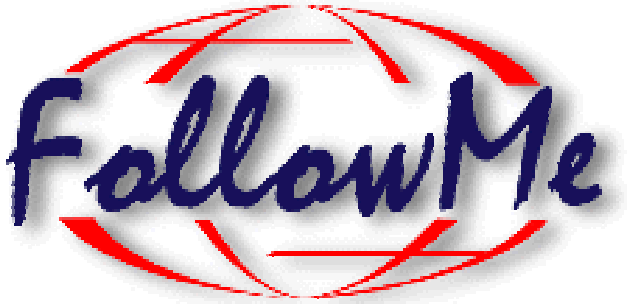


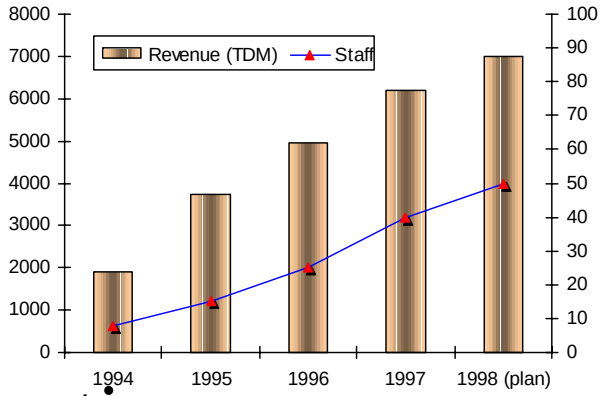
Freeing the User from the fixed desk-top

The Fast Activities

Contents

- The FollowMe project
  - Goals, Contents and Partners
- User Access Component
- Bavaria-Online Pilot Applications
  - Concepts
  - Usage Scenarios
- Concluding Remarks

FAST: Research Institute for Applied Software Technology



Members

- Siemens
- BMW
- Softlab
- Bavarian State Bank
- TU Munich (Prof. Broy)

- Bavarian Ministry for Economy
- Bavarian Science Foundation

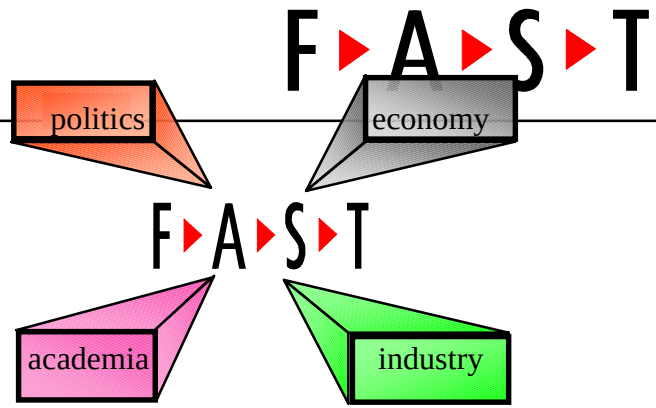
Location

- Munich's High Tech Park (Arabellapark)

