

PetTracker

A pet tracking system using Motes

ICS 203A Project Presentation

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OUTLINE

- Motivation
- Overview
- Architecture
- Installation
- Demonstration
- Conclusion

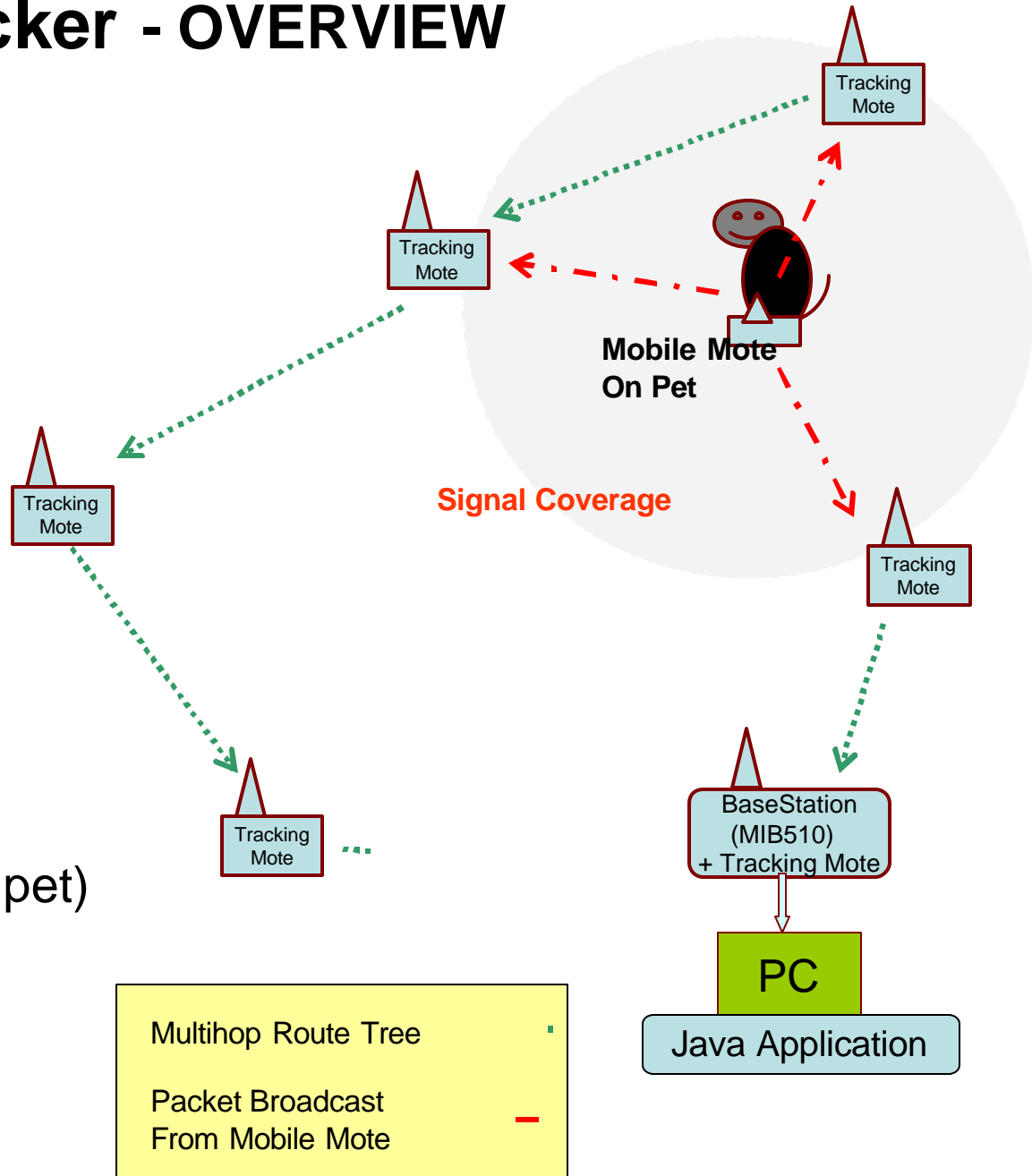


MOTIVATION

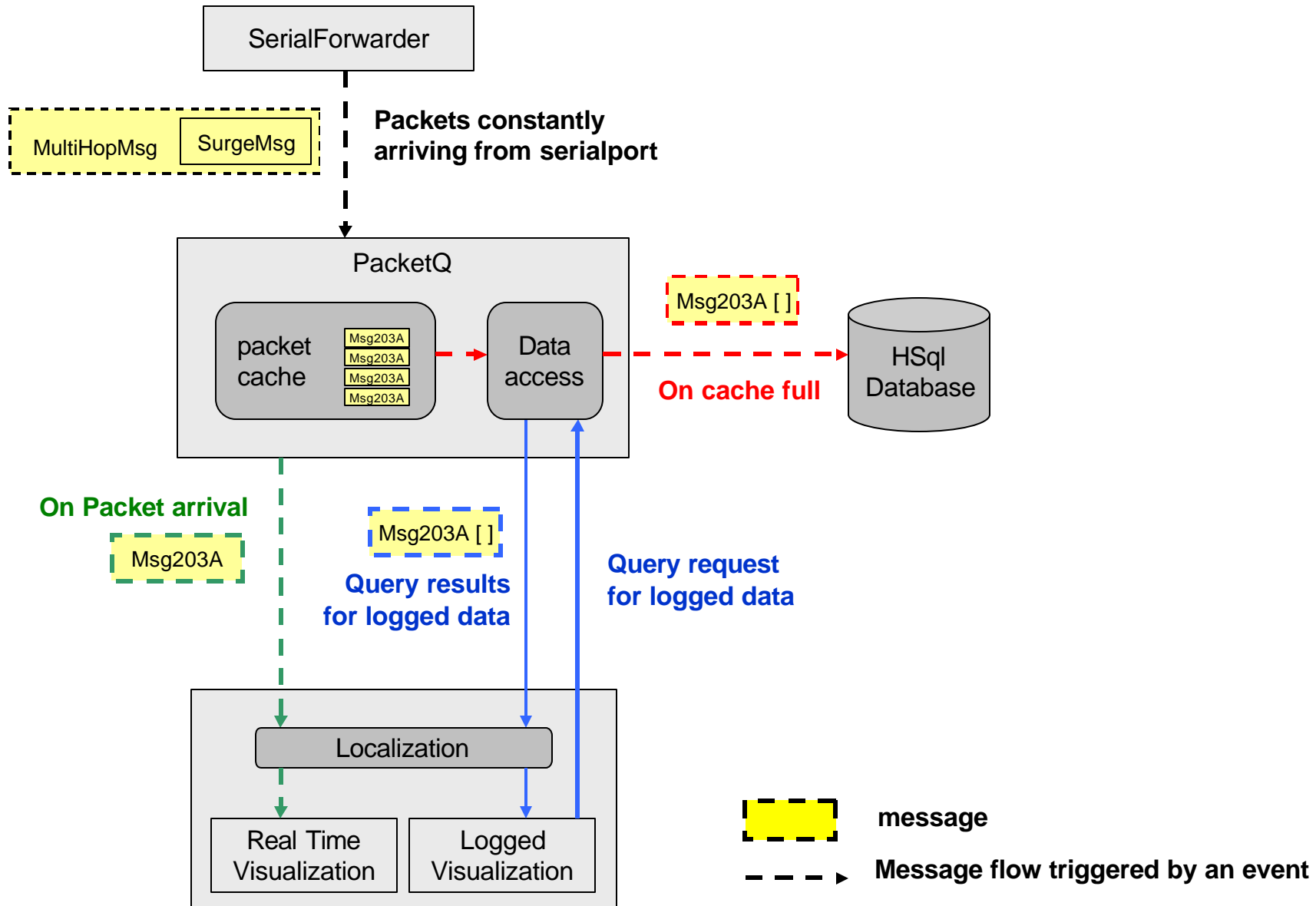
- Track status of pet even when you're not home or when you're sleeping.
 - Activity level
 - Environment
 - Location

PetTracker - OVERVIEW

- Tracks pet indoors
 - Environment
 - Activity
 - Location
- Consists of
 - XBow Motes
 - NesC programs
 - Mobile (attached to pet)
 - Tracking
 - Java Application

