

DEVELOPER SERVICES AGREEMENT

THIS DEVELOPER SERVICES AGREEMENT (this "**Agreement**") is made effective as of the 28 day of June, 2021, (the "**Effective Date**") by and between IETF Administration LLC, a Delaware limited liability company ("**IETF LLC**") and Ribose Limited, a UK registered company located at 3rd Floor, 11-12 St James's Square, London, SW1Y 4LB United Kingdom (the "**Developer**").

1. Services.

A. Scope. Developer shall provide to IETF LLC the software development and other services described in any Statement of Work(s) ("**SOW(s)**") executed by the parties or as otherwise mutually agreed by the parties in writing (collectively, the "**Services**").

B. Work Standards. Developer will perform the Services in a professional and workmanlike manner and in accordance with the prevailing industry standard for the performance of comparable work including best current practice for software development as mutually agreed by the parties.

C. Key Personnel. To the extent any of the Developer staff identified as **"Key Personnel**" in an applicable SOW terminate his or her employment with Developer, either voluntarily or involuntarily, Developer will notify IETF LLC of a suitable replacement with equal or greater qualifications. Developer will provide a suitable replacement within a reasonable period of time and will give IETF LLC ongoing progress reports during its search. Nothing herein will alter the fact that Developer may in its sole discretion employ their staff as "employees-at-will" and may terminate their employment for any lawful reason.

D. Policies. Developer will comply with the policies that IETF LLC provides to Developer (as may be updated from time to time upon written notice to Developer. Developer will provide and review IETF LLC's policies with all Developer personnel providing the Services and will be responsible for the compliance by such Developer personnel with such policies to the extent applicable to the relevant activities conducted by such Developer personnel.

2. Independent Contractor. Developer's relationship with IETF LLC will be that of an independent contractor and nothing in this Agreement is intended to, or should be construed to, create a partnership, agency, joint venture, or employment relationship. Any use by Developer personnel of any IETF-related titles or positions shall be subject to the IETF LLC's prior and ongoing approval. Consistent with broad direction set by IETF LLC, Developer will determine what actions are required to perform the Services and to achieve the relevant objectives. Developer will provide its own equipment (e.g., laptop and phone, and related services) and set its own hours. Developer may engage on other projects during the term of this Agreement, provided such work does not present a conflict of interest, result in disclosure of CI or otherwise interfere with Developer's ability to complete the Services under this Agreement in a satisfactory manner. Developer shall not be provided any training by IETF LLC and is expected to have all the expertise necessary to carry out the Services. Developer shall not engage the services of third party contractors,

subcontractors or consultants ("**Subcontractors**") in the performance of its obligations under this Agreement without the prior written consent of the IETF LLC, specifying both the specific Subcontractor and the scope of work which it is permitted to undertake. To the extent IETF LLC consents, Developer shall be fully responsible for each such Subcontractor's compliance with the terms of this Agreement, and Developer shall be liable, without limitation, for all actions and omissions of such Subcontractors in their performance or failure to perform as required hereunder. Developer shall be responsible for all taxes and other costs and expenses attributable to the compensation payable to, and the Services provided by, Developer under this Agreement.

Term & Termination. The initial term of this Agreement will begin on 11 June 2021 3. and end on 31 December 2024, provided that any SOWs in effect at termination will remain in full force and effect until the SOW term expires, unless expressly terminated pursuant to this Agreement. The parties may mutually agree in writing to renew the engagement for successive renewal periods after expiration of the term of this Agreement, and the terms of this Agreement will continue to apply. Either party may terminate this Agreement or any SOW at any time and for any reason with 30 days' prior written notice to the other party. Either party may terminate this Agreement immediately upon written notice if the other party materially breaches an obligation of this Agreement and does not cure such breach within 30 days of receiving notice of such breach. Upon termination for any reason, Developer agrees to cooperate in good faith with IETF LLC to wind down and transition any work in progress and IETF LLC will pay Developer any fees, reimbursable expenses and approved costs that are due and owing within 30 days after IETF LLC's review and acceptance of an undisputed invoice following the effective date of termination. The provisions of Sections 5, 6, 7, 8, 9, and 11 will survive the expiration or termination of this Agreement.

