

Backbone Router PlugFest demo

draft-thubert-6lowpan-backbone-router
draft-chakrabarti-nordmark-6man-efficient-nd

Pascal Thubert & Thomas Watteyne

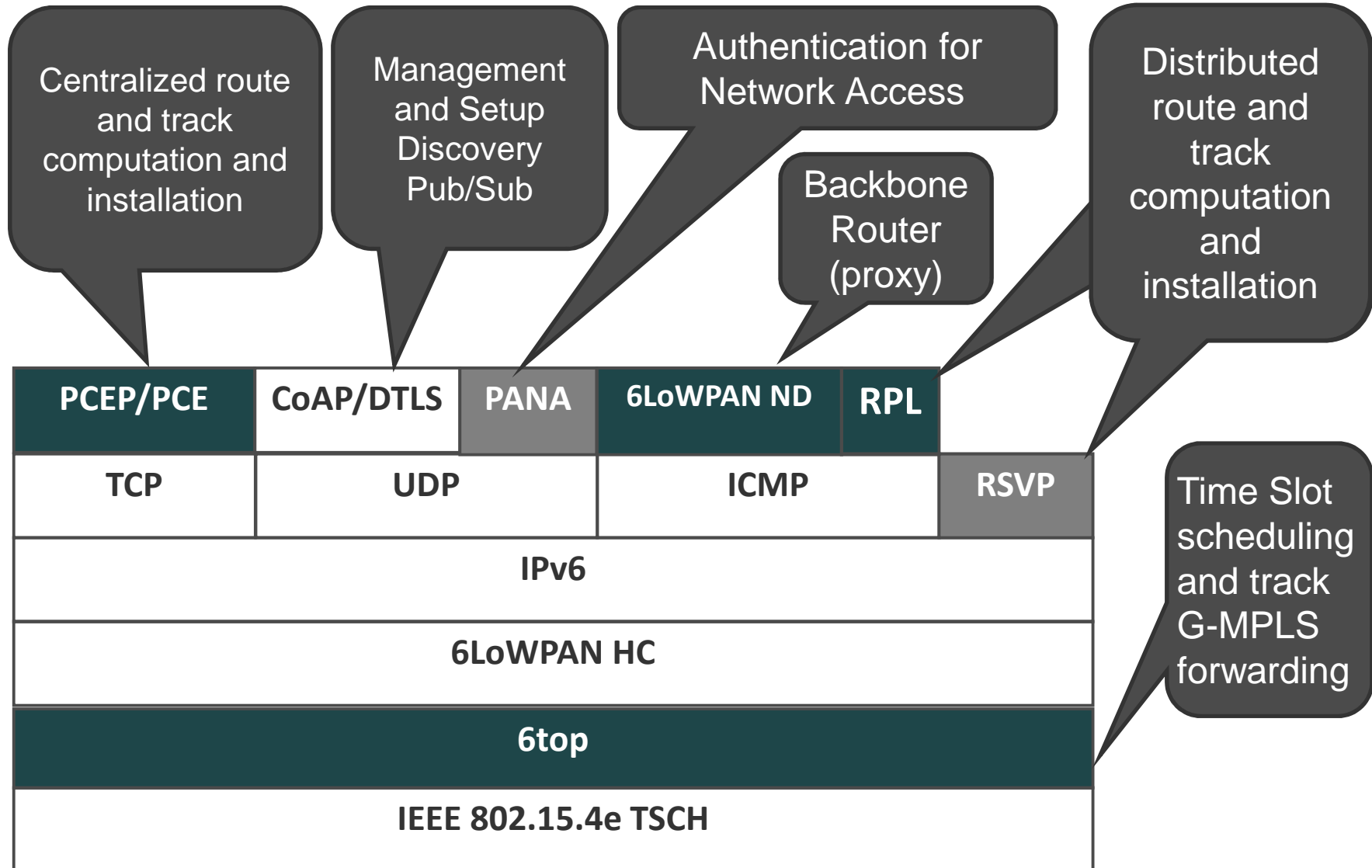
6lo WG Meeting
89th IETF Meeting
London

Tomorrow's meetings of interest

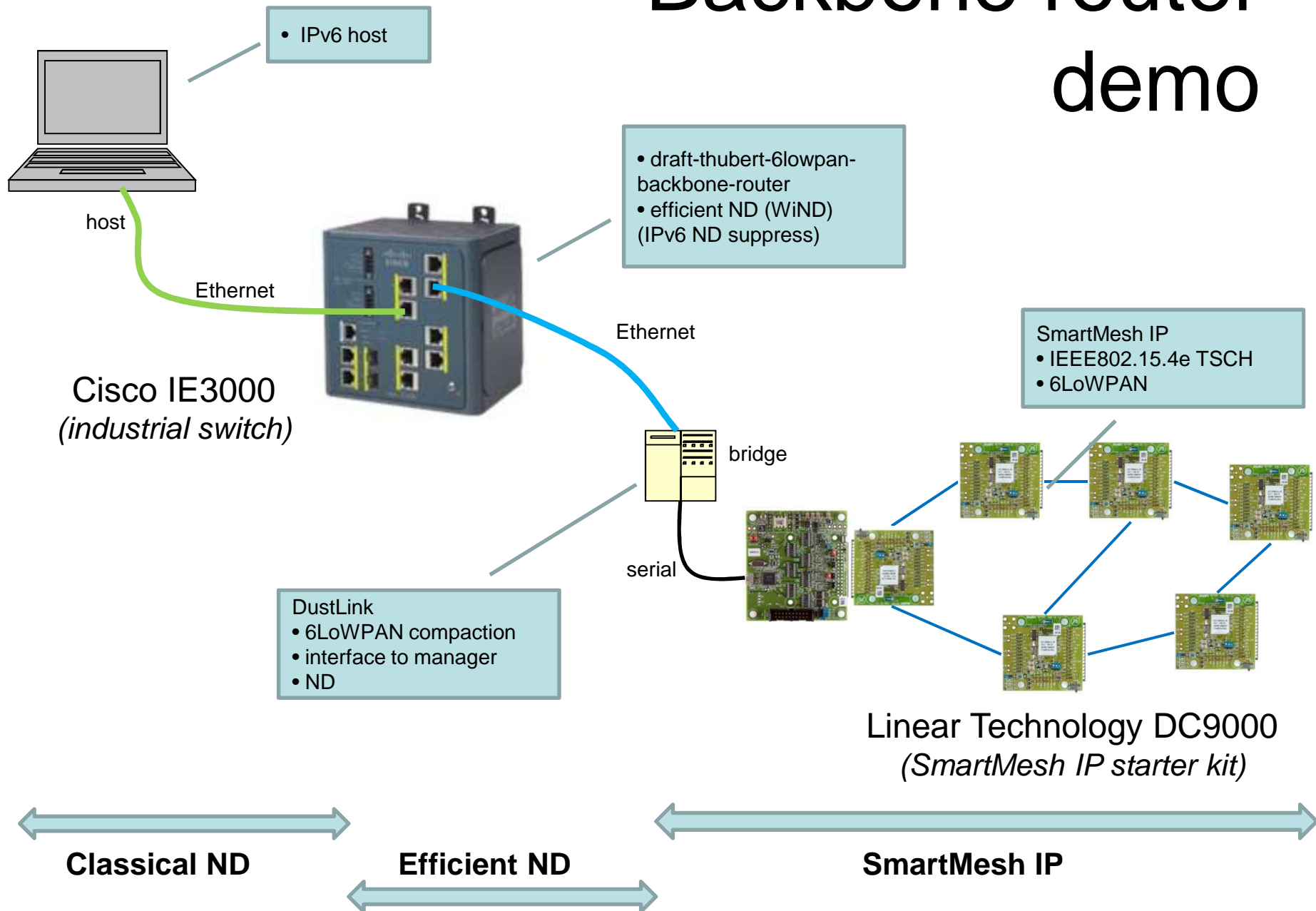
- **0900-1200 GMT** **Thursday Morning extra session**
Meeting Room 1-4 **6tisch PlugFest**
