

# Grid and Web Services Working Group

IVOA Interop - Paris 2019

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**NRC·CMRC**

# Grid and Web Services (GWS)



Focus of the GWS Working Group:

- Distributed Storage, Analysis and Processing
- **Science Platforms / Remote Execution**
- Workflows
- **Authentication and Authorization**

# GWS News and Updates



- VO Support Interfaces (VOSI): Two errata recently accepted and published (XML schema version issue and incorrect examples.)
- Universal Working Service (UWS): New version of UWS-lib 1.1 from Gregory Mantelet
- Group Membership Service (GMS): Draft standard for interoperable authorization.

# Interoperable A&A



## Authentication (who are you?)

- IVOA Single-Sign-On Profile (SSO 2.0) - recommended authentication methods ("securityMethods") and how to use them
- Credential Delegation Protocol (CDP 1.0) - how to make service-to-service calls as the end user
- Using tokens for authenticated IVOA service access

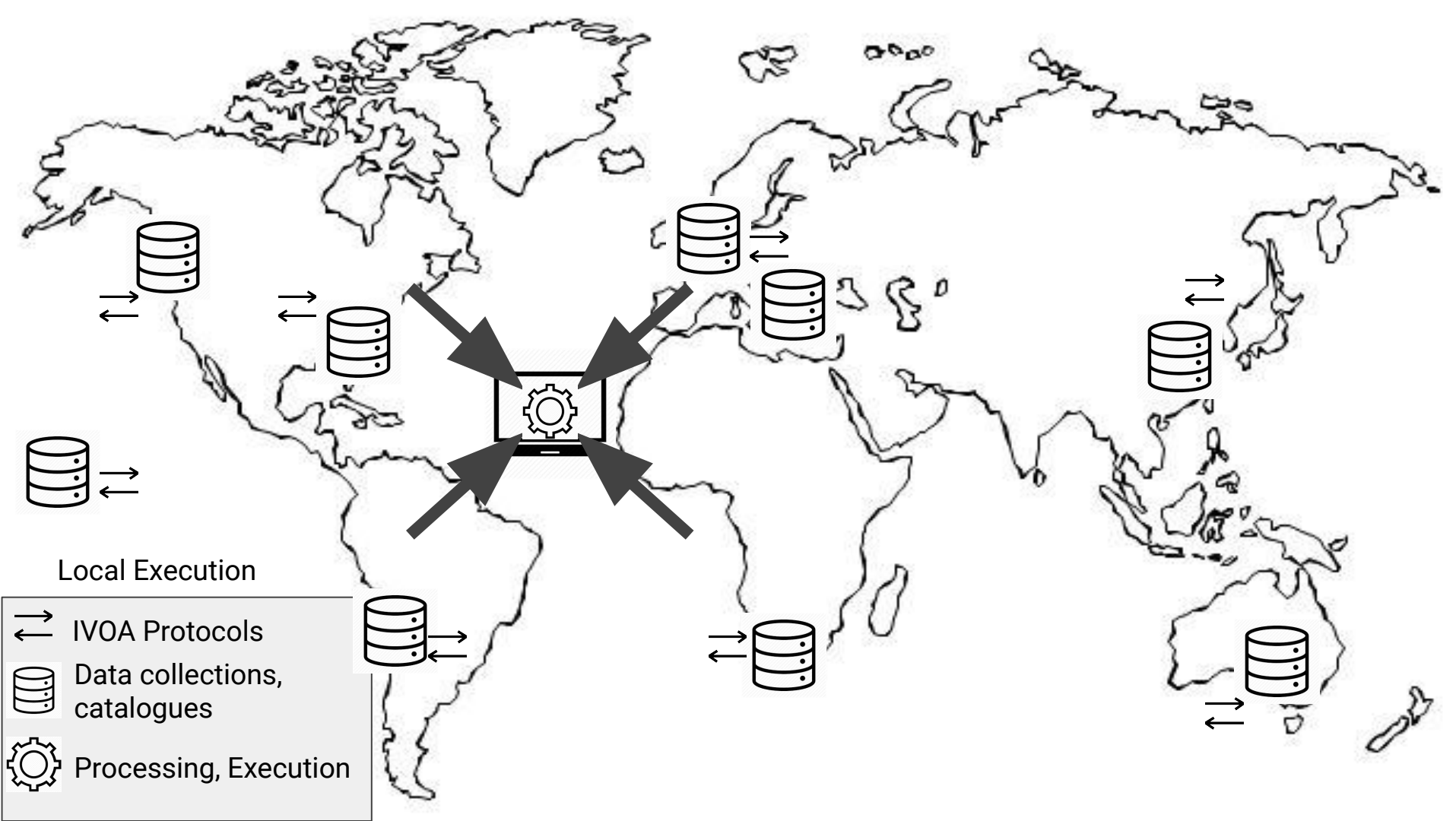
## Authorization (what are you allowed to do?)