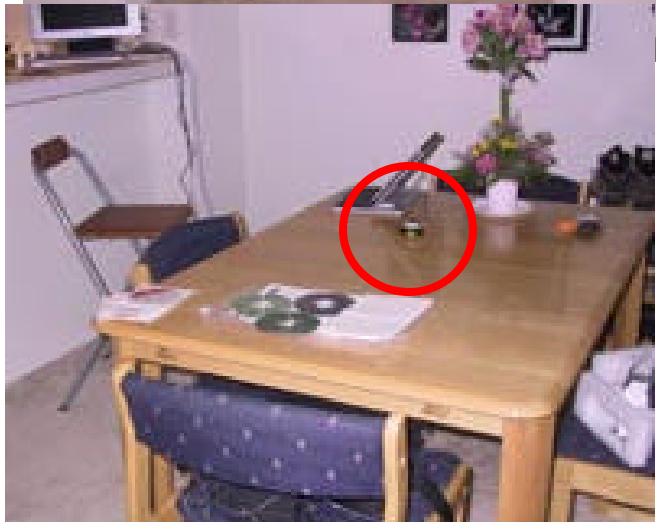
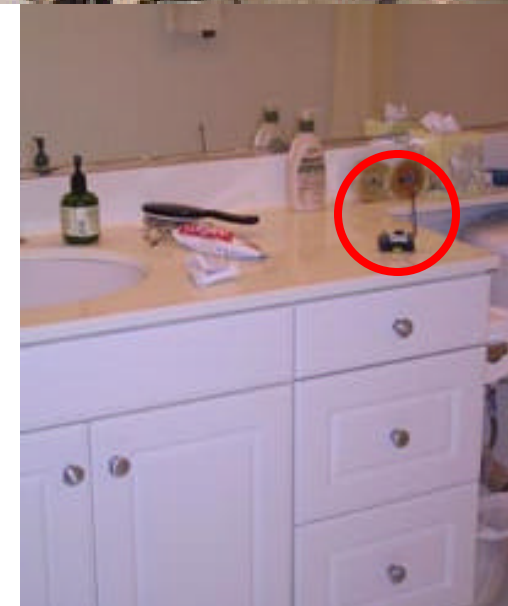
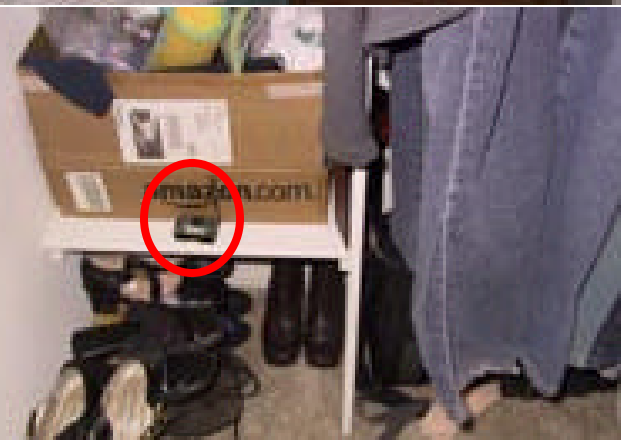
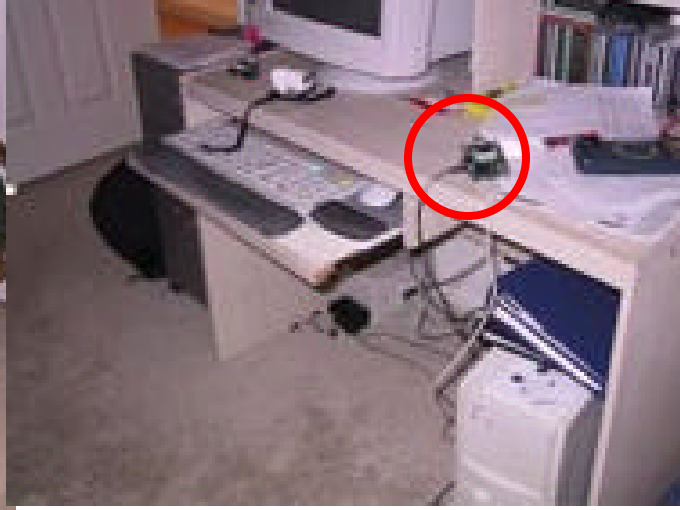


