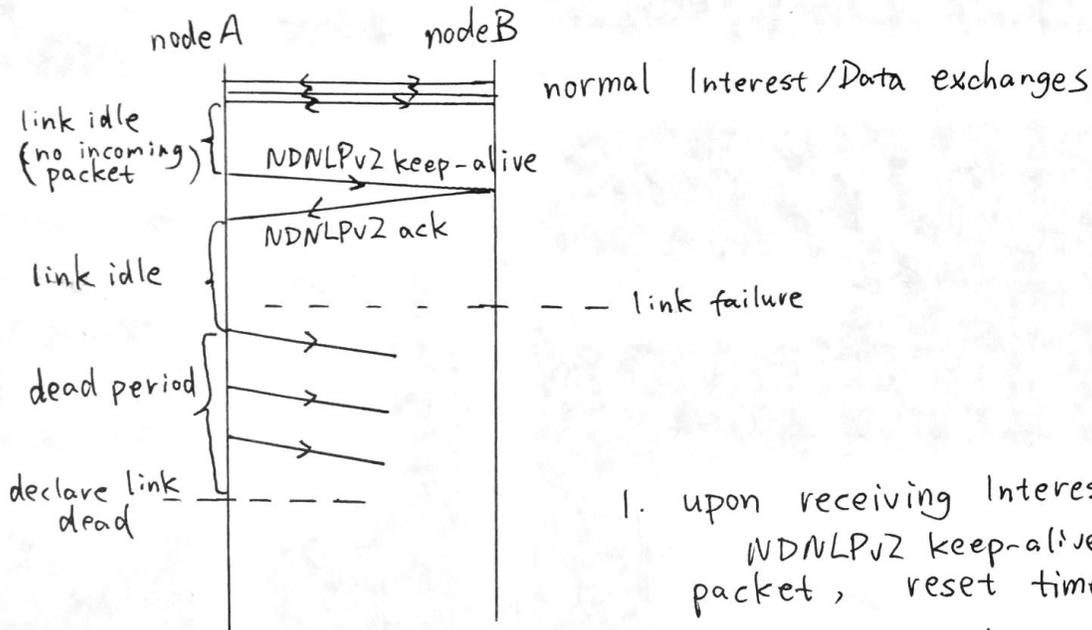


20141115

NDNLP - BFD

protocol operation on point-to-point link



1. upon receiving Interest / Data / NDNLPv2 keep-alive / NDNLPv2 ack packet, reset timer:
the timer expires after "link idle period" + small random duration
2. upon timer expiring, transmit NDNLPv2 keep-alive packet, and reset timer again
3. if no incoming packet in "dead period" (about $3 \times$ "link idle period"), declare link dead
4. upon receiving NDNLPv2 keep-alive packet, respond with NDNLPv2 ack packet

A face can operate in one of two BFD modes

△ full mode: the face can transmit NDNLPv2 keep-alive, and can respond NDNLPv2 ack

— useful for router ↔ router and laptop → router

△ passive mode: the face can respond NDNLPv2 ack, but does not transmit NDNLPv2 keep-alive (no step 2)

— useful for router → laptop,

because laptop is responsible for keeping link alive