

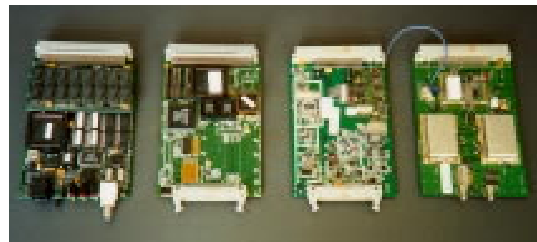
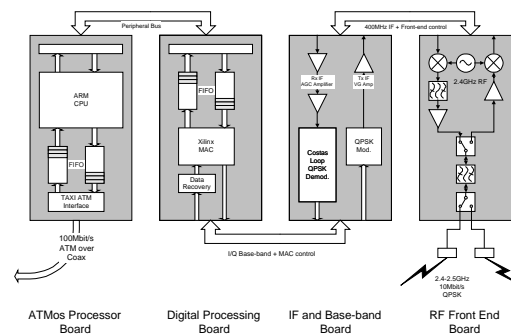
Radio ATM

Current Project Status

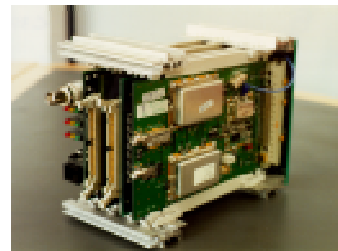
Current RATM Prototype

- Slotted ALOHA MAC
- Base-stations provide wireless bridging
 - No dedicated mobiles
- Transparent point-to-point connectivity
- No QoS guarantees
- Four frequencies at 2.4 – 2.5GHz
 - Microwave oven interference
- 10Mbit/s data rate, 6Mbit/s user rate
 - ACK and MAC header overhead

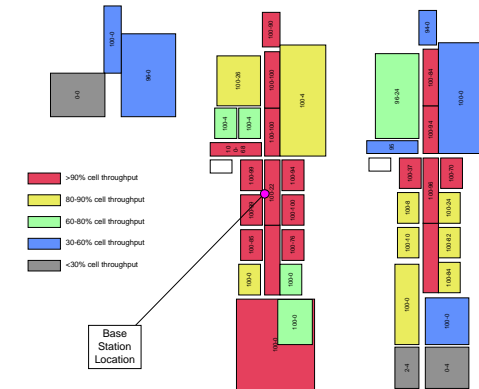
Prototype Hardware



Component boards (above) and an assembled base station (right)



Coverage Trial Results



Demonstration of System



Future Work

- QoS research
 - Hierarchical and dynamic QoS management
- Radio hardware integration
 - Digital down-conversion, front-end integration
 - PCMCIA card
- Higher bit-rates
- Wider area
- Handover performance
 - Timing, heuristics, load-balancing