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Request to Move RFC 2754 to Historic Status

Abstract

RFC 2754 requested that each time IANA made an address assignment, it was to create appropriate inetnum and as-block objects and digitally sign them. The purpose was to distribute the IANA-held public key in software implementations of the Distributed Routing Policy System. In practice, this was never done on the public Internet. This document requests that RFC 2754 be moved to Historic status.

Status of This Memo

This document is not an Internet Standards Track specification; it is published for informational purposes.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Not all documents approved by the IESG are a candidate for any level of Internet Standard; see Section 2 of RFC 5741.

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at http://www.rfc-editor.org/info/rfc6254.

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1. Introduction

The Internet Assigned Numbers Authority (IANA) (www.iana.org) is charged with allocating parameter values for fields in protocols that have been designed, created, or are maintained by the Internet Engineering Task Force (IETF). RFC 2754 [RFC2754] requests that the IANA create a repository of Routing Policy Specification Language (RPSL) objects and digitally sign them. The RFC identifies the initial objects to be signed and also requests that each time IANA makes an address assignment it also create new objects as needed and sign them as well. In practice, this was never done in the public Internet. During a detailed review of IANA's protocol registration activities in support of the IETF, this request for IANA action was identified as one of those that had not been completed after publication of the RFC.

This document obsoletes RFC 2754 [RFC2754], recommends that it be moved to Historic status, and directs IANA not to move forward with the IANA actions in that RFC.

2. Details

RFC 2754 [RFC2754] requests that the IANA create a repository of RPSL objects and digitally sign them. The RFC identifies the initial objects to be signed and also requests that each time IANA makes an address assignment it also create new objects as needed and sign them as well.

During a review of RFCs in 2009, it became apparent that the IANA actions requested in RFC 2754 were never done. In the intervening time, another technology appears to be taking the role once envisioned for Distributed RPSL. Both an architecture and infrastructure now exist for secure routing using Resource Public Key Infrastructure (RPKI) technologies. As an example, the semantics of a Route Origin Authorization (ROA) -- an application of the RPKI -- to validate the origination of routes has been standardized by the IETF.

Implementation of the IANA actions in RFC 2754 would now require significant implementation complexity. In the face of alternative technology, and given that the requested actions have not been implemented in the public Internet, it is proposed to reclassify RFC 2754 [RFC2754] as Historic and to direct the IANA not to pursue or implement the IANA requests in that document.

3. Terminology

The word "allocation" designates a block of addresses managed by a registry for the purpose of making assignments and allocations. The word "assignment" designates a block of addresses, or a single address, registered to an end-user for use on a specific network, or set of networks.

4. IANA Considerations

IANA is instructed not to pursue or implement the IANA actions requested in RFC 2754 [RFC2754].

5. Security Considerations

The intended signature of inetnum and as-block objects never took place in the public Internet. Moving RFC 2754 [RFC2754] to Historic status would have no known impact on the security of the Internet.

6. Acknowledgments

The author would like to thank Alfred Hoenes, Russ Housley, Leo Vegoda, Terry Manderson, Jari Arkko, Dan Romascanu, Michelle Cotton, and David Conrad for their constructive feedback and comments.

7. Informative Reference

[RFC2754] Alaettinoglu, C., Villamizar, C., and R. Govindan, "RPS IANA Issues", RFC 2754, January 2000.

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