ENSC 835: COMMUNICATION NETWORKS
FINAL PROJECT DEMO
Spring 2011

Analysis of Mobile IP in Wireless LANs

www.sfu.ca/~bshahabi

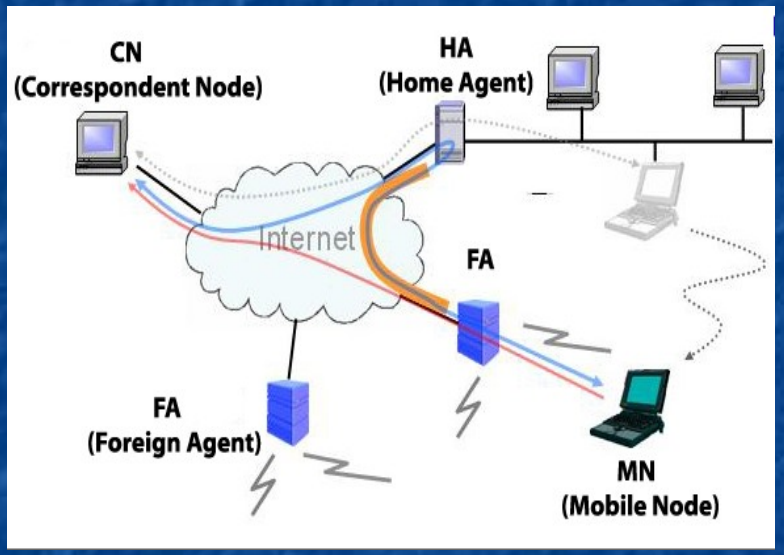
Babak Shahabi (bshahabi@sfu.ca) 301102998
Shaoyun Yang (yshaoyun@sfu.ca) 301133524

Team 7

Roadmap

- Introduction
- Design/Implementation
- Result/Analysis
- Conclusion/Future work

Introduction



Mobile IP Application

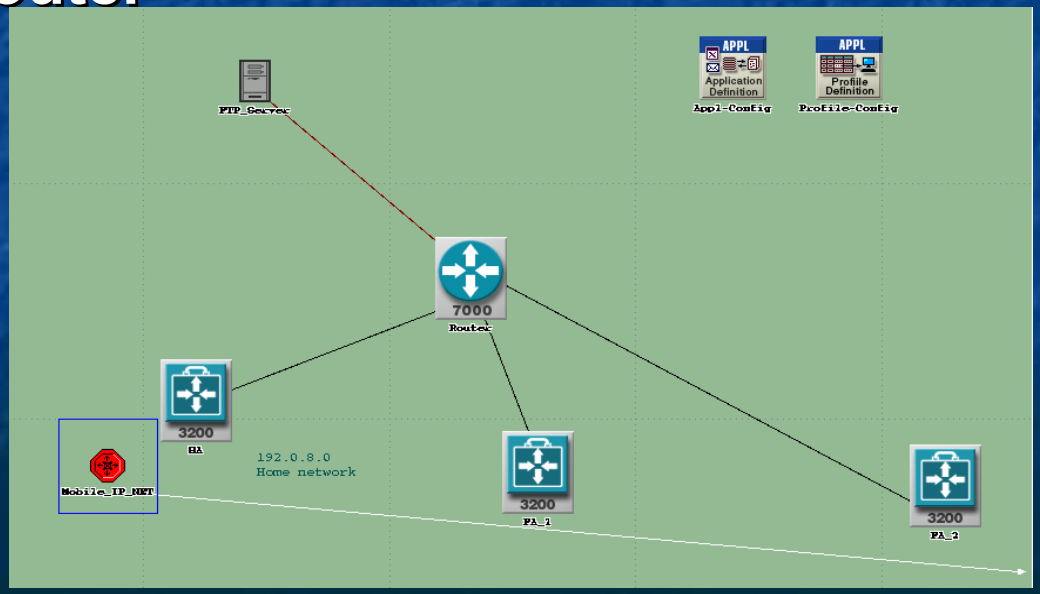
Mobile IP Mechanism

Is Mobile IP is an uninterrupted protocol during the handoff ?

Design/Implementation

Mobile IP in OPNET 14

- Mobile IP capable router for Wireless LAN Network
- Mobile subnet which supports trajectory feature
- Ethernet work station with client-server application
- Cisco-7000 series router



Mobile IP results and analysis in NS-2 and OPNET

- Packet loss during registration process

  (two small gaps in figure)

- Not pure seamless handoff between different subnets in Mobile IP

- Access point connectivity

- Tunneled sent data traffic

- Tunneled received data traffic

Conclusion and future work

- In this project we showed the most technical details of Mobile IP. This helps a mobile node moves between different subnets and it keeps its IP connectivity even in a foreign network
- The hand off in Mobile IP makes unseamless connectivity
- We simulated Mobile IP in OPNET 14 and NS-2.31 and got similar results.
- We used these results in order to understand Mobile IP operation better.
- The future work can be implementing Mobile IP with co-located care of address (i.e., DHCP)
- Mobile IPv6