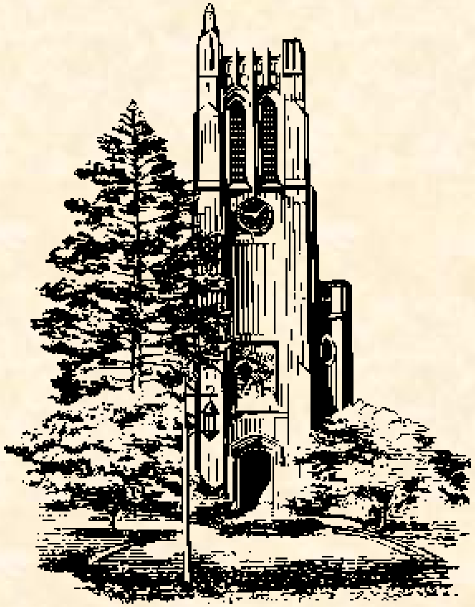
MICHIGAN STATE UNIVERSITY

Project Plan
Mobile User Generated Video Service



Team Motorola

CSE 498, Collaborative Design

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Project Overview

- Allow users to upload video via Android device
  - An iPhone application is already built but will require enhancements
- Associate friends via Social Network or either phone applications
- Friends can now watch the video on their STB
- Enhancements to architecture
  - Streaming video
  - Universal account and multiple providers
  - Better viewing session for the user

Functional Specifications

- Android application
  - Record video
  - Upload video to the social network
  - Add/Remove buddies
  - Associate/De-associate buddies with the video
- Services Proxy
  - “Universal” account
  - Multiple providers
    - Facebook, YouTube, etc

