

Charter for IVOA Operations Group

Goal

Coordinate and publicize activities of individuals, institutions and groups interested in facilitating robust operations of distributed astronomy applications, particularly those based upon implementations of IVOA protocols.

Specific responsibilities

1. Periodically provide reports to the IVOA executive summarizing availability, quality and usage statistics for distributed services and VO protocols.
2. Promote discussion within the IVOA on standards and practices that would increase the reliability of VO implementations.
3. Publicize existing forums and encourage new ones for notifications, discussions and questions regarding operations of VO/distributed services.
4. During the IVOA standards review process, assess the validation capabilities that are now required as part of new standards.
5. Develop nominal implementation strategies for VO services as guides to best practice in the use of VO protocols.

Strawman Implementation of responsibilities

The following sections suggest how the elements discussed above might be carried out initially but should not be thought of as requirements but as initial suggestions to be refined with more general inputs.

Periodic reports to executive

For each IVOA InterOp meeting a report summarizing the available measures on service uptime, data validation and usage would be presented to the executive. This would use existing resources and would include comparable historical data. The scope of what currently is being measured and what might additional statistics would be desirable would also be included. Ideally the executive would respond to these reports and subsequent reports would be updated in light of these comments. Currently the HEASARC's measures for uptime and validation while crude may be the best overall measures, but the goal here – as always – is to collect data wherever they are available. It is unclear if there are currently any public measures of usage of VO protocols and it may be controversial to include them.

Ideally these reports will also include discussion of idiosyncrasies of the IVOA standards that cause operational problems.

Discussion of operational practice within the IVOA

This would be theme of sessions sponsored by this group within the IVOA. Issues that might be discussed include robustness and issues of existing standardized software, security, handling of high volumes of requests, implementation strategies for VO tools,

Publicizing and promoting forums for operations discussions

This is the core activity for this group.

Operations discussions need to take place on different time scales for different kinds of issues. Questions like “Why is X down?” need response on time scales of hours to days, while “Should I implement a single TAP service or a separate service for each of my tables?” is a discussion that may continue indefinitely as different sites bring up their disparate requirements. The audience for the first question should include the actual operations personnel at distributed sites, while the developers and the personnel responsible for the overall management of sites may have more to say about the second.

To address this, the operations group should support a multi-tiered communications strategy. The mailing list associated with the operations group itself, may lend itself to longer term discussions which will also spill into the InterOp meetings. To help users who need immediate response, the operations group should publicize forums where such questions can be raised and if there is need develop new ones: perhaps some kind of modern chat room. If we can achieve sufficient interest, then users with questions will have a place where they can quickly find answers. There may also be live meetings (e.g., regular telecons) which allow sufficiently broad participation that they may be of interest to the IVOA community generally. Discussions that may affect the visibility of VO services should especially be publicized. E.g., there are periodic discussions of when services may be deprecated by the ST Scl registry.

The operations group can also review the metadata associated with VO services to ensure that appropriate contacts are given and if necessary supplement registry information with contacts on the group’s web pages.

Finally, the operations group would publicize appropriate tools, e.g., notification services that may be available within the community to facilitate communication of operations issues.

Reviewing validators

Section 2.1 of the IVOA Document Standards indicates the requirements which standards should satisfy before being promoted from working draft to proposed recommendation. This includes

The Working Group should be able to demonstrate two interoperable implementations of each feature, and validation tools should be available.

Since validation tools are an essential element to making robust services, the Operations Group would specifically assess these during the review process. Operations may also weigh in on other operational aspects of the proposed standard (e.g. security implications) as appropriate.

Develop nominal implementation strategies

Given that there are many VO protocols which can be implemented to many different levels and that these protocols often invoke one another, it may be useful for the operations group to develop nominal VO implementation policies that suggest an appropriate mix of capabilities, the order in which they can be implemented and possible frameworks that may be helpful in the this implementation. Such documents would highlight areas of particular concern in the operational deployment of protocols: e.g., noting that Cone Search services are still required to provide UCD 1 UCDs, or that TAP requires the implementation of specific schemas and tables which can then be used to test the service.