# The Internet Society

## on behalf of

# The IETF Administrative Oversight Committee

## Request for Proposal

### RFC Editor
### RFC Format Tools

**Date of Issuance:  September 20, 2016**
**Proposal Submission Deadline: October 17, 2016**

**IETF Request for Proposals**

**RFC Format Tools**

The Internet Society ("ISOC") on behalf of the IETF Administrative Oversight Committee (IAOC) is soliciting this Request for Proposals ("RFP") to provide a suite of tools for future RFC formats. Those submitting a Proposal ("Vendor") shall do so in accordance with this RFP.

## I.     Introduction & Overview

### A.  Introduction

The RFC Editor plans to produce a canonical RFC document in XML using the xm2rfc v3 grammar, and to publish the RFC in several Publication Formats as defined in RFC 6949. This new process requires new and updated tooling, including a revised idnits, a Publication Formatter, diff checkers, XML and SVG validators, and a text to XML generator.

### B.  Overview

### 1.  idnits

The idnits program inspects Internet-Draft documents for a variety of conditions that should be adjusted to bring the document into line with policies from the IETF, the IETF Trust, and the RFC Editor.

Deliverables/Tasks

• Identification of high-level modules and design of the API for those modules
• Identification appropriate existing APIs into document and series metadata (for retrieving current document state and the contents of the downref registry),
along with design and development of any additional needed interfaces.
• Design of the command-line arguments
• Development of the application
• Development of an extensible suite of test documents and tests demonstrating correct behavior for each of the below requirements
• Integration of the application into production systems

### 2.  Publication Formatter

The RFC Editor plans to produce a canonical RFC document in XML using the xml2rfc v3 grammar, and to publish the RFC in several Publication Formats as defined in RFC6949.

This project will result in one or more applications to produce the Text, HTML, and PDF publication formats from an xml2rfc v3 source document. It will also produce a

mechanism to create an xml2rfc v3 document from an xml2rfc v2 document, and a mechanism to conditioning an xml2rfc v3 document entry into the RFC archives.

Deliverables/Tasks
• Design the command line interface(s) and API(s)
• Develop the conversion application(s)
• Demonstrate the conversion of a specified set of test document in a standalone environment
• Demonstrate the conversion of a specified set of test documents using a web service
• Provide an extensible test suite for the application(s)
• Provide documentation, and training for the RFC Production Center staff

3. RFClint

There are several tasks involved in authoring an Internet-Draft and in making an RFC ready for publication that can be automated or assisted programmatically. The current production process utilizes several programs to validate or manipulate the document content. These programs perform tasks like verifying conformance criteria, identifying duplicate words, locating dangling references, and checking spelling.

The RFC Editor wishes to unify and streamline this process to balance the expected complexity involved in producing documents in the upcoming xml2rfc v3 format. This project will create a command-line program that can be used to incrementally process an xml2rfc v3 formatted document towards being publication ready. This program will also be useful to authors preparing Internet-Drafts.

Deliverables/Tasks

• An application providing the capabilities described below.
Detailed Description
For a given input document, the application will help authors and the RFC Editor:
• Identify and optionally remove duplicate words
• Identify and optionally correct misspelled words
• Verify that imbedded XML stanzas are well formed
• Verify that imbedded ABNF is complete and well formed

The application will take an xml2rfc v3 formatted document and a set of command line arguments, and produce diagnostic output and, when appropriate, an output xml2rfc v3 formatted document. The operations must not modify the input file directly.

4. svgcheck

The upcoming RFC format will allow line drawings in RFCs using a specialized profile of the SVG (Scalable Vector Graphics) language. That profile is specified in draft-iab-svg-rfc.  It is a restricted subset of the SVG 1.2 Tiny profile.

The RFC Editor requires a tool to verify that submitted SVG is valid and conforms to this specialized profile. This tool must also be usable by authors to identify and correct any issues before submission.

Deliverables/Tasks
• An application that reads one or more SVG documents and provides diagnostics regarding its well-formedness and conformance to the profile specified in draftiab-svg-rfc
• A test suite for the application.
• Documentation and training for the RFC Production Center staff

5. Text Submission

The RFC Editor intends to accept submission in plain text and XML, but will be working primarily in XML using the xml2rfc v3 grammar. The most common submission format supplied now is Internet-Draft formatted text.

The goal of this project is to simplify the creation of an initial xml2rfc v3 version of a document submitted in another non-XML format. A perfect automated conversion is not expected. Rather, the application should produce a document that is well formed, and sufficiently close to correct that an editor can complete the conversion with minimal effort.

Deliverables/Tasks

This project will create an application to convert an Internet-Draft formatted text file to an xml2rfc v3 document. The development effort will include
• Designing the command line interface
• Demonstrating the conversion of a specified set of text documents
• Providing an extensible test suite for the application
• Documentation, and training for the RFC Production Center staff

6. XML Diff

The rfcdiff utility has been very useful for inspecting the changes in versions of Internet-Drafts and RFCs during the creation process. The rfcdiff utility will continue to be useful with the upcoming text publication format. Other tools may evolve for comparing versions of the remaining publication formats.

It would be useful to be able to directly compare the XML source of different versions of a document, particularly to rapidly identify changes in document structure or attributes within tags. These changes may or may not have a simple corresponding change amenable to representation through differences of one of the publication formats. This project will create a differencing tool for the xml source documents.

Deliverables/Tasks

• An application that operates on two xml2rfc v3 source documents, producing a

visual presentation of the meaningful differences in the source.
• A test suite for the application exercising the use cases described below
• Documentation and training for the RFC Production Center staff


## II. Instructions and Procedures

### A. Submissions

Proposals must be received via email at tmc@ietf-bids.org no later than October 17, 2016.

