

Network Working Group  
Internet-Draft  
Intended status: Standards Track  
Expires: January 1, 2010

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June 30, 2009

**Joint IETF and ITU-T Multi-Protocol Label Switching (MPLS) Transport  
Profile process  
draft-andersson-mpls-tp-process-03.txt**

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## Abstract

The decision to develop a Multiprotocol Label Switching (MPLS) Transport Profile in cooperation between IETF and ITU-T does not fully define and document processes for development of the required RFCs.

This document complements the processes documented in the JWT decision with a few separate elements; it:

- o provides an adaptation of the IETF working group process,
- o identifies the expected participation in the process by the ITU-T,
- o clarifies the decision rules regarding MPLS-TP documents.

This document is not intended to specify any ITU-T process; to the extent necessary ITU-T activities will be done according to ITU-T process/rules.

Nor is this document is intended to specify the IETF working group process, it is limited to the temporary adaptations of that process that is the result of that IETF and ITU-T accepted the proposal in the JWT report to jointly develop the MPLS Transport Profile. In general it may be said that these adaptations are introduced to ensure a good and consistent document review across the two organizations.



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## **1. Introduction**

When IETF and ITU-T entered into the agreement to develop MPLS-TP, the JWT agreement included the decision that the MPLS-TP documents should be developed "according to IETF processes". It was also assumed that there would be close cooperation in reviewing these IETF documents. The JWT decision is documented in [RFC 5317](#) [[RFC5317](#)].

However, the process for this close cooperative review was mostly left to be decided as the documents evolved. The ITU-T committed to responding promptly to IETF working group last calls, this may require the development of the response via correspondence.

Nor is this document is intended to specify the IETF working group process, it is limited to the temporary adaptations of that process that is the result of that IETF and ITU-T accepted the proposal in the JWT report to jointly develop the MPLS Transport Profile. In general it may be said that these adaptations are introduced to ensure a good and consistent document review across the two organizations.

This document complements the process as documented in the JWT decision with a few separate elements; it:

- o Provides an adaptation of the IETF working group process, with respect to the role of the teams (MPLS Interoperability Design Team (MEAD Team), the Joint Working Team (JWT) and the ITU-T MPLS-TP ad hoc team) that has been set up to facilitate the development of MPLS-TP; see [Section 2](#).
- o Identifies the expected participation by the ITU-T in the document development process; see [Section 3](#).
- o Clarifies decision rules regarding MPLS-TP documents; see [Section 4](#).

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](#)].

### **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 documents - the set of documents envisioned in the documentation of the JWT decision, see [RFC 5317](#) [[RFC5317](#)].
- o MEAD team - MPLS Interoperability Design Team, a temporary team with participants with experience from standards development for MPLS and transport networks. The MEAD team is chartered to coordinate the development of MPLS-TP within the IETF and to coordinate the on MPLS-TP cooperation with the ITU-T.
- o MPLS-TP documents - the following sets of documents are counted as MPLS-TP documents:
  - \* Internet Drafts that are coordinated by the MEAD team.
  - \* Individual Internet Drafts that addresses the MPLS-TP problem space.
  - \* Working group Internet Drafts that addresses the MPLS-TP problem space.
  - \* Internet Drafts that are considered for publication by the IESG and that addresses the MPLS-TP problem space.
  - \* Internet Drafts that are approved for publication by the IESG and that addresses the MPLS-TP problem space.
  - \* Published RFCs that addresses the MPLS-TP problem space.
  - \* ITU-T Recommendations and draft Recommendations in various stages of development that addresses the MPLS-TP problem space.

Documents that originates from the IRTF RFC stream is NOT considered as MPLS-TP documents.

### **1.1.2. ITU-T terms and abbreviations**

- o Ad Hoc on MPLS-TP - A team established by SG 15 of 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.





- o Contribution - 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 the ITU-T standards document.

## **2. Adaptation of the IETF working group process**

The IETF working group processes as defined in [RFC 2026](#) [[RFC2026](#)] are for the purpose of the MPLS-TP updated as follows.

The IETF works according to a 'rough consensus' model, where working group chairs determine the consensus after discussions on the mailing lists. This is applicable to the MPLS-TP work also. The `mpls-tp@ietf.org` is the mailing list used to find out consensus and consensus is determined by the MEAD team chair. After a document has become a working group document the consensus is decided by the WG chairs and the MEAD team chair jointly.

