

Network Working Group
Internet-Draft
Intended status: BCP
Expires: April 16, 2010

L. Andersson
Ericsson Inc
D. Ward
Cisco Systems
M. Betts
A. Farrel
Huawei
October 16, 2009

**IETF Multi-Protocol Label Switching (MPLS)
Transport Profile (MPLS-TP) Document Process**

[draft-ietf-mpls-tp-process-03.txt](#)

Status of this Memo

This Internet-Draft is submitted to IETF in full conformance with the provisions of [BCP 78](#) and [BCP 79](#).

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF), its areas, and its working groups. Note that other groups may also distribute working documents as Internet-Drafts.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

The list of current Internet-Drafts can be accessed at <http://www.ietf.org/ietf/1id-abstracts.txt>.

The list of Internet-Draft Shadow Directories can be accessed at <http://www.ietf.org/shadow.html>.

Copyright Notice

Copyright (c) 2009 IETF Trust and the persons identified as the document authors. All rights reserved.

This document is subject to [BCP 78](#) and the IETF Trust's Legal Provisions Relating to IETF Documents in effect on the date of publication of this document (<http://trustee.ietf.org/license-info>). Please review these documents carefully, as they describe your rights and restrictions with respect to this document.

Abstract

The decision to develop a Multiprotocol Label Switching (MPLS) Transport Profile (MPLS-TP) in cooperation between the IETF and the ITU-T is document in [RFC 5317](#) as the decision of the Joint Working Team on MPLS-TP.

This document provides additional detail of the processes for the development of IETF RFCs on MPLS-TP. It provides an adaptation of the IETF working group process; identifies the expected participation in the process by the ITU-T; and clarifies the rules and conventions regarding MPLS-TP documents.

This document does not specify any ITU-T process; ITU-T activities will be done according to ITU-T process/rules.

This document does not specify or modify the normal IETF working group process. It is limited to the specific adaptations of that process to facilitate the cooperation agreement between the IETF and the ITU-T on MPLS-TP, and to ensure a good and consistent document review across the two organizations.

Table of Contents

1.	Introduction	4
1.1.	Terminology	4
1.1.1.	IETF Terms and Abbreviations	4
1.1.2.	ITU-T Terms and Abbreviations	6
1.2.	Purpose and Intent of Cooperation on MPLS-TP	6
1.3.	A Note on the MPLS-TP Interoperability Design Team	8
2.	Adaptation of the IETF Working Group Process	8
2.1.	IETF Consensus and Mailing Lists	8
2.2.	Communications with the ITU-T	9
2.3.	Adapted IETF Working Group Process	9
2.3.1.	Flow Chart	9
2.3.2.	The IETF MPLS-TP Process	11
2.4.	Naming Conventions for MPLS-TP Documents	15
3.	Expectations on ITU-T Participation in the Process	15
3.1.	Working Group Document Review	16
3.2.	Working Group Last Call and Document Approval	16
3.3.	Non-Response to Liaisons	19
4.	Guidelines For MPLS-TP work in the ITU-T	19
5.	IANA Considerations	20
6.	Security Considerations	20
7.	Acknowledgments	20
8.	References	20
8.1.	Normative References	20
8.2.	Informative References	20
	Authors' Addresses	21

1. Introduction

The IETF and ITU-T have entered into an agreement to develop the Multiprotocol Label Switching (MPLS) Transport Profile (MPLS-TP). This agreement is known as the Joint Working Team on MPLS-TP (JWT) Agreement and is documented in [[RFC5317](#)]. The agreement states that MPLS-TP will be documented in IETF RFCs, and assumes that there will be close cooperation with the ITU-T in reviewing these RFCs. This cooperation will include review of the work at all stages of drafting.

This document provides additional detail of the processes for the development of IETF RFCs on MPLS-TP as follows.

- o It Provides an adaptation of the IETF working group process, with respect to how the IETF will take input from the ITU-T on MPLS-TP topics.
- o It identifies the expected participation by the ITU-T in the document development process, noting that the ITU-T has committed to responding promptly to IETF working group last calls in a way that may require the ITU-T to develop responses via correspondence.
- o It clarifies the rules regarding MPLS-TP documents.

This document does not specify or modify the normal IETF working group process. It is limited to the specific adaptations of that process to facilitate the cooperation agreement between the IETF and the ITU-T on MPLS-TP, and to ensure a good and consistent document review across the two organizations.