Staff

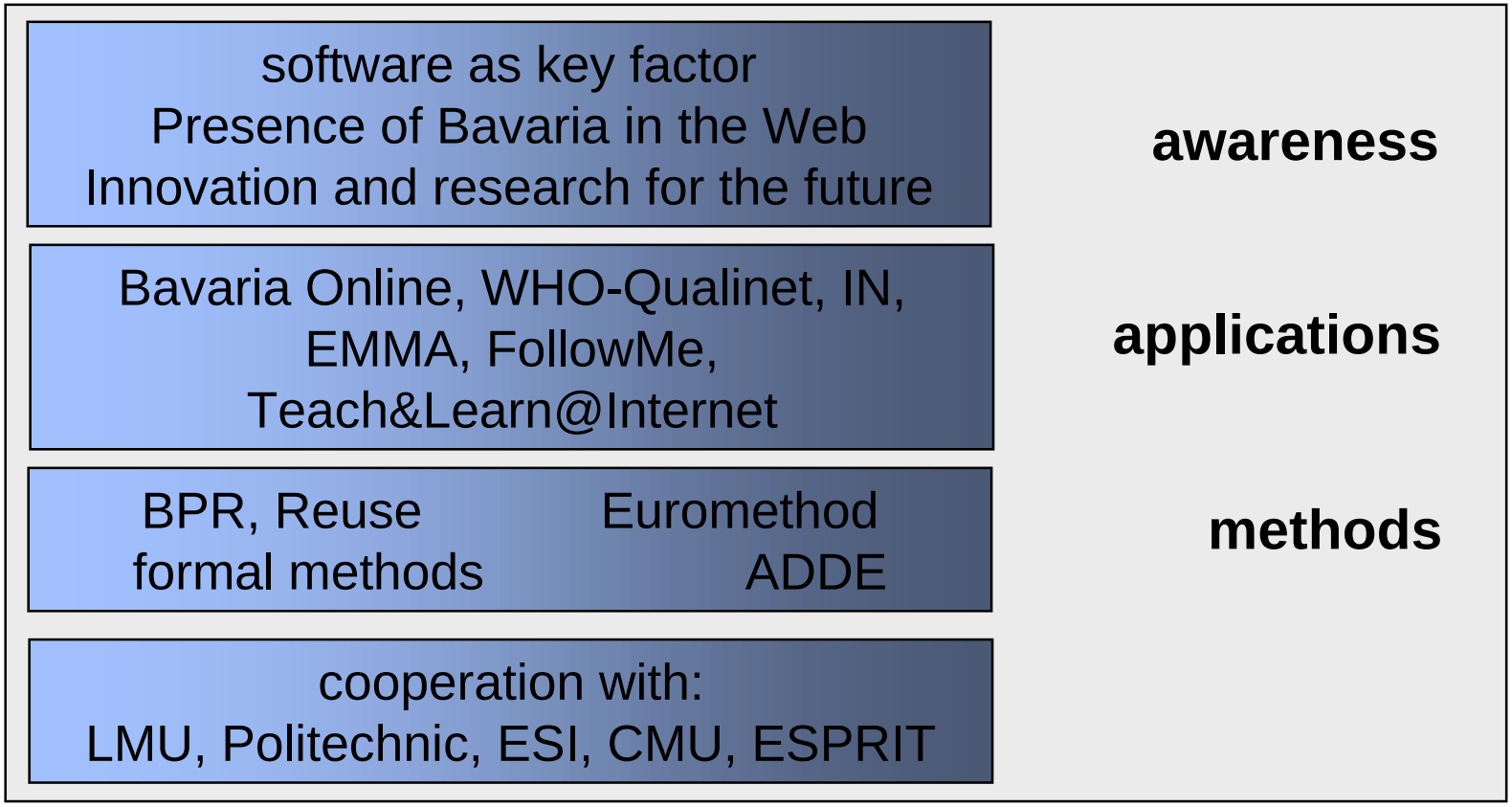
- 8 Researchers (1993)
- 15 Researchers (1994)
- 25 Researchers (1995)
- 40 Researchers (1996)
- 50 Researchers (1998)

Competences of



Public relations, SW-Politics	**awareness**
Networking, Services, Platforms	**applications**
Software Enigneering / Information Enigneering	**methods**
Scientific Basis	

Projects within FAST



Project Objectives

- Support Mobile Users
  - at home, at business, on travel
  - at his/her notebook / PC, (mobile) phone, fax, hand-held organisers
- by using Mobile Intelligent Agent Technology
- Demonstration in several Pilot applications

Project Outline

- Project duration: 10/97 to 3/99
- Effort: 23.09 PY
- Project Partners
  - APM Ltd., Cambridge UK
  - FAST e.V., Munich, D (Co-ordinator)
  - INRIA, Rennes, F
  - TCM, Rennes, F
  - University of Western England, Bristol, UK