4. Compensation and expenses.

A. **Compensation**. IETF LLC will compensate Developer for the Services at the rates set forth in the applicable SOW and in accordance with the schedule set forth therein. Developer will send an invoice on a monthly basis or as otherwise set forth in the applicable SOW to IETF LLC at <u>exec-director@ietf.org</u>, which invoices shall include a timelog and description of Services performed. IETF LLC will pay undisputed amounts of such invoice within 30 days of receipt via SWIFT transfer. Invoice will be undisputed if IETF LLC does not oppose the same 28 days after the invoice is received.

B. Expenses. IETF LLC will reimburse Developer for direct expenses described in the SOW or incurred specifically in connection with the Services in accordance with IETF LLC's travel and expense reimbursement policy. Other than pre-approved direct expenses, Developer will be solely responsible for all other costs and expenses incurred in performance of this Agreement.

5. Records & Audit.

A. **Records**. Developer agrees to keep and maintain, during the term of this Agreement and for a period of three (3) years thereafter, or for longer periods as required by law or as reasonably requested by IETF LLC (such as for financial or tax purposes or in connection with any ongoing or threatened litigation, suit or proceeding), full and

complete records that relate to the provision of Services and that fully substantiate all charges invoiced and Services performed pursuant to this Agreement. All such records will be kept in accordance with generally accepted business and accounting practices and IETF LLC policies.

B. Audit. During the term of this Agreement and not more than twice per calendar year (unless circumstances warrant additional audits as described below), having given at least 5 business days' notice, the IETF LLC or its representatives may audit Developer's records, documents, correspondence, books, files, IT systems and data centers, as used in the performance of this Agreement, to ensure compliance with this Agreement. Notwithstanding the foregoing, the parties agree that the IETF LLC may conduct an audit of Developer at any time during or after the term of the Agreement, in the event of (i) audits required by governmental or regulatory authorities, (ii) investigations of claims of misappropriation, fraud, or business irregularities of a potentially criminal nature, (iii) ongoing or threatened litigation, suit or proceeding, (iv) the IETF LLC reasonably believes that an audit is necessary to address a material operational problem or issue that poses a threat to the IETF or the IETF LLC, or (v) as otherwise described in this Agreement, an SOW or any Exhibits to the Agreement.

6. **Confidentiality.** In the course of Developer's engagement with IETF LLC, Developer may be exposed or have access to information, materials or documents that IETF LLC considers confidential (**"CI"**). Developer agrees, both during and after its engagement by IETF LLC, to maintain CI as confidential, and to not disclose or cause to be disclosed any CI, nor use CI for any purpose except as necessary to perform the Services for IETF LLC. Developer will return or destroy any CI in its possession upon termination of this Agreement and its relationship with IETF LLC. Developer acknowledges and agrees that IETF LLC will be entitled, in addition to any other remedies available to it at law or in equity, to the issuance of injunctive relief, without bond, enjoining any breach or threatened breach of Developer's obligations hereunder with respect to CI, and such further relief as any court of competent jurisdiction may deem just and proper.

7. Intellectual Property.

A. Assignment. The IETF Trust is a Virginia common law non-profit Trust whose beneficiary is the IETF community. The IETF Trust shall own all right, title and interest in and to all information, materials and other proceeds that Developer creates in the course of, or that otherwise result from, the Services or Developer's engagement with IETF LLC ("Work Product"). All Work Product shall be deemed "works made for hire" to the extent permissible under the copyright law, and to the extent any Work Product may not be so deemed, Developer hereby assigns all right, title and interest in and to all intellectual property and other proprietary rights in such Work Product to the IETF Trust. Developer retains ownership in all other works Developer created prior to this Agreement or creates in the future outside of the scope of the Services and Developer's engagement with IETF LLC. Upon termination of this Agreement, Developer will provide to IETF LLC any working drafts or other interim phases of deliverables Work Product as they exist upon termination.

B. Open Source Software. The IETF Trust intends to release some or all of the Work Product to the public under the Simplified BSD Software License or another open source software license, and Developer hereby represents and warrants that Developer will

not use, integrate, or develop software as part of the Work Product performed by it hereunder that is incompatible with the Simplified BSD Software License or another open source software license identified to it by IETF LLC (via electronic mail or in writing).