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#) [[RFC2119](#)]. Although this document is not a protocol specification, this language is used for clarity and decisiveness.

1.1. Terminology

This section includes a number of terms and abbreviations that are used in this document. The section is split into two subsection: IETF terms and ITU-T terms.

1.1.1. IETF Terms and Abbreviations

- o JWT - Joint Working Team, a team with participants with experience from standards development in the IETF and the ITU-T.

Note: The JWT is not part of either the IETF or ITU-T, but a group that has been set up to facilitate cooperation on MPLS-TP between the two organizations.

- o JWT decision - A set of recommendations on the procedural approach to the development of MPLS-TP made by the JWT and documented in [[RFC5317](#)].
- o JWT agreement - The agreement between IETF and ITU-T based on the JWT decision to jointly develop MPLS-TP according IETF processes.
- o JWT documents - The set of documents envisioned in the JWT decision [[RFC5317](#)].
- o MPLS-TP documents - The following sets of documents are counted as MPLS-TP documents:
 - * Individual Internet-Drafts that address the MPLS-TP problem space.
 - * Working group Internet-Drafts that address the MPLS-TP problem space.
 - * Internet-Drafts that are considered for publication as RFCs by the IESG and that address the MPLS-TP problem space.
 - * Internet-Drafts that are approved for publication as RFCs by the IESG and that address the MPLS-TP problem space.
 - * Published RFCs that address the MPLS-TP problem space.
 - * ITU-T Recommendations and draft Recommendations in various stages of development that address the MPLS-TP problem space.

Documents that originate from the IRTF RFC stream or the Independent Submission Stream are not considered as MPLS-TP documents.

- o MPLS-TP mailing list - An IETF mailing list (mpls-tp@ietf.org) established specifically for the discussion of MPLS-TP issues within the IETF. The MPLS-TP list is the mailing list that is usually used to decide consensus on MPLS-TP issues (although other IETF mailing lists, such as WG lists, may be used). This is an open mailing list with publicly available archives.
- o MPLS-TP responsible working group chair - An IETF MPLS working group chair assigned responsibility for the IETF MPLS-TP effort by the IETF Routing Area Directors.

- o MPLS-TP responsible AD - An IETF Routing Area Director with management responsibility for the MPLS-TP effort.
- o IETF liaison to the ITU-T on MPLS - An individual assigned responsibility by the IAB for managing the liaison relationship to the ITU-T in regard of all issues concerning MPLS, including MPLS-TP.
- o Contribution - Within the IETF, a contribution is any submission to the IETF intended by the Contributor for publication as all or part of an Internet-Draft or RFC, and any statement made within the context of an IETF activity. Such statements include oral statements in IETF sessions as well as written and electronic communications. For more information on the IETF definition of a contribution see [[RFC5378](#)].

1.1.2. ITU-T Terms and Abbreviations

- o Ad Hoc Team on MPLS-TP (ahtmlstp) - A team established by Study Group 15 of the ITU-T to coordinate the work on MPLS-TP within the ITU-T and to act as a focal point for communication with the IETF about MPLS-TP.
- o Ad Hoc Team on MPLS-TP mailing list - An ITU-T mail exploder (ahmpls-tp@lists.itu.int) established specifically for the discussion and coordination of the MPLS-TP effort within the ITU-T.
- o Contribution - Within the ITU-T, a contribution is a document that is submitted to the ITU-T to advance work on the development of a Recommendation or to propose the development of a new Recommendation.
- o Recommendation - A Recommendation is an ITU-T standards document.

1.2. Purpose and Intent of Cooperation on MPLS-TP

The purpose and objectives of the development activity on MPLS-TP is described in [[RFC5317](#)]. The JWT decision includes the recognition that the design authority for MPLS (including MPLS-TP) is the IETF.

At the same time, the JWT decision recognises the role of the ITU-T in providing input (especially input to the requirements statements) to the development process for MPLS-TP. There is also a clear statement of expectation that the ITU-T's opinions will be heard within the IETF and must be properly considered during the development of MPLS-TP documents.

The development of standards for MPLS-TP is, therefore, carried out within the IETF according to IETF process and with strong input from the ITU-T. This input takes three forms (see also [Section 2.2](#)):

- o Active participation.

All interested parties are encouraged to participate in the development of MPLS-TP standards within the IETF through the normal IETF process. In short, this involves the generation and documentation of new ideas as Internet-Drafts, and the discussion of work in progress through the IETF mailing lists. The IETF is not a membership organisation, and the mailing lists are open.

