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Abstract

This document enumerates IANA assignments for use by MANET WG protocols. Specifically, a UDP port, two link-local multicast group addresses (IPv4 & IPv6), and two site-local multicast group addresses (IPv4 & IPv6).

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1. Introduction

This document enumerates assignments for MANET WG protocols. A well-known UDP port for MANET WG protocols. Well-known link-local multicast addresses (IPv4 & IPv6) for link-local communication between neighboring MANET routers. Well-known site-local multicast addresses (IPv4 & IPv6) for site-local multihop communication between MANET routers within the same site.

2. UDP Port for MANET Protocols

MANET routing protocols require a well-known UDP port to send and receive MANET routing protocol packets. The title of this UDP port is "manet". The value of this UDP port is TBD1.

3. Link-local Multicast Group for MANET Routers

MANET protocols require a well-known link-local multicast address [[RFC4291](#)] to send and receive MANET routing protocol packets. The name of the multicast address to reach link-local (LL) MANET routers is "LL MANET Routers".

MANET routers SHOULD subscribe to this well-known LL scoped multicast address to receive routing protocol packets and use it for LL transmissions of routing protocol packets.

For IPv4, a well-known, link-local scope multicast address is used. The address for LL MANET Routers is 224.0.0.TBD2 to appear in the [[IANAv4Multicast](#)] registry.

For IPv6, a well-known, link-local scope multicast address is used. The address for LL MANET Routers is FF02:0:0:0:0:0:0:TBD3 to appear in the [[IANAv6Multicast](#)] registry.

4. Site-local Scoped Multicast Groups for MANET Routers

MANET protocols need a well-known site-local scoped multicast address [[RFC4291](#)] to disseminate information over multiple hops. This section names the multicast address, defines the scope, and clarifies router behavior.

The name of the multicast address to reach the MANET routers is "MANET Routers". MANET routers SHOULD subscribe to this well-known site-local scoped multicast address to receive routing protocol packets and use it for multihop site-local transmissions of routing

protocol packets.

MANET routers that forward site-local scoped multicast traffic must use additional criteria as specified in [\[RFC2365\]](#) and [\[RFC4007\]](#).

4.1. Site-local Scoped Multicast Group for IPv4

For IPv4, well-known, scope-relative multicast address (as defined by [\[RFC2365\]](#), [Section 9](#)) are used. The offset for the scope relative address for scoped MANET Routers is TBD4 to appear in [\[IANAv4Multicast\]](#) registry.

Different scopes are defined by [\[RFC2365\]](#). The IPv4 Local Scope (239.255.0.0/16) is the minimal enclosing scope for administratively scoped multicast and not further divisible -- its exact extent is site dependent.

For the IPv4 Local Scope, applying the rules of [\[RFC2365\]](#) and using the assigned offset of TBD4, the multicast address is therefore 239.255.255.(255-TBD4).

4.2. Site-local Scoped Multicast Group for IPv6

IPv6 has different address ranges for different multicast scopes that are implemented as a set of address prefixes for the different address ranges ([\[RFC4291\]](#)). A well-known assigned multicast address is used for site-local scoped MANET Routers multicast communication. See [\[RFC4291\]](#) and the [\[IANAv6Multicast\]](#) registry for IPv6 multicast assignments.

The well-known IPv6 multicast address for MANET Routers/IPv6 is FF05:0:0:0:0:0:0:TBD3.

5. IANA Considerations

UDP Port Assignment

+-----+-----+	
Name	Value
+-----+-----+	
manet	TBD1
+-----+-----+	

Table 1

Link-local multicast address assignment

Name	IPv4	IPv6
LL MANET Routers	224.0.0.TBD2	FF02:0:0:0:0:0:0:TBD3

Table 2

Site-local multicast address assignment

Name	IPv4	IPv6
MANET Routers	239.255.255.(255-TBD4)	FF05:0:0:0:0:0:0:TBD3

Table 3

6. Security Considerations

There are no security considerations associated with this document.

7. Acknowledgements

Fred Templin, Bill Fenner, and Alexandru Petrescu provided valuable input to this document.

8. References

8.1. Normative References

- [RFC2365] Meyer, D., "Administratively Scoped IP Multicast", [BCP 23](#), [RFC 2365](#), July 1998.
- [RFC4007] Deering, S., Haberman, B., Jinmei, T., Nordmark, E., and B. Zill, "IPv6 Scoped Address Architecture", [RFC 4007](#), March 2005.
- [RFC4291] Hinden, R. and S. Deering, "IP Version 6 Addressing Architecture", [RFC 4291](#), February 2006.

8.2. Informative References

[IANAv4Multicast]

"IPv4 Multicast Address Assignments", <<http://http://www.iana.org/assignments/multicast-addresses>>.

[IANAv6Multicast]

"IPv6 Multicast Address Assignments", <<http://http://www.iana.org/assignments/ipv6-multicast-addresses>>.

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