

IPv6 Neighbor Discovery Multicast Address Listener Registration

draft-ietf-6lo-multicast-registration

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6LoWPAN ND (IPv6 Stateful Address Autoconfiguration)

[RFC 6775](#) (original 6LoWPAN ND)

Defines ARO for registration and DAD operations for stateful AAC

[RFC 8505](#) (Issued 11/2018)

The protocol agnostic registration for ULA/GUA for proxy ND and routing services

Analogous to a Wi-Fi association but at Layer 3: a deterministic and query-able state for all addresses

[RFC 8929](#) (Issued 11/2020)

Federates 6lo meshes over a high-speed backbone

ND proxy analogous to Wi-Fi bridging but at Layer 3

[RFC 8928](#) (Issued 11/2020)

Protects addresses against theft (Crypto ID in registration)

[draft-ietf-6lo-multicast-registration](#)

Extends RFC 8505 for multicast and anycast

[draft-thubert-6lo-unicast-lookup](#)

Provides a 6LBR on the backbone to speed up DAD and lookup

Coexistence with classical ND



[draft-thubert-6lo-prefix-registration](#)

Extends RFC 8505 for prefixes

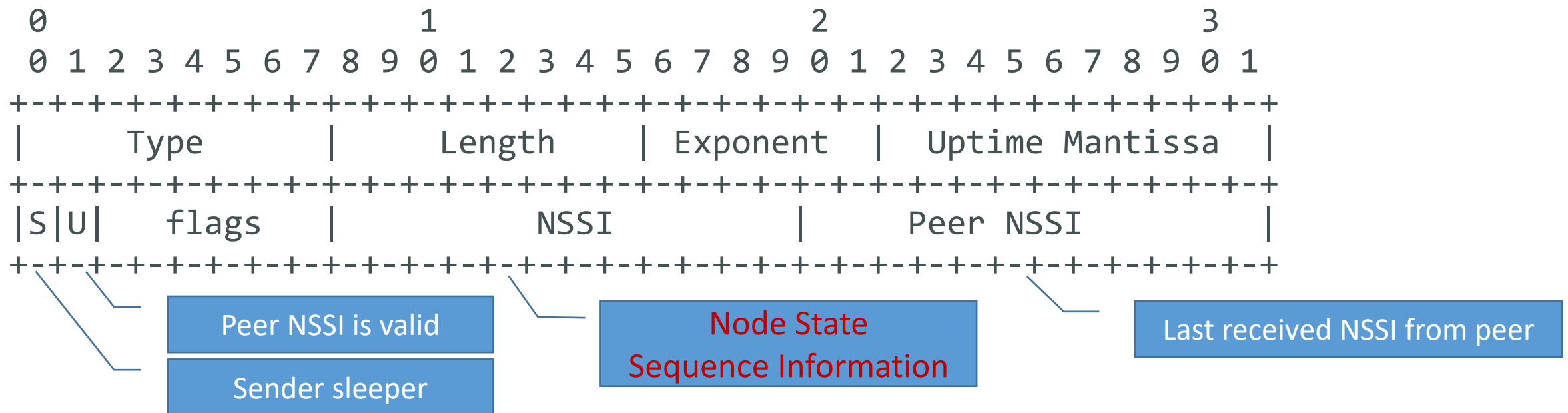


Changes in [draft-ietf-6lo-multicast-registration](#) since IETF 114

- Moved from 7 to 11, introduced terminology
- “Update RFC 6550” beefed up,
 - discussion on merging different sources vs lifetime and ROVR
- Freshness comparison only from the same source
- New P field instead of flags (though same binary) -> next slide
- Use “subscription” instead of “registration” for A and M
- Updated Consistent Uptime Option; (in vs separate) still not resolved, kept in -> next slide

Consistent Uptime Option

This specification introduces a new option that characterizes the uptime of the sender. The option may be used by routers in RA messages and by any node in NS, NA, and RS messages. It is used by the receiver to infer whether some state synchronization might be lost, e.g., due to reboot.



P Field: Adding Room For Prefix Registration

P is a new 2-bits field in EARO, DAR, and RTO

Turning the A and M flags into a field frees up one value:

Value	Meaning	Reference	
0	Registration for a Unicast Address	This RFC	
1	Registration for a Multicast Address	This RFC	Was: M flag
2	Registration for an Anycast Address	This RFC	Was: A flag
3	Unassigned	This RFC	Reserved

For Prefix Registration

Next steps

- No news from 6MAN
- WGLC as is?