C. Required Rights. Prior to commencing any work, or as promptly as possible once identified if so identified after work has commenced, Developer shall describe in writing:

- Any intellectual property rights owned or licensed by Developer which may cover all or part of the Work Product, including a list and description of all U.S. and foreign patents and patent applications;
- To the extent known by Developer, any intellectual property owned or licensed by third parties which is required to utilize all or part of the Work Product in the manner contemplated by the Agreement; and
- To the extent known by Developer, any claims or disputes relating to the intellectual property embodied, or claimed to be embodied, in all or part of the Work Product.

Intellectual property and claims described in the bullets above are termed "**Required Rights**". In addition to the descriptions required above, Developer shall provide to IETF LLC a description of the cost and other terms of any license required to use and operate under any Required Rights in the manner contemplated by this Agreement.

Developer shall not be authorized to commence any Work Product as to which any Required Rights exist unless and until IETF LLC has affirmed in writing that it understands the nature of such Required Rights and the parties have mutually agreed upon a license arrangement (including allocation of its costs) that will enable the full use of any Required Rights in the manner contemplated hereby.

If Developer fails to notify IETF LLC of any Required Rights owned or licensed by Developer in the manner required by this section, then Developer shall be deemed to have granted the IETF Trust a perpetual, irrevocable, royalty-free, paid-up, worldwide, non-exclusive, freely sub-licensable right and license to exploit such owned Required Rights (and to the extent permitted under any such license of any such Required Rights, such licensed Required Rights) in any manner in connection with the Work Product and any modifications or derivatives thereof.

D. Data. Developer may access, collect, use, store and share all IETF data, including but not limited to IETF LLC CI, personal data, content in any form, and any other data received, collected, created or generated by or on behalf of, or made available to Developer in the course of performing under this Agreement, solely as necessary to perform the Services and/or produce the Work Product. IETF LLC retains all right, title, and interest in the IETF LLC data. Developer agrees to comply with all applicable laws and IETF LLC policies regarding the treatment, processing and protection of IETF LLC data.

8. **Warranties.** Developer warrants that (i) it will perform all Services in a professional and workmanlike manner, in accordance with highest ethical standards, (ii) it has the right and authority to enter into this Agreement, (iii) it has the knowledge and skills to provide the Services, (iv) it will comply with all applicable laws, statutes, regulations and IETF LLC policies in the performance of the Services, and (v) the Services and Work Product will not

violate or in any way infringe upon the rights of third parties. Developer warrants that the Work Product will perform in accordance with any applicable documentation, specifications and written descriptions provided by IETF LLC to Developer, and in a reliable and secure manner. Developer agrees promptly to fix any errors, bugs or deficiencies in the Work Product that are identified within one year from the date of acceptance by IETF LLC for no additional charge and to deliver to IETF LLC, install in the Work Product and demonstrate to IETF LLC's reasonable satisfaction such fixes. The development and delivery of such fixes shall be performed by Developer in accordance with the provisions of this Agreement and all software developed and/or delivered shall conform to the requirements described in the SOW or as otherwise agreed by the parties. All such fixes shall themselves be warranted for a period equal to the longer of either the remainder of the duration of the original warranty on the fixed Work Product (i.e., one year from the date of acceptance), or ninety (90) days following acceptance of the fix.

9. **Indemnification.** Developer agrees to indemnify and hold IETF LLC and its member, directors and officers, and the IETF Trust and the IETF Trustees harmless from any claims, losses or expenses (i) arising in connection with Developer's (or any Subcontractor's) breach of this Agreement, (ii) alleging that all or any part of the Services or Work Product infringes or misappropriates any intellectual property rights of any third party, or (iii) arising in connection with Developer's (or any Subcontractor's) misconduct.

10. **Insurance.** Developer shall maintain any required and customary insurance in amounts and types reasonable for the type of business conducted by Developer and at IETF LLC's request, shall make IETF LLC an additional insured under any such applicable policy. Developer shall provide evidence of insurance and endorsements at IETF LLC's request, and shall cooperate with IETF LLC in good faith to adjust such insurance coverage as appropriate for the Services.