- **1300-1500 GMT** **Thursday Afternoon Session I**
Buckingham INT **6tisch IPv6 over the TSCH mode of
IEEE 802.15.4e**
- **1520-1650 GMT** **Thursday Afternoon Session II**
Viscount RTG roll Routing Over Low power and
Lossy networks
- **1150-1320 GMT** **Friday Afternoon Session 1**
Viscount APP core Constrained RESTful Environments

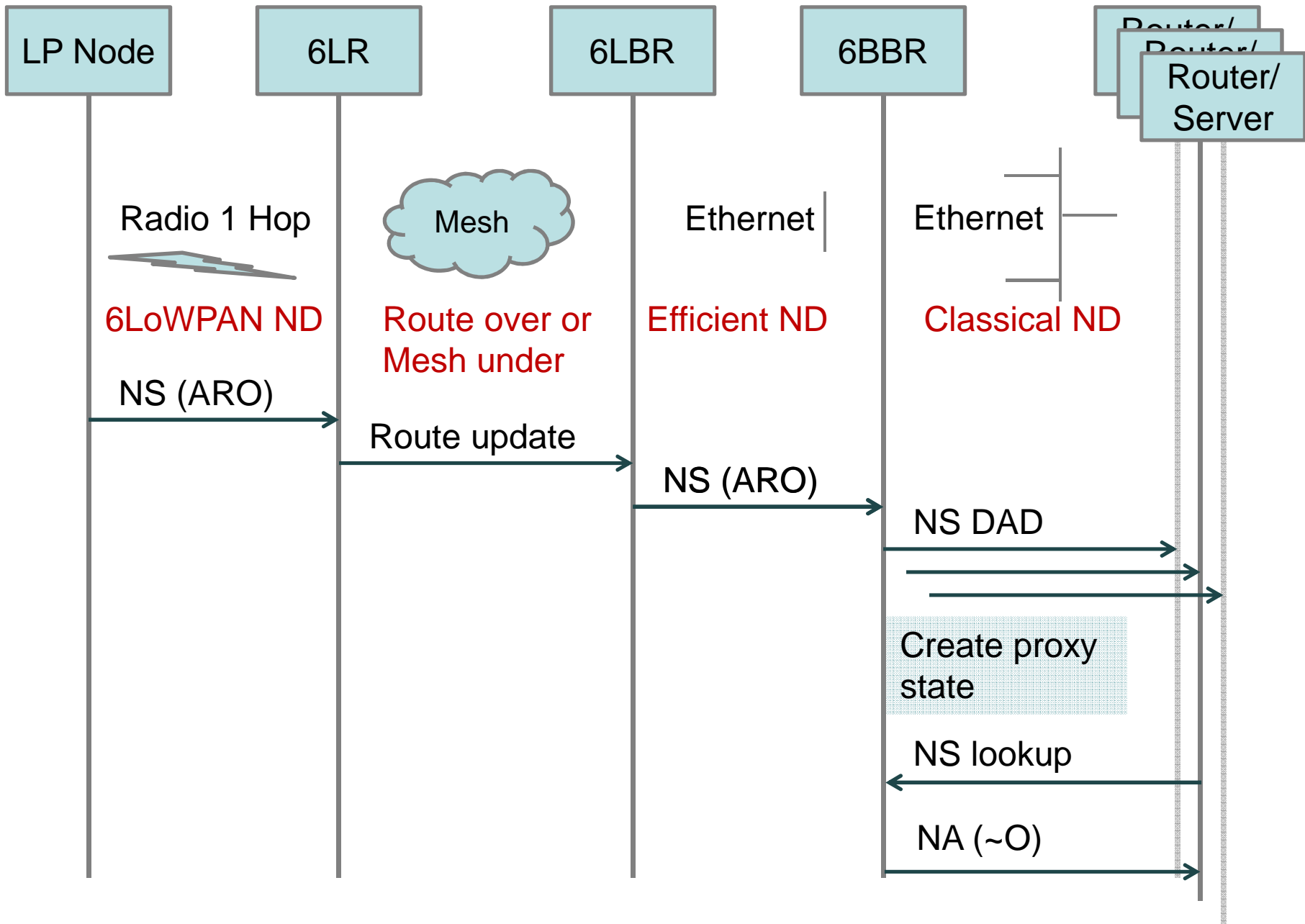
<https://bitbucket.org/6tisch/meetings/wiki/plugfest>

