The VIT-System: A Location-Aware System for the Internet

September 2000

Martin Bauer
Content

• Motivation
• Demonstration
• Architecture
• Conclusion
• Discussion
Motivation

• Information interesting in local context
  ◆ Bus schedule
  ◆ Supermarket opening hours
  ◆ Nearby pubs

+ Mobile devices & ubiquitous computing environment

➢ Location-aware access to information and services
Goals

• Supporting different location-aware systems and devices
• Seamless integration with existing Internet mechanisms and protocols
• Make publishing location-aware information easy
• Overview and easy access to information
• Intuitive metaphor

Virtual Information Towers (VITs)
Virtual Information Tower (VIT) Metaphor

- Virtual Information Tower ~ real-world advertising column
- Fixed geographical location
- Range of visibility

- Posters
- Active posters
- Notes on blackboard
Mobil mit Bussen und Bahnen

Bereich VVS Service


In Bereich wechseln
Possible Applications

• Tourist guide, city information
  ◆ VITs describe important sights
  ◆ Guided tour
  ◆ Leaving notes for other tourists on a blackboard

• Information about public transportation
  ◆ VITs show time-table for bus or subway stations
  ◆ Time-table updated according to current delays

• Extension to car navigation systems

• Cooperative field work
Conclusion & Future Work

• First Step: VIT providing location-aware information
  ◆ Easy to make existing information available
  ◆ Information from different providers can be integrated (like WWW)
  ➢ Basis for a global system, general infrastructure

• But:
  ◆ No handling of information regarding mobile objects

• Next Steps: Nexus Project
  ◆ Global platform for spatial-aware applications
  ◆ Project URL: http://nexus.informatik.uni-stuttgart.de
Discussion

Thank you very much for your attention!

E-mail: Martin.Bauer@informatik.uni-stuttgart.de
Alexander.Leonhardi@informatik.uni-stuttgart.de
Project URL: http://nexus.informatik.uni-stuttgart.de