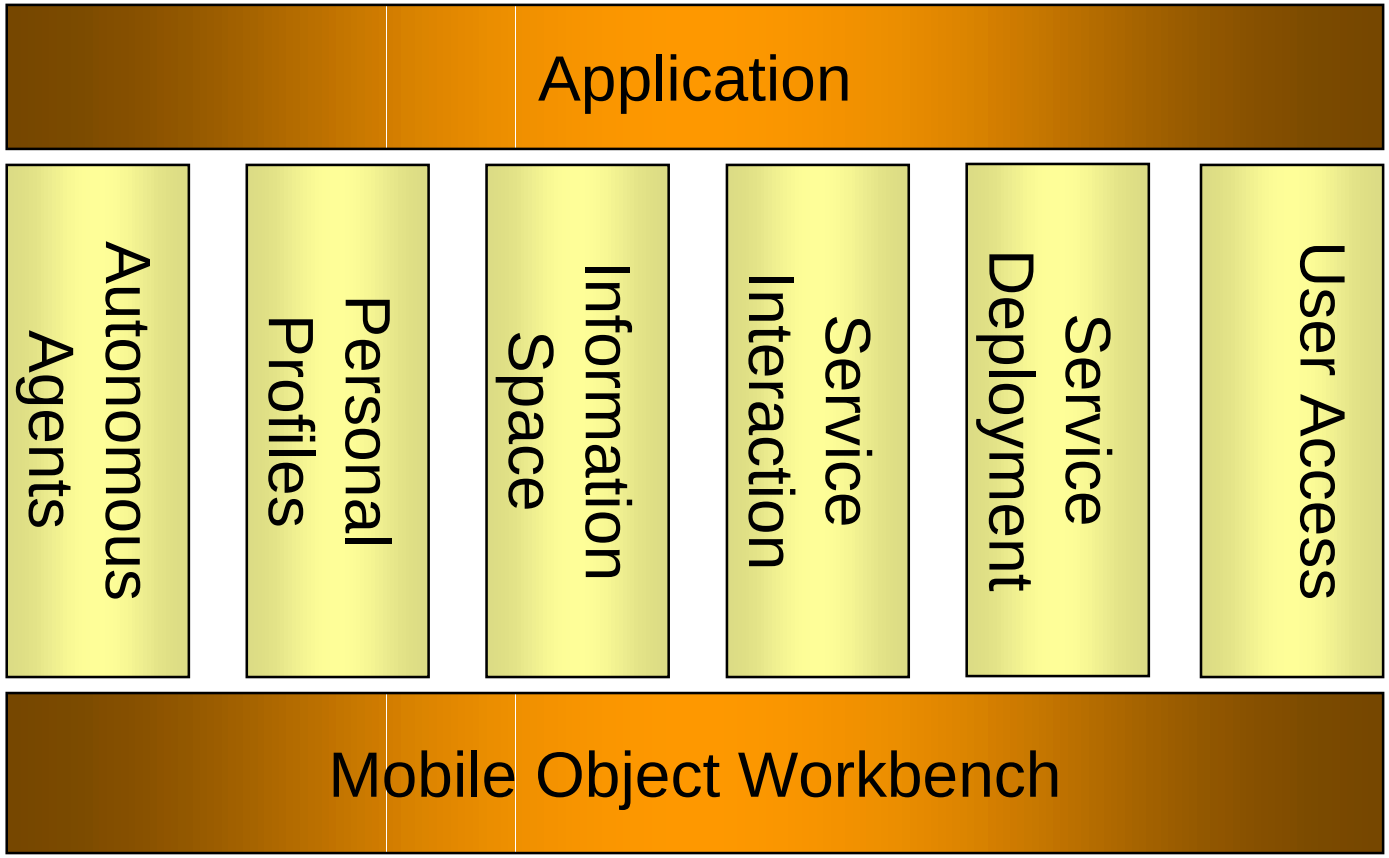
Project Results

- Architecture for mobile intelligent agents
- Infrastructure prototype
- Two pilot applications
  - FAST: Internet services through Bavaria Online
  - INRIA/TCM: Personalised newspaper
- Public report on architecture, user needs, implementation and pilots

Mobile Intelligent Agents ...

- act on the net without permanent user interaction
- have a “mission”
- observe their environment and react on changes
- can interact with other agents
- can move between hosts
- may require trusted, secure and reliable hosts to live in