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 from IETF, IETF areas and working groups, or from the IETF MEAD team are sent to and areas and the `ahmpls-tp@lists.itu.int` mailing list. Information sent from ITU-T to the IETF should be sent to the MEAD team (`mead@ietf.org`) and/or the `mpls-tp@ietf.org` mailing list.

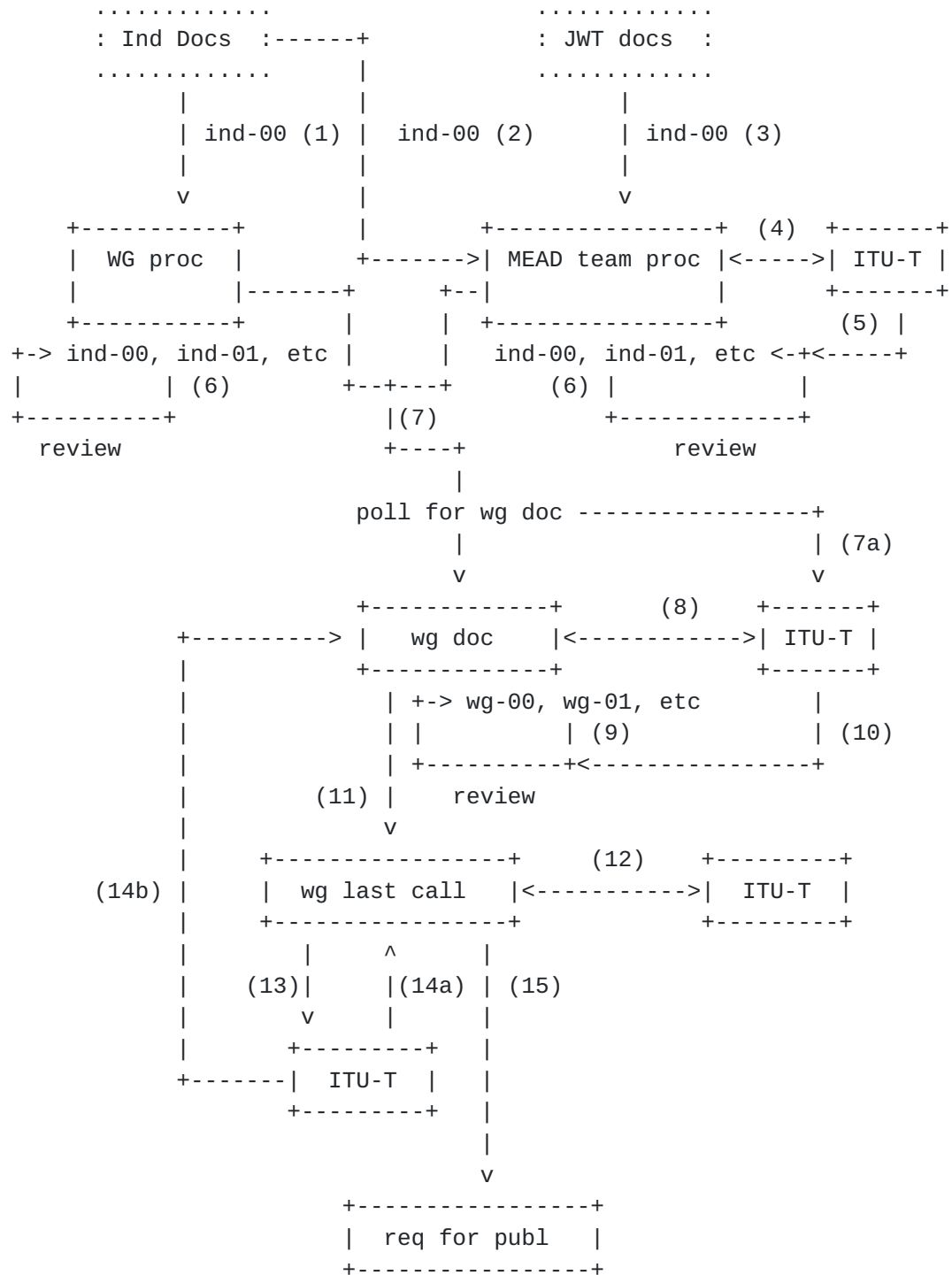
- o formal information exchange

In addition to E-Mail, 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.

### **2.1. Adaptation of the IETF working group process**

The flow chart below describes the adaption of the working group process





## 2.2. The IETF MPLS-TP process

This section gives guidelines for how the flow chart above could be traversed.