6TiSCH: Architecture



Backbone router demo





What's a Backbone Router?

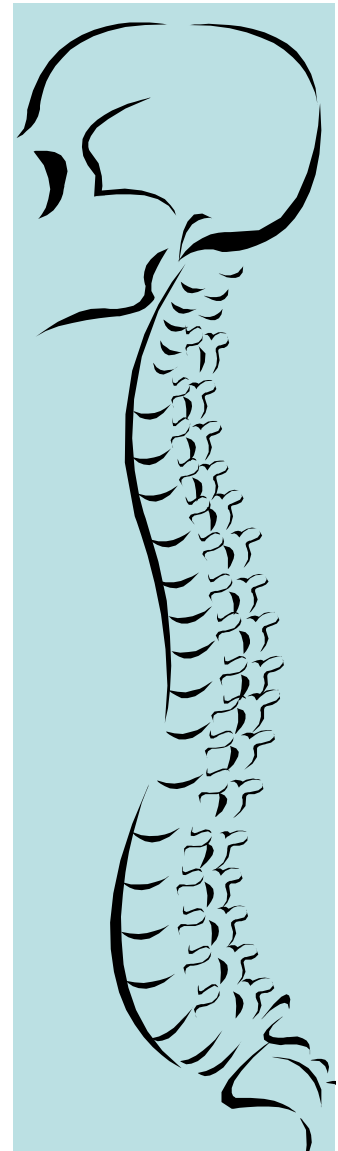
Common ND based abstraction over a backbone

Scales DAD operations (distributes 6LoWPAN ND LBR)

Scales the subnetwork (high speed backbone)

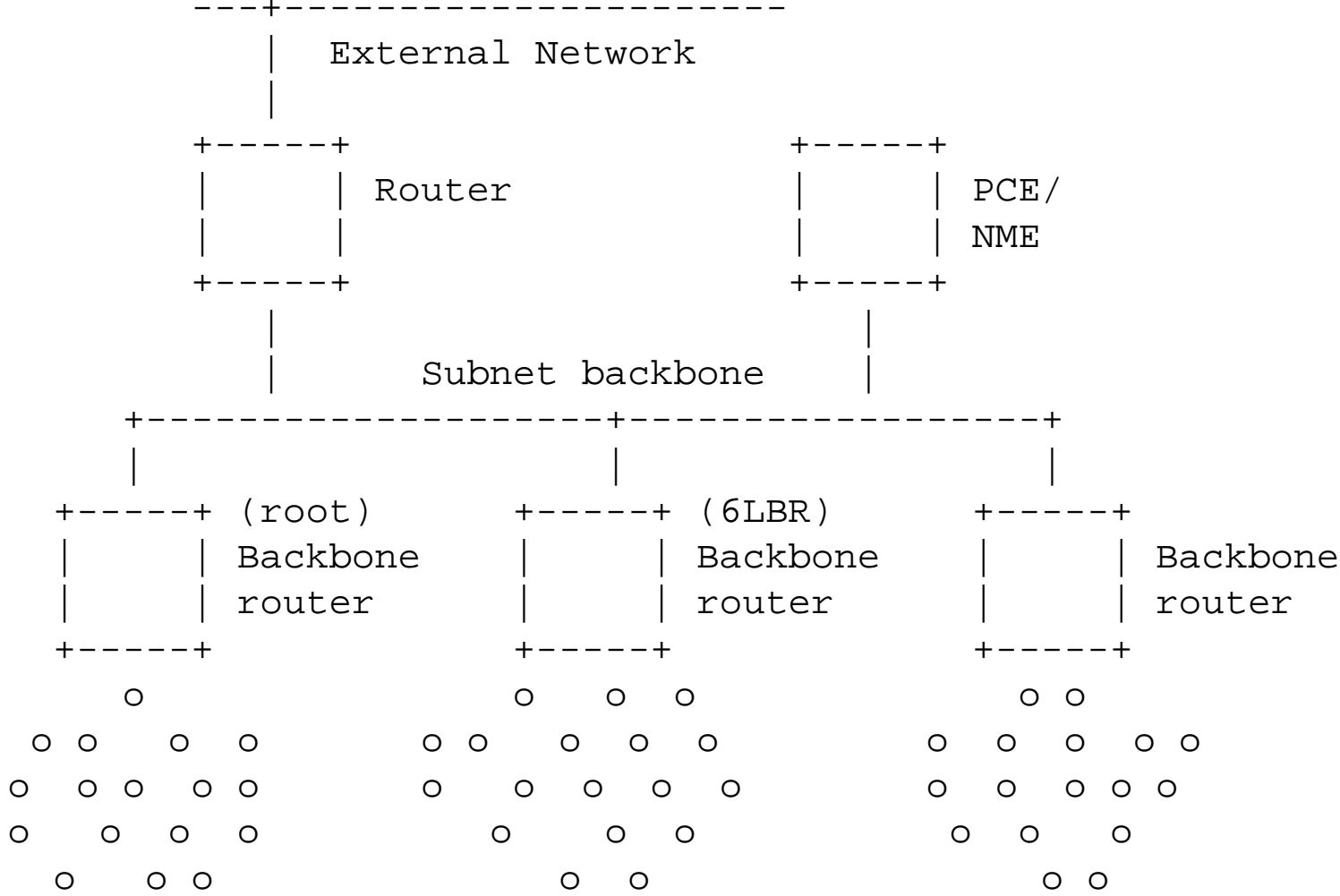
Allows interaction with nodes on the backbone or in other subnets running different operations

