LPWAN Multicast

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Multicast – Problem Statement

• LPWAN systems can greatly benefit from multicast services for several reasons
  • SW/FW updates
  • Network policies
  • Etc.

• Some technologies already support multicast services

• At present, the SCHC protocol RFC 8724 only considers unicast data delivery services
LPWAN Multicast Alternatives

• Non-reliable multicast fragmentation support
  • Multicast over SCHC No-ACK Mode

• Reliable multicast fragmentation support
  • ARQ over SCHC, e.g. unicast ACK-on-Error response
  • FEC at lower-layer
  • Other mechanism at application-layer

• Other
  • Some variant of the Trickle algorithm
IETF LPWAN – Potential Work Item

• There are several solutions for providing multicast services
  • L1/L2, L3, Application
  • Centralized/Distributed

➢ Not all solutions would be in scope of IETF LPWAN WG

• It is proposed to:
  1. document needs,
  2. identify potential solutions, and then
  3. discuss if some specific solution would be in scope for the LPWAN WG