RFC PUBLISHER STATEMENT OF WORK

This Statement of Work describes tasks to be performed by the RFC Publisher.

Overview.

The RFC Publisher function is described in RFC 6635 and is responsible for the storage and post-publication data for RFCs, access to the website, access to the errata reports, search tools and indexes, the archive of documents, and all backups and failover processes. The RFC Publisher shall house the current suite of "tools" utilized in connection with the RFC Editor services functions. While tightly integrated with the work of the RFC Production Center (RPC), the Publisher is considered a discrete function of the RFC Editor. Interaction with the Publisher is primarily through the RFC Series Editor (RSE) and the RPC with the exception of general reports of service outages, which may come from the community as well as the RPC or RSE.

The Publisher will accept, store and publish documents from the RFC Production Center and other material as determined by the RSE. The RSE may authorize other entities to submit documents directly for publication, but those documents are published on the authority of the RSE. Changes to the publication process and public-facing tools will be made under the advice and approval of the RSE.

1 RFC Access

- 1.1. RFCs are published on the Publisher's website. This site includes one or more indexes with hyperlinked access to published documents as well as a convenient search engine. The search engine will return a catalog ("index") entry for one or more RFCs, matching on title, keywords, author, or number. The Publisher also provides access to individual RFCs and to collections of RFCs using FTP, rsync and other technologies as requested by the community and approved by the RSE.
- 1.2. Websites Support. The Publisher shall provide a distributed Web service for rfc-editor.org. This includes:
 - 1.2.1. providing at least two (2) independent, geographically separate sites, with a response time in line with current network standards,
 - 1.2.2. allowing for updates of appropriate material by the Production Center or their delegates,
 - 1.2.3. storage area adequate for archived copies of published RFCs,
 - 1.2.4. the provision of monthly reports of website performance,
 - 1.2.5. post Web content as provided by the RSE, ISE, and/or the RFC Production Center,
 - 1.2.6. stable identifiers must be maintained for the RFCs, archives, Errata, indices and other items,
 - 1.2.7. provide continual incremental improvements, including regularly redesigning web page trees to respond to common usage patterns. However, stable identifiers must be maintained for the RFCs, archives, Errata, indices and other items.
- 1.3. Mailing List Services. With respect to all authorized RFC Editor services mailing lists the Publisher shall provide the following services:
 - 1.3.1. the ability to host 12 or more mailing lists,
 - 1.3.2. web-based mailing list maintenance tools.
 - 1.3.3. commercially reasonable spam filtering measures, including, at a minimum, those spam filtering measures the Publisher takes to protect the RFC Editor mailing lists,
 - 1.3.4. dual redundant systems except during scheduled maintenance, during which time at least one system should be available,
 - 1.3.5. collection and storage of UTF-8-capable and HTML-formated archives for all

- RFC Editor services lists, including RFC Services mailing lists, if any, not hosted by the Publisher where the Publisher has been provided access authority or that are provided to Publisher in a format for which Publisher is able to archive, and
- 1.3.6. conversion facilities as needed to ensure that all messages distributed from those lists use "charset" types of either ASCII or UTF-8.
- 1.4. Customer Support Services. Messages sent to certain conventional addresses as defined by the RSE, such as webmaster@rfc-editor.org, shall automatically be delivered to the RFC Production Center.
- 1.5. IP Support. The Publisher shall provide world-class IP support, IPv4 and IPv6. All services should be accessible from IPv4 and IPv6, with no difference in performance, quality, delay, and support.
- 1.6. Subdomain Support. The Publisher shall provide DNS delegation and DNS support for any RFC-Editor subdomains approved by the RSE.
- 1.7. Services Security. Services are to be protected by best commercial practice industry standard security mechanisms, such as DNSSEC.
- 1.8. Backups. Backups shall follow best commercial practices, such as off-site storage of backup media, to provide a robust backup and restore capability.
- 1.9. Distributed Information of RFCs
 - 1.9.1. Official Archives, and
 - 1.9.2. RSS and ATOM feeds
- 1.10. Tools.
 - 1.10.1. The Publisher shall house the suite of tools (scripts and applications) utilized in connection with the RFC Editor services functions. The Publisher shall ensure a secure environment for tools that may be accessed and used by appropriate personnel. A current snapshot of required tools is listed in Appendix 2.
 - 1.10.2. All non-proprietary tools shall be licensed in accordance with current IETF Trust policy.
 - 1.10.3. Future tools may be separately contracted and may be put out for separate bid.
- 2. Maintenance of archives, indices, errata and lists associated with RFCs

 The Publisher is the custodian of Series-related records on behalf of the IETF Trust.

