

# **Wireless Networks of Devices (WIND)**

**January–June 1999**

**Hari Balakrishnan & John V. Guttag  
M.I.T. Laboratory for Computer Science**

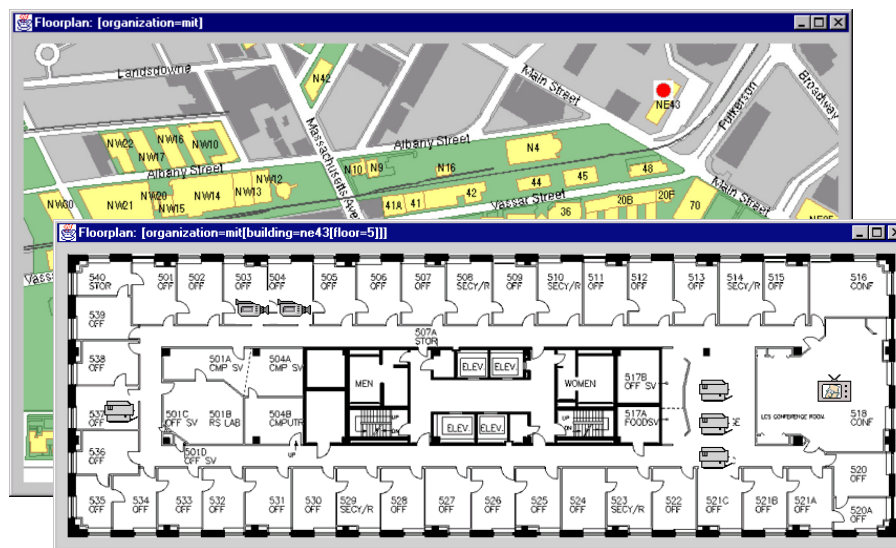
## **Project Overview**

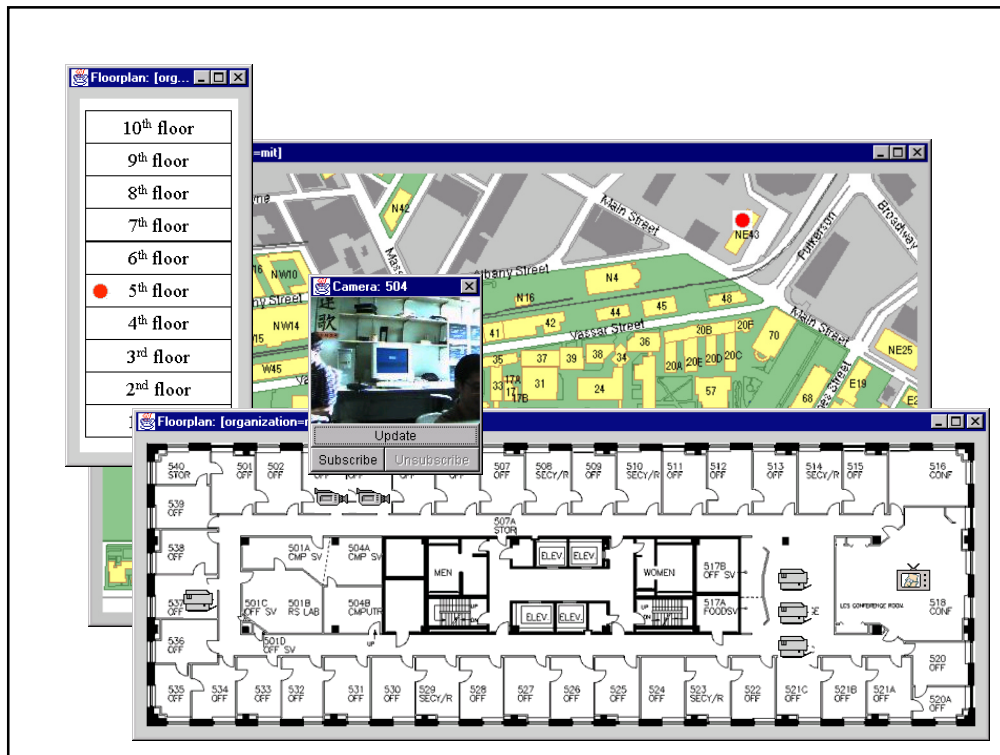
- **Self-organizing wireless networks**
  - Decentralization, robustness and distributed operation
- **Resource discovery, service location, group communication**
  - Intentional naming system
- **Location-dependent applications over wireless RF and IR network**
  - *Floorplan* active map, *Camera* (mobile camera service), *Printer* (load-balancing spooler), etc.

## January '99 – June '99 Progress

- **WIND Applications**
  - *Floorplan*, an active map dissemination tool
  - *Camera*, a mobile camera service for image updates and real-time conferencing
  - *Printer*, a load-balancing spooler that allows users to print to the “least loaded” and “closest” printer
  - *TV*, a remote television and MP3 control
- **Self-configuring name resolver design**
- **Seamless operation across SOCKS firewalls**
- **Elliot Schwartz, Master’s thesis, “The Design of Intentional Names” (May 1999)**

## Screen Snapshots





## Six-month Plan

- **Scaling techniques for large-scale deployment**
  - Virtual space partitioning
- **Automatic location discovery**
  - Using beaconing and triangulation techniques
- **Port to Palm III**
- **Conduct performance experiments**