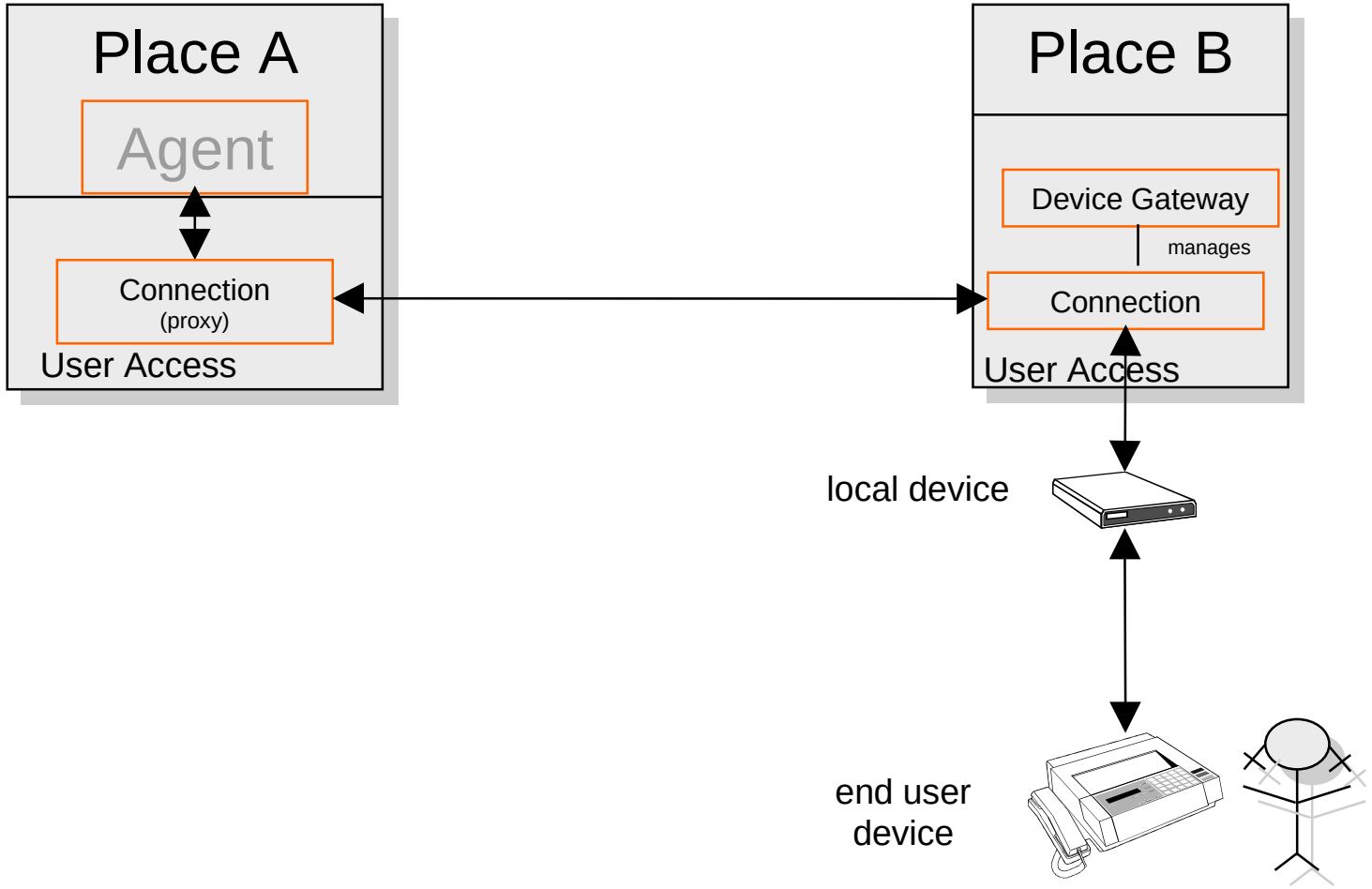
Architecture



User Access

- Main Requirements
  - support for on-line and off-line access (e.g. fax, phone, SMS, www-browser, ...)
  - java-enabled and non-java-enabled devices
  - generic mark-up language and layout
  - adaptation of the quality of service to system parameter (network load, cpu, ...)

Architectural Design



Generic Mark-up Language

- XML holds the data
- XSL defines the layout
  - either tailored to the device
  - or layout collection for different device types encapsulated in different modes

Pilot Application in Bavaria-Online

- Candidates for Pilot Applications:
  - Portfolio Management System ✓
  - Real Estate Management System
  - MeDoc Digital Library System
  - Regional Event Notification System ✓
- Goal:
  - Demonstrate Use of FollowMe for Service Providers, Content Providers and Users

