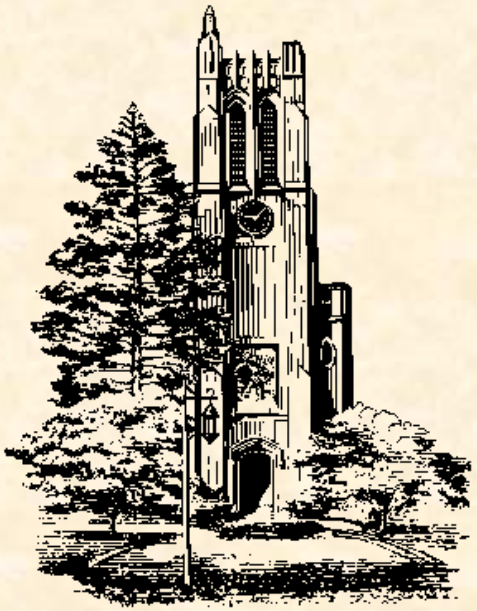
MICHIGAN STATE UNIVERSITY

Technical Specification / Schedule
Linux Recorder Client



Team 9: TechSmith

CSE 498, Collaborative Design

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Spring 2008

Project Overview

- Linux Recorder Client
- Target audience is education environments
- Client uploads presentation to server for transcoding and publishing
- Regular correspondence with TechSmith
- All major risks have been assessed.
- Important Documentation has been received
- Server issues have been addressed

Functional Specifications

- Record Screen / Audio
- Connect / Authenticate with Server
- Upload Presentations
- Cross-platform GUI Interface
- Modular Design

