Operations IG

Chair: Tom McGlynn
Vice-Chair: Mark Taylor

IVOA Interop Meeting
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Data Center Reports

China-VO (Changhua Li)

- Many users, big facilities (FAST, LAMOST)
- Focus on moving computation to data
- VOSpace, Apache CloudStack, OAuth 2.0, IPv6

WFAU Edinburgh (Stelios Voutsinas)

- Hosts several large survey databases using SQL Server
  (Primary: UKIDSS, VISTA, ...; mirror: SDSS, WISE, ...)
- Till now: many AstroGrid DSA TAP services, + Cone, SIA, SSA
- Very soon: new TAP implementation (same data in fewer services) ☺ ☺ ☺
- Docker, VMs; stateless replaceable components
- Testing: big list of historical user SQL queries
- Users (slowly?) getting used to ADQL (from SQL Server)

Operational Issues

IPv6 (Dave Morris)

- Coming sooner or later ... (address exhaustion)
- *Probably* won't cause many service/client problems
- Potential for more efficient routing
    - ▷ (50x speedup? China-VO tests)

HTTP→HTTPS transition

- See GWS

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Miscellaneous (Stelios)

- IVOA Forum?
  - ▷ More friendly alternative to mailing list, especially for newer VO users/implementors

Validation Status

Bulk validation reports

- PADC (Pierre Le Sidaner)
- Euro-VO (Costas Vrioni)
- HEASARC (Tom McGlynn)

Service compliance seems to be improving!

New validators

- HiPS (CDS)
- UCD (Grégory Mantelet)
- EPN-TAP (PADC) ... may be on its way

Missing validators

- DataLink
- ... and some others

Validation Publication?

Could/should validation results be published somewhere?

- Use cases:
    - Compare/aggregate results from different validators
        - ▷ Probably feasible, not clear if it's worth the effort
    - Provide something to clients (for users) characterising service
        - ▷ Nice idea, but probably not feasible for practical/political reasons
- Implement using "ValidityTAP" if at all
    - Potential implementors to consider what DM ($\rightarrow$ relational schema) would look like
- Keep under consideration

Validation Discussion

- ## HiPS validation
  - Validator now available
  - CDS to run centralised validation?

- ## Validator discrepancies
  - Identify & discuss discrepancies or controversial requirements:
    validator/validator or validator/implementor disagreement
    — *Cone Search 2.3b*
  - Are some validators too strict?
    Should we care about/report validity failures that don't affect actual usage?
    — *mandatory SSA fields*

- ## Throttling?
  - high-volume validator requests, throttled by some services
    - ▷ → effect on apparent uptime?
  - should we have best practice for validator/other client throttling?
    - ▷ HTTP 503 Retry-After?
  - How about validation of *clients*?

Roadmap

- Identify & follow up validation discrepancies

- Monitor HTTP→HTTPS transition issues

- Monitor IPv6 issues (hopefully no problems...)

- Ensure standards have validators (IvoaValidatorsSummary page)

  - DataLink!

- Monitor/support central validation services

  - Cone, SIA, SSA, TAP: PADC, Euro-VO, HEASARC
  - HiPS in the future? *(CDS?)*

- Validation result publication

  - Keep under consideration
  - Support "ValidityTAP" experimentation?

- Consider service throttling: validators, user clients