### **2.2.1. Developing a MPLS-TP document**

Individual MPLS-TP documents may take different paths through the this process, the numbers in the list below are mapped to the numbers in the flow chart above.

Although the different paths through the flow chart are given as 'options' it is always possible for the MEAD team to step in and take over the shepherding of a particular MPLS-TP Internet Draft . This is done in cooperation between the MEAD team chair, the relevant working group chairs and the document editors/authors.

1. They may be intended for and managed by a working group.

This means that the author, or authors, of such a document have chosen to send the document to a working group instead of running through the MEAD team. Normal IETF process will kick in in such cases and working group chairs will agree to which working group(s) such a document will be taken.

2. They may be coordinated by the MEAD team.

This means that the author, or authors, of such a document have chosen to send the document to the MEAD team to be coordinated with the rest of the MPLS-TP documents that is in the purview of the MEAD team.

3. They may be originated by the MEAD team based on the JWT decision.

In documentation of the work of the JWT, there is a proposed document structure. The MEAD team used this structure to decide on a set of documents that will, when completed, constitute the MPLS-TP standard. This set of documents may change slightly, if - e.g. - it becomes more appropriate to split a single document into two or more, or if some new aspect of MPLS-TP needs to be specified.

4. Everytime a document is accepted by the MEAD team into the set of documents coordinated by the MEAD team a liaison is sent to the ITU-T with a pointer to that document. At the same time a note is sent to the MPLS-TP ad hoc team mailing list informing the list that the document has become a MEAD team document.

The ITU-T may chose to respond to the liaison but is not required to do so, see [Section 3](#) and [Section 4](#).





5. At any time, it is possible for the ITU-T SG and Question participants to send review comments on MEAD team documents. It is also possible for the MEAD team to ask for such reviews and comments.

Any time such input or requests are sent between the two organizations it SHALL be accompanied by a note from the MPLS-TP ad hoc team chair(s) to the MEAD team mailing list, or from the MEAD team chair to the MPLS-TP ad hoc team mailing list. This is done to enhance the efficiency of the information exchange.

6. A working group or the MEAD team may issue requests for general comments on MPLS-TP documents at any time, if it is deemed appropriate to extend these requests to the MPLS-TP ad hoc team this is done via a note according to entry (5) in this list.
7. If a 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 (7), this request will also be sent to the ITU-T as a liaison (7a) and a note will also be sent to the MPLS-TP ad hoc team.

Which working group a document goes into is decided jointly between the MEAD team, working group chairs of the potential working groups and the document editors/authors.

If the document is accepted as a working group document the working group takes over the revision control of the document.

The ITU-T is expected to respond to the liaison within in the time indicated in the liaison, see [Section 3](#) and [Section 4](#).

8. Every time a MPLS-TP document is accepted as a working group document by any IETF working group, a liaison is sent to the ITU-T with a pointer to the document. At the same time, a note is sent to the MPLS-TP ad hoc team mailing list informing the list that the document has become a working group document.
9. Working group documents may be reviewed in several steps, every time such a review is initiated the MPLS-TP ad hoc team is notified (10).

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

10. Every time a review is initiated by a working group the appropriate ITU-T SGs and Questions will be notified by E-Mail



to the MPLS-TP ad hoc team.

Optionally the request for review may be accompanied by a liaison to formalize the request.

The MPLS-TP ad hoc team is responsible for ensuring that any e-mail requests are copied/forwarded to the relevant SGs and Questions.

11. When a document is deemed mature enough, a working group last call is initiated. At this time the action describe under item 12 in this list MUST be executed.
12. Procedures to be followed when a working group last call is initiated.
  - \* A liaison containing a request for participation in the working group last call will be sent to the appropriate ITU-T SGs and Questions.
  - \* A notification that the working group last call is taking place will be provided to the MPLS-TP ad hoc team via E-Mail sent to the MPLS-TP mailing list.
  - \* ITU-T is REQUIRED to respond to the liaison within the time indicated. The MPLS-TP ad hoc team is expected to verify that all the SGs and Questions within the ITU-T that need to respond to the working group last call are aware that it has been issued.
13. When all last call comments are addressed and/or responded to, the document will be sent to the ITU-T, asking if the document is ready to be sent to the IESG with a request for publication. The response sought from ITU-T is either an acknowledgment that the document is ready to publish or a response that there is further work that needs to be done.

Note: WG last call may be re-iterated, for the entire document or limited to only verify the updates made because of an earlier working group last call.