SOFTWARE ARCHITECTURE



INSTALLATION OF MOTES





Mote on Cat



Version 1

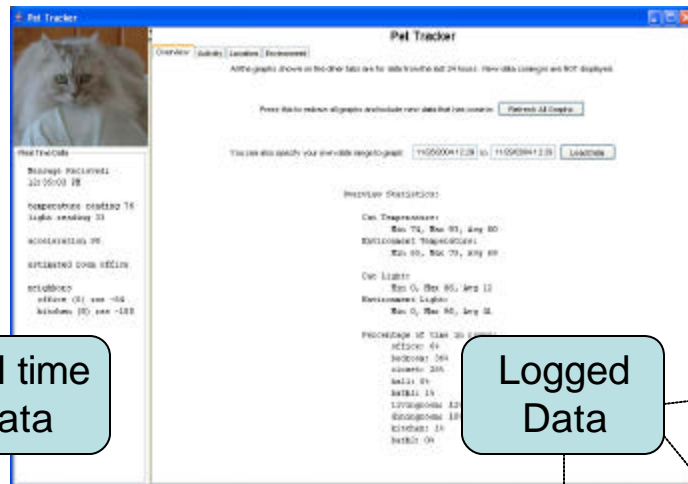


Version 2

Video

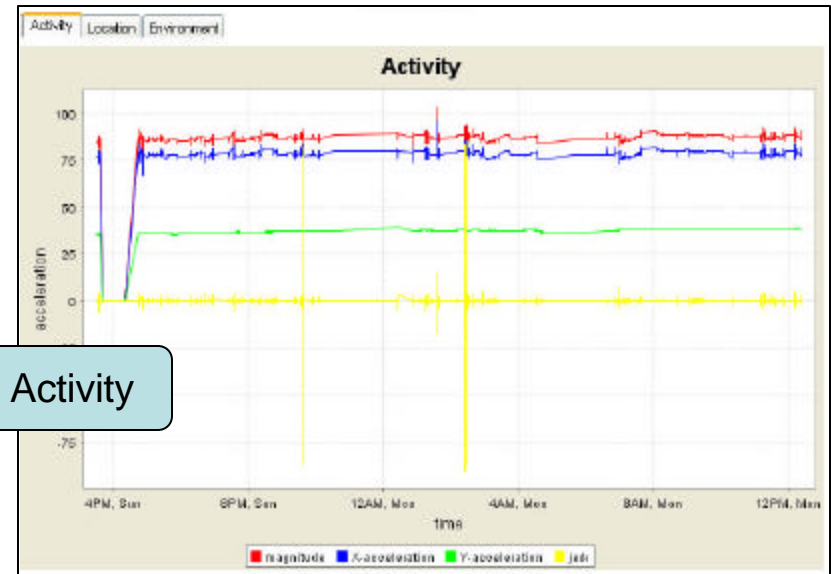


DEMONSTRATION



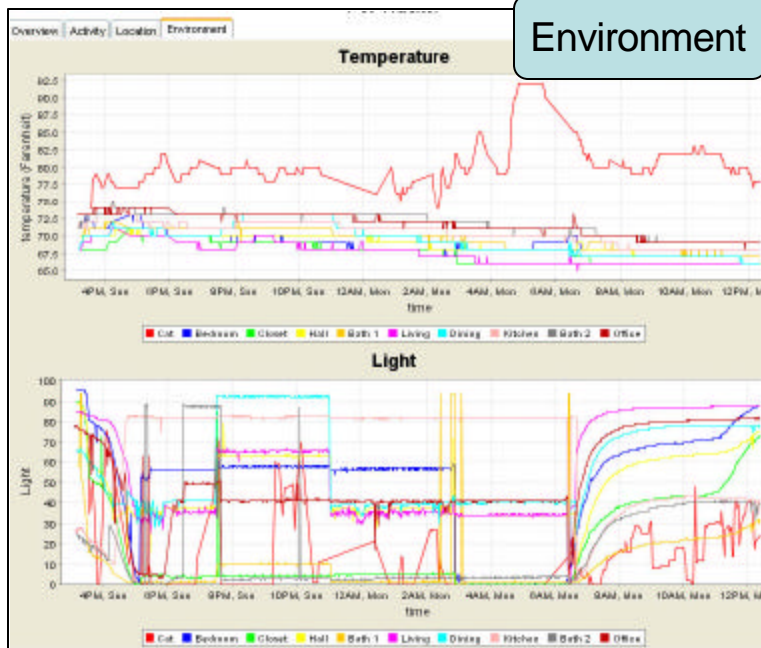
Real time
Data

Logged
Data



Activity

Environment



Location



CONCLUSION

- Issues and solutions
 - Localization, RSS not good
 - use sound
 - Motes disappearing frequently
 - take mobile mote out of routing
 - Mica2 mote too bulky for cat
 - use Mica2Dot
 - Caching not required for slow packet arrival rates
 - but would increase performance in other applications
 - take it out of PetTracker

ACKNOWLEDGEMENTS

- Raja Jurdak (UCI)
 - nesC code for motes
- Harlan Hile (UW)
 - Map Generator, deployment help, video
- Gandalf ‘the Cat’
 - initial inspiration and experiment subject

Thank You!

Questions?