- o Informal communication.

It is recognised that discussions about MPLS-TP will take place within the Questions and Study Groups of the ITU-T. In order to speed up the development process and ensure smooth communications, the ITU-T is requested to make informal (i.e., email) communications to the IETF whenever any issues or questions arise. Informal communication can be sent by any individual or rapporteur of a Question as an email to the MPLS-TP mailing list. The chairs of the Ad Hoc Team on MPLS-TP may also summarise discussions within the ITU-T (especially those on the Ad Hoc Team on MPLS-TP mailing list) and communicate them to the IETF via email.

- o Formal communication.

The formal liaison process with the IETF is described in [\[RFC4052\]](#) and [\[RFC4053\]](#). The process will be used for ensuring that specific progress steps are check-pointed and recorded, and for making sure that appropriate responses are generated in a timely manner. Formal liaison communications may be marked as "For Action," "For Comment," or "For Information" depending on the level of feedback that is required. Where formal liaison communication is indicated in this document, the type of liaison that is advised in each instance is also indicated.

The objective of cooperation between the IETF and ITU-T is to ensure full participation of interested parties to make sure that all opinions are heard with the intention of producing sound and stable MPLS-TP documentation. It is understood that neither the IETF nor the ITU-T can be in a position to block the work of the other body within its areas of authority. In the context of this document, this means that the ITU-T cannot block IETF work on MPLS-TP against the IETF consensus view.

Part of this process must be the understanding that all IETF documentation (including RFCs) can be revised or extended according to normal IETF procedures. Therefore, it is not a requirement that the first version of any RFC be perfect for all time (we do not need to "boil the ocean"); the initial aim of the work is to provide documentation of MPLS-TP as it is initially developed and deployed.

Fundamental to understanding the process described in the rest of this document and to participating in the MPLS-TP development process is a working knowledge of the procedures of the IETF. Readers needing clarification of the IETF procedures are invited to read [[RFC2026](#)], [[RFC4677](#)], and [[RFC4929](#)]. Further clarification and guidance can be obtained from the MPLS-TP responsible working group chair, the MPLS-TP responsible AD, and the IETF liaison to the ITU-T on MPLS.

The ITU-T may also develop Recommendations to document MPLS-TP. The JWT decision recognises that these Recommendations must not contain normative definitions of MPLS-TP (these are captured solely in IETF RFCs). Recommendations on MPLS-TP will be provided for review by the IETF to ensure conformance with the previous point and to verify that the material is consistent across MPLS-TP. The process for producing and reviewing Recommendations is out of scope for this document.

1.3. A Note on the MPLS-TP Interoperability Design Team

The MPLS Interoperability Design Team (the MEAD team) was a design team established within the IETF with participants with experience from standards development for MPLS and transport networks. The MEAD team was chartered to coordinate the development of MPLS-TP within the IETF and to create the initial document set before the work was taken to the IETF working groups in the usual way.

The MEAD team was also responsible for coordinating cooperation with the ITU-T on the Internet-Drafts it was working on.

The MEAD team completed its work and was closed in October 2009.

2. Adaptation of the IETF Working Group Process

The IETF working group processes as defined in [RFC 2026](#) [[RFC2026](#)] are adapted as described in this section solely for the purpose of the MPLS-TP work. These adaptations do not apply to any other topic or work within the IETF.

2.1. IETF Consensus and Mailing Lists

The IETF works according to a 'rough consensus' model, where working group chairs determine the consensus after discussions on the mailing

lists. This is also applicable to the MPLS-TP work. The MPLS-TP mailing list exists to focus all IETF discussions on MPLS-TP and to avoid congesting other relevant working group mailing lists. All technical discussion on MPLS-TP SHOULD be directed to the MPLS-TP list, but other working group mailing lists SHOULD be notified when appropriate so that individuals can participate in the discussions on the MPLS-TP list.

Consensus activities (such as a working group last call) MUST be started on an working group mailing list, but the MPLS-TP responsible working group chair SHOULD direct discussions to the MPLS-TP list and SHOULD direct that consensus will be judged on that list. The working group chair MAY direct discussion and consensus to a specific working group mailing list.

2.2. Communications with the ITU-T

A most important part of this process is the information exchange between the IETF and ITU-T. This information exchange consists of two equally important pieces.