The Vendor assumes all risk and responsibility for submission of its Proposal by the above deadline. ISOC shall have no responsibility for non-receipt of Proposals due to network or system failures, outages, delays or other events beyond its reasonable control.

All Proposals shall become the property of the Internet Society.

### B. Questions and Inquiries

Any inquiries regarding this RFP must be submitted in writing to tmc@ietf-bids.org. Other than such inquiries, Vendors are prohibited from contacting any person or institution involved in the selection process concerning this RFP.

Questions may be submitted at any time; however, all questions/inquiries must be submitted in writing and must be received no later September 28, 2016.

Responses to questions and inquiries shall be posted on the IAOC website, https://iaoc.ietf.org/rfps.html, no later than October 3, 2016.

### C. Addenda and Updates

Any addenda and updates to this RFP shall be posted on the IAOC website, https://iaoc.ietf.org/rfps.html. Any RFP addenda and updates will be posted no later than October 3, 2016. Each Vendor is responsible for checking the IAOC website prior to submission of any Proposal to ensure that it has complied with all addenda and updates to this RFP.

### D. Selection Criteria

Each Proposal must specifically address each of the selection criteria listed in Section III.B, and each proposal must use the format provided in Section IV.A. Each Proposal may be accompanied by any technical or product literature that the Vendor wishes the IAOC and the Internet Society to consider.

The IAOC will seek to enter into a contract with one or more Vendors that the IAOC deems, in its sole discretion, to represent the best value combination of performance and cost, not necessarily the low bidder.

E.    Cancellation; Rejection

The Internet Society reserves the right to cancel this RFP, in whole or in part, at any time. The IAOC may reject any or all Proposals received in response to this RFP in its sole discretion. The Internet Society makes no guarantee or commitment to purchase, license or procure any goods or services resulting from this RFP.

F.    Costs and Expenses

Each Vendor is responsible for its own costs and expenses involved in preparing and submitting its Proposal and any supplemental information requested by the IAOC. The Internet Society shall not reimburse any such costs or expenses.

G.    Public Information

The IAOC is committed to transparency in the manner in which it conducts its operations. Accordingly, the following principles will apply to the Proposal and negotiations:

The names of all Vendors submitting Proposals may be announced publicly, but the Proposals and individual negotiations with Vendors will not be publicly announced or published.

Any Agreement negotiated with a Vendor, excluding cost and business confidential material as agreed to, will be made public after execution.

H.    Intellectual Property Rights

All work performed, all software and other materials developed by the Vendor under the Agreement, shall be "works for hire" and shall be owned exclusively by the IETF Trust, and the Vendor shall not obtain or retain any rights or licenses from any work. Open source software is exempt from this requirement. Solutions based on existing vendor software are also exempt from this requirement as long as the IETF Trust is granted a non-revocable perpetual license to use the software. Additional conditions may apply.

I.    Relationships

Describe any relationship between your company, or any parent, subsidiary or related company, or any director or officer of any of them, with the RFC Editor, Internet Society, IAOC, IETF, IETF Trust, or any employee, director, officer or consultant of any of them.

J.    Process Modification

In the case where responses to this RFP fail to meet the basic requirements defined herein, the IAOC reserves the right to modify this RFP process.

The IAOC may choose to re-open the RFP or to enter into further negotiations with one or more of the Vendors if the situation warrants at the discretion of the IAOC.

**III.    Selection**

A.    Selection Procedure

  1. The IAOC will or will cause the review and evaluation of each proposal to determine if the Vendor is qualified.
  2. The IAOC will contact references.
  3. The IAOC may conduct interviews and may require oral presentations.
  4. Requests for clarity may be made of the Vendor.
  5. Qualified Vendor, if any, will be notified of their selection for advancement to the negotiation phase by October 27, 2016.

B.    Selection Criteria as Judged by the IAOC

The IAOC must have confidence in the Vendor - its qualifications, experience, capabilities, personnel, timely performance, and professionalism.  To that end the IAOC will evaluate the following to inform its decision:

  1.  Vendor qualifications and experience performing similar services
  2.  Key personnel qualifications, if any
  3.  Vendor ability to meet requirements
  4.  Proposal as a reflection of the Vendor's understanding of the IETF, their processes, culture, and the scope of work and methodologies
  5.  Oral presentation, if conducted
  6.  Cost to furnish the services in USD; note that the lowest cost offer will not necessarily be awarded a contract

C.    Schedule

The IAOC intends to process this RFP in accordance with the following schedule:

| Projected Schedule of Events | |
| --- | --- |
| **Date** | **Action** |
| September 20, 2016 | RFP Issued |
| September 28 | Questions and Inquiries deadline |
| October 3 | Answers to questions issued |
| October 3 | RFP Addenda & Update issued |
| October 17 | Proposals Due |
| October 27 | Negotiations Begin |
| November 7 | Contract Execution |
| November 14 | Work Begins |

**IV.    Proposal Format**

A.        Proposal Submissions

Proposals shall be submitted using the following format:

1.  Executive Summary
2.  Project Approach & Plan
3.  Schedule
4.  Test Plan
5.  Cost & Payment Schedule
6.  Warranty & Late Delivery Consequence
7.  Technical Support & Maintenance
8.  Documentation
9.  Experience, Qualifications and Accomplishments
10.  Key Personnel Resumes, if any
11.  References (Two references attesting to performance)
12.  Subcontractor Information (if any)
13.  Assumptions
14.  Intellectual Property
15.  Miscellaneous

**V.      Statements of Work**

SoWs for each of the following tools can be found here:
https://iaoc.ietf.org/rfps.html

1.  idnits
2.  Publication Formatter
3.  RFClint
4.  svgcheck
5.  Text Submission, and
6.  XML Diff