<http://tools.ietf.org/html/draft-thubert-6lowpan-backbone-router>

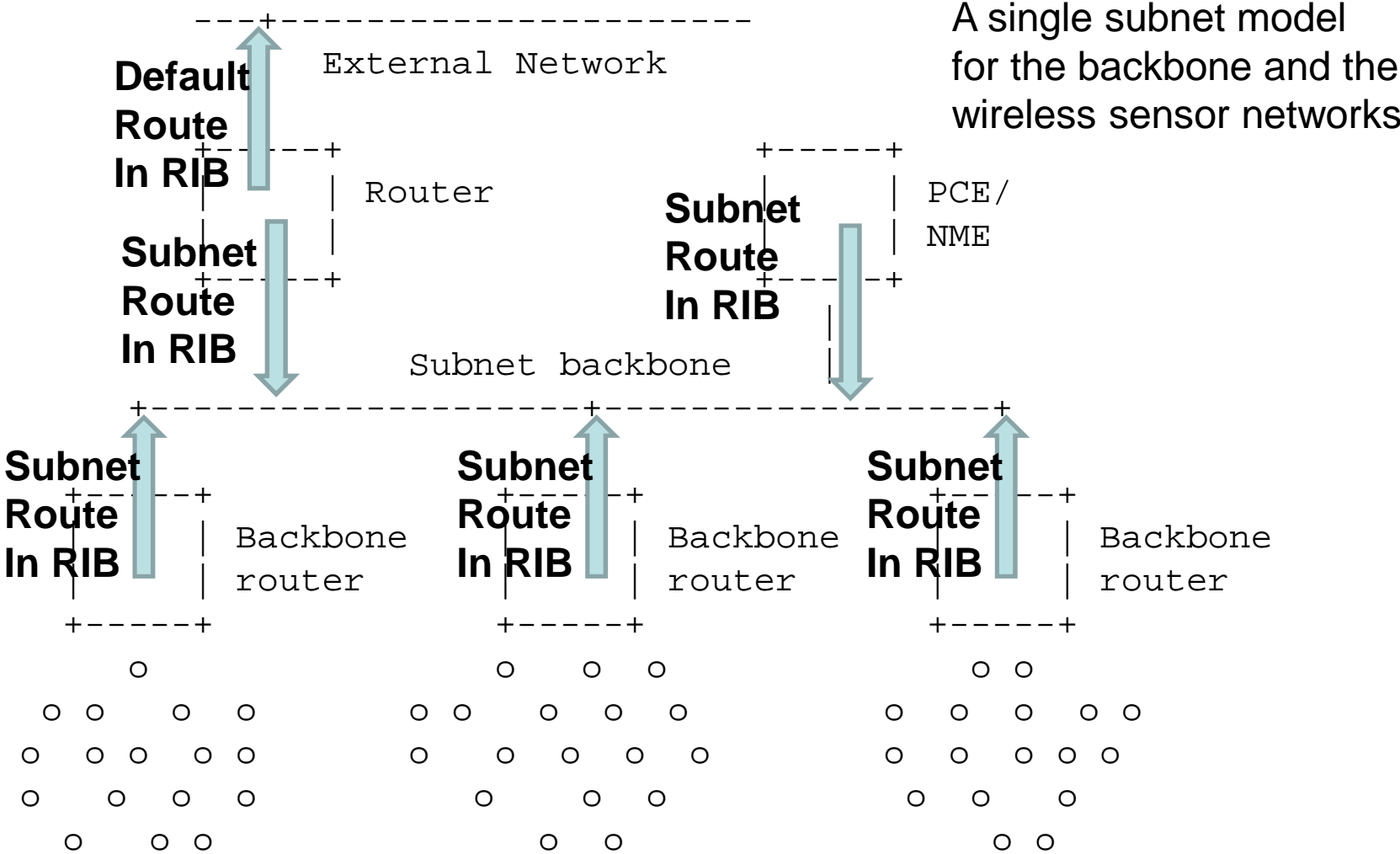


Questions?