- o Informal information exchange

This is done primarily by e-mail to the relevant mailing lists. Information sent to the ITU-T MUST be sent to the Ad Hoc Team on MPLS-TP mailing list. Information sent to the IETF MUST be sent to the MPLS-TP mailing list.

- o Formal information exchange

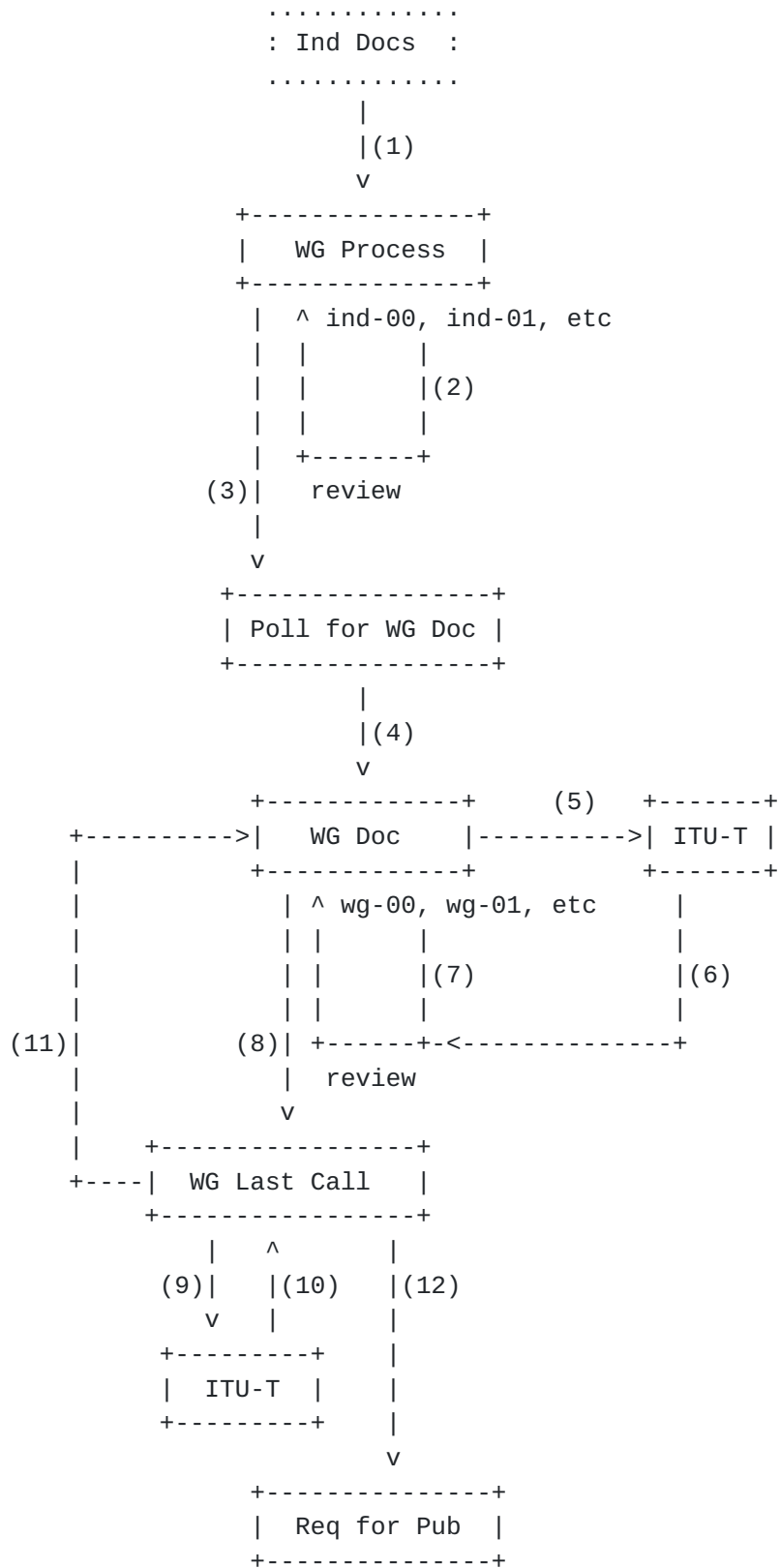
In addition to the informal information exchange, a formal information exchange is accomplished by liaison correspondence between the two organisations. Exchange of liaisons makes it possible to follow the request/response exchange between the organisations in more detail, and to obtain an official view of each organisation's position on any topic.

Formal liaisons SHOULD include tracking numbers in their subject lines to facilitate easy coordination of responses with the requests to which they are associated.

