Mobility Ability Negotiation
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IP mobility management related
Two categories

Host-based: MIP

Network-based: PMIP
Problems

• Protocols will co-exist

• Multiple protocol daemons have to be managed

• Negotiation and selection of mobility management protocol
  • when the terminal accesses a new network for the first time
  • or when handover happens
More...

• **Protocol co-existence**
  • What is the co-existence architecture?
    • How to manage the binding tables?
    • How to handle different signaling messages for different protocols?
    • How to manage the routing table and tunnels?

• **Protocol negotiation**
  • Which entity will initiate the procedure?
  • What principles should be followed?
Example scenarios

• Network supports MIPv6, host only works with PMIPv6 😞

• Network supports both MIPv6 and PMIPv6, host only works with PMIPv6 😊

• Network supports both MIPv6 and PMIPv6, host only works with PMIPv6 😊

• Network and host support multiple extended protocols 😊

• ......
MAN-Mobility Ability Negotiation

• **Principles:**
  • During initiation, PMIPv6 may be used as a default mobility management protocol once the network supports it.
  • If the host prefers host-based scheme, a negotiation is executed to handover from PMIPv6 to MIPv6 style.
  • After initial attachment, a profile will be generated in the management store to record the selected protocol of this host.
  • When the handover happens, the network will check the selected protocol during the access/authentication process.
  • But the network also needs to notify the host if the selected protocol cannot be supported herein.
MAN-Mobility Ability Negotiation

• **Solutions:**

  • ICMPv6 based
  • Diameter/RADIUS based
  • IEEE 802.21 based
  • ......
Other issues

• Protocol co-coexistence architecture
Thank you for your attention~

Next Step?