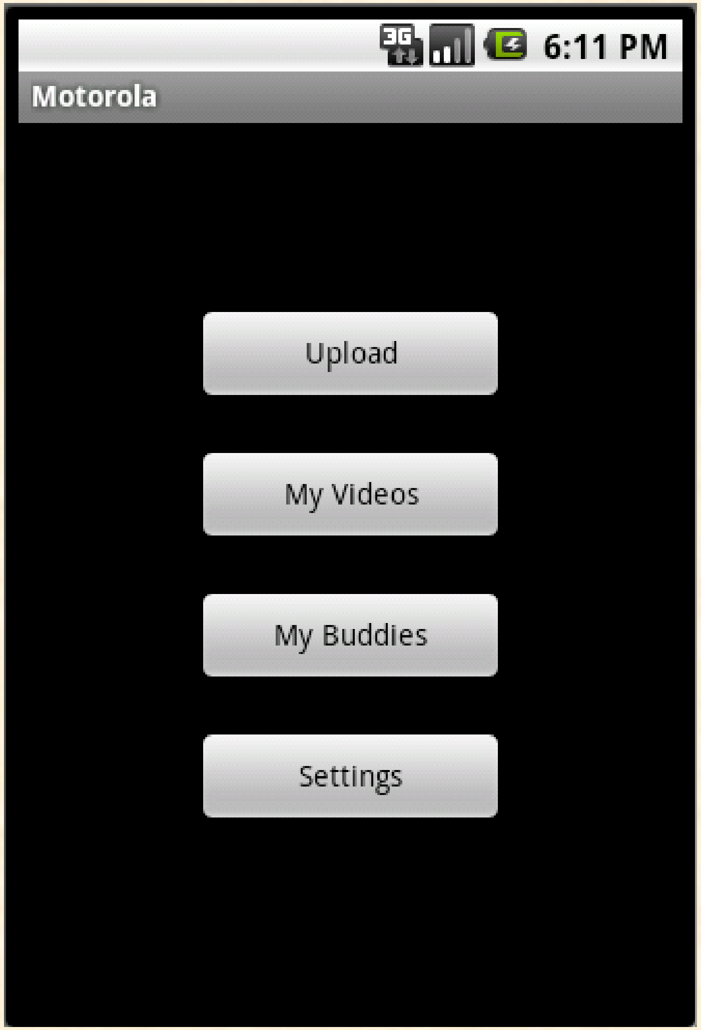
Functional Specifications

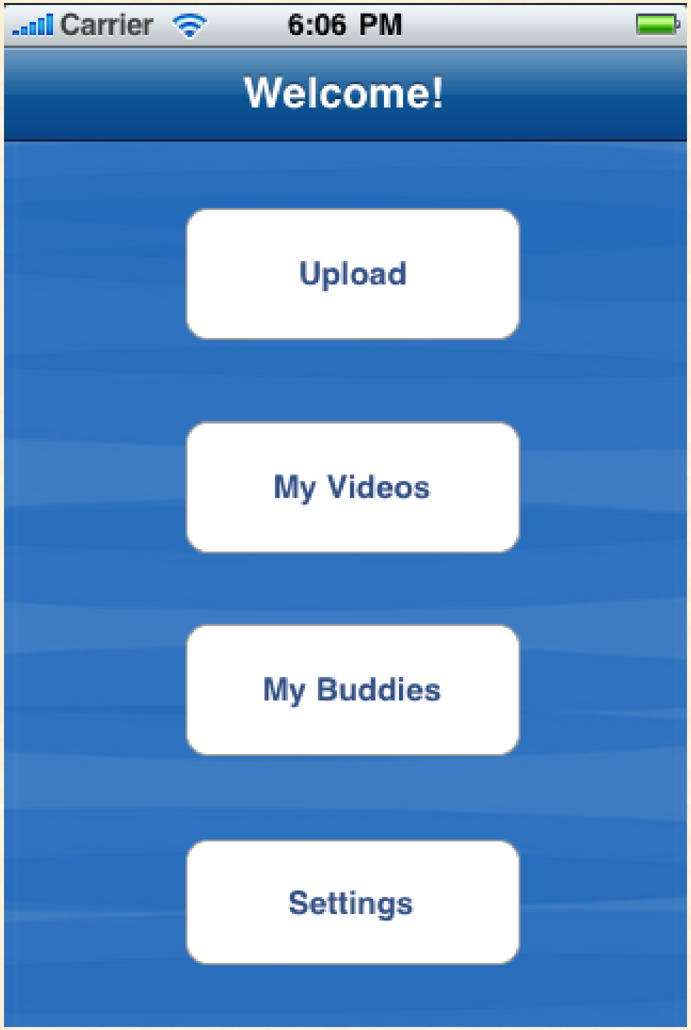
- Media Player
  - JVLC → VLC
  - Streaming
    - From social network to either the cable headend or the set top box
    - Do not download video to the VOD server
  - Tricks
    - Smooth the viewing experience

Design Specifications

- Android application
  - Similar look and feel as the iPhone app
- Services Proxy
  - Social network site = central hub
  - UI for adding providers and accounts
- Media player
  - Add VLC media player implementation

