DAI-Labor
TU Berlin

**Advanced Serviceware Frameworks
for the Development and Deployment
of 3G and Beyond 3G Services**

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Motivation

- Mobile Operators suffer from heterogeneous technologies
- Procurement and integration of new infrastructure mean large scale investments
  - UMTS
  - WLAN
  - All IP Technology
- Goal is to leverage ARPU
- Possible sources of additional revenue are
  - Development
  - Deployment and
  - Provisioning of Services

Next Generation Mobile Services

- The user requires value added services which are characterized by an apparent and obvious benefit
- These services have to be developed and deployed quickly as demand shows
- Service management and provisioning have to be easy and at low cost
- Measurable and assessable QoS will be a key issue in revenue production

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Challenges for Mobile Operators

- The challenge is to create services
  - Effectively
  - Efficiently
- Users require additional features like
  - Security
  - Adaptiveness
  - Intelligent behavior
  - Situation awareness in terms of
    - Location
    - Time of day
    - Users current situation

Approach: Open Serviceware Frameworks

- Scalable architecture for the efficient and effective development and deployment of services and applications
- Agent based process model
- Integrated service specific functionality for
  - AAA
  - QoS
  - Security
- Runtime Environment
- Tools
- Service Infrastructure

Example PIA

- Personal Information Agent
- Goal is to accompany the user in his daily occupations and provide the right information at the right time
- By extended personalization (multiple profiles, free text categories, push categories)
- By multi-device (Web, PDA, Handsets, Home Television, ...)
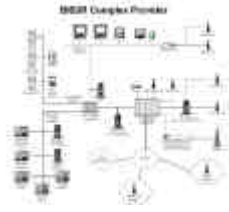- By adaptation to changes in user information needs and behavior

State of Research and Development

- DAI-Labor set up a Beyond 3G Testbed in Co-operation with Deutsche Telekom, Cisco, Motorola, Sonusnetworks and Sun Microsystems
- The BIB3R project at the DAI-Labor works on an Intelligent Enhanced Mobility Platform
- In close co-operation with Deutsche Telekom, the DAI-Labor developed a powerful Serviceware Framework based on agent technology
- Currently the Serviceware Framework is being certified by German government for security features

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Outlook

- The Serviceware Framework already proved usability during the development of various value added services
- Currently the application domains are expanded to
  - E-Science
  - E-Government
  - E-Health
- The DAI-Labor appreciates new co-operations with partners from industry and science

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Thank You

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