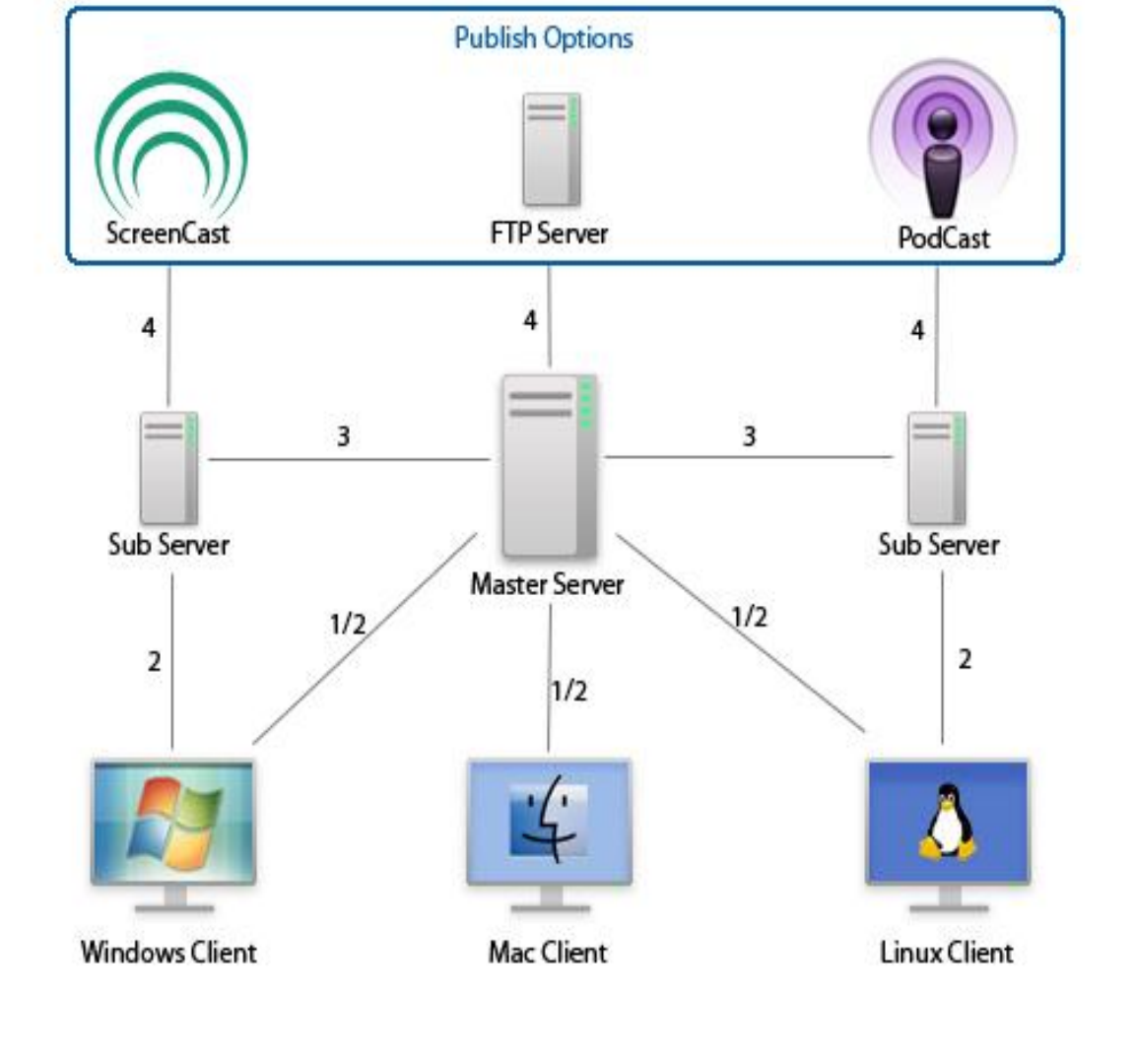
Limitations of Project Scope

- Must follow existing server protocols
- Installer not needed
- GUI identical to existing clients within QT limitations

System Components

- Hardware Platforms
  - Recorder Client runs on Linux
  - Server runs on Windows Server 2003 or Windows XP
  - Microphone Present for audio
  - Network Connection
- Software Platforms / Technologies
  - X11 for video display
  - QT libraries
  - Eclipse for Development

Network Architecture



1. Login / Profile
2. Upload
3. Load Balance
4. Publish

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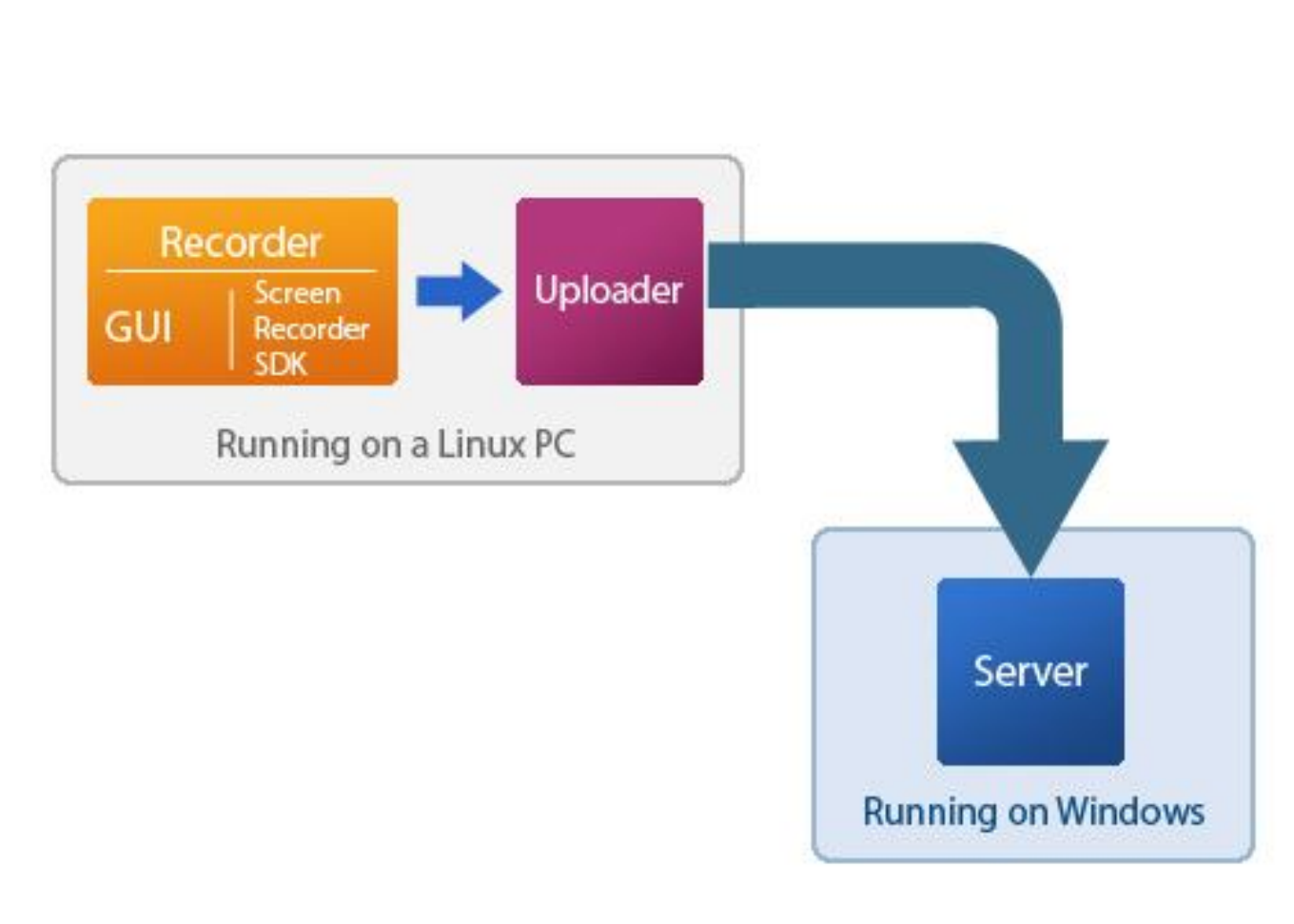
System Architecture Illustrated



