David Meyer Cisco Systems Best Current Practices April, 2001

Extended Allocations in 233/8 <<u>draft-ietf-mboned-glop-extensions-01.txt</u>>

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3. Abstract

This memo provides describes the mapping of the GLOP addresses [RFC2770] corresponding to the private AS space [RFC1930].

<u>4</u>. Introduction

<u>RFC 2770</u> [<u>RFC2770</u>] describes an experimental policy for use of the class D address space using 233/8. The technique described there maps 16 bits of Autonomous System number (AS) into the middle two octets of 233/8 to yield a /24. While this technique has been successful, the assignments are inefficient in those cases in which a /24 is too small or the user doesn't have its own AS.

<u>RFC 1930</u> [<u>RFC1930</u>] defines the private AS space to be 64512 through 65535. This memo expands on <u>RFC 2770</u> to allow routing registries to allocate multicast addresses from the GLOP space corresponding to the <u>RFC 1930</u> private ASes. This space will be referred to as the EGLOP (Extended GLOP) address space.

This memo is a product of the Multicast Deployment Working Group (MBONED) in the Operations and Management Area of the Internet Engineering Task Force. Submit comments to <mboned@ns.uoregon.edu> or the authors.

The terms "Specification Required", "Expert Review", "IESG Approval", "IETF Consensus", and "Standards Action", are used in this memo to refer to the processes described in [<u>RFC2434</u>]. The keywords MUST, MUST NOT, MAY, OPTIONAL, REQUIRED, RECOMMENDED, SHALL, SHALL NOT, SHOULD, SHOULD NOT are to be interpreted as defined in <u>RFC 2119</u> [<u>RFC2119</u>].

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5. Overview

http://www.iana.org/cgi-bin/multicast.pl defines a mechanism for allocation of multicast addresses that are generally for use in network control applications (a more general description of these policies can be found in [<u>GUIDELINES</u>]). It is envisioned that those addresses allocated from the EGLOP space (233.242.0.0 -233.255.255.255) will be used by applications that cannot use Administratively Scoped Addressing [<u>RFC2365</u>], GLOP Addressing [<u>RFC2770</u>], or Source Specific Multicast (SSM) [<u>SSM</u>].

<u>6</u>. Assignment Criteria

Globally scoped IPv4 multicast addresses in the EGLOP space are allocated by a Regional Registry (RIR). An applicant MUST, as per [IANA], show that the request cannot be satisfied using Administratively Scoped addressing [RFC2365], GLOP addressing [RFC2770], or SSM [SSM]. The fine-grained allocation policy is left to the allocating RIR.

7. Security Considerations

Security issues are not discussed in this memo.

8. Acknowledgments

Mirjam Kuehne and Randy Bush provided many insightful comments on earlier versions of this document.

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<u>10</u>. References

[IANA]	<u>http://www.iana.org</u>
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[RFC2026]	S. Bradner, "The Internet Standards Process Revision 3", <u>RFC2026</u> , October 1996.
[RFC2119]	S. Bradner, "Key words for use in RFCs to Indicate Requirement Levels", <u>RFC 2119</u> , March, 1997.
[RFC2365]	D. Meyer,"Administratively Scoped IP Multicast", <u>RFC</u> <u>2365</u> , July, 1998.
[RFC2770]	D. Meyer, and P. Lothberg, "GLOP Addressing in 233/8", <u>RFC 2770</u> , February, 2000
[RFC2780]	S. Bradner and V. Paxson, "IANA Allocation Guidelines For Values In the Internet Protocol and Related Headers", <u>RFC2780</u> , March, 2000
[SSM]	Holbrook, H., and Cain, B., "Source-Specific Multicast for IP", <u>draft-holbrook-ssm-arch-02.txt</u> , Work in progress.
[GUIDELINES]	Albanna, Z., et. al, "IANA Guidelines for IPv4 Multicast Address Allocation", <u>draft-ietf-mboned-iana-ipv4-mcast-guidelines-00.txt</u> , Work in progress.

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