Force Majeure. Performance under this Agreement by either IETF LLC or Developer 11. may be subject to acts of God (flood, earthquake, tornado, fire, etc.), disasters, civil disorder, strike, declaration(s) of war, war, threats or acts of terrorism, or similar acts, disease, epidemic, pandemic, measures of any governmental authority, US Department of State, World Health Organization, CDC or other governmental or international agency travel advisory, non-availability of food, beverages or other supplies or disruption of transportation, disruption of facilities or other emergencies, or any other cause beyond the Parties' control, which makes it inadvisable, impracticable, illegal or impossible for either Party to perform as originally contracted under this Agreement. In such an event, the affected party is relieved from performance for so long as and to the extent required by the event, whether or not the underlying applicable event is foreseeable at the time of execution of this Agreement, and may terminate this Agreement for any one or more such events, without liability or penalty, upon written notice to the other Party. Should such termination occur prior to the performance by Developer under this Agreement, IETF LLC shall be refunded all deposits made. Should the termination occur during performance under this Agreement, IETF LLC shall be obligated to pay for all goods and services rendered to IETF LLC up to the time of termination, and shall be refunded all deposits remaining after payment for goods and services rendered up to the time of termination. Any deposits to be returned to Developer shall be refunded to the IETF LLC within 30 days after written notice of termination.

12. **Miscellaneous.** This Agreement will be governed by Delaware law. Developer may not assign or delegate any of its rights or obligations set forth in this Agreement without IETF LLC's prior written consent. This Agreement is binding and shall inure solely to the benefit of the parties hereto (and to the benefit of the IETF Trust with respect to intellectual property), and their respective successors and permitted assigns. The IETF Trust is the only intended third party beneficiary to this Agreement. Other than the IETF Trust, nothing in this Agreement shall be enforceable by a third party. This Agreement, together with any SOWs, constitutes the sole and entire agreement of the parties with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. All notices, requests, directions, approvals or other communications to be provided hereunder will be in writing and will be deemed to have been sufficiently given (a) upon receipt if delivered in person; or (b) on the date transmitted if by email or facsimile. All notices will be sent to the applicable party at the address(es) set forth below (or as otherwise instructed in writing by such party):

If to IETF LLC:

IETF Administration LLC Attn: IETF Executive Director <u>exec-director@ietf.org</u> 1000 N. West St, Ste. 1200 Wilmington, DE 19801

If to Developer

Ribose Limited 3rd Floor 11-12 St James's Square London SW1Y 4LB United Kingdom

Read and agreed to by:

IETF ADMINISTRATION LLC

By: Jay Daley Title: IETF Executive Director Email: <u>exec-director@ietf.org</u>

RIBOSE LIMITED

By: Ronald Tse Title: Director Email: <u>tse@ribose.com</u>

Statement of Work #1

This Statement of Work #1 ("**SOW**") is entered into effective as of this 28 day of June 2021 (the "**Effective Date**") by and between Ribose Limited ("**Developer**") and IETF Administration LLC ("**IETF LLC**"). This SOW is incorporated into, and forms a part of, the Developer Services Agreement, dated 28 June, 2021 by and between the parties (the "**Agreement**"). Any term not defined herein shall have the meaning ascribed to it in the Agreement. This SOW must be signed by both parties to be effective.

1. Description of Services. Developer agrees to provide software development and support services described below (collectively, the "**Services**") to IETF LLC.

A. Software Development Services. The software development services Developer agrees to provide include but are not limited to the requirements and deliverables set forth in the BibXML Services RFP ("RFP"), such as:

Deliverables

- 1. The required deliverable of this project is a single service for generating and serving XML citations, with the following components:
- 2. An XML citation datastore with a mix of manually added persistent citations, generated persistent citations and citations that are generated on demand and then temporarily cached before being purged, organised into datasets as detailed below.
- 3. An interface to the datastore suitable as the data source for an rsync server so that datasets of persistent citations can be served by rsync.
- 4. Generation of XML citations from each of the sources detailed below and adding the generated citations to the datastore.
- 5. A public API for retrieval of one or more XML citations from the datastore, including those generated on demand.
- 6. A public API for searching and browsing over the datasets of persistent citations.
- 7. A private API for triggering a new generation or regeneration.
- 8. An interactive web page through which anyone can access any XML citations in the datastore, including those generated on demand.
- 9. For datasets of persistent citations, the interactive web page should provide searching and browsing over those datasets as well as download of the full dataset (zipped and gzipped tarballs).
- 10. A centralised single log of all access, including the import of rsync logs, to provide visibility into use of the service.