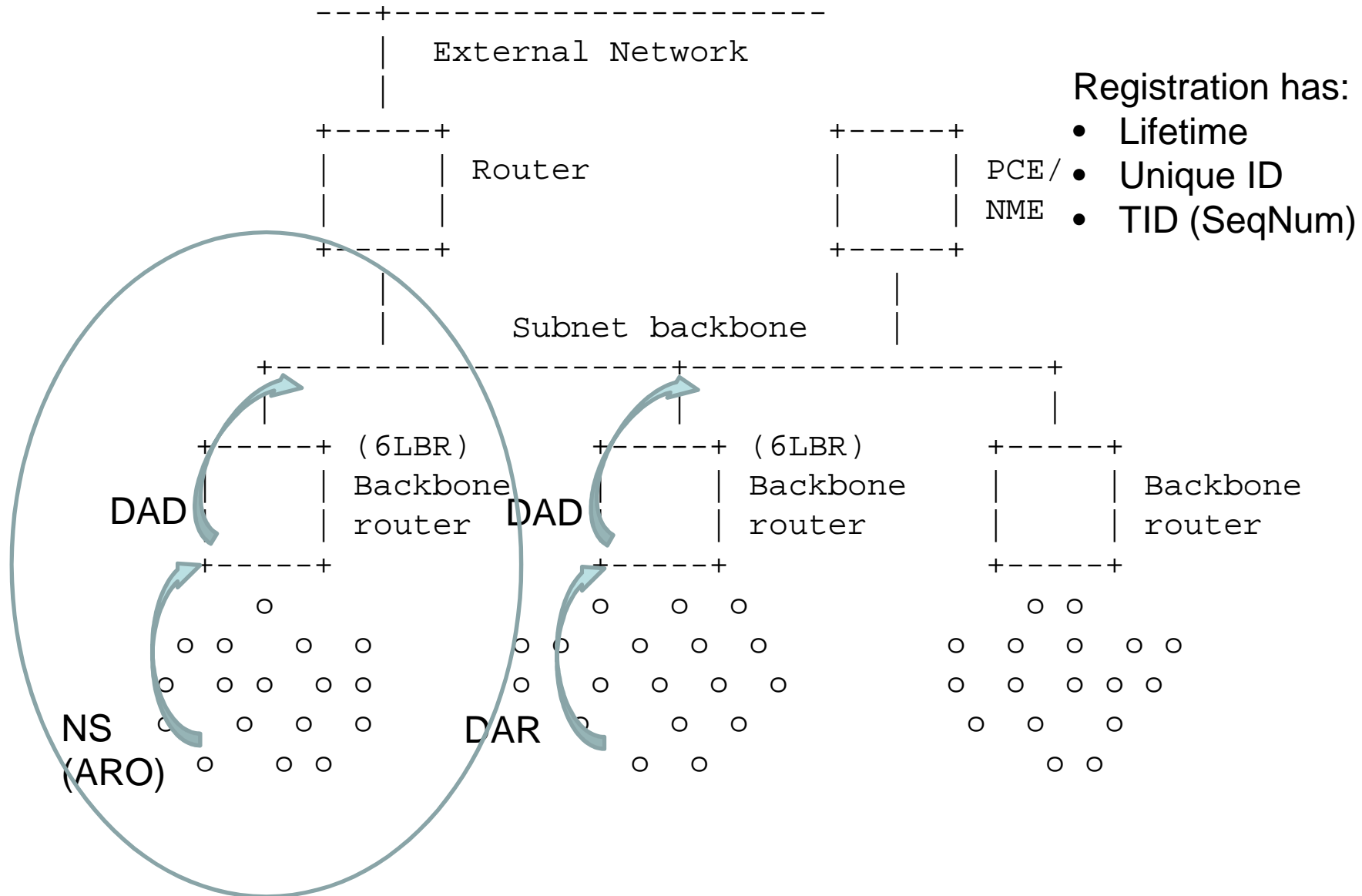
Initial time



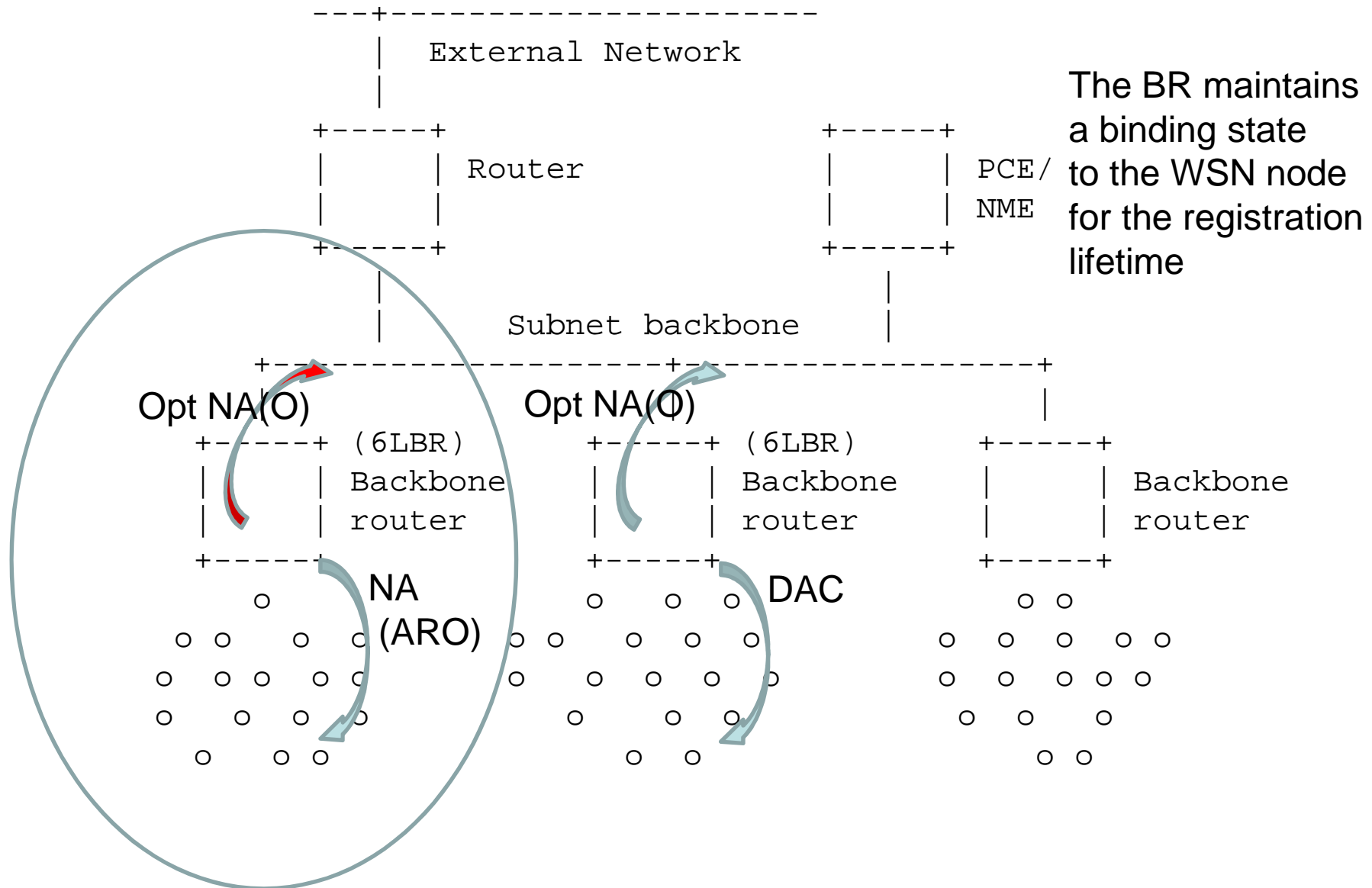