14. The ITU-T has one week to respond (yes or no) to the question posed in (13).

The answer can be either "yes - go ahead" (14a), in which case the Working Group will request publication; or ...

... it can be "no - more work is needed" (14b), in which case it



will go back into the normal working group process to identify what is needed.

15. When the ITU-T gives the final acknowledgement (14a), a request for publication will be sent to the IESG (15).

The document that is sent to the ITU-T in step (13) and which generates a positive response from ITU-T (14a) is sent unchanged, save for editorial changes, to the IESG with a request for publication (15) as a RFC.

Once this request for publication is sent, the last point in this process where it is acceptable to allow ITU-T influence in the development of a document is passed. After this point, the document will be handled as any other IETF document.

#### **2.2.1.1. Naming conventions for MPLS-TP Internet Drafts**

To make it easier to search in the IETF Internet Draft repositories the the following guidelines should be followed for the MPLS-TP Internet Draft filenames.

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

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

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

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

"wg-name" is the acronym for any working group chartered to do



MPLS-TP work, e.g. pwe3 or ccamp.

### **3. Expectations on ITU-T participation in the process**

The IETF and ITU-T processes for the development of the MPLS-TP standards interconnect at the following point in the flow chart above: (4), (5), (7a), (8), (10) and (12). This section briefly describes what is expected to happen on the ITU-T side at the interaction points.

#### **3.1. Becoming a MEAD team document**

(4) is a point at which the MEAD team communicates to the ITU-T that a document is considered to be accepted for coordination by the MEAD team.

The ITU-T is expected to respond to the communication with a simple ACK or NAK, however a non-response is counted as an ACK.

An ACK means that ITU-T accepts that the document has become a MEAD team document, a NAK means that ITU-T has issues that needs to be resolved before the document is allowed to progress.

#### **3.2. Comments on MEAD team documents by participants in the ITU-T**

(5) and (10) offer possibilities for ITU-T, or people active in the ITU-T, to send un-triggered comments on MEAD team or working group documents. Such comments shall be sent to the mpls-tp list and for working group documents also to the appropriate working group mailing list. Comments received in this way will be treated in the same way any as other individual comments received on the IETF documents.

#### **3.3. Poll for working group documents**

(7a) is the point at which an IETF working group informs the ITU-T that a poll to progress a document to an IETF working group document has been started.

It is not necessary, or required, for the ITU-T to respond to this message. If the ITU-T has serious concerns these should be provided via a liaison statement. If the ITU-T has no serious concerns it is allowed and encouraged that individual participants provide comments. Such responses shall be sent to the appropriate working group and mpls-tp mailing lists and represent the view of the person sending the mail.

An Internet Draft is ready to become a working group draft if it meets at least the three criteria below.





- o it is within the charter of the working group
- o it addresses a problem that needs to be solved
- o it is a good enough start toward solving this problem

Responses to polls checking if a document is ready to become a working group document should be limited to considering if the document meets those three criteria.

#### **3.4. Responding to an IETF Working Group Last Call**

(12) is the point in the process where ITU-T is made aware of that an IETF working group last call has been started. The working group last call is issued when a working group document is getting close to being ready for publication. The intention is to make sure that there are no important pieces missing and that technical details are correct.

According to the JWT decision ITU-T is required to respond to a working group last call within the time set in announcing the working group last call.

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 MPLS-TP ad hoc team. The IETF will make a best effort attempt to target the SGs and Questions that should be involved in responding to the working group last call. However, the ITU-T has to make sure that the appropriate entities within the ITU-T participate in responding to the working group last call. The ITU-T MPLS-TP ad hoc team coordinates the development of the ITU-T response to the working group last call.



#### **4. Specific guidelines that apply to work on MPLS-TP 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 a 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 MEAD team, and the team is responsible for creating a consolidated IETF response.

The IETF is expected to respond to the information that a new MPLS-TP work item has been proposed with an ACK or NAK.

If the response is a NAK that work item is held until the issues is resolved.



## **5. IANA considerations**

There are no requests for IANA allocation of code points in this document.

## **6. Security considerations**

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

## **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 I wanted to say and has sent comments that helped clarify the document.



## **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.
- [RFC5317] Bryant, S. and L. Andersson, "Joint Working Team (JWT) Report on MPLS Architectural Considerations for a Transport Profile", [RFC 5317](#), February 2009.

### **8.2. Informative references**

- [RFC4379] Kompella, K. and G. Swallow, "Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures", [RFC 4379](#), February 2006.



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