

***MoPad*** 

A **M**obile game**P**ad

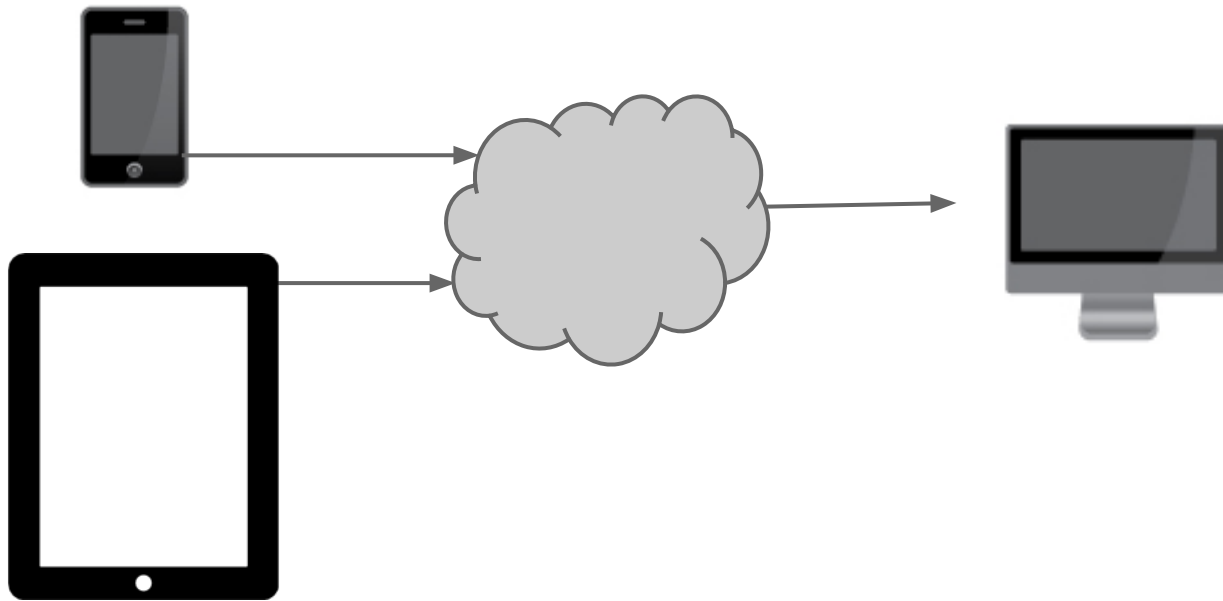
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- Introduction
- Components
- Workflow
- Security & Quality control
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# Idea & Motivation

- Control games
  - Controller in the pocket
  - Utilizing sensors (Touch, Accelerometer, ...)
- Server as router for multiple controllers
  - Multiplayer
  - Platform independent


# Idea & Motivation



# Idea & Motivation

- Monetisation
  - Payment services from native Apps
  - Payment services from App stores
- Technologies
  - Native Apps
  - Browser
- Target audience
  - Casual gamers
  - Developers / Game Companies
  - PAAS

