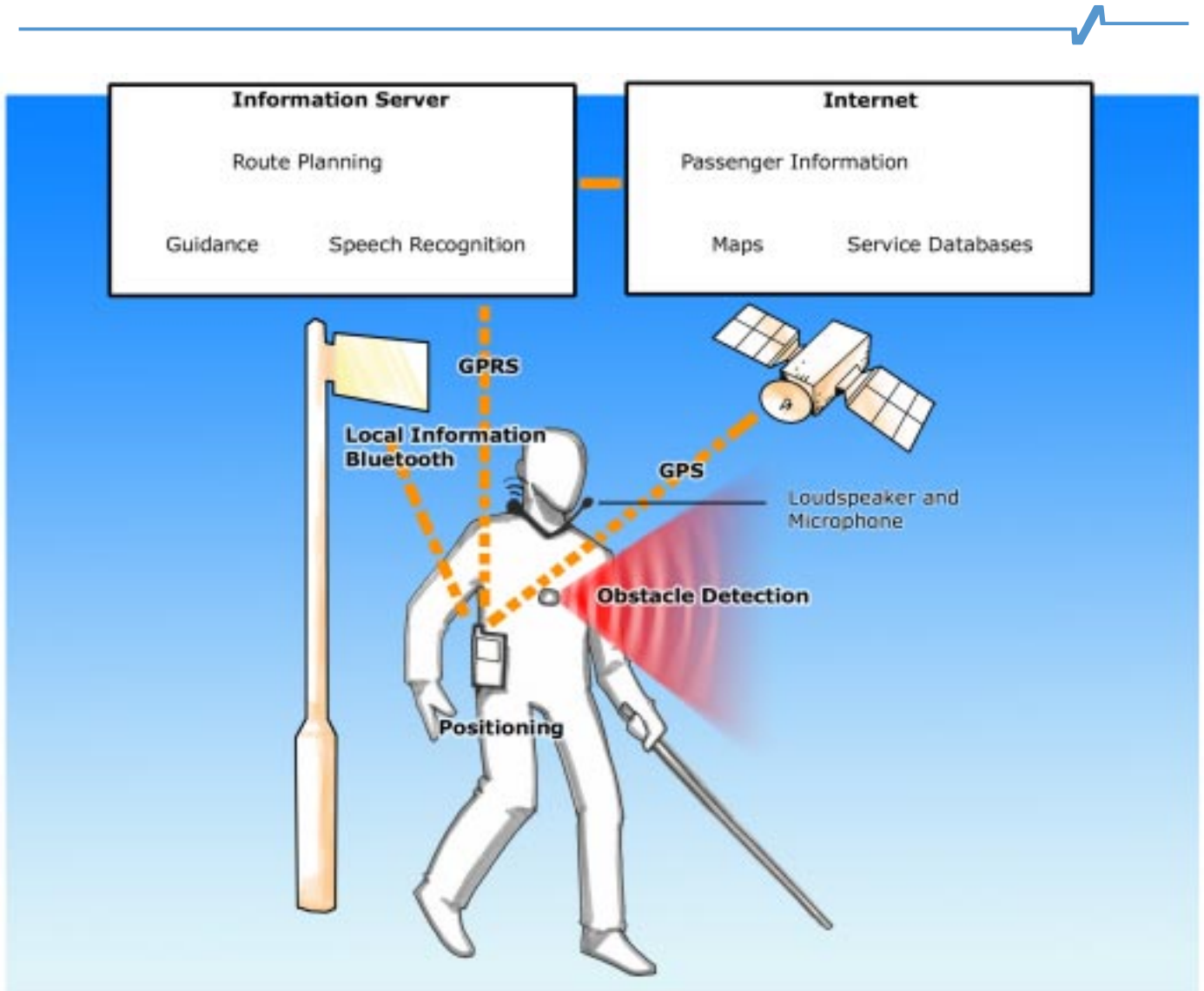


# NOPPA

## NAVIGATION AND GUIDANCE SYSTEM FOR THE BLIND



### Main functions

- Public transport information
  - Time tables
  - Route planning
  - Real time passenger information
  - Vehicle identification
- Navigation
  - Outdoor and indoor positioning
  - Personalised route planning and guidance
  - Heading information
  - Roadwork warnings
- Communication
  - PDA or 3G phone
  - Speech user interface
  - GPRS server connection
  - SMS services
  - WWW news services
- Local information
  - Short range radio communication (Bluetooth)
  - Signs and points of interest
- Accessories
  - Collision warning device

# NOPPA

## NAVIGATION AND GUIDANCE SYSTEM FOR THE BLIND

NOPPA is designed to offer public transport passenger and route information for the visually impaired. It is based on available personal navigation services and components. Use of public service databases over Internet ensures that the visually impaired get the same up-to-date information than other citizens.

The system architecture is distributed. The main component is Information Server with a speech user interface. It acts as an interpreter between the user and different information databases. The concept is applicable also for other groups with need for customized user interfaces.

NOPPA architecture is tested and developed in a three-year pilot project.

### □ Objectives

- Easy and fast to use
- Affordable to the user
- Flexibility, not only for pre-planned routes
- Access to public transportation and passenger information systems
- Applicable both indoors and outdoors
- Integration of components, information and services available

### □ Piloting area

- The Arla Institute (Espoo) and surrounding areas
- Service centre of the Finnish Federation of the Visually Impaired (near Itäkeskus, Helsinki)
- Public transportation (bus, train and underground) used by visually impaired in both areas
- Public services located in shopping centres within walking distance
- Basic route planning and guidance functions in Helsinki, Espoo, Vantaa and Tampere

### □ Project numbers

- Years 2002-2004
- Budget approx. 500.000 €

### □ Participants

- Finnish Federation of the Visually Impaired
- Arla Institute
- Ministry of Transport and Communications Finland
- Finnish Rail Administration
- Finnish Road Administration
- Helsinki Metropolitan Area Council
- Helsinki City Transport
- City of Helsinki
- City of Espoo
- VTT

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