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For: Action

Title: **Observations on Contribution 74 to TSAG Concerning Modification of IETF Protocols and Technologies by the ITU-T**

Introduction

Germany has raised concerns over the use of normative references in ITU-T Recommendations by several Study Groups. Germany has submitted Contribution 74¹ for consideration by TSAG.

While we understand the aim of C74 is to make the process "more efficient and less controversial", we are concerned that the proposed approach taken will lead to complexities and risks to the wider telecommunications industry that invents and builds Internet technologies, and additional costs to the end user. The proposals in C74, if implemented, would also damage the relationships between standards organizations, would result in duplicated and conflicting standardization efforts, and would disrupt the growth of the Internet.

We concur with the concerns and principles articulated by the IEEE in Contribution 89.² It is critical for stable and valid protocol interoperability that extensions to the protocol receive adequate review and approval from the expert community that created the original protocol specification. We encourage TSAG to take positive steps to ensure a cooperative and respectful approach regarding relationships with other standards organizations.

Discussion

In recognizing the importance of preserving the ITU-T as a consensus-based standards organization, C74 observes that an essential component of consensus is compromise. We recognize this as true from our experiences in the IETF. However, the desire for compromise should not extend to modification of material produced in other standards organizations. Doing so creates several concerns:

- Modifications of material produced in other SDOs amounts to the development of extensions or modifications to protocols developed in those SDOs. Uncoordinated development of Internet protocols can result in non-interoperable devices within the same space, can cause confused and poor quality implementations, may increase development and sales costs, and might break existing deployments. This topic is discussed further in RFC 5704, "Uncoordinated Protocol Development Considered Harmful".³
- The use of normative references in standards is an established part of the standards development process. Where a new standard also needs to describe the material contained in the normative reference, it is extremely important for the readers and implementers to understand how they handle any differences (intentional or accidental) between the two sources. In this case it is normal to assign the normative reference as the document that takes precedence. Failing to do this would constitute re-specification of the normatively referenced document, and where that document was produced by another standards organization this would represent modifying the work of another standards organization.

- Whether a normative reference is made to a section, a document, or a series of documents must be determined on a case by case basis. In most cases it is clear which is appropriate. In those cases which it is not, it is better to contact the standards organisation in question. Taking a blanket approach can lead to re-specification of the reference and/or interoperability problems.
- Before text may legitimately be copied, it is necessary to obtain permission from an assortment of entities, which may be fraught with legal difficulties. The copyright in IETF documents is held by the IETF Trust or by the individual authors. Please see RFC 5378⁴ and the Legal Provisions of the IETF Trust.⁵
- Implementers of standards that modify works of other standards organizations may be vulnerable to patent claims. Like other standards organizations, the IETF records declarations of, but does not own rights to, patents associated with specifications. If a patent is licensed at all, commonly the owner will extend a license that is specific to a particular specification. The safest approach is for extensions to such specifications to continue within the forum in which the work was originally standardized.

The IETF operates an open process allowing all interested parties to propose extensions and changes to Internet protocols based on operational need and code implementation. Utilizing the IETF process ensures proper coordination and thorough review. Should the ITU-T have a requirement to modify or enhance an IETF Technology, the IETF has a documented change process to accommodate such needs.⁶ Previously, the ITU-T has successfully worked with the IETF to effect such enhancements.⁷

The proposal in C74 is not consistent with best practices for the development of standards by international standards organizations. The ITU-T should only adopt procedures that make changes to externally developed standards with the consent and cooperation of the source standards organization.

Summary and Proposal

While we agree with the intention to make the process of referencing standards produced by other standards organizations more efficient and less controversial, we believe that the proposals contained in C74 would introduce risk and uncertainty to the implementer, and additional attendant cost to the operator and the end user.

We encourage the TSAG to take positive steps toward mechanisms that embody a respectful and cooperative approach to interactions with other standards organizations, that will result in improved quality and value of the standards produced. Such steps might include re-evaluation of which bodies should be recognised under Recommendations ITU-T A.4 and ITU-T A.6, as well potentially updating Recommendation ITU-T A.5 as a firm commitment by the Member States toward collaboration in the standards ecosystem.

¹ Germany, "Suggestions relating to the generic procedures for facilitating references to documents of other organizations in ITU-T Recommendations", Contribution 74 to TSAG, December, 2011.

² IEEE, "IEEE Contribution in response to Contribution 74 to the Telecommunication Standardisation Advisory Group from Germany", Contribution 89 to TSAG, June, 2012.

³ Bryant, S., Ed., Morrow, M., Ed.; "Uncoordinated Protocol Development Considered Harmful", RFC 5704, November, 2009.

⁴ Contreras, J., Ed., Bradner, S., Ed; *“Rights Contributors Provide to the IETF Trust”*, RFC 5378, November, 2008.

⁵ IETF Trust, *“Trust Legal Provisions (TLP) Documents”*, <http://trustee.ietf.org/license-info/>, December, 2005.

⁶ Carpenter, B., Narten, T. *“Procedures for Protocol Extensions and Variations”*, RFC 4775, December, 2006.

⁷ Crocker, D., Klyne, G., *“Full-mode Fax Profile for Internet Mail (FFPIM)”*, RFC 4142, November, 2005.