Initial time



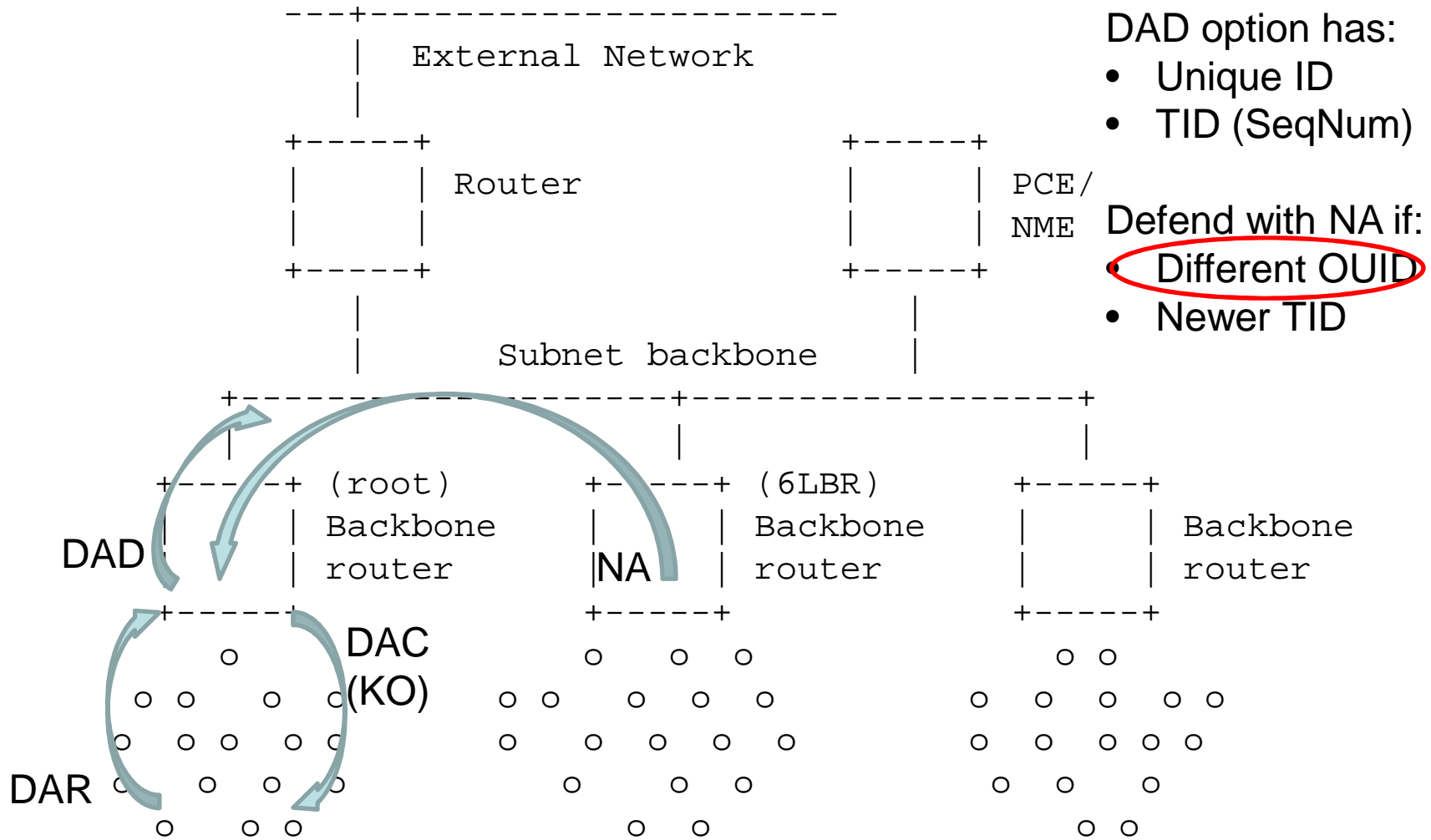
Registration (1st step)



