# Application Development for Mobile and Ubiquitous Computing

Image Scaling Web Service
First Presentation

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- Nearly all front ends in the internet contain images of different size

- But implementing image scaling functionality with respect to the aspects of scalability, efficiency and variety of client sizes and connections available, is difficult

- In the century of green-IT cost reduction is not only necessary for the vitality of businesses but for marketing

- The possibility of reuse of an image scaling functionality for a huge number of image-providers comes along with great advantages but big problems, too

- Shorter loading-time

- Support for a huge number of different formats

- Speeds up enforcement of innovative technologies

- Provides a flexible component for developers

- Less consumption of energy

- Less costs for companies

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Client

Mobile Phone

Image
Scaling
Web
Service

Original Image
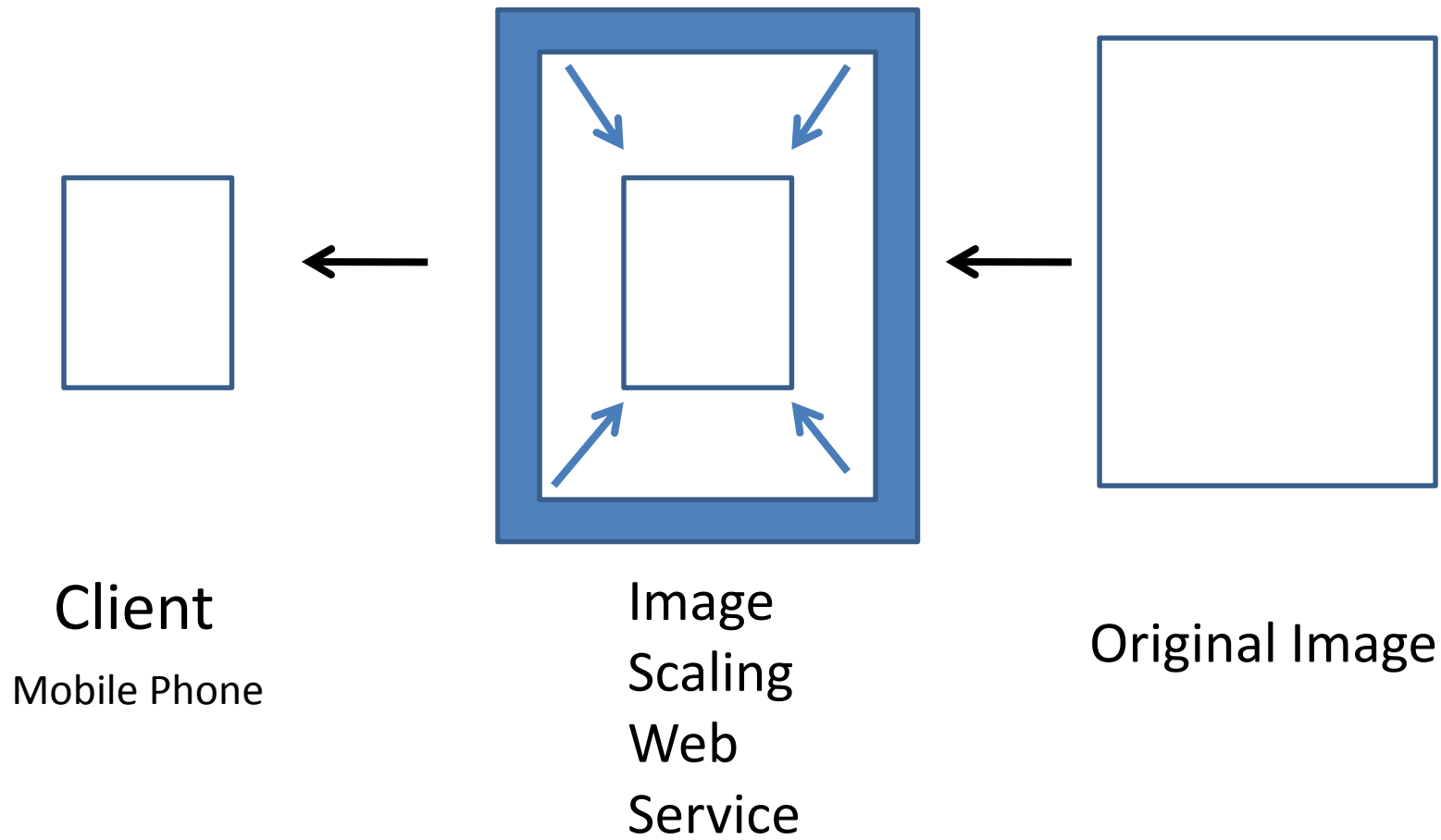
- Complex image management

- Huge disc-space-consumption

- Abuse of the service by others

- Back-button problem

- Performance lack on user-peaks

- A database supported luck-up-table for already calculated images or an object-oriented approach

- Limitation of disc-space-usage per image provider

- TAN-process

- TAN-Life-Cycle

- For further studies :)

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- Web-services based on Java
- Axis framework
- Spring framework ?
- Apache Tomcat as server-environment

- Web-client based on Java (optional)

- Mobile-client based on Android sdk

- SOAP

- Attachments on SOAP-Messages

- Different interfaces for the service (Clients and normal Web-Pages)

- Image scaling and delivery over SOAP
- Provider registration
- TAN – process
- Service customization (optional)
- Interface for standard web-pages (optional)
- Cost calculation (optional)
- Payment process (optional)
- Service scaling (optional)
- Web-client (image-provider)
- Web-client-extension (image-consumer) (optional)

- Mobile-client (image-consumer)