# Reverse DNS for Multicast Addresses

mboned – IETF 88
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# Where are we, now?

```
[walrus:~]% dig -x 224.0.0.2 PTR +short

all-routers.mcast.net.

[walrus:~]% dig -x ff01::2 PTR +short

[walrus:~]%
```

# Why name things?

- Because they are there

- Because names are easier to recognise than numbers

- In this case this is a fairly obscure part of the namespace, but if we can assign names methodically and predictably without causing anybody a lot of work, perhaps we should

# Proposal

- `draft-jabley-multicast-ptr-00`

  - "DNS Reverse Mapping for Multicast Addresses"

  - Proposes a naming scheme for IPv6 multicast addresses

  - Establishes a unified process for both IPv4 and IPv6 multicast mapping, with the goal of making the IANA's job easier

# IPv4 Naming Scheme

- The proposal is to mirror the historical, ad-hoc approach taken with `MCAST.NET`, document mappings in an IANA registry, and rename things under `MCAST.ARPA`

  - support for legacy `MCAST.NET` names provided using DNAME

  - no need for a defined sunset for the `MCAST.NET` zone (but allow for one)

# IPv6 Naming Scheme

- IPv6 introduces scoped multicast addresses

  - propose an approach which is similar to that used for IPv4, but which includes an enclosing label describing the scope

  - instantiates a registry for scope labels

  - names under `MCAST6.ARPA`

- No legacy support required for IPv6, because there is no legacy

# Examples

- Fixed-scope address `ff01::1`

  - scope label is "`NODE-LOCAL`"

  - address label is "`ALL-NODES`"

  - `ALL-NODES.NODE-LOCAL.MCAST6.ARPA`

# Examples

- Variable-scope address `ff0x::fb`

  - Address label "MDNSV6"

  - mapping depends on the scope used

  - x=5, use scope label "SITE-LOCAL"

    - `ff05::db` – `MDNSV6.SITE-LOCAL.MCAST6.ARPA`

  - x=2, use scope label "LINK-LOCAL"

    - `ff02::db` – `MDNSV6.LINK-LOCAL.MCAST6.ARPA`

# IANA Considerations

- This proposal leaves decisions for naming existing assignments up to the IANA, with some light guidance

- Future assignments are made into a revised registry with a mandatory "DNS Label" column, so decisions are left to the specification

# Thoughts?

- Thoughts on the proposed naming scheme?

- Thoughts on whether we should bother with reverse mapping for these addresses at all?

- Thoughts on an appropriate venue for discussion? mboned? dnsop? Somewhere else?

- Thoughts on future of this document? Individual stream? AD-Sponsored? Working group?