# Current status

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# Standards update

- **Credential Delegation Protocol (CDP)**
  - IVOA Recommendation 18 Feburary 2010
- **Universal Worker Service (UWS)**
  - RFC: 10/05/2009 – 11/05/2009
  - TCG Review: 02/17/2010 – 03/19/2010
    - ○ Still awaiting (dis)approval from 6 WGs (05/16/2010)
    - ○ Typos and minor corrections
- **VO Support Interface (VOSI)**
  - RFC: 04/09/2010 – 05/14/2010
    - ○ Some clarification and restructuring required
- **WS Basic Profile**
  - RFC: 03/24/2010 – 04/28/2010
    - ○ One set of comments so far – clarification and restructuring required



"Our standards are very high. We even have high double standards."

# VOSpace 2.0: changes

- New Working Draft 03/23/2010
- Changes since last version (discussions and agreements from Strasbourg and Garching):
  - Corrected identifier resolution to HTTP endpoint
  - Sibling resources: properties, views, protocols, searches, nodes, transfers
  - Transfer representations include target URI
  - All data transfers – pushTo/pushFrom/pullTo/pullFromVoSpace, move and copy – now involve UWS
  - Added HTTP GET for a direct transfer (view = data): redirect allowed
  - Searches now involve UWS
  - Listings now a HTTP GET to a node (no more listings resource)

# VOSpace 2.0: issues

- Added vos:group attribute to UWS Job representation:
  - When multiple protocols are specified, we may need to associate a particular *protocolEndpoint* parameter with its respective *protocol* parameter (pushFromVoSpace) but in UWS these are all uws:parameters (UWS cannot handle complex input structures):

    ```
    <uws:parameters>
        <uws:parameter id="protocol">ivo://ivoa.net/vospace/core#httpput</uws:parameter>
        <uws:parameter id="protocolEndpoint">http://some.server.com/put/the/data/here</uws:parameter>
        <uws:parameter id="protocol">ivo://ivoa.net/vospace/core#ftpput</uws:parameter>
        <uws:parameter id="protocolEndpoint">ftp://some.other.server.com/put/the/data/here</uws:parameter>
     </uws:parameters>
    ```
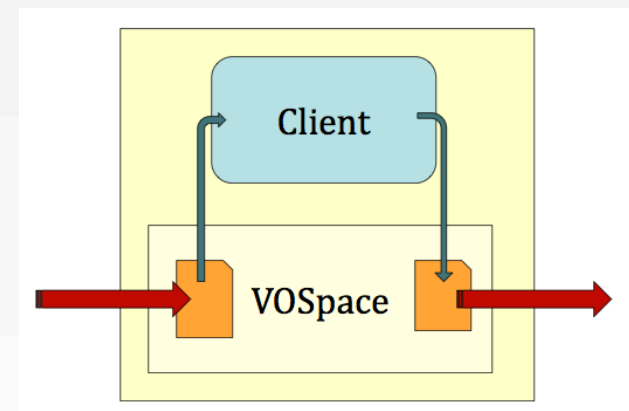
  - The attribute should appear on both parameters and have the same value for a particular *protocol - protocolEndpoint* pairing.

    ```
    <uws:parameters>
        <uws:parameter id="protocol" vos:group="protocol1">ivo://ivoa.net/vospace/core#httpput</uws:parameter>
        <uws:parameter id="protocolEndpoint" vos:group="protocol1">http://some.server.com/put/the/data/here</uws:parameter>
        <uws:parameter id="protocol" vos:group="protocol2">ivo://ivoa.net/vospace/core#ftpput</uws:parameter>
        <uws:parameter id="protocolEndpoint" vos:group="protocol2">ftp://some.other.server.com/put/the/data/here</uws:parameter>
    </uws:parameters>
    ```

  - For an internal data transfer, this parameter is not required.
- Missing node hierarchy diagram
- Schema bugs
- WSDL (2.0)/WADL?

# VOPipe

- Motivation:
  - Stream data efficiently using VOSpaces
    - Like async messaging but with performance
  - Chain VOSpaces into data-flows
    - Easy dynamic setup for specific tasks
- Simple interface
  - CreatePipe (src, dest)
  - DestroyPipe (pipe)
  - WriteChunk (pipe, name)
  - ReadChunks (pipe, timeout, state)
- Model as UWS
  - Add /pipes resource to VOSpace

# What's next

- Address RFC comments on UWS, VOSI and WSBP
- Registry extension schema for VOSpace
- VOPipe
- VOSpace + Provenance DM
- VOSpace + SAMP
- VOSpaceProxy
- UWS-PA
- SAWSDL?

SO LONG
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THANKS FOR ALL THE FISH