11. A Dockerfile that will be used in a full CI/CD environment.

Requirements

- 1. The service must be written in Python 3 for the application code and Javascript/HTML/CSS for the interactive web page, built on modern infrastructure components and designed for maintainability.
- 2. The new service must use a high quality, reliable, well maintained, well documented and actively supported web services/microservices framework. The IETF uses Django as its web framework but is open to the use of different frameworks for this RFP.
- 3. The interface to the datastore suitable as the source for an rsync server must support the common Linux rsync service. This rsync service will be configured and maintained by the IETF.
- 4. If the new service is to use a database then that must be PostgreSQL.
- 5. The service must maintain the following backward compatibility with the existing service:
 - a. URL structure and file naming of the current web service. For example /public/rfc/bibxml/reference.RFC.7991.xml. This will allow existing tools to quickly shift to using the new service.
 - b. For certain datasets (detailed below) the service must support a 'live' file name, which always serves the latest version of an XML citation at the time of retrieval, while also supporting the serving of specific versions. For example:

reference.I-D.ietf-stir-passport-rcd.xml

will return the XML citation for the current version of draft-ietf-stir-passport-rcd at the time of the request, while

draft-ietf-stir-passport-rcd-09.xml

will always return the XML citation for version -09 of the Internet-Draft.

- 6. The service should assume deployment behind a CDN. Our current CDN is Cloudflare.
- 7. While we anticipate deploying this service as a single instance, it should be able to be deployed as a distributed service using cloud infrastructure providers.
- 8. Development must use a public github repository under the IETF Tools Organisation.
- 9. All developed code must be supplied with ownership assigned to the IETF Trust and licensed under the IETF Trust specified open source license

- 10. Early on in the development a build process must be added such that commits to the repository will build an image and run tests in a container based on that image, and when tests pass, will deploy a container on a staging site. The image will be made available on a hub (such as hub.docker.com). We expect the same image to be useful for both production and development use. We anticipate a CD system that will allow us to deploy to potentially distributed production instances automatically on release as well.
- 11. Design of the APIs, including full feature definition will be part of the project.
- 12. The interactive web page must support the inclusion scripts needed to support the Matomo web analytics tool.
- 13. If the new service is to include a rewrite of doilit rather than using the existing code, then this should be clearly stated in the RFP response. See section "bibxml-doi (bibxml7)" below for more details on doilit
- 14. The logging must include, at a minimum counts of accesses to each XML citation through the XML URLs, counts of accesses through the API, counts of accesses via rsync.
- 15. The APIs will require the use of Datatracker-generated API tokens. Individuals will use personal API tokens generated from their accounts page. The Datatracker will provide an interface for validating tokens. Systems using the private APIs will use administratively provisioned tokens. The web service will allow anonymous access and will allow the user to log in using Datatracker credentials via OIDC. At this time, there is no expected difference in behavior for the website if the user is logged in or anonymous.
- 16. We anticipate adding additional output reference formats in the future, such as BibTex or CSL. The design of the service must facilitate the addition of these future formats.
- **B. Support Services**. Developer further agrees to provide related support services by Developer key personnel who will be available to IETF LLC designees through phone, XMPP and email during business days. Urgent support requests will be addressed within 1 day and routine support requests will be addressed within 3 days.

Developer agrees to provide these support Services to IETF LLC at no additional cost. To the extent Developer finds IETF LLC's support requests exceed reasonable expectations, Developer and IETF LLC designees shall work together in good faith to determine an appropriate remedy.

2. Practices. Developer agrees that all code and documentation it develops in connection with the Services will meet a reasonable commercial standard of quality, including but not limited to the following attributes of quality:

- fully maintained version repository with consistent increments of design documents and working code;
- a full automated test suite including unit tests and integration tests;
- common/known security flaws eliminated;

- high quality documentation;
- clean, readable code.

Developer agrees to use the version repository specified by IETF LLC and the issues tracking system specified by IETF LLC. Developer further agrees to adhere to the instructions and practices described in "Instructions for IETF Software Development Contractors" located at <u>https://trac.tools.ietf.org/tools/ietfdb/wiki/ContractorInstructions</u> unless otherwise authorized by IETF LLC.