2.1. Indexing: Publishing of the Catalog

- 2.1.1. Make available the index of all published documents.
- 2.1.2. Provide the permanent archive for published documents.
- 2.1.3. Secure the archive to prevent the modification of published documents by external parties.
- 2.1.4. Provide the permanent archive of any source documents associated with a published document.
- 2.1.5. Surrender materials on termination of contract to the IETF Trust.

2.2. Post Publication Corrections

- 2.2.1. Provide tools to manage the errata process for published documents. The tools' functionality shall consider the needs of the community being served.
- 2.2.2. Provide access to the relevant errata and associated information (such as approval and classification) as part of the information associated with an RFC.

2.3. Access to Published Documents

- 2.3.1. Provide access to search tools for finding published documents and relevant meta information associated with a published document, and display meta information for example: category of document, maturity level (if standards track), obsoleted by or updated by information, and associated errata.
- 2.3.2. Provide access to allow for integration of RFC Editor queue and publication data with the IETF search tools as appropriate as determined by the RSE.
- 2.3.3. Provide direct access to published RFCs, by generally used methods such as FTP, HTTP and RSYNC.
- 3. Communication of relevant RFC processing information online The Publisher shall maintain a website that includes the following information:

3.1. Publication Status Tracking

- 3.1.1. Publish state information for each document in the publication process.
- 3.1.2. Integrate Production Center state information with the IETF tools or such other tool sets as directed by the RSE to provide end-to-end status tracking of documents.

3.1.3. Provide external visibility regarding when a document is in an extended waiting period, the token-holder and circumstances of the wait.

3.2. Publication Statistics and Status Reports

3.2.1. Make available reports provided by the Production Center, Stream Managers, and RSE.

4. Liaison, Coordination, and Collaboration

If there are significant costs associated with the items listed in this section, the Publisher will work with the RSE and the IAD to determine a budget.

- 4.1. The Publisher will provide a contact email address.
- 4.2. The Publisher will, upon request, take part in IESG, IAB, and other meetings and discussions whether face to face or by electronic means.
- 4.3. The Publisher will, upon request, participate in coordination conferences with Stream Managers, the RSE, the RFC Production Center, the IAD, and others.
- 4.4. The Publisher will, upon request, make regular reports at IETF meetings, online, in writing, and/or in person.

5. Specific Deliverables

In addition to the foregoing functions and tasks there are specific deliverables:

- 5.1. The Publisher's Procedures Manual: The Publisher shall prepare a Procedures Manual describing with clear detail each task performed in the provision of publication services.
- 5.2. Information Systems: Systems in direct support of the Publisher and RPC shall be documented with the goal of portability during a transition.

5.3. Innovations

- 5.3.1. The Publisher, under the direction of the RSE, will continuously examine its system administration for possible improvements, experiment with feasible and useful ones, and adopt those that succeed. The Publisher should consider innovations to improve efficiency, improve coordination and transparency, and improve quality. The Publisher will review all proposed changes with the RSE for approval and report out to the streams on the implementation and result of those changes.
- 5.3.2. The Publisher will attempt steady progress on their proposed innovations and shall report progress thereon three times a year (before each IETF meeting) and provide additional reporting and reviews as directed by the RSE.

6. Process and Evolution

- 6.1. Participate in the discussions of the technical publication process with the RSE for policy changes.
- 6.2. At the direction of the RSE, participate in and support prototyping and experiments involving the technical publication process that may improve the RFC Series process. If there are significant costs associated with the experiment, the Publisher will work with the RSE and the IAD to determine a budget.

7. Accountability

The Publisher is primarily responsible to the RSE as regards to RFC Series consistency.

