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Cameron Byrne
T-Mobile US

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# IPv6 Transitional Technology IPv4 Prefix
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## Abstract

DS-Lite [RFC6333] directs IANA to reserve 192.0.0.0/29 for the B4 element. This memo generalizes that reservation to include other cases where a non-routed IPv4 interface must be numbered in an IPv6 transition solution.

## Status of this Memo

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Table of Contents

## 1 Introduction

DS-Lite [RFC6333] directs IANA to reserve 192.0.0.0/29 for the B4 element. This memo generalizes that IANA reservation to include other cases where a non-routed IPv4 interface must be numbered in an IPv6 transition solutions. IANA shall list 192.0.0.0/29 to be reserved for IPv6 Transitional Technology IPv4 Prefix. The result is that 192.0.0.0/29 may be used in any system that requires IPv4 addresses for backward compatibility with IPv4 communications, but does not emit IPv4 packets "on the wire".

## 2 The Case of 464XLAT

464XLAT [RFC6877] describes an architecture for providing IPv4 communication over an IPv6-only access network. One of the methods described in [RFC6877] is for the client side translator (CLAT) to be embedded in the host, such as a smartphone. In this scenario, the host must have an IPv4 address configured to present to the network stack and for applications to bind sockets.

## 3. Choosing 192.0.0.0/29

To avoid conflicts with any other network that may communicate with the CLAT, a locally unique address must be assigned.

IANA has defined a well-known range, 192.0.0.0/29, in [RFC6333], which is dedicated for DS-lite. As defined in [RFC6333], this subnet is only present between the B4 and the AFTR and never emits packets from this prefix "on the wire". 464XLAT has the same need for a non-routed IPv4 prefix. It is most prudent and effective to generalize 192.0.0.0/29 for the use of supporting IPv4 interfaces in IPv6 transition technologies rather than reserving a prefix for every possible solution.

## 4 Security Considerations

No new security considerations beyond what is described [RFC6333] and [RFC6877].

## 5 IANA Considerations

IANA is directed to generalize the reservation of 192.0.0.0/29 from DS-lite to "IPv6 Transitional Technology IPv4 Prefix".

## 6 References

### 6.1 Normative References

[RFC6333] Durand, A., Droms, R., Woodyatt, J., and Y. Lee, "Dual-Stack Lite Broadband Deployments Following IPv4 Exhaustion", RFC6333, August 2011.

[RFC6877] Mawatari, M., Kawashima, M., and C. Byrne, "464XLAT: Combination of Stateful and Stateless Translation", RFC6877, April 2013.

Authors' Addresses

Cameron Byrne
Bellevue, WA, USA
Email: Cameron.Byrne@T-Mobile.com