2.3. Adapted IETF Working Group Process

2.3.1. Flow Chart

The flow chart below describes the adaption of the working group process. The flow chart and the process as described in [Section 2.3.2](#) are equally normative.



2.3.2. The IETF MPLS-TP Process

This section describes the development for MPLS-TP documents. It sets out the process that is illustrated by the flow chart in [Section 2.3.1](#). The numbered arrows in the flow chart are described as numbered steps in the process in the list below.

Individual MPLS-TP documents can take different paths through the this process. Although the different paths through the flow chart are given as options, it is always possible for a particular MPLS-TP Internet-Draft to be adopted as a working group draft. This is done on the guidance of the MPLS-TP responsible working group chair and in cooperation with the relevant working group chairs and the document editors/authors.

1. Independent Documents through Working Group Processing

Internet-Drafts MAY be introduced by their authors to describe any aspect of MPLS-TP. This option results in the document being discussed and reviewed by the appropriate IETF working group as determined by the working group chairs. The normal IETF process will be applied, and the authors will revise the document (step 2) until it is adopted as a working group draft (see step 3).

Any individual or group of individuals can create an Internet-Draft through this step.

2. Authors of independent documents SHOULD solicit comments on the MPLS-TP mailing list and on any appropriate IETF working group mailing lists.

The authors SHOULD revise the documents according to comments received from all sources, or explain why no changes been made.

3. If an MPLS-TP document seems mature enough to become a working group document, a poll is done on the MPLS-TP mailing list and the appropriate working group mailing list to determine whether there is consensus to adopt the document as a working group document.

Which working group a document goes into is decided jointly by the MPLS-TP responsible working group chair and the chairs of the target working group.

4. If the document is accepted as a working group document the working group takes over the revision control of the document. Normal IETF working group process SHALL apply. All IETF discussions about the document MUST now be held on the MPLS-TP

mailing list with notifications sent to the relevant IETF working group mailing list.

5. When a document is accepted as a working group document, a liaison MUST be sent to the ITU-T to inform them of the progress. This liaison SHOULD be "for comment", but if the document is not yet in a fit state for review the liaison MAY be "for information". No response to this liaison is required.

An email to the Ad Hoc Team on MPLS-TP mailing list MUST be sent in parallel with the liaison.

Each time an MPLS-TP document under working group control is revised a note SHOULD be sent to the Ad Hoc Team on MPLS-TP mailing list, and a liaison SHOULD be sent to the ITU-T to inform them of the progress of the document. This liaison SHOULD be "for comment" to allow for further review by the ITU-T, but MAY be "for information" if the document is not in a fit state for review or if there is no change in substance of the document since the previous liaison. No response to these liaisons is required.

The IETF working group MAY solicit input from the ITU-T at any time by sending a liaison for comment.

6. At any time, it is possible for ITU-T participants to send review comments on any MPLS-TP document. Such comments SHOULD be sent as comments to the MPLS-TP mailing list according to normal IETF process.

Additionally, this step provides for communication from ITU-T Study Groups or Questions (see [Section 3.2](#)). These communications may be unsolicited or in response to a request from the IETF (step 5), and MAY be informal information exchanges or formal information exchanges (see [Section 2.2](#)). Such exchanges (informal or formal) SHOULD be accompanied by an email to the MPLS-TP mailing list from the Ad Hoc Team on MPLS-TP chairs.

The document editors and the working group MUST give due consideration to the issues raised in the communications from the ITU-T, and SHOULD attempt to make suitable changes to the MPLS-TP document or MUST otherwise explain why no change is being made.

Formal information exchanges MUST receive a response if requested. The IETF liaison to the ITU-T on MPLS is responsible for ensuring that this step is completed.

7. Editors of working group documents SHOULD solicit comments on the MPLS-TP mailing list and on any appropriate IETF working group mailing lists. Comments SHOULD also be solicited from the ITU-T as "early review" using a liaison for comment (step 5). Comments from the ITU-T may, therefore, be solicited or unsolicited and are handled as described for step 6.

The authors SHOULD revise the documents according to comments received from all sources.

Note that most comments that lead to updates of working group documents are a result of spontaneous individual reviews and comments from the individual participants in the MPLS-TP effort according to normal IETF process.

8. When an MPLS-TP document is deemed mature enough, a working group last call is initiated following normal IETF process. The working group chairs are responsible for judging when to initiate this last call.
9. When a working group last call is initiated for any MPLS-TP document the following actions MUST be taken.

