Summary: "IP-based protocols for Mobile Internetworking"

Goals:

- standard mobility arguments (portability, availability, wireless)
- Make no changes to servers (CHs), routers, gateways, bridges, applications; don't require source routing
- use beacons

Assumptions:

- MSS $\longrightarrow$ BS (with or without interface(s)), FA, DHCP-style temporary IP assignment. beaconing area defines a cell
- MSSs are *required* (contrast MosquitoNet and HA/FA distinction)
- can separate intra- from inter-"campus" routing due to locality
- MHs live on their own subnet or in continuous range of IP addresses – recognized *a priori* (contrast IETF)
- rather than Home Agent/Foreign Agent – Home Address/Foreign Address
- a "mobile IP address" is a "temporary IP address"

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MSS Discovery Protocol:

- receive beacon
- get new IP address
- set local MSS as default GW
- update old MSS(s) with forwarding pointers

Interhost Communication Protocol:

- sends to a mobile subnet $\longrightarrow$ gateway to an MSS
- local MH to local MH: local ARP works
- CH to remote MH: "source route" through MSSs via "MICP" protocol (MSS discovery protocol)
    - multicast (or raw broadcast)
    - flood
    - hard-code
    - dynamic addition algorithm
    - neighbor pointers
- local MH to remote MH: local MSS must proxy-ARP

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Caching:

- cache MH to MSS mappings
- time-out the cachings (and local MH table)

Performance:

- no data!
- point out cell switch latency, application notification, scalability ($\longrightarrow$ route optimization)

Q: security?

Q: will you always find an MSS?