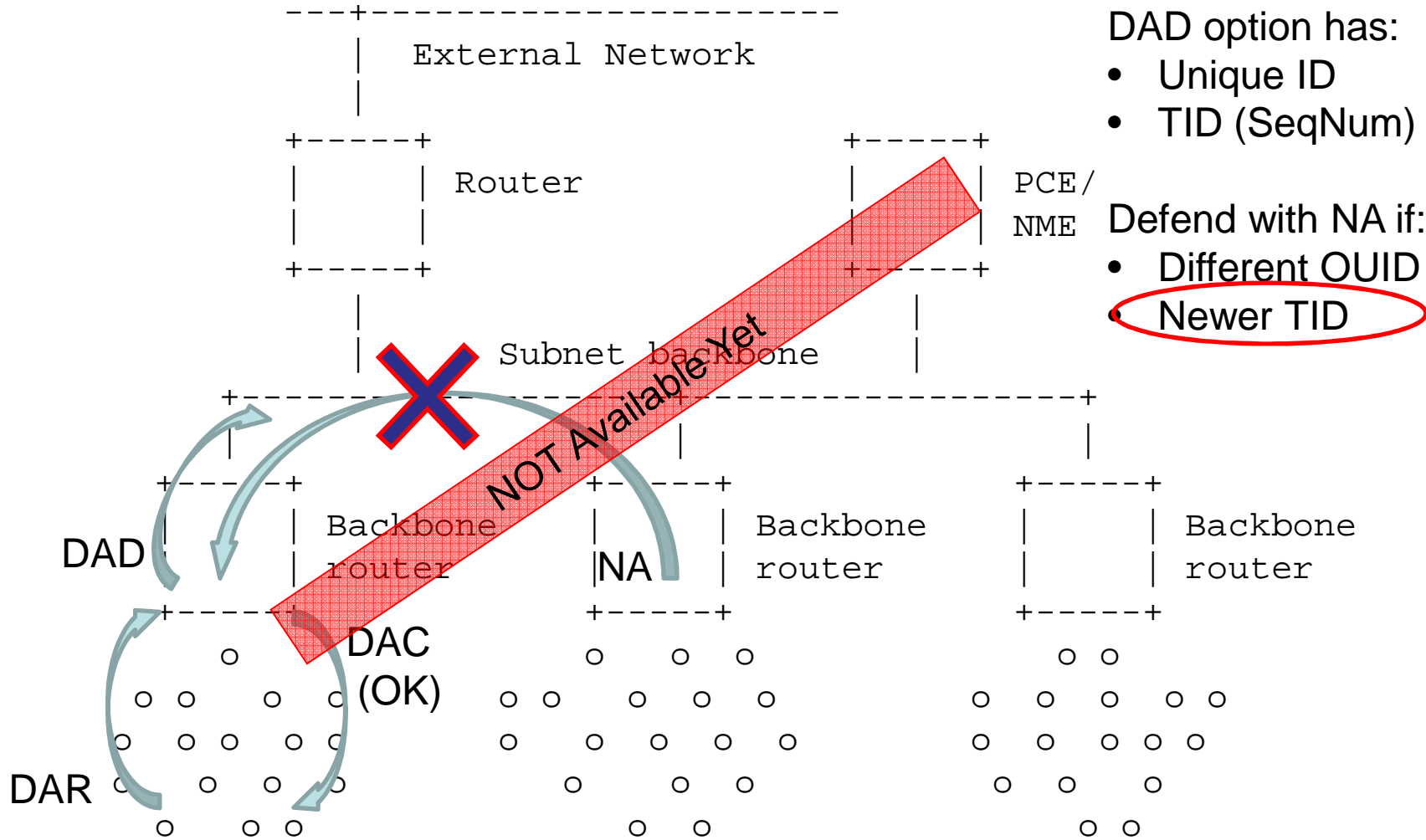
Registration (2nd step one second later)



Duplication



Mobility



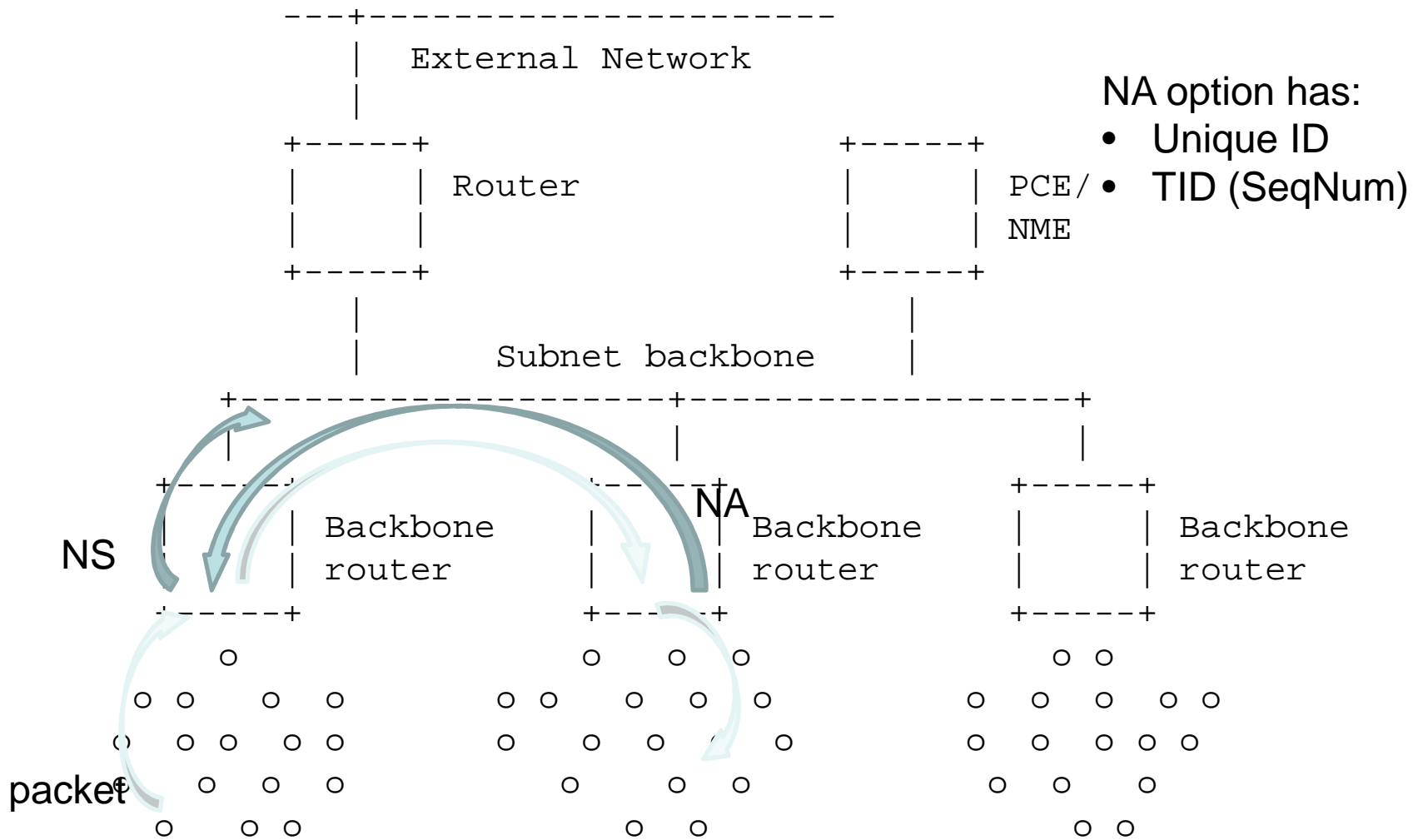
DAD option has:

- Unique ID
- TID (SeqNum)

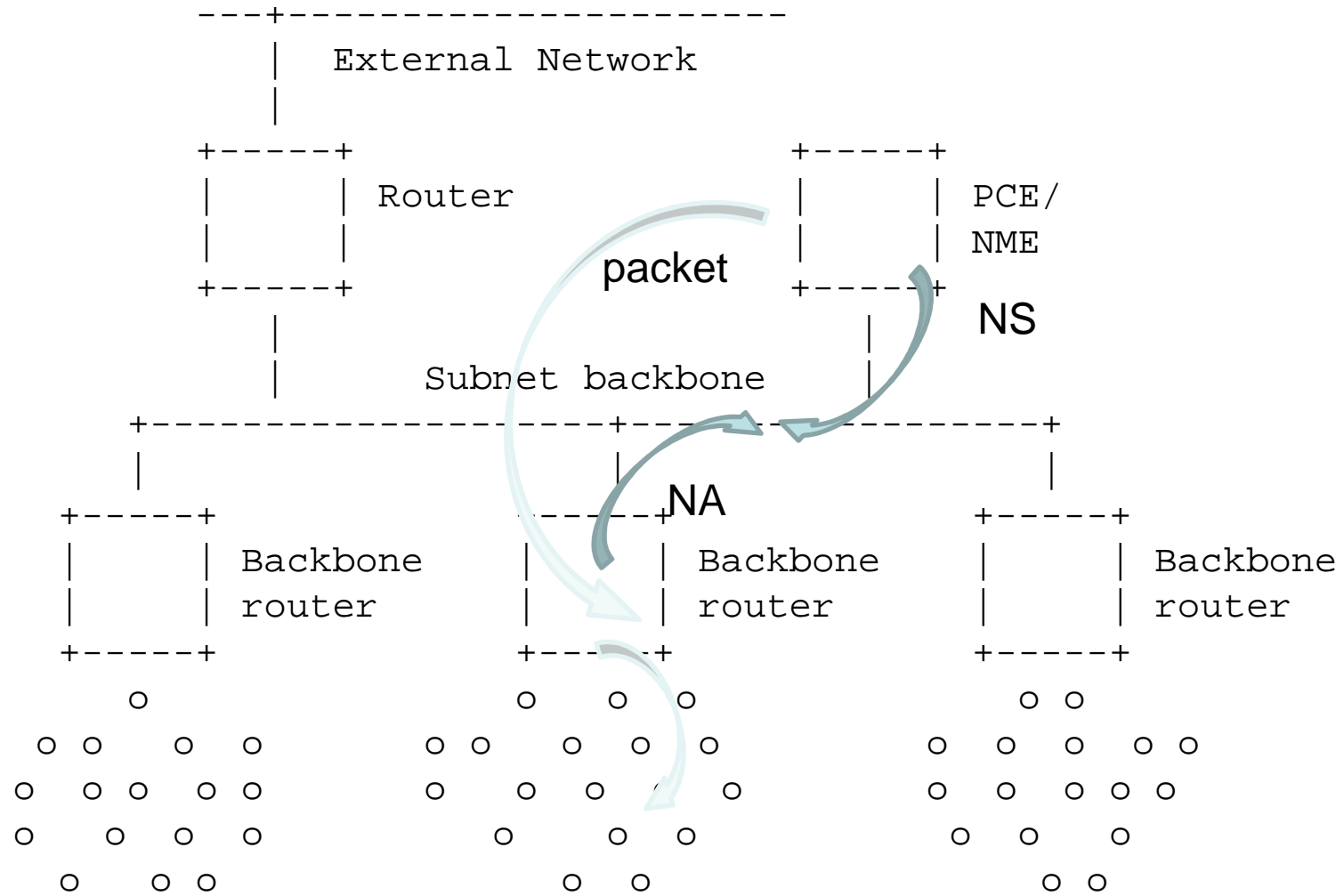
Defend with NA if:

- Different OUID
- **Newer TID**

Resolution



Resolution (2)



Enhancing the Address Registration Option

- Used to resolve conflicts
- Added in Efficient ND: TID to detect movement
- Needed In RPL: Object Unique ID if use RPL for DAD