Screen Mockups

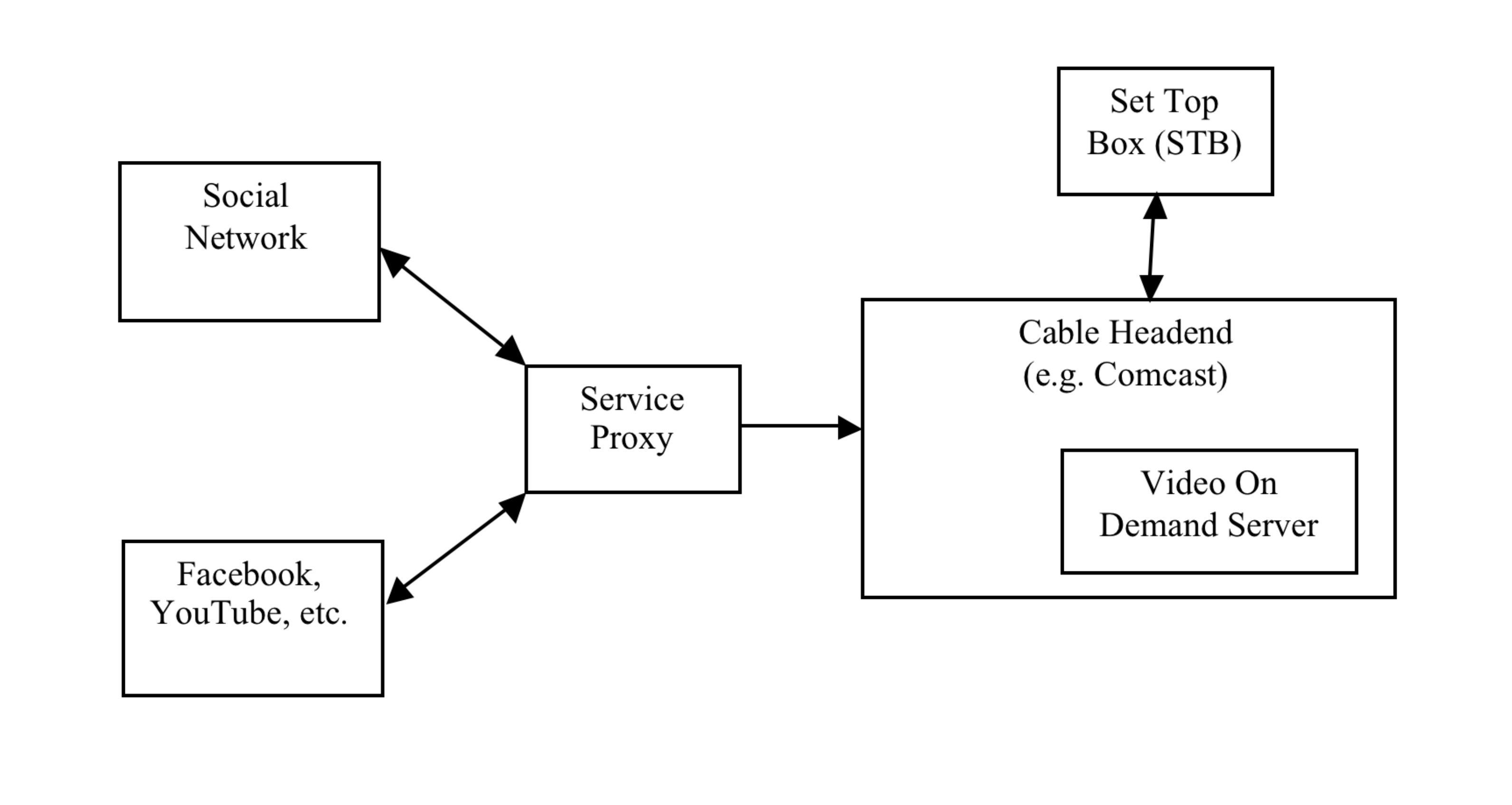




Technical Specifications

- Android application
  - Calls to RESTlet API's
    - Get list of videos
      - GET at /nss/{userID}
    - Upload video
      - POST at /nss/{userID}
- Services Proxy
  - Extend database to allow multiple STBs per user and multiple provider identities
- Media Player
  - Extend the Media Player interface to use VLC

Architecture Illustrated



System Components

- Hardware Platforms
  - Windows, Mac OS X, and Linux
  - Television with STB
  - iPhone and Android
- Software Platforms / Technologies
  - Eclipse with Android SDK
  - Xcode with iPhone SDK
  - Glassfish server
  - iBatis

Testing

- Android application
  - Make sure it is user friendly and intuitive
  - Mimic all functionality of existing iPhone app
- Services Proxy
  - Test UI in multiple browsers
  - Make sure all input is validated correctly
  - Ensure database stays in sync with all other databases
- Media player
  - Use multiple video types
  - Vary size of videos (including empty files)

Risks

- Android development
  - Application is near completion
  - No longer a priority risk
- Existing code base
  - Starting to understand a lot of the functionality thanks to Kabe
  - Still more to understand
- Understanding the entire system for new enhancements