- * A liaison for action containing a request for participation in the working group last call MUST be sent to the appropriate ITU-T Study Groups and Questions.

The Ad Hoc Team on MPLS-TP chairs are expected to verify that all the Study Groups and Questions within the ITU-T that need to respond to the working group last call are aware that it has been issued.

- * A notification that the working group last call is taking place MUST be sent to the Ad Hoc Team on MPLS-TP mailing list and to the MPLS-TP mailing list.

10. The ITU-T is REQUIRED to respond to the liaison in step 9 using a liaison within the time indicated in the liaison (see [Section 3.2](#)). This deadline will usually be set according to the timeline of the working group last call.
The ITU-T response MUST either include comments to be taken under consideration by the working group along with other last call comments, or provide a statement that the ITU-T has no comment. The latter case SHALL be interpreted as ITU-T support for the publication of the document as an RFC.

The working group and document editors MUST fully address any comments received from the ITU-T via liaison under this step

either making the requested changes, or discuss the changes with the ITU-T to reach a consensus position on the MPLS-TP mailing list. The Rapporteur of the question that generated the liaison statement is responsible for ensuring that the ITU participants have visibility and input to the IETF WG comment resolution process. If the changes are not as requested by the ITU liaison the Rapporteur who was responsible for the generation of the original liaison should generate another liaison statement indicating if the resolution of the comments is acceptable to the ITU-T.

11. According to normal IETF process, if the last call comments are substantial the document **MUST** be returned to the working group for revision and discussion. This **MUST** involve further communication with the ITU-T (step 5) to clarify or resolve issues raised during ITU-T review if they are handled other than as requested by the ITU-T.

The working group last call (step 8) **MAY** be repeated multiple times for revisions of the document. As is normal IETF process, the working group chairs **MAY** issue subsequent working group last calls for the entire document or **MAY** limit them to only the updated text. In the latter case, further comments from within the IETF or from the ITU-T **SHOULD** be limited as instructed by the working group chair.

Note that, according to normal IETF process, if the last call comments are minor, they **SHOULD** be addressed by the document editors in coordination with the working group chairs and with notification to the MPLS-TP mailing list.

12. When all last call comments have been addressed or responded to and all necessary working group last calls have been held, the working group chairs of the owning working group with assistance of the MPLS-TP responsible working group chair will request publication of the document as an RFC following normal IETF process.

Once this request for publication is sent, the document will be handled as any other IETF document with individual comments made during IETF last call, and with IESG review following. Therefore, after this point there is no further scope for ITU-T experts to influence the development of the document other than as individual contributors.

Note that if these later stages in the publication process cause significant changes to the document, it **MAY** be fully or partially returned to the working group, in which case some form of WG last

call with ITU-T consultation MUST take place following from step 8 as outlined above.

2.4. Naming Conventions for MPLS-TP Documents

To make it easier to search in the IETF Internet-Draft repositories, the following rules MUST be followed for naming the MPLS-TP Internet-Draft.

- o All MPLS-TP Internet-Draft MUST include the sequence "mpls-tp" in the filename.
- o Individual MPLS-TP Internet-Draft MUST be named according to this format:

[draft-name-mpls-tp-topic-??](#).txt

"name" is the last name of the main editor, or an acronym indicating the last names of the set of editors.

"topic" indicates the content of the draft, e.g. "oam-framework".

"?" indicates a two digit version number, starting with "00".

- o MPLS working group documents MUST be named as follows:

[draft-ietf-mpls-tp-topic-??](#).txt

"topic" indicates the content of the draft, e.g. "oam-framework".

"?" indicates a two digit version number, starting with "00".

- o MPLS-TP documents from other working groups MUST be named according to this format:

[draft-ietf-wgname-mpls-tp-topic-??](#).txt

"wgname" is the acronym for any working group chartered to do MPLS-TP work, e.g. pwe3 or ccamp.

"topic" indicates the content of the draft, e.g. "oam-framework".

"?" indicates a two digit version number, starting with "00".

3. Expectations on ITU-T Participation in the Process

The IETF looks for input from the ITU-T at two key points in the process described in [Section 2](#).

- o Steps 5 and 6 : Review of Working Group Documents
- o Steps 9 and 10 : Working Group Last Call and Document Approval

This section briefly describes what the IETF expects to happen on the ITU-T side at these interaction points.

