Proposed MANET Architecture Model

(Inspired from DaveT, ThomasN, JoeM, JariA, manet-wg, autoconf-wg, ...)

Thomas.Clausen@polytechnique.fr

http://www.lix.polytechnique.fr/hipercom
Misperception

- Platform applications
  - DAD, Name Resolution, Service Discovery

- Host Application
  - ........

- Well-defined assumptions break:
  - TTL, Multicast, Subnet Prefix

draft-iab-multilink-subnet-issues-01.txt

Thomas.Clausen@polytechnique.fr
http://www.lix.polytechnique.fr/hipercom
Misperception

- Platform applications
  - DAD, Name Resolution, Service Discovery
- Host Application
- Well-defined assumptions break:
  - TTL, Multicast, Subnet Prefix

draft-iab-multilink-subnet-issues-01.txt
Architectural Model

Thomas.Clausen@polytechnique.fr
http://www.lix.polytechnique.fr/hipercom
Architectural Model

Thomas.Clausen@polytechnique.fr  http://www.lix.polytechnique.fr/hipercom
Architectural Model

Autoconf
Prefix p
Architectural Model

Autoconf
Prefix p

Thomas.Clausen@polytechnique.fr
http://www.lix.polytechnique.fr/hipercom
Architectural Model

Autoconf
Prefix p
Architectural Model

- **On-link Address:**
  - Link-Local Address (v6)
  - Unnumbered (v4)
  - /32 or /128

- **Multicast:**
  - LL: reaches neighbors only

- **Autoconf Tasks:**
  - On-link address assignment
  - Prefix assignment to router

Thomas.Clausen@polytechnique.fr
http://www.lix.polytechnique.fr/hipercom
Architectural Model

- **On-link Address:**
  - Link-Local Address (v6)
  - Unnumbered (v4)
  - /32 or /128

- **Multicast:**
  - LL: reaches neighbors only

- **Autoconf Tasks:**
  - On-link address assignment
  - Prefix assignment to router
Autoconf
Prefix p

- Properties:
  - Hosts/subnets on non-MANET interfaces use existing autoconf approaches
  - Applications on hosts see an interface of same type "as usual"
  - MANET interface is only seen by MANET router (RP + AUTOCONF)
  - Multi-hop MANET areas may use a site (not subnet) prefix

draft-iab-multilink-subnet-issues-01.txt

Thomas.Clausen@polytechnique.fr
http://www.lix.polytechnique.fr/hipercom