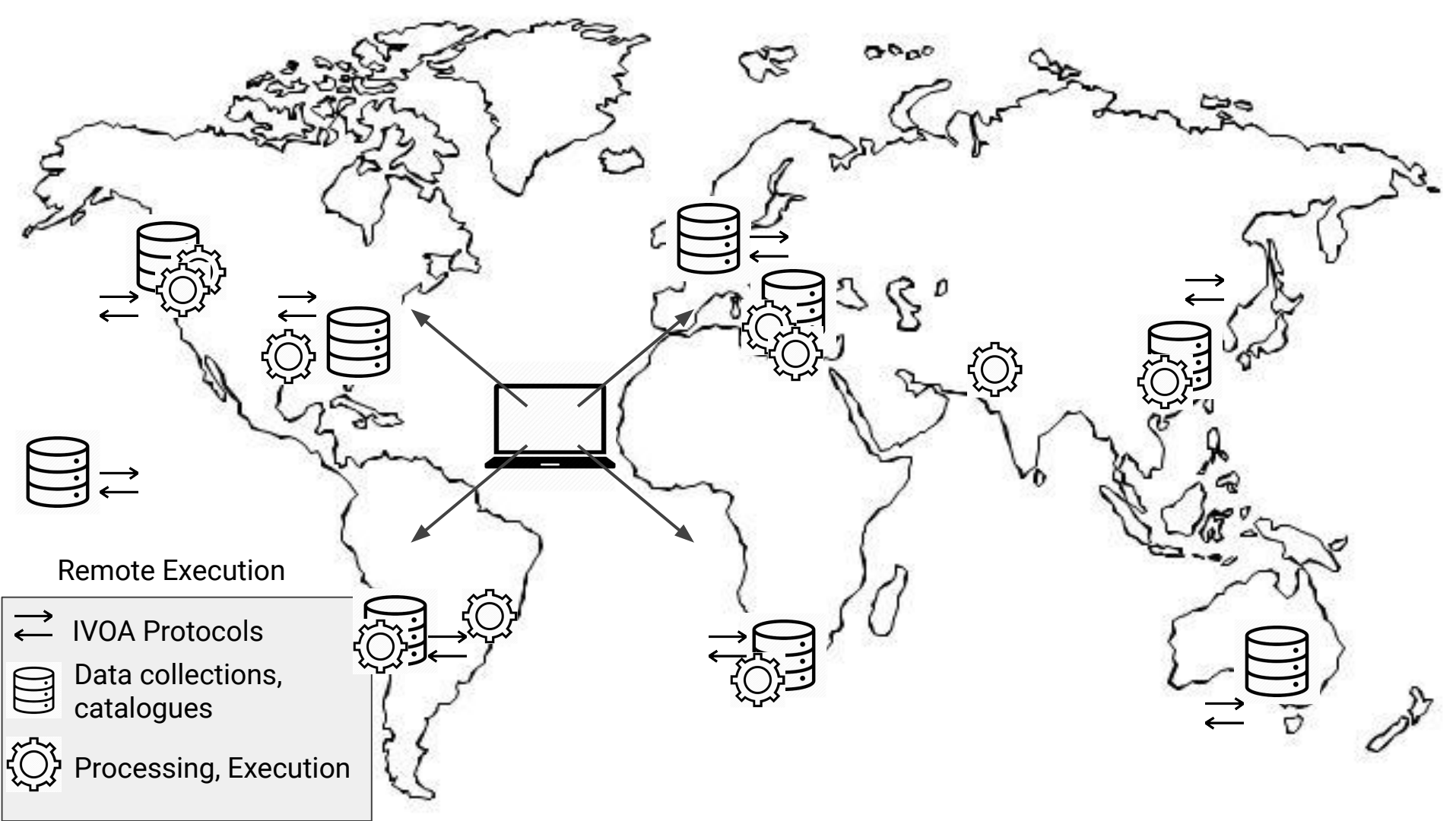
- Group Membership Service (GMS)

# Science Platforms / Remote Execution



- Many prototypes and production platforms offered by different institutions.
- How can a data scientist coordinate a workflow that uses processing resources at different institutions and data centres?
- How can a distributed workflow be reproduced?





# Remote Execution Standardization



- IVOA Protocols already address data access -- we just need to make that access as local as possible
- Interoperable A&A required -- Almost there!
- How to save and share output results (VOspace & GMS)



# Remote Execution Standardization



- How to send data algorithms to a data centre?
- How to describe resource requirements and input parameters?
- How to insulate platforms from rapidly changing technologies?
- How to integrate with commercial cloud platforms?

# GWS Session

Tuesday - 14:00-15:30 - Salle Denisse



- Simon O'Toole: Implementing SSO with all the protocols
- Brian Major: Group Membership Service updates
- Sara Bertocco: Data exchange and computation between data centers using common A&A
- Christine Banek: Bring Your Service to the Data with Kubernetes
- Discussion

# TAP 1.1

## TAP and Authentication

Wednesday - 14:00-15:30 - Salle de Verrier



TAP 1.1 will set the precedent for authentication in the IVOA

Spans at least 4 working groups: DAL/Apps/GWS/Reg

- Pat Dowler: TAP 1.1 (wide interest)
- Mark Taylor: TOPCAT support for authentication in TAP-1.1
- Markus Demleitner: Registry perspective
- Discussion and ***conclusions***

Have a productive week!

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