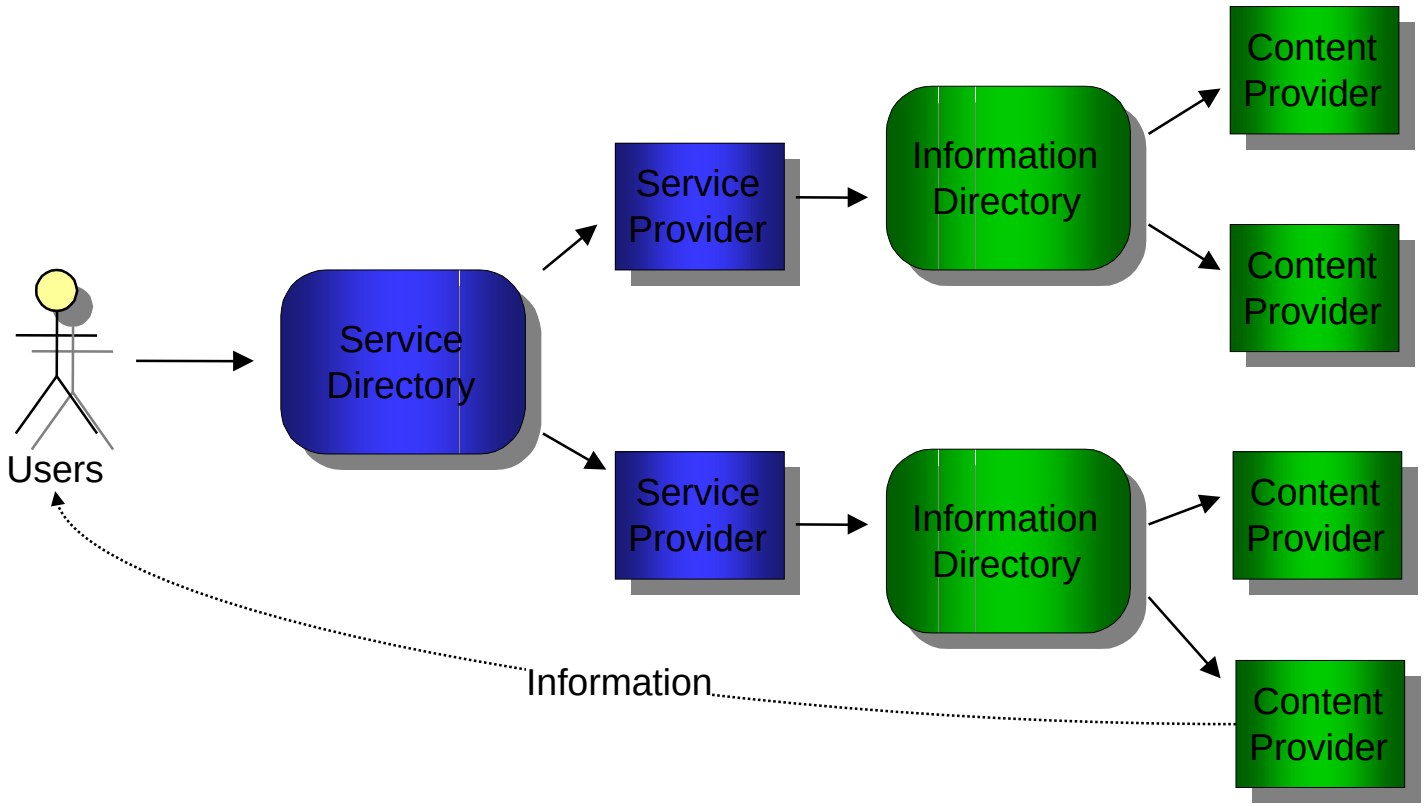
Personal Event Notification System

- Personal profiles
  - Event categories (concerts, exhibitions, markets, political events)
  - Region („only events in Munich“)
  - Dates („only events on weekends“)
- Information providers are operators of Bavaria Online Network providers (local dial-in hosts with own web-content)
- Specialized agents look for event advertisements that match user specified