3. Acceptance. Developer will promptly provide IETF LLC with the most recent version of a deliverable upon completion. IETF LLC will test and evaluate the deliverable to determine whether it conforms to the agreed upon specifications and requirements and will provide a written notice to Developer of its acceptance or of the deliverable's nonconformity specifying why and how the deliverable is not acceptable to IETF LLC. If Developer receives a notice of a nonconformity from IETF LLC, it will promptly and at no expense IETF LLC remedy the error or deficiency to ensure that the deliverable does conform to the applicable description and criteria and submit a revised deliverable to IETF LLC. IETF LLC will conduct such further tests and evaluations on the deliverable as it deems necessary and either accept or reject deliverable. If the deliverable is not accepted, Developer will at its own expense take whatever steps are required to ensure that the deliverable is acceptable to IETF LLC. If Developer of receives a notice of a notice of nonconformity from IETF LLC, IETF LLC, IETF LLC will at its own expense take whatever steps are required to ensure that the deliverable is acceptable to IETF LLC. If Developer fails to remedy the error or deficiency within thirty (30) days of initial receipt of a notice of nonconformity from IETF LLC, IETF LLC may hire a third party to remedy the error or deficiency at Developer's expense.

4. Management. Developer's primary technical contact at the IETF LLC for this SOW will be: Robert Sparks, Tools Team Project Manager. The IETF LLC primary technical contact will be generally responsible for overseeing Developer's performance under this SOW and providing related instructions and feedback to the Developer.

Contractor may refer to certain RFC documents published by the IETF Community as a reference and guide to the intended nature of certain Services where relevant, but any instructions, interpretations or directions provided by the IETF LLC primary contact to Contractor shall supersede the content of RFCs and control for purposes of Contractor's performance of the Services under this SOW.

While Developer will work with the IETF LLC primary technical contact in the ordinary course of the Services, the IETF Executive Director shall at all times have the authority to provide additional instructions, feedback and other direction to Developer. In the event of a conflict between the direction received from the IETF LLC's primary contact and the IETF Executive Director, Developer will provide written notice of the conflict and ask for clarification, provided that instructions received from the IETF Executive Director shall supersede those received from any other IETF LLC contacts.

During the term of this SOW, Developer shall keep IETF Executive Director, and the IETF LLC primary technical contact informed of the status of the development and Services. Notwithstanding the foregoing, Developer is solely responsible for fulfilling its obligations under this SOW, and the IETF LLC designees will not be responsible for completing any work hereunder or for checking, debugging or validating Developer's work.

5. Key Personnel. The following individuals are Key Personnel as described in the Agreement for purposes of the Services described in this SOW:

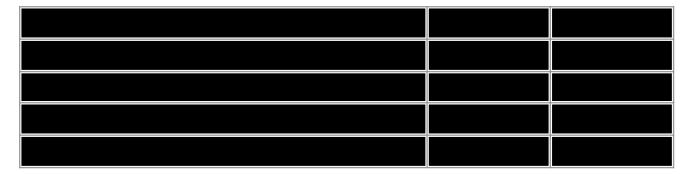
Ronald Tse, Director

6. Fees: The Agreement and IETF LLC policies shall dictate the terms of payment and reimbursement for expenses.

Developer will perform the Services for the following fixed fee. IETF LLC will be responsible for the following payments after IETF LLC's acceptance of each deliverable, as set forth below.



Fees will be invoiced according to the following schedule unless agreed otherwise:



In the case of late or non-delivery, the following fee reduction schedule applies. If fees paid exceeds the total amount of fees post-reduction, the difference will be refunded.

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To the extent IETF LLC and Developer wish to change the scope of the Services and deliverables, the parties will agree in advance to such changes in scope and any additional fees payable for such Services or deliverables, if applicable.

7. Term: This SOW shall be effective as of 28 June 2021 and shall remain in effect until 31 December 2021, after which IETF LLC and Developer may agree in writing (email to suffice) to extend the term of this SOW for an additional period. In the event the term of this SOW extends beyond the term of the Agreement, the terms and conditions of the Agreement will remain in effect for the benefit of this SOW only.

Estimated schedule - software development:

Estimated schedule - service infrastructure:

All of the terms, covenants and conditions set forth in the Agreement are incorporated herein by reference as if the same had been set forth herein in full.

IETF ADMINISTRATION LLC

By: Jay Daley Title: IETF Executive Director Email: <u>exec-director@ietf.org</u>

RIBOSE LIMITED

By: Ronald Tse Title: Director Email: <u>tse@ribose.com</u>