ivoa.net/sso#OAuth  
ivo://ivoa.net/sso#OpenID
```

← These give you tokens

## // Ways credentials are accepted

```
ivo://ivoa.net/sso#anon  
ivo://ivoa.net/sso#tls-with-certificate  
ivo://ivoa.net/sso#cookie  
ivo://ivoa.net/sso#BasicAA  
ivo://ivoa.net/sso#token
```

← Information on header use and token types

- Add HTTP examples for all combinations of authentication



Grants B.Major



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