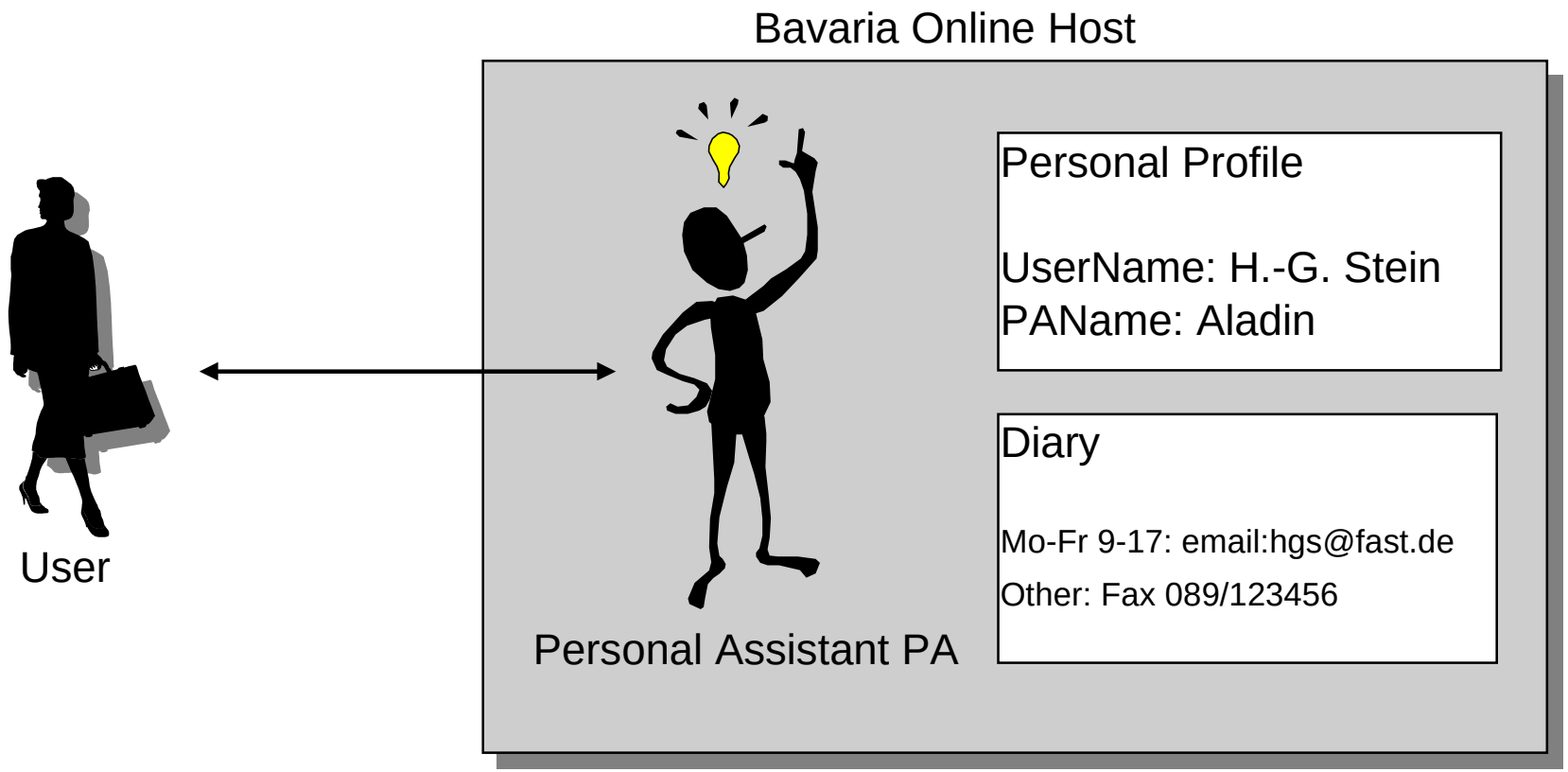
Portfolio Manager

- Personal Portfolio
  - Stock-Depot
  - Cash-Account
  - Up/down limits
- Information providers are (almost) realtime stock value information systems (i.e. Yahoo!)
- Agents regularly check for latest values of shares owned by their user
- The user will be immediately informed whenever a limit is reached
- Reports can be scheduled for regular delivery

