# Grid and Web Services Working Group

IVOA Interop - Paris 2019

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# GWS Session

- CAS (Central Auth Service) at Data Central - SSO with 5 different auth methods.

- INAF RAP (Remote Auth Portal) in SKA Context --
     open source and useful

- Group Membership Service: Productive "User Identities" discussion

- Kubernetes has a big upside!  Will eventually be overcome, but commercially supplied migration tools will help.

# TAP and Authentication Sesion

TAP 1.1 success!  For Grid and Web Services:

- **New SSO** version to start.  2.1 or 3.0 ?

- Fully describe use and support for **tokens**.

- Reevaluate list of supported authentication methods.

- Minor corrections.

# Remote Execution Standardization

- IVOA Protocols already address data access -- we just need to make that access as local as possible

  **In addition to HTTP access, we will need POSIX access. Should we use VOResource Interfaces to define this? type:"vos:posix"**

# Remote Execution Standardization

- How to send data algorithms to a data centre?
  **Container Registry?**

- How to describe resource requirements and input parameters?
  **I/O, CPU reqs not discussed.  Params not discussed.  Prototypes needed.**

- How to insulate platforms from rapidly changing technologies?
  **Defer this until we have working prototypes and clearer big view.**

- How to integrate with commercial cloud platforms?
  **Use the same infrastructure -- kubernetes**

# AuthN and AuthZ Roadmap

-   Describe approach for obtaining token credentials (SSO)

-   Describe approach for validating token credentials (SSO)

-   Define an IVOA "Realm" and how it determines the scope of services for which a token is applicable. (SSO)

-   Implement OAuth in TAP

-   Group Membership Service Working Draft with definition of User Identities (GMS 1.0)

# Science Platforms Roadmap

- Go Kubernetes.  Data centres will be running services as containers.  Natural step to run user code in containers.  Standards after more experience.

- Try remote executing a container.  What infrastructure and information did you need?  What problems did you face?

- Describe POSIX access to a platform.  New VOResource Interface Type?

- Collaborate.  Share knowledge, code and resources with similar institutes. Organic convergence.

# Other Interesting Ideas

- VO Container Registry?  For reference implementations and code-to-data experimentation?

- Who will pay?  Treat processing (GPUs, etc) as scarce resources, like observing time.  Data centres gather funds for new 'observatories' and accept proposals. Multi-centre proposals?

- Is the next step for SODA (Server-side Operations For Data Access) code-to-data support?  (a spectrum of operation complexity)

Thank you for all the contributions.

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