

# Extending 6LoWPAN ND

P.Thubert, E. Nordmark, S. Chakrabarti, B. Sarikaya, M. Sethi

IETF 98

Chicago

# What are the 6LoWPAN ND extensions?

Provide for draft-thubert-6lo-rfc6775-update-reqs

- draft-ietf-6lo-rfc6775-update
  - Simplifies the protocol (no DAR/DAC for LL, no secondary NC)
  - Enables proxy registration
- draft-ietf-6lo-ap-nd
  - Protects addresses against theft (Crypto ID in registration)
- draft-ietf-6lo-backbone-router
  - Federates 6lo meshes over a high speed backbone

# 6BBR vs. RFC 6775 update

Extended ARO option moved in rfc6775\_update

Add TID field to support registration mobility

Same as efficient ND

Proxy registration enabled by rfc6775\_update

6LBR may register on behalf of 6LN in mesh environment

Registering the target as opposed to source address

# 6LoWPAN ND update

- 01 published January 10, 2017
- Added text on UID from BBR draft
  - Extend the concept to enable Address Protection
- Added text on TID from BBR draft
  - Relate to RPL's Path Sequence in Transit Information Option
- Cleaned up IEEE references "IEEE std 802.15.4"
- Implemented
- Demonstrated at 6TiSCH/6lo ETSI Plugtest

# Backbone Router

- 03 published January 11, 2017
- Removed text moved to RFC 6775 update
  - Terminology
  - IANA
  - EARO, TID, UID...
- Cleaned up IEEE references “IEEE std 802.15.4”
- Implemented
- Demonstrated at 6TiSCH/6lo ETSI Plugtest

# Address Protection

- 00 published November 12, 2016
- Plain copy of personal submission as expected
- Need work on crypto
- Need additional reviews and implementations

# What's next for 6LoWPAN ND extensions?

Final reviews, WGLC for –update and BBR?

Security review or AP ND?