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# Goals

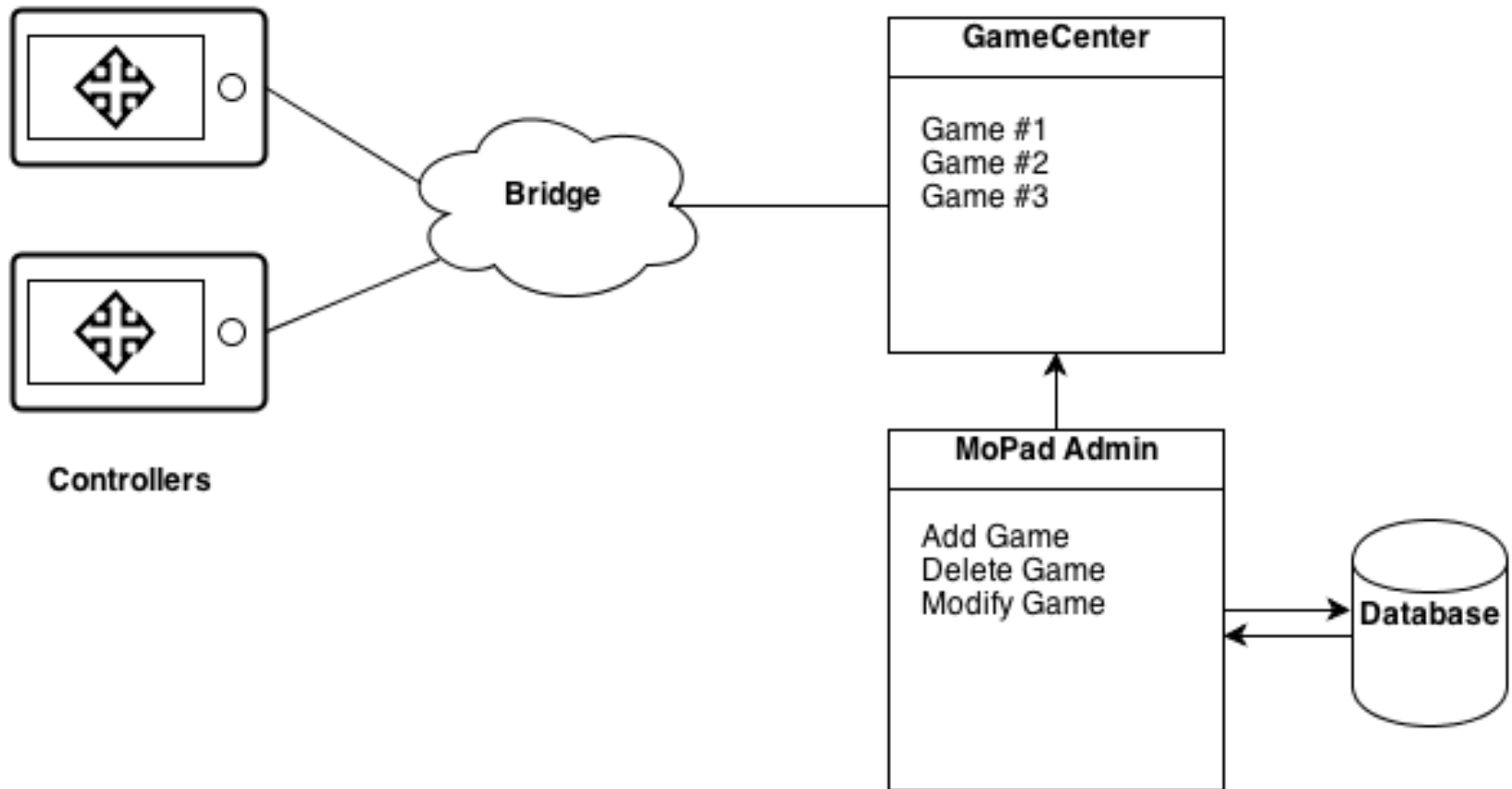
- Evaluation
- "Proof of Concept"
- Connecting the edges
  - Web (HTML, CSS, JavaScript, WebSockets, ...)
  - Server (Node.js, PHP, Apache, ...)
  - Mobile
- Performance behavior
  - Local & "live"

# Goals

- Evaluation!
- "Proof of Concept"
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# Overview MoPad



# Components

- Controller
- Bridge
- GameCenter
- MoPad Admin

# Controller

- Role

- Controls the games (duh!?)
- Controller types: Joystick and Joypad (for now)
- Authentication with a game via a 4-digit pin

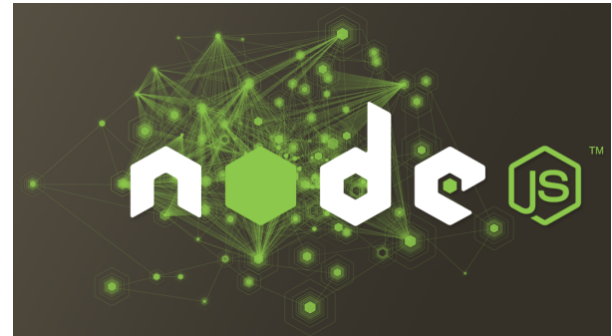
- Technologies

- Website optimized for mobile (Webkit)
- HTML5, CSS3
- JavaScript, jQuery, Twitter Bootstrap



# Bridge

- Role
  - Forwards input commands
  - Coordinates the communication between multiple controllers and a game instance
- Technologies
  - ♥ Node.js (JavaScript)
  - WebSockets (server-push)



# GameCenter

- Role
  - Offers multiple games
  - Player management (pins) for games
- Technologies
  - HTML5, CSS3
  - JavaScript, jQuery, Twitter Bootstrap, Backbone.js

**Bootstrap**



# MoPad Admin

- Role

- Game Administration
- Addition, modification, deletion of games
- Delivers games to the GameCenter via a REST Api (JSON)

- Technologies

- Apache Web Server with PHP5
- ♥ Symfony2 (MVC framework)
- MySQL database



# Workflow

- Collaboration & File sharing
  - Google Drive
  - Dropbox
  - GitHub
- Amazon AWS
  - EC2, Elastic IPs
- Weekly meetings
  - Waschbar & Coffee

# Workflow

- Source code repository
- Ticket system
  - Defining milestones
  - Ticket assignment
- Wiki





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## Compare View

Last commit a day ago



2167

**Commits** 147**Files Changed** 462**Commit Comments** 0

Showing 147 commits by 3 authors.

