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?