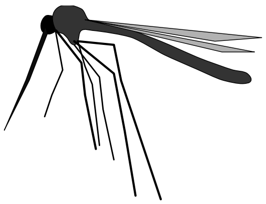
The Mobile People Architecture



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Overall Goal

Make it possible to reach mobile people anytime/anywhere on any communication device, while maintaining privacy.

Motivation

Multiple communication devices

- Sender may have to try reaching receiver at many device/ application-specific addresses
- *But sender wants to reach the person, not just some device/application*

Control for the receiver

- Sender controls how/where/when messages sent
- *But recipient wants control over his reachability*

Location privacy

- Sender may infer receiver's location from successful address/number
- *But recipient may want to keep his location a secret*

Goals in More Detail

Enable ubiquitous reachability
- Reach the person by name, regardless of the current device/application

Convert among protocols
- Convert from my email to their cell phone

Thwart spam
- Only receive messages you want

Maintain location privacy
- Do all this without revealing your location to senders

Overall: reachability while maintaining privacy

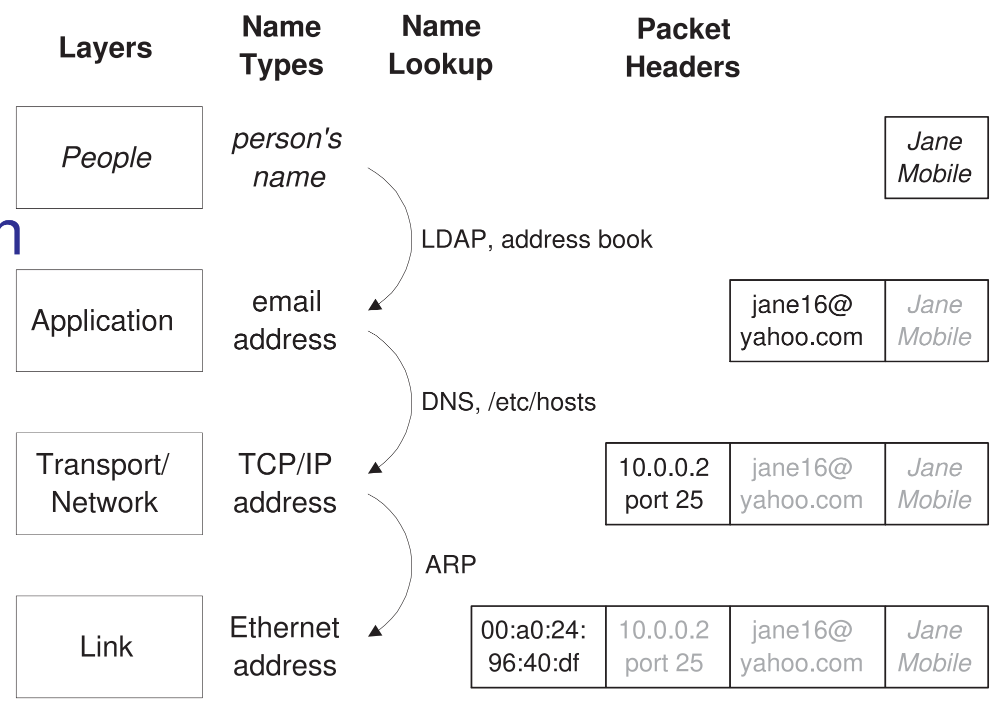
Our Approach

Traditional network model fails to incorporate people

Extend traditional layering model

People are communication endpoints

People-level routing



Design: Personal Proxy

Like an assistant: operates on receiver's behalf

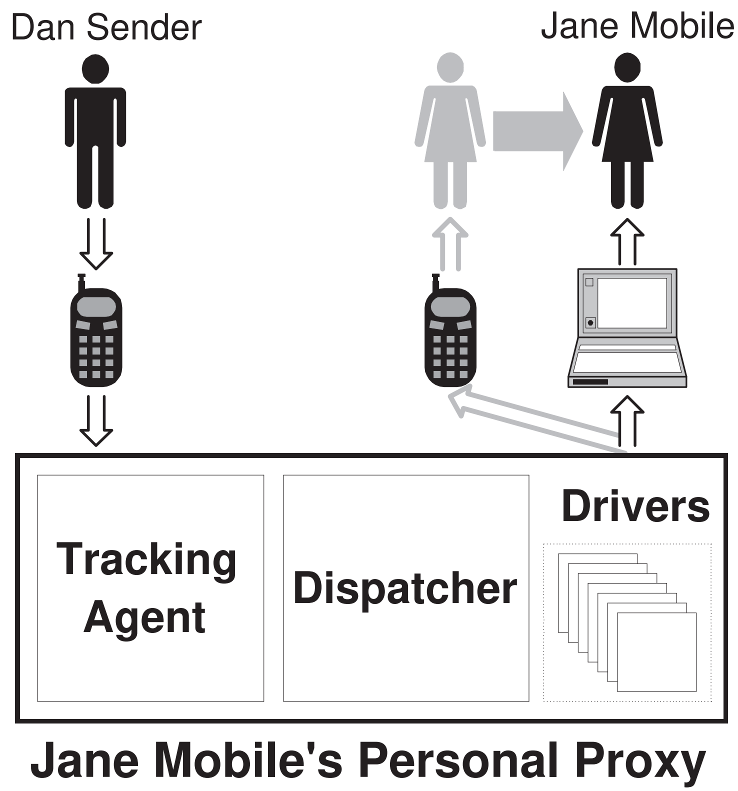
Tracking Agent

Tracks receiver as she moves from one device/ application to another

Dispatcher

Processes arriving commu-nications & calls application drivers to convert formats

Application Drivers



Prototype Status

General architecture in place

A variety of application drivers

- Email to voice mail
- Voice mail to email
- Email to email
- Currently working on live voice to live IP phone voice (and vice versa)
- Currently working on instant messaging (ICQ) and short messaging (SMS)

Registration (tracking) by web & phone, working on others

Easy to add new application drivers – drivers queried for their abilities