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Performance Analysis of IPv6 Transition Technologies for IPv4aaS

Abstract

Several IPv6 transition technologies have been developed to provide customers with IPv4-as-a-Service (IPv4aaS) for ISPs with an IPv6-only access and/or core network. All these technologies have their advantages and disadvantages, and depending on existing topology, skills, strategy and other preferences, one of these technologies may be the most appropriate solution for a network operator.

This document examines and compares the performance of some free software implementations of the five most prominent IPv4aaS technologies (464XLAT, Dual Stack Lite, Lightweight 4over6, MAP-E, MAP-T).

Status of This Memo

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

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This Internet-Draft will expire on 19 April 2022.

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1. Introduction

IETF has standardized several IPv6 transition technologies [LEN2019] and occupied a neutral position trusting the selection of the most appropriate ones to the market. [I-D.ietf-v6ops-transition-comparison] provides a comprehensive comparative analysis of the five most prominent IPv4aaS technologies to assist operators with this problem. This document adds one more detail: performance analysis and comparison of the examined IPv4aaS technologies.

Currently this document is a stub. It has been created to provide a citable reference for the above mentioned I-D.

1.1. Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

2. Acknowledgements

The authors would like to thank ... TBD

3. IANA Considerations

This document does not make any request to IANA.

4. Security Considerations

TBD.

5. References

5.1. Normative References

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5.2. Informative References

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Appendix A. Change Log

A.1. 00

Initial version.

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