

## [RFC 1888](#) Is Obsolete

### Status of This Memo

This memo provides information for the Internet community. It does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

### Copyright Notice

Copyright (C) The Internet Society (2005).

### 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 .....	1
2. Recommendation to Reclassify <a href="#">RFC 1888</a> .....	2
3. Security Considerations .....	2
4. IANA Considerations .....	2
5. Acknowledgements .....	2
6. Normative References .....	3
Author's Address .....	3
Full Copyright Statement .....	4

### 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](mailto:brc@zurich.ibm.com)

## Full Copyright Statement

Copyright (C) The Internet Society (2005).

This document is subject to the rights, licenses and restrictions contained in [BCP 78](#), and except as set forth therein, the authors retain all their rights.

This document and the information contained herein are provided on an "AS IS" basis and THE CONTRIBUTOR, THE ORGANIZATION HE/SHE REPRESENTS OR IS SPONSORED BY (IF ANY), THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

## Intellectual Property

The IETF takes no position regarding the validity or scope of any Intellectual Property Rights or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; nor does it represent that it has made any independent effort to identify any such rights. Information on the procedures with respect to rights in RFC documents can be found in [BCP 78](#) and [BCP 79](#).

Copies of IPR disclosures made to the IETF Secretariat and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this specification can be obtained from the IETF on-line IPR repository at <http://www.ietf.org/ipr>.

The IETF invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights that may cover technology that may be required to implement this standard. Please address the information to the IETF at [ietf-ipr@ietf.org](mailto:ietf-ipr@ietf.org).

## Acknowledgement

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