APPENDIX 1: Customer Support Guidelines

Definitions

- "Business Hours" or "business hours" shall mean those hours contained within a Business Day as defined in Table 1 below.
- "Customer Facing Incidents" or "CFIs" means the outages and impairments within Vendor's Span of Control that adversely affect the Internet Community's ability to use the RFC Publisher Service.
- "Customer Support" means the personnel assigned by Vendor to interface with the Internet Community on all CFIs. Customer Support shall be provided by Vendor Help Desk.
- "Data Center" or "DC" means the physical location in which Vendor provides the facilities, equipment and personnel to offer the RFC Publisher Service. Vendor will maintain at least two geographically distinct locations for IT services.
- "Vendor Network Operations Center" or "Vendor NOC" means the location where Vendor manages and monitors the operation of the Service.
- **"Vendor Span of Control"** means those areas of functionality with respect to the RFC Publisher Service that are under the control of Vendor. The Vendor Span of Control shall not include any Force Majeure Event or other event that is beyond the control of Vendor in its role as a provider of the RFC Publisher Service.
- "Other Downtime" means the total number of minutes in a given month during which RFC Publisher Service has been unavailable to the Internet Community due to causes that are not within the Vendor Span of Control including, without limitation, incidents or outages due to any Force Majeure Event.
- "Scheduled Maintenance Time" means total number of minutes in a given month that Vendor has taken the RFC Publisher Service off-line to perform scheduled maintenance after providing notice, if required, to the Internet Community as described below.
- "Service Availability" Service Availability shall mean the availability of the service for RFC Publisher Services. The measurement of Service Availability set forth in the Service Level Exhibit Table 2 shall not include any service unavailability arising from or due to elements beyond the Vendor Span of Control (as set forth below).
- "Unscheduled Downtime" means the total number of minutes in a given month during which the RFC Publisher Service has been unavailable to Customer due to causes within the Vendor Span of Control.

Vendor Responsibilities and Support Services

The following section sets forth the support responsibilities of Vendor in connection with the provision of RFC Publisher Services pursuant to the Master Services Agreement Addendum. Vendor responsibilities to provide these support services as described below shall apply to Customer and shall be documented.

Responsibilities

Vendor will provide service operations, maintenance and administration in support of the Internet community. At the written request of the IAD, with guidance from the RSE, Vendor shall assist with problem identification and resolution for incidents outside the Vendor Span of Control

Vendor will remedy incidents, within its Span of Control, that have been identified either by Vendor, or Customer according to the procedures set forth below and the Internet Community will provide all relevant information, if available, to Vendor.

With respect to incidents that occur in areas outside the Vendor Span of Control, Vendor will: (i) make reasonable efforts to assist with the resolution of the incident; and (ii) support the Internet Community's escalations.

Vendor Support Services

Customer Support will be the interface between the Internet Community and Vendor for support of service impacting incidents. This arrangement provides the Internet Community with a process to access Vendor for reporting incidents, receiving updates and pursuing escalation. Table 1 provides Customer Support hours of operation and contact information.

Table 1 – Vendor Customer Support Services Contact Information

	Vendor Support Services
Hours of Operation	Business Hours (M-F) 8 a.m 4 p.m. Pacific Daylight Savings/Standard Time
Contact Phone Number	
E-mail Address	webmaster@rfc-editor.org

Customer Support is primarily via email to <u>webmaster@rfc-editor.org</u> Email will primarily be used to provide follow-up information.

Physical and Network Security

The Data Center and its immediate perimeter will be monitored 24 hours per day, 7 days per week, 365 days per year. Access to the Vendor facility and Data Center will be managed via separate security/access devices. Should Vendor become aware of an unauthorized access to the Data Center that has an impact on the RFC Publisher Service, Vendor shall (i) notify Customer in writing, until changed with concurrence of IAD and RSE, (ii) investigate the unauthorized access and (iii) prepare a corrective action plan to prevent further unauthorized access.

Incident Management

Vendor Resolution Responsibilities

Vendor will provide to Customer the help desk support to (i) answer routine questions and resolve problems with respect to use of the RFC Publisher Service and (ii) enable the Internet Community to report any defect or any failure of Service. Customer Support will include access by means of electronic mail.

