Native Short Addressing for LLN Expansion
draft-li-6lo-native-short-address update
IETF 114 – Philadelphia
Since IETF 113

Native Short Addressing for Low power and Lossy Networks Expansion
draft-li-6lo-native-short-address-03

draft-li-6lo-native-short-address-03.txt
June 2022
Main changes 02 => 03

Main points:
- Revised text
  - Hunting residual typos
- Structure Stable
  - Except for reliability aspects (see next slide)
- Clarification about Checksum calculation at transport layer
  - All in all these are minor changes.
• Because the topic is important and has several possible solutions the authors decided to gather all the material in a different document (see next presentation)

• Deleted section “Benefits of Native Short Addressing”
  • It was already partially about reliability
  • Part of the text is in the new document
  • Part is in the new section

• Added small section “Reliability Considerations”
9. Reliability Considerations

Because NSA uses algorithmically generated addresses based on the network topology, nodes do not generate and store forwarding table entries in the normal case. One of the potential issues is the risk of renumbering of addresses in case of topology changes. Because of the applicability domain of NSA, the common case of topology change is known in advance and can be planned, so to reduce disruption due to renumbering. Another case is temporary link failures where the underlying technology is still able to provide connectivity through alternative links, which is strictly related to the underlying technology, the network topology, the deployed redundancy, and the expected reliability.

More complex reliability scenarios and alternative solutions are beyond the scope of this document, which is focused only on the address allocation framework. Furthermore, specific reliability solutions can depend as well on the specific Allocation Function used (different from the one presented in this document). Reliability is discussed in more details in [I-D.li-nsa-reliability-00].

• Small section
  • Routing vs Stateless forwarding
  • Reliability as a multi-faceted problem
  • Reference to new document
Next Steps (slide from IETF 113)

• Ongoing NSA Evaluation (see next presentation)

• Incorporate further feedback:
  • From Brian Carpenter
  • From Adnan Rashid
  • See: https://mailarchive.ietf.org/arch/msg/6lo/UJvsew0KR5VmMYks6t3p25Rjmq8/

• Status:
  • Core elements stable
  • Revision -03 expected right after IETF 113
    • (see above)
  • Consider Adoption?
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Document stable
All open concerns addressed

Ready for WG adoption
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THANKS!