

draft-barthel-icmpv6-schc-00

Authors:

Dominique Barthel <dominique.barthel@orange.com>

Laurent Toutain <laurent.toutain@imt-atlantique.fr>

Arunprabhu Kandasamy <arun@ackl.io>

Why care about ICMPv6?

- If it's IP-enabled, users expect ICMP
 - Delivery error messages
 - Ping
 - TraceRoute
- What about IP-enabled LPWANs?

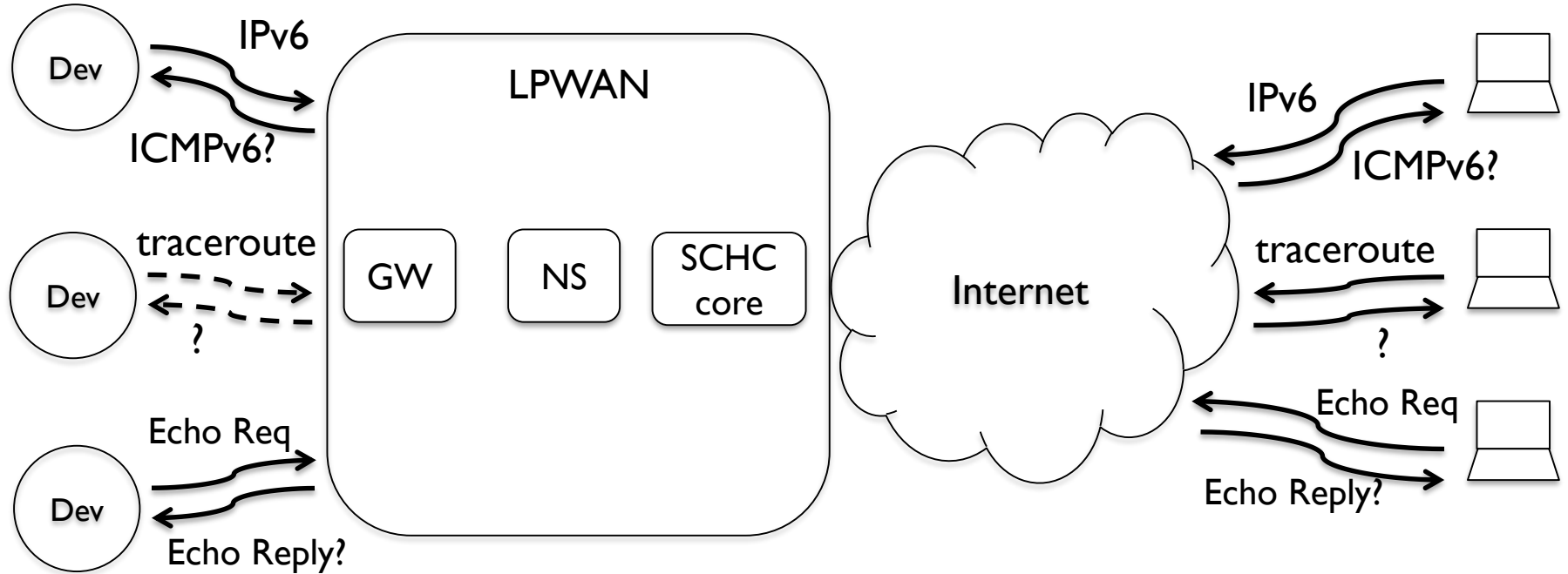
What is this draft about?

- IPv6-enabled LPWANs
- This draft to propose, describe and specify what should happen regarding ICMPv6
- In scope: RFC4443 (basic ICMPv6)
- Maybe later: RFC4884 (Extended format)
- Not in scope: RFC4861 (ND)
draft-lagos-lpwan-icmpv6-static-context-hc-00

RFC4443 recap

- Defines basic *ICMPv6 message format*
- Defines 4 *Error Messages*
 - Destination Unreachable
 - Packet Too Big
 - Time Exceeded (used by traceroute6)
 - Parameter Problem
- Defines 2 *Informational Messages*
 - Echo Request, Echo Reply (used by ping6)

Scenarios considered



A few nice technical issues

- RFC4443 states
 - “ICMPv6 error message MUST include as much of the IPv6 offending (invoking) packet ... as possible”
 - Means UDP/IPv6-in-ICMPv6/UDP/IP header compression?
- traceroute6 targets unused UDP port
 - When no rule found, SCHC sends uncompressed (fragmented) packet to Device. ☹️

Conclusions

- Please voice your opinion here or on the ML
- Please read the draft and comment
 - Scenarios
 - Technical answers