Mandating use of IPv6 in examples
draft-robachevsky-mandating-use-of-ipv6-examples-01

Abstract

IPv6 is a successor of the legacy IPv4 protocol. This document strongly recommends use of IPv6 in examples provided in RFCs.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at http://datatracker.ietf.org/drafts/current/.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

This Internet-Draft will expire on October 9, 2016.

Copyright Notice

Copyright (c) 2016 IETF Trust and the persons identified as the document authors. All rights reserved.

This document is subject to BCP 78 and the IETF Trust's Legal Provisions Relating to IETF Documents (http://trustee.ietf.org/license-info) in effect on the date of publication of this document. Please review these documents carefully, as they describe your rights and restrictions with respect to this document. Code Components extracted from this document must include Simplified BSD License text as described in Section 4.e of the Trust Legal Provisions and are provided without warranty as described in the Simplified BSD License.
1. Introduction

IPv6 is a successor of the legacy IPv4 protocol. The expectation is that in the coming years/decades IPv6 will become a predominant protocol in the Internet. It would be wise, therefore, to use IPv6 in examples provided in the RFC.

2. Terminology

In this document, the key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" are to be interpreted as described in BCP 14, RFC 2119 [RFC2119].

3. Mandating use of IPv6 in examples in RFCs

When there is a need to provide an example that makes use of IP addresses, address ranges or prefixes, all IETF documents SHOULD use IPv6, unless there is a specific limited case for IPv4 only.

In these cases authors SHOULD use addresses from the IPv6 prefix reserved for documentation purposes [RFC3849]

Authors MAY also provide examples for IPv4 protocol.

4. Examples of use

- IPv6 address

RFC 5952 [RFC5952] section 4 recommends to use the compressed format for IPv6 address textual representation. For instance, leading zeros MUST be suppressed, the use of the symbol "::" MUST be used to its maximum capability and the characters "a", "b", "c", "d", "e", and "f" in an IPv6 address MUST be represented in lowercase.

So an address 2001:0db8:0a0b:12f0:0000:0000:0000:0001 in the examples will look like:

2001:db8:a0b:12f0::1

- IPv6 address with a port number

IPv6 addresses including a port number SHOULD use the bracket notation style [RFC5952]. URI examples containing an IPv6 literal MUST use enclose it in brackets [RFC3986]:

[2001:db8:a0b:12f0::1]:21
The prefix is appended to the IPv6 address separated by a slash "/" character as recommended in [RFC4291]:

2001:db8:a0b:12f0::1/64

5. Acknowledgements

This draft was inspired by a presentation by Russ White at NANOG 66 that used IPv6 examples.

6. References

6.1. Normative References


6.2. Informative References


Author’s Address

Andrei Robachevsky
Internet Society

Email: robachevsky@isoc.org