3.1. Working Group Document Review

The ITU-T may provide input to documents that are being developed by IETF working groups. They are open for informal and formal comment by the ITU-T and its participants.

As shown by step 5 in the process described in [Section 2](#), the IETF will notify the ITU-T of the existence of such documents and will normally inform the ITU-T of new revisions. The ITU-T is not required to respond to these communications.

The IETF may also request review or discussion of working group documents. The ITU-T is required to respond to this type of communication if it is a formal liaison (step 6) within the deadline set by the liaison (see [Section 3.3](#)). In this case, it should either send a liaison response with comments and questions, or it should acknowledge the liaison from the IETF saying that there are no questions or comments at this time. The latter type of response will not be taken by the IETF to imply any form of support for the document unless it is explicitly expressed.

Additionally, the ITU-T may send unsolicited communications on a working group document as either informal or formal communications (step 6). Formal communications may request a response from the IETF.

However, ITU-T participants are encouraged to bring their comments and questions to the MPLS-TP mailing list directly, because this will be more efficient and conforms to the normal IETF process. Comments received in this way will be treated in the same way any as other individual comments received on IETF documents.

3.2. Working Group Last Call and Document Approval

A working group last call is issued when a working group document is close to being ready for publication as an RFC. The intention is to make sure that there are no important pieces missing, that technical details are correct, and that there is consensus within the working group for moving forward. Consensus for MPLS-TP documents is judged on the designated mailing list (normally the MPLS-TP mailing list) by the chairs of the working group that has developed the document in association with the MPLS-TP responsible working group chair.

During working group last call for all MPLS-TP documents the ITU-T will always be consulted about the content of the documents. The purpose of this step (step 9) is to ensure that the documents address the needs and requirements of the ITU-T participants.

A formal communication will be made to the ITU-T to make it aware that an IETF working group last call has been started and requesting review and comment. According to the JWT decision, the ITU-T is required to respond to a liaison about a working group last call within the time set in announcing the working group last call. ITU-T participants need to be aware that this step in the process represents their last chance to influence the document from within the ITU-T, and the liaison response needs to contain all issues and comments - there will not be any scope to raise further concerns at a later date.

The chair of an IETF working group that starts a working group last call will send a liaison to the ITU-T announcing the working group last call. A message will also be sent to the Ad Hoc Team on MPLS-TP mailing list.

The IETF will make a best effort attempt to target the ITU-T Study Groups and Questions that should be involved in responding to the working group last call. However, the ITU-T must make sure that the appropriate entities within the ITU-T participate in responding to the working group last call. The ITU-T Ad Hoc Team on MPLS-TP coordinates the development of the ITU-T response to the working group last call.

The response to a working group last call should be unambiguous and as detailed as possible. The liaison response is not intended to start a conversation for clarification. It is intended to make clear statements of technical issues to be addressed and to propose resolutions for those issues. Acceptable responses include:

- o No issues found. The ITU-T supports publication of the Internet-Draft as an RFC in its current form.
- o Minor issues found or questions raised. Please consider fixes to these issues or respond to these questions before publication of the Internet-Draft as an RFC.
- o Major issues found. Please address these issues and allow the ITU-T to review the resolution (possibly during a further working group last call) before proceeding to publication of the Internet-Draft as an RFC.

For the avoidance of doubt, the following guidance has been provided

by the ITU-T to its Rapporteurs:

During the final stages of development (e.g., Working Group last call) the IETF will send a liaison to ITU-T for action.

At this stage the experts of the ITU-T must make a judgement if the draft being reviewed is a suitable basis for a normative reference from an ITU-T Recommendation. The group must reach a consensus on this opinion.

A liaison to indicate support for the IETF to approve the draft should contain the following text:

The experts of Qx have reviewed [draft-xxxx](#) by correspondence and either:

- Have no concerns with the IETF proceeding with approval;

or

- Request that the following changes are made before the IETF approves the draft.

Exceptionally, if consensus to support approval of the draft cannot be reached, a response liaison must be sent indicating that consensus could not be reached by correspondence and that the matter will be addressed at the next SG (or interim) meeting.

If the ITU-T is unable to reach consensus, the working group may proceed to reach its own consensus on the document on the understanding that it may be necessary to revise the document later when ITU-T consensus is reached.

