Mobile IP API

`draft-yokote-mobileip-api-01`

Aki Yokote

Alper E. Yegin

Muhammad M. Tariq

Guangrui Fu

Carl Williams

Atsushi Takeshita

IETF 56, San Francisco

Why API?

- Mobile IP is transparent to applications
  - Necessary for transition, good for common applications
  - But, apps that care or can take advantage of mobility information are left in the dark
- Those apps can attempt to retrieve this information via
  - sniffing Mobile IP packets and parsing them
  - interpreting local network interface and routing information
  - platform specific proprietary interfaces
- A standard API is the right solution
  - simple and portable apps

Usage scenarios

- Any movement triggers actions on local host apps
  - E.g.: Re-doing SLP discovery when subnet changes
- Location based actions on the mobile host
  - Assumption: IP address implies physical location
  - E.g.: Engaging different security measures depending on the location
- Correspondent node taking different actions based on the location of the mobile node
  - E.g.: location-specific content delivery by the correspondent node
  - Privacy conscious mobile nodes can disable this

Mobile IP API

- draft-yokote-mobileip-api-01.txt
- Works for both Mobile IPv4 and Mobile IPv6
- Run on MN, CN, HA
- Read-only for now
  - advanced API to control mobility (later)

Mobile IP API

- ## struct mobilenode_t
  - store home address and care-of address(es)
- ## get_all_mobile_nodes()
  - mobile node instances running on the host itself, or
  - mobile nodes communicating with the local host (local host == correspondent node)
- ## get_one_mobile_node()
  - retrieve the care-of address(es) of a mobile node
- ## mip_notify_movement()
  - asynchronously notify when the specified mobile node changes care-of address
- ## IS_AT_HOME macro
  - test if mobile node is at home (care-of addr == home_addr ?)

Next steps

- Revision
  - Advanced API
- Complete implementation
- Remove the IPR claim
- Should Mobile IP (++) WG adopt this item?
  - Informational RFC

- Comments?