All incidents concerning failures of any element or aspect of the RFC Publisher Service that cannot be solved by Customer representatives after making reasonable efforts that are within the Vendor Span of Control will be reported to the Customer pursuant to the procedures outlined below. Any reported incident that is caused by a failure that is outside the Vendor Span of Control will be returned to the Internet Community with an appropriate explanation.

Customer Responsibilities

The following section identifies the responsibilities of Customer personnel and representatives under this document. Customer acknowledges that its failure to perform in accordance with the responsibilities set forth below or elsewhere in the Master Services Agreement, the Addendum or any other Exhibit or Addenda between the Parties, shall expressly waive any and all liabilities, damages and claims resulting out of Vendor's failure to perform due to Customer's material noncompliance.

Incident Responsibilities

- Initiate report via email that clearly states the problem after gathering pertinent information about the incident, including message target number and any other additional information that the parties mutually determine is important to resolution of the incident.
- Provide Vendor with necessary information that is relevant to the service
- Coordinate among Customer's operational and technical personnel as they interact with Vendor or its designees for incident resolution.

Technical Responsibilities

• Understand and remain knowledgeable about problems that may arise during usage of the RFC Publisher Services to support all decisions.

- Understand and remain knowledgeable with respect to functionality of various RFC Editor operations.
- Understand and remain knowledgeable about Customer setup and be capable of discerning whether an incident is internal to Customer operations before identifying the incident as a report to the Vendor.

Incident Handling by Vendor

Customer Support will coordinate incident isolation, provide community notification and testing & repair work within Vendor and all third-party systems that are within the Vendor Span of Control. During the incident isolation and troubleshooting process, Customer Support will communicate incident resolution progress to the Internet Community based upon the times specified on Table 2 below, and resolve the incidents in accordance with the timeframes specified in Table 2. Severity 1 issues are considered to be Unscheduled Downtime unless otherwise agreed to in writing by Customer.

Additionally, Vendor will proactively inform the Internet Community when an issue or condition arises that necessitates the creation of a report. Vendor will resolve incidents within the Vendor Span of Control within the timeframes set forth below.

Vendor will resolve outages within the timeframes set forth in Table 2.

Table 2 - Vendor Support Services Response and Incident Handling Notification Timetable

Severity Level	Conditions	Update Method	Resolution	Closure
Severity 1 Critical Business Impact	Complete loss of service and work cannot reasonably continue. Real or perceived data loss or corruption. An essential part of the service is unusable. No workaround is available.	webmast er@rfc- editor.or g	First update within 8 hours of acknowledgement. Subsequent updates every 8 hours after first update. Vendor's customer support will work continuously to resolve the problem. Customer acknowledges that it shall make available resources to Vendor's customer support to assist in the resolution of the problem. Fixes will be applied as emergency patches.	Customer receives a workaround or information that resolves the issue or a patch is implemented, if issue is due to a software defect within 3 hours. Vendor shall provide root cause analysis and resolution on all Customer-

			The Severity Level may be downgraded if a viable workaround is established.	specific Severity 1 issues.
Severity 2	This incident level is attained when any of the following conditions are met within Vendor's Span of Control: A significant degradation of the service occurs A high impact issue with a workaround. A critical capability cannot be accessed by a method that is part of the product design, but it can be accessed by one or more alternate methods. Essential functionality of the RFC Publisher Services operates in a way that is materially different from those described in this Addendum. • A complete outage of the following: • Any of the Vendor support tools is unavailable. These tools include monitoring, and reporting tools or report system.	webmast er@rfc-editor.or g	Acknowledgement of issue within 2 business days with an estimated time to resolve. The Severity Level may be downgraded if a viable workaround is established and fixes included in the next maintenance release.	Customer receives a workaround or information that resolves the issue or a patch is implemented, if issue is due to a software defect within 2 business days Vendor shall provide root cause analysis and resolution on mutually agreed upon Severity 2 issues.

Severity 3	This incident level is attained when any of the following conditions are met:	webmast er@rfc- editor.or g	Acknowledgement of issue within 2 business days with an estimated time to resolve. Fix or workaround in	Vendor will provide updates and report upon closure. Monthly
	The Platform is usable but is not functioning in accordance with the requirements set forth in this Agreement and the error condition has no substantial impact. The Severity 3 trouble has a minor impact on Services or resource where it may cause some impact but the trouble can be circumvented.		fourteen (14) business days.	reports will reflect all remaining open issues.