Note that, as described in [Section 1.2](#), the cooperation process is designed to ensure constructive consideration and resolution of all issues raised by the ITU-T without blocking the progress of the IETF's work on MPLS-TP. It is expected that discussion of major issues raised at this stage of the process will be conducted on the MPLS-TP mailing list and through appropriate communication with the ITU-T. It is further expected that such issues will be resolved through technical evaluation and rough consensus judged as normal for the IETF process. In the event that agreement between the IETF and ITU-T cannot be reached on some technical point, the JWT will be convened to seek a resolution.

3.3. Non-Response to Liaisons

The liaison relationship between the IETF and the ITU-T is founded on the understanding that each party will respond in a timely and appropriate manner to the other party's liaisons so long as reasonable notice is given.

Failure to respond by a deadline properly expressed in a liaison must not be used to cause deadlock or to block advancement of work. Such failures shall be assumed to represent accidental errors or oversights and shall be brought to the attention of the management of the body that has failed to respond.

In extreme cases, the JWT is empowered to convene itself to resolve issues of failed communications.

4. Guidelines For MPLS-TP work in the ITU-T

These guidelines apply to progressing work on MPLS-TP in the ITU-T.

Any member of the ITU-T may send an MPLS-TP contribution to a ITU-T Study Group or Question.

Before the ITU-T initiates any new work (i.e., items not previously identified by the JWT) based on such contributions the ITU-T shall send a liaison to the IETF. The message will go to the IETF liaison to the ITU-T on MPLS, the MPLS-TP responsible working group chair, and the MPLS-TP responsible AD. They are responsible for sending a consolidated response from the IETF, but may delegate the work of writing the response.

The IETF must respond to such liaisons according to the deadline in the liaison. Acceptable responses include:

- o Acknowledgement of receipt and agreement that the ITU-T is clear to proceed with the work described.
- o Request that the work described be transferred from the ITU-T to the IETF in the form of an Internet-Draft to form part of the MPLS-TP work in the IETF.
- o Request that the work be put on hold until specific issues have been resolved. In the event that this response is seen as blocking of ITU-T work, the JWT may be convened to seek a resolution.

Note that the process described in this section is conformant to the Change Process for Multiprotocol Label Switching (MPLS) and

Generalized MPLS (GMPLS) Protocols and Procedures [[RFC4929](#)].

5. IANA Considerations

There are no requests for IANA action in this document.

6. Security Considerations

This document defines a process adaptation for the cooperation between the IETF and the ITU-T and thus does not introduce any new security considerations.

The successful development of MPLS-TP standards that are consistent across the industry is an essential component to ensuring the security and stability of MPLS networks.

7. Acknowledgments

Thanks to Eric Gray who helped with grammar and useful comments. Thanks to Tom Petch who spent time trying to sort out what the document said, and who sent comments that helped clarify the document. Thanks to the participants of ITU-T Study Group 15 who provided review and comments on an early version of this text.

8. References

8.1. Normative References

- [RFC2026] Bradner, S., "The Internet Standards Process -- Revision 3", [BCP 9](#), [RFC 2026](#), October 1996.
- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.

8.2. Informative References

- [RFC4052] Daigle, L., Ed., and Internet Architecture Board, "IAB Processes for Management of IETF Liaison Relationships", [BCP 102](#), [RFC 4052](#), April 2005.
- [RFC4053] Trowbridge, S., Bradner, S., and F. Baker, "Procedures for Handling Liaison Statements to and from the IETF", [BCP 103](#), [RFC 4053](#), April 2005.
- [RFC4677] Hoffman, P. and Harris, S., "The Tao of IETF: A Novice's Guide to the Internet Engineering Task Force", [RFC 4677](#), September 2006.

- [RFC4929] Andersson, L. and Farrel, A., "Change Process for Multiprotocol Label Switching (MPLS) and Generalized MPLS (GMPLS) Protocols and Procedures", [BCP 129](#), [RFC4929](#), June 2007.
- [RFC5317] Bryant, S. and L. Andersson, "Joint Working Team (JWT) Report on MPLS Architectural Considerations for a Transport Profile", [RFC 5317](#), February 2009.
- [RFC5378] Bradner, S., and Contreras, J., "Rights Contributors Provide to the IETF Trust", [BCP 78](#), [RFC 5378](#), November 2008.

Authors' Addresses

Loa Andersson
Ericsson Inc

Email: loa.andersson@ericsson.com

David Ward
Cisco Systems

Email: dward@cisco.com

Malcolm Betts
Huawei

Email: malcolm.betts@huawei.com

Adrian Farrel
Huawei

Email: adrian.farrel@huawei.com