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Risks

- Screen Recording in Linux
  - Capture pixels and mouse movements in X windows
  - Researched open source projects (recordMyDesktop, xvidcap, FFmpeg, Vnc2swf) and determined to convert recordMyDesktop to an SDK.
- Audio Recording in Linux
  - Capture Audio from microphone
  - Open source package recordMyDesktop captures audio

Risks

- Porting Uploader from OS X to Linux
  - OS X uploader code was given to us but needs to be ported to Linux
  - Uploader code just received and is being analyzed
- Distribution Independence
  - Not tightly integrated to a specific Distribution
  - QT is platform independent and X11 capturing techniques should be distribution independent.

Project Schedule (January)

1. Tech Spec
   a) Tech Spec completed
   b) Jan. 27, 2008
2. Project Schedule
   a) First draft completed
   b) Jan. 27, 2008
3. OS X code
   a) Decide what can/cannot be used
   b) Jan. 31, 2008
4. Screen recorder
   a) Choose open source recorder
   b) Jan. 30, 2008

Project Schedule (February)

1. Basic Server Communication
   a) Users can be authenticated
   b) Feb. 15, 2008
2. Alpha Uploader
   a) Videos should be able to be uploaded
   b) Feb 15, 2008
3. Alpha UI
   a) User interface is created
   b) Feb. 15, 2008
4. Screen
   a) Basic Screen recording
   b) Feb. 13, 2008

Project Schedule (March)

1. Server and uploader
   a) These two should be able to communicate
   b) Mar. 15, 2008
2. Video Transcoding
   a) Videos should be transcoded
   b) Mar. 15, 2008
3. Screen Recorder
   a) SDK should be separated
   b) Mar. 15, 2008
4. GUI
   a) GUI Should be functional
   b) Mar.14, 2008

Project Schedule (April)

1. Group Video
   a) The project video completed
   b) Apr. 12, 2008
2. Company Demo
   a) Presentation should be completed
   b) Apr. 12, 2008
3. Progress Report
   a) Progress report finished
   b) Apr. 12, 2008
4. Design Day
   a) Design Day info prepared
   b) Apr, 22, 2008