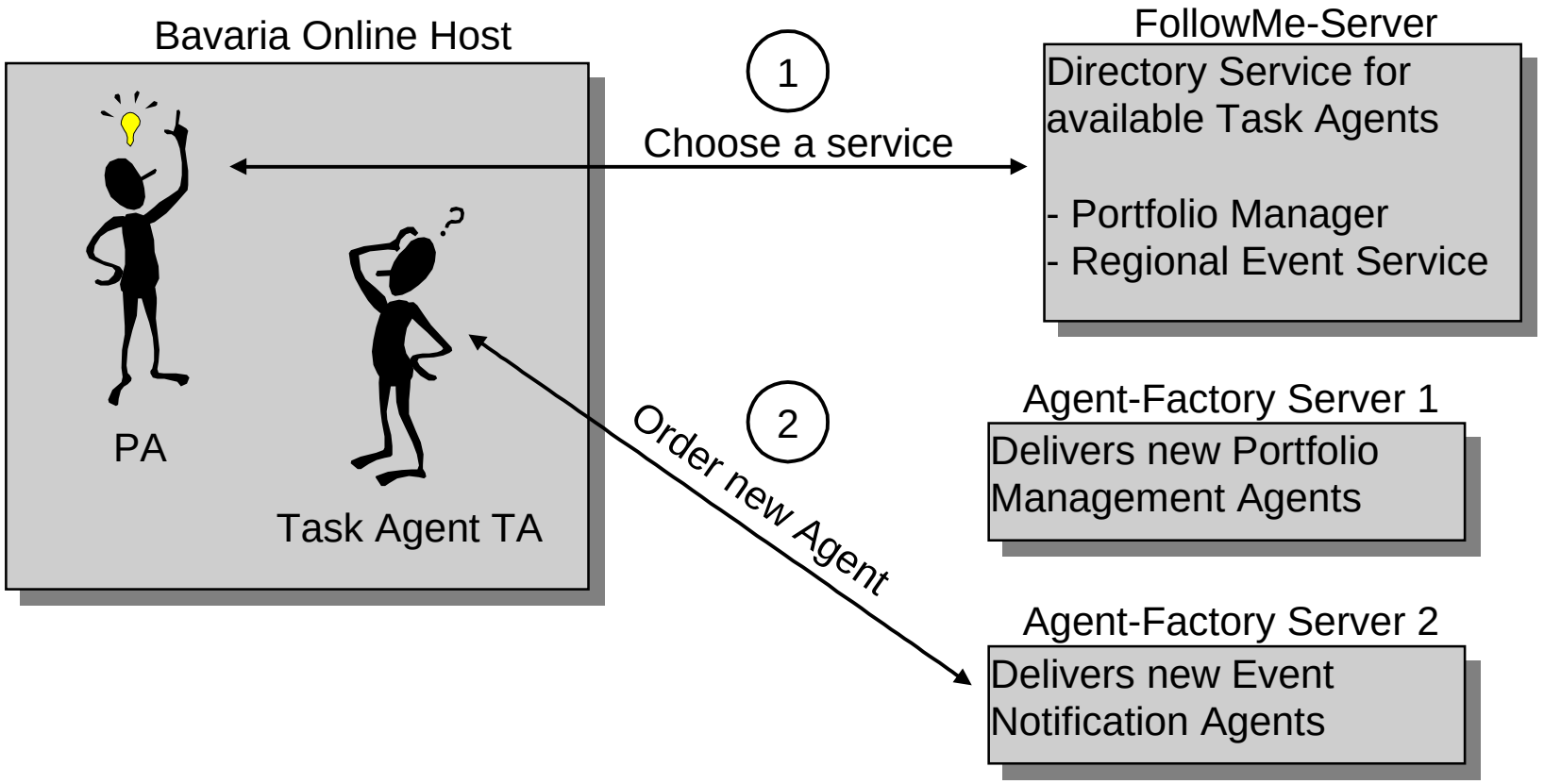
Information Architecture



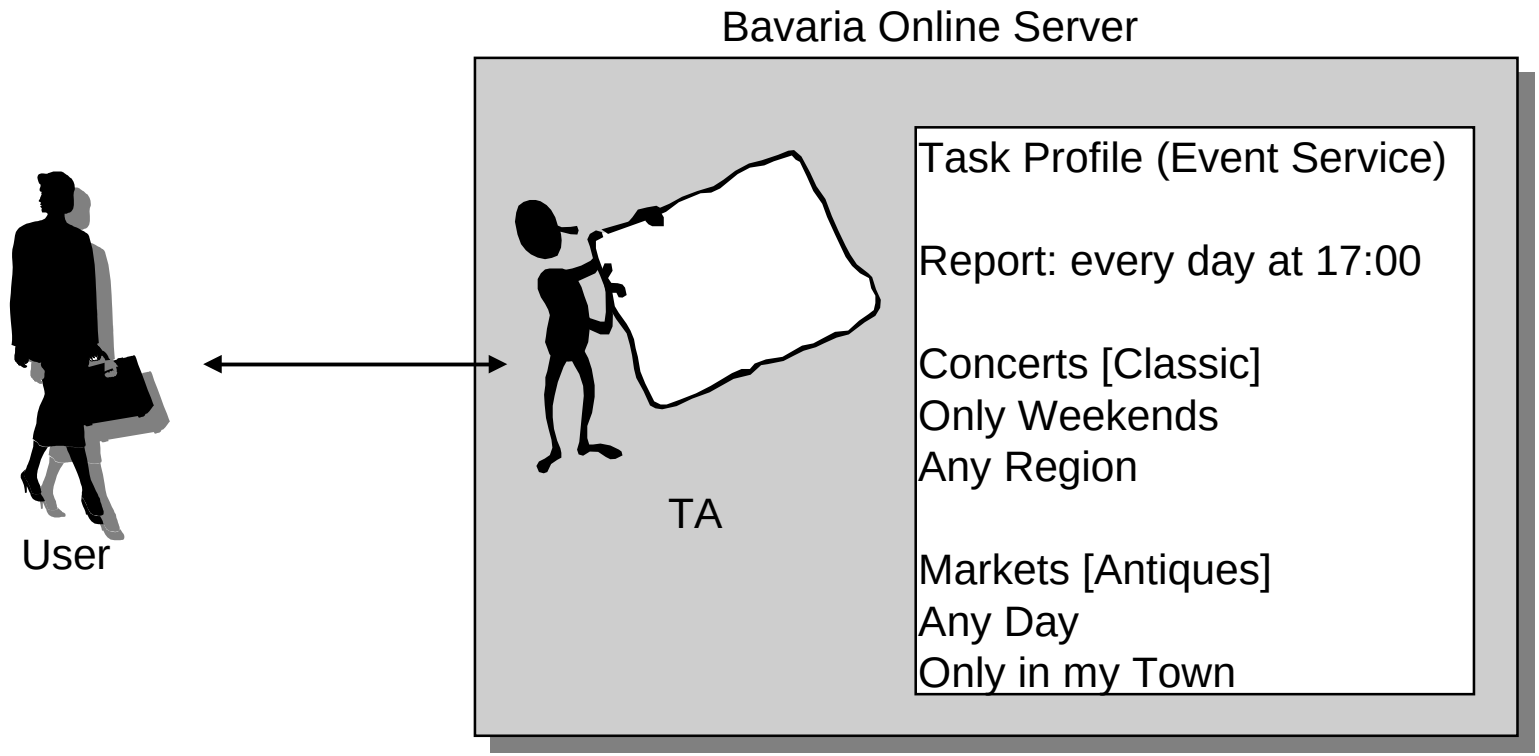
Personal Assistant



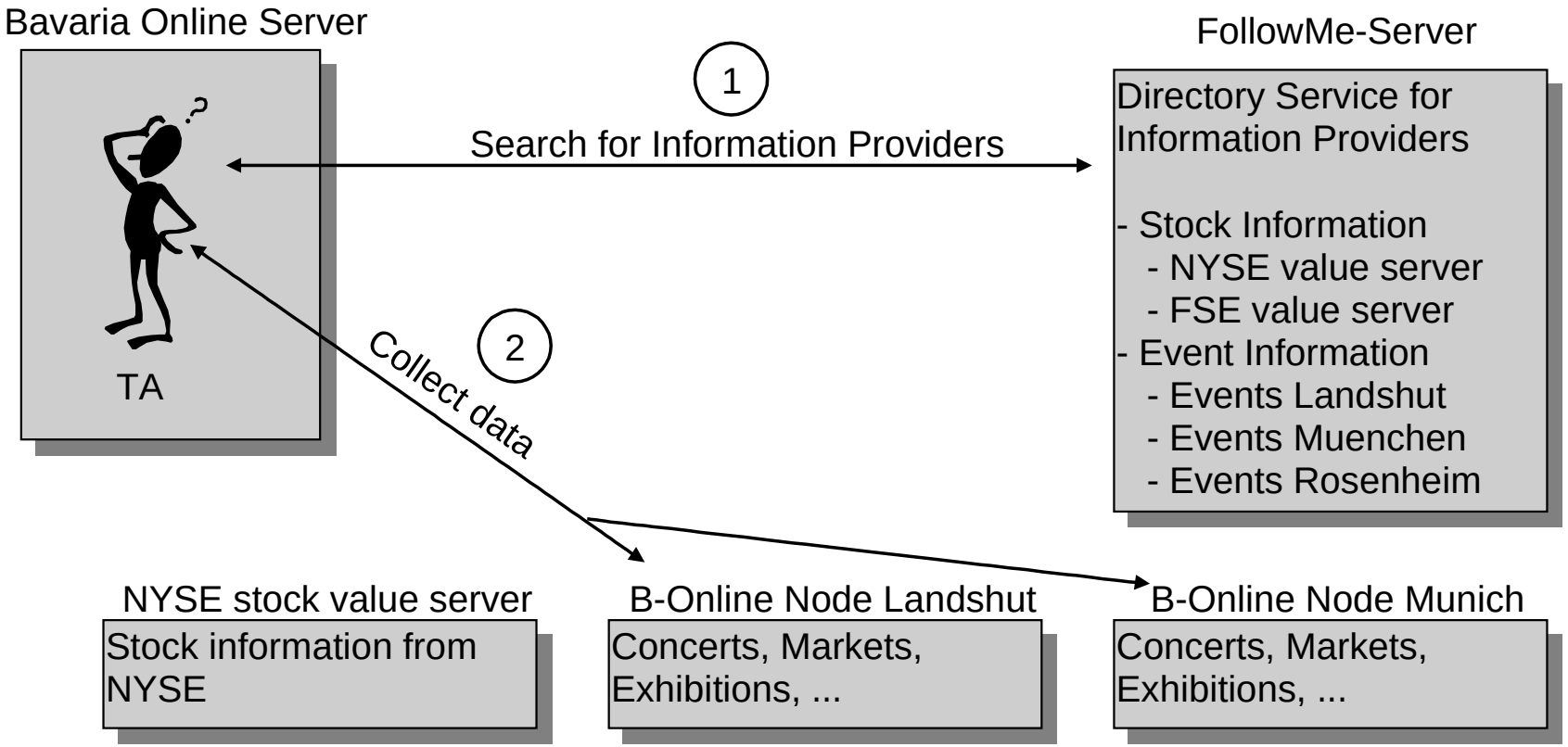
Order new Task Agent



Defining a Task Profile

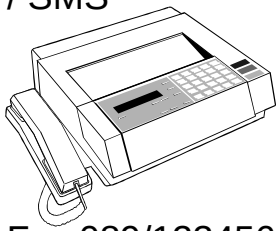


Task Agent collects data



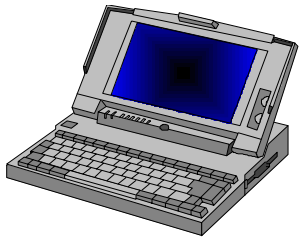
Deliver Report on Sunday

User's Phone / SMS



Fax 089/123456

Deliver report



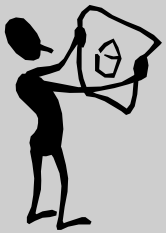
User's Desktop

Bavaria Online Server

PA

Diary

Mo-Fr 9-17: IP 11.11.2.3
Other: Fax 089/123456



TA

Task Profile

Report: every day at 17:00

Concluding Remarks

- Where is the Mobility?
  - Mobility of users: through User Access
  - Mobility of code:
    - Granularity: Moving will be an exceptional, not a standard mechanism to access remote data
    - If data intensive calculations are not already implemented:
      - e.g. calculating the average sum of some data

Concluding Remarks (2)

- Need for an Information Architecture
  - Structure of Information source types
  - Distributed maintenance of data
  - Scalability
  - Inclusion of legacy systems