**Oct 16, 2012****sebastian-a...** jea - team**sebastian-a...** added initial bridge, controler and game (all beta)**Oct 17, 2012****johnny353535** first prototype**Oct 20, 2012****johnny353535** Organizational changes ...**Nov 01, 2012**



## Everyone's Issues 61

Assigned to you 24

Created by you 47

Mentioning you 19

No milestone selected



## Labels

Bridge 20

Controller 18

GameCenter 15

Implementation 3

Mobile Device 3

Game 0

Manage Labels

New label name

No active filters. Use the sidebar to filter issues.

Keyboard shortcuts available

6 open issues		61 closed issues		Submitted		Updated	Comments
Reopen	Label	Assignee	Milestone	1 2 3 Next »			
<input type="checkbox"/>	#66	do not allow to register a pin twice		by sebastian-alfers	2 months ago		1 comment
<input type="checkbox"/>	#65	check WebSocket connectivity while load controller and gameCenter		by sebastian-alfers	2 months ago		1 comment
<input type="checkbox"/>	#64	Don't allow same names for multiple players	GameCenter	by johnny353535	2 months ago		1 comment
<input type="checkbox"/>	#63	Unify connectionId and pin as unique connection identifier	Bridge Controller GameCenter	by johnny353535	2 months ago		
<input checked="" type="checkbox"/>	#62	Create backbone views for controllers	Controller	by johnny353535	2 months ago		
<input type="checkbox"/>	#61	GameAdmin : File Upload		by janinatrost	2 months ago		3 comments
<input type="checkbox"/>	#55	do not reject controllers		by sebastian-alfers	2 months ago		1 comment
<input type="checkbox"/>	#54	alert before reload		by sebastian-alfers	2 months ago		1 comment
<input type="checkbox"/>	#53	Remove player from bridge	Bridge	by johnny353535	2 months ago		2 comments
<input type="checkbox"/>	#52	Unnötigen code und libraries löschen (modernizer etc.)	Controller GameCenter	by johnny353535	2 months ago		7 comments
<input type="checkbox"/>	#51	Pingenerierung auf der bridge anstatt getPinForUser.php	Bridge GameCenter	by johnny353535	2 months ago		1 comment
<input type="checkbox"/>	#50	Chrome mobile compatibility for JoyStick. Proper scaling of JoyPad (responsive layout)	Controller	by johnny353535	3 months ago		

# Security & Quality control

- MoPad Admin
  - Authentication and Authorisation for game administration
  - PHPUnit unit testing
- Bridge (Controller, GameCenter)
  - Connection-control for WebSockets
  - Unauthorized access gets rejected
  - QUnit unit testing

# *MoPad*

## Demo

[Go to Game Center](#)

# *MoPad*

## Demo

Please enter this URL  
<http://141.45.202.184/controller/>



Thank you for your attention!









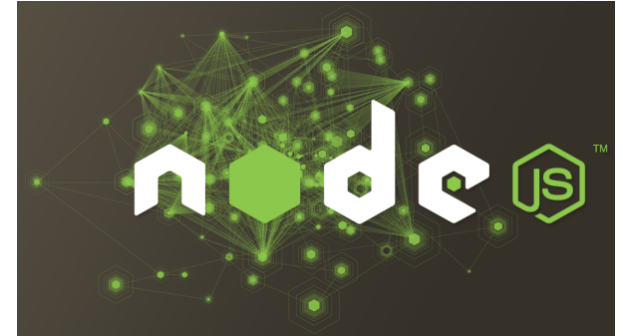




# Conclusion

- Newest technologies

- Node.js
- HTML5 WebSockets



- Symfony2

- Mighty, powerful and secure framework



- Connection of the various technology

- JavaScript, HTML5, CSS3, jQuery, Bootstrap, Backbone, PHP, Apache, MySQL



# Prospect

- Technological prospect
  - WebSockets fallback (Flash?? woot)
  - API access handling/admin (?)
  - Games provided as a bundle file (e.g. .zip)
- Missing Implementation
  - User managment
  - Score management (Highscore, social feature)
  - Controllers accelerometer
- Game App Store
- Security (?),
- Usability (user help texts)
- More Controllers