Escalation Procedures

An Escalation: Regardless of an incident's severity level, escalation is warranted and will occur according to the time for response as outlined on Table 3 below.

Escalation Path for Technical Support Issues: If Customer is not satisfied with the technical support provided by Vendor; Customer may request escalation from the Vendor Customer Service desk. The Vendor customer support dispatcher will immediately escalate the call to the appropriate supervisory level, and a representative will contact the Customer within two (2) hours (severity 1), four (4) hours (severity 2), or two (2) business days (severity 3).

Incident Reporting Process Communicating Incidents

Customer will communicate incidents to Vendor in the following manner:

• Customer will report issues via email <u>webmaster@rfc-editor.org</u>. Email will primarily be used to provide follow-up information.

Information for Incident Reporting

For each incident, Customer will provide Vendor with necessary information that will facilitate timely problem determination and resolution. Upon notification of the incident, Vendor will

verify receipt of the necessary information. The following is the information that will be obtained from Customer for all reported incidents. (The information marked "Optional" is only required if it is available to Customer and determined by Customer to be appropriate):

- Time and date of the transaction in question (Customer to use reasonable commercial efforts to obtain this information);
- Description of the incident;
- Severity of the incident or problem ("Optional");
- List of those actions taken by Customer to verify the problem and resolve the incident;
- Other comments to provide additional information as needed ("Optional"); and

If clarification of this information is necessary to resolution of the incident, Vendor will immediately contact Customer to request such clarification. Vendor will begin investigating the incident upon receipt of the information and provide feedback to Customer as detailed in this Incident Reporting Process section. The report is deemed "open" when Vendor has received information outlined above. The reported issue will remain open until Vendor believes that issue has been resolved. However, Customer may reopen the incident if desired for any reason at any time.

Incident Reports

Root Cause & Analysis ("RCA")

The purpose of the Root Cause and Analysis is to identify the cause of the incident and identify corrective actions to prevent its reoccurrence. For all Severity 1 reports Vendor will create an RCA and provide such report to Customer within three (3) business days of the close of the incident.

Maintenance Management

Planned Maintenance by Vendor

Vendor will ensure that any planned maintenance events will be executed in a well-coordinated manner. Proper execution includes advance notification to the Internet Community by Customer Support through the use of mailing lists and posting on the website and approval by the RSE.

Vendor conducts planned maintenance activities on a regular, scheduled basis. This schedule will be coordinated with the Customer, IAD and communicated to the Community.

Service Interruptions and Advanced Notification Requirements

For all other Scheduled maintenance activities, Vendor will provide the Customer and IAD with at least three (3) business days advance notice via e-mail. Vendor will assume that the scheduled maintenance is acceptable unless Vendor is advised via e-mail within one (1) business day prior to the time of the planned event.

Vendor reserves the right to execute emergency maintenance at any time without notice, but will notify the Customer, IAD and the Community as soon as possible (targeting notification at least 120 minutes prior to event). "Emergency" shall mean that Vendor has become aware of a problem that, if an immediate remedy is not implemented, will prevent Vendor from continuing to support and provide the elements and aspects of the RFC Publisher Service. Any downtime that would otherwise meet the definition of Unscheduled Downtime and which results from emergency maintenance will be included as "Unscheduled Downtime" from the overall system availability measurement.

Canceling Planned Service Interruptions

In the event of an emergency, the Customer or IAD may request to cancel a planned service interruption. Vendor will make commercially reasonable efforts to cancel the service interruption, if it does not impact other required maintenance and if the Customer or IAD notifies Vendor within 24 hours prior to the scheduled start time of the maintenance window. Any notification of cancellation must come directly from the Customer or IAD via phone, fax or email.

Restrictions Associated with Customer's Cancellation

In the event that a planned service interruption is canceled as described above, any downtime that results from failure to perform the maintenance that otherwise would have been performed during the planned service interruption will be excluded from the overall Service Availability measurement and the "Unscheduled Downtime" as defined.

