

Statement of Work: YangCatalog

Three Independent Tasks

This SOW contains three sections that describe three independent tasks:

1. Support for transitioning the operation of the YangCatalog to the IETF Secretariat;
2. Support for operating the YangCatalog web site; and
3. Adding the features of the yangvalidator project to the YangCatalog.

This SOW describes three independent tasks, and a bidder can choose to bid on one, two, or all three tasks. Bids for each section are expected to stand by themselves. Each section will be awarded independently.

The contractors selected for any of the tasks are expected to have the following qualifications:

- Deep knowledge of YANG models and the NETCONF protocol
- Practical experience of the ConfD and various YANG-related tools (pyang, yanglint, etc.)
- Software engineering in Python 3, SQL database, Elastic Search, Django framework, UWSGI + NGINX (or Apache 2 and mod_wsgi), use of GitHub
- Knowledge of the yangcatalog API (see the last section of <https://yangcatalog.org>) and how to contribute to the yangcatalog project (see <https://yangcatalog.org/contribute.html>).

Support for Transitioning the Operation of the YangCatalog to the IETF

This task requires a bid for hourly work as requested by the IETF Tools Team, as well as hours and actual travel expenses to attend the IETF-104 Hackathon. Hours and travel expenses to attend the IETF-104 Hackathon are guaranteed to the winner. Additional hours depend on the work that is needed over the period of the contract.

This task includes:

- Fix transition related bugs as identified in the YangCatalog issue tracker;
- Assist with changes needed to the YangCatalog to better work with the IETF provided infrastructure as they are identified; and
- Participate in the IETF-104 Hackathon sessions focusing on the YangCatalog at IETF 104. (See <https://www.ietf.org/how/runningcode/hackathons/104-hackathon/>).

Support for operating the YangCatalog

This task requires a bid for hourly work as requested by the IETF Tools Team.

The contractor will provide between 0 and 8 hours per week of support, as requested by the IETF Tools Team, for operating the YangCatalog, for up to 6 months after the date of award, at which time the contract may be renewed.

This task includes:

- Answer all emails sent to info@yangcatalog.org;
- Ensure that the databases and the metadata are consistent, available and with their integrity preserved;
- Act as a technical point of contact for all metadata for YANG modules (for all contributions, including those from the IETF, other SDOs, and industry consortia);
- Apply upgrades to all the tools used by the YangCatalog (such as pyang, confd, yanglint, and yangdump-pro), if not done automatically; and
- Fix yangcatalog github open issues, as populated by the community, following priorities set in coordination with the IETF Tools Team.

Adding the features of the yangvalidator project to the YangCatalog

The yangvalidator project (see <http://www.yangvalidator.com/> and <https://github.com/cmoberg/bottle-yang-extractor-validator>) is an open-source BottlePy- and CherryPy-based yang validation tool. This task adds the features from the yangvalidator project to the YangCatalog. This will require reimplementation to change the framework from BottlePy and CherryPy to Django. The yangvalidator code is currently written for Python2.7. The YangCatalog codebase is written for Python 3.6. The task will also integrate the yang validation code with the local YangCatalog repository of YANG models.