Network Working Group
Request for Comments: 4048
Category: Informational

B. Carpenter
IBM

April 2005

RFC 1888 Is Obsolete

Status of This Memo

Copyright Notice

Abstract

This document recommends that RFC 1888, on Open Systems Interconnection (OSI) Network Service Access Points (NSAPs) and IPv6, be reclassified as Historic, as most of it has no further value, apart from one section, which is faulty.

Table of Contents

1. Introduction

[RFC1888] was published as an Experimental RFC in 1996, at an early stage in the development of IPv6, when it appeared important to consider usage of Open Systems Interconnection (OSI) addressing for IPv6. In Sections 3 through 5, it defines mappings of certain OSI Network Service Access Point (NSAP) addresses inside IPv6 addresses, and how to carry arbitrary NSAP addresses as IPv6 destination options. However, it also contains significant "health warnings" about the difficulty of routing packets in the global Internet using such addresses. As far as is known to the IETF, these address mappings have never been seriously used and are not supported by IPv6 implementations. Furthermore, the deployment of OSI solutions is not

sufficiently widespread that any change in this situation can be expected.

Additionally, Section 6 of [RFC1888] specifies a mapping of IPv6 addresses inside OSI NSAP addresses. This mapping has recently aroused some interest: for example, to allow IP addresses to be expressed in an Asynchronous Transfer Mode (ATM) context. Unfortunately, Section 6 of [RFC1888] contains two errors in its usage of OSI Initial Domain Part (IDP) format:

* first, the text refers to the Internet Code Point (ICP) as a single octet, whereas it is correctly a 16-bit field;

* second, the text states that "[t]he first three octets are an IDP in binary format", but [NSAP] states in section A.5.2.1 that "[t]he abstract syntax for the IDI is decimal digits" and specifies a preferred binary encoding in section A.5.3 "using a semi-octet to represent the value of each decimal digit ... , yielding a value in the range 0000-1001".

2. Recommendation to Reclassify RFC 1888

Due to the lack of use of one of the mappings, and to the errors in the documentation of the other, this document recommends that the IESG reclassify [RFC1888] as Historic.

It is assumed that parties who wish to use a mapping of IPv6 addresses inside OSI NSAP addresses will correct, augment, and resubmit Section 6 of [RFC1888] as a separate document.

3. Security Considerations

This recommendation has no known impact on the security of the Internet.

4. IANA Considerations

IANA has marked the IPv6 address prefix 0000 001, reserved for NSAP Allocation in [RFC3513], simply as Reserved.

IANA is holding the registry for "OSI NSAPA Internet Code Point" implied by Section 6 of [RFC1888] in abeyance until a replacement for that Section is approved for publication.

5. Acknowledgements

Scott Brim and Arun Pandey made useful comments on this document.

6. Normative References

[RFC1888] Bound, J., Carpenter, B., Harrington, D., Houldsworth, J., and A. Lloyd, "OSI NSAPs and IPv6", RFC 1888, August 1996.

[RFC3513] Hinden, R. and S. Deering, "Internet Protocol Version 6 (IPv6) Addressing Architecture", RFC 3513, April 2003.

[NSAP] International Organization for Standardization, "Information technology -- Open Systems Interconnection -- Network service definition", ISO/IEC 8348:2002, 2002.

Author's Address

Brian E. Carpenter
IBM Zurich Research Laboratory
Saeumerstrasse 4 / Postfach
8803 Rueschlikon
Switzerland

EMail: brc@zurich.ibm.com

Full Copyright Statement

Intellectual Property

Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.