<u>APPENDIX 2 – Tools</u>

This is a snapshot of tools currently installed on the server supported by the Publisher. This list may change over time as the needs of the RFC Editor changes. Any changes that involve a significant modification of resource requirements should be communicated with the RSE and IAD.

- Work Flow application (document management tool, an internal web application)
- various scripts for queue statistics (includes draftstat)
- various scripts for publication/announcement process
- errata system (public side and verification side)
- various scripts required for editorial checks
 - aspell
 - AUTH48post
 - ckrefs
 - ckText
 - dotblank
 - dupewords
 - htmlwdiff
 - make-rfc
 - maketocby
 - matchref
 - printable
 - rfcstrip
 - tab8

EXHIBIT B: Work Standards

THIS WORK STANDARDS EXHIBIT ("**Exhibit**") is subject to, and is made a part of, the Services Agreement (the "**Agreement**"), between Association Management Solutions, LLC a California Limited Liability Company ("Vendor") and the Internet Society, a District of Columbia nonprofit corporation ("ISOC") (each a "**Party**" and, collectively, the "**Parties**"). Terms not defined in this document shall have the meaning set forth in the Agreement.

1. INTRODUCTION

- a) Vendor will provide the services set forth in the SOW in accordance with the service levels set forth herein ("Service Levels"). In the event that Vendor does not meet the defined Service Levels, ISOC shall be entitled to receive credits, against its monthly invoice, for the sums due for the month in which the Service Level failure occurs ("Service Credit"), as more fully described herein. Except as set forth in Section 2 below ("Chronic Failure"), the penalties described more fully herein shall be the sole and exclusive remedies for failure to meet one or more Service Levels.
- b) Service Credits will be applied to the monthly invoice for the billing period following the month in which the Service Level reports were generated. (See item 5 below.)
- c) In no event shall the aggregate amount of Service Credits respecting services rendered in any calendar month exceed five percent (5%) of the monthly Vendor RFC Publisher Services Fee, as set forth in Exhibit C, for such month ("Total Cap"). As provided in Paragraph 3 hereunder, no Service Credits shall be applied with respect to the first 180 days following the Effective Date.
- d) In addition, the Parties shall, by no later than July 1, 2010, by mutual written agreement, establish a SLA Schedule that sets forth the maximum Service Credit amounts.
- e) The SLA Schedule shall also set forth the relative weight and tier level of each task within the SLA Categories, including their applicable individual Service Credit amounts.
- f) In accordance with Section 1.4(b) of the Agreement, Vendor may not be liable for a deficiency in performing the Work to the extent that such deficiency results directly from the Internet Community's failure to provide timely and material Cooperation.
- g) An event that impacts more than one (1) SLA shall only be credited towards one of the SLAs, of the Customer's choice, and not towards all of the SLAs that were potentially impacted.

2. CHRONIC FAILURE

In addition to the termination provisions contained in the Agreement, in the event that Vendor: (i) fails to meet any of the Tier-1 SLA tasks (as set forth herein) for a total of three (3) consecutive months or for any four (4) months in any given six (6) month period, or (ii) fails to

meet any of the Tier-2 SLA tasks (as set forth herein) for a period of six (6) consecutive months, ISOC shall have the right to terminate the Agreement, the relevant SOW or the affected Work or Subset, in each case upon at least sixty (60) days written notice to AMS.

3. COMMENCEMENT OF OBLIGATIONS

Vendor obligations set forth herein, including its obligation to measure, achieve and report on the Service Levels, shall commence, with respect to each Service Level, on the date in which Vendor begins to provide the Work to the ISOC as defined by the Effective Date. From such date, Vendor will be responsible to provide measurement data in support of the applicable Service Levels provided, however, that for the first one hundred eighty (180) days following the Effective Date Vendor shall not be responsible for applying Service Credits to invoices for any failures to attain any of the Service Levels.

4. SERVICE LEVEL REPORTS

Vendor will provide quarterly measurement data in its Service Level Reports which shall be delivered to the Customer and the IAD. The reports will provide the data relative to Vendor performance for the delivery of each SLA task and identify applicable service credits, if any. Credit disputes will be resolved in accordance with section 2.2 of the Agreement.