WORLD LEAGUE FOOTBALL

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February 15th, 2008

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Agenda

- World League Football
- Technology
- Recommendations
- Community
- Future

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World League Football

- Football manager game
- Goals
  - Unique football manager game on the Internet
  - Users
    - Win the World League Football playoff
    - Win the Country playoff
- Control all aspects of your team
- User feedback
- Small, but growing community
  - Large part of users are hard-core !

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World League Football

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World League Football

- All countries in the World
- Each country has a division 'pyramith'
  - 8 top-level divisions, with 2 divisions below a.s.o.
  - 8 teams per division (14 weeks of league games)
- Top / bottom of each division plays qualify games
  - Promotion / demotion
- Winners of top divisions enter the country playoff
- Winners of each country
  - Winners plays in World League Football playoff
  - Prizes to 1st through 4th places

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World League Football

- Games
  - League, friendly, tournament, invitational, playoff, WLF
  - Set your lineup
  - Select the best tactics
  - Choose the best plays for your playbook
  - Analyze previous games using statistics
  - Watch all games live
    - Game overview
    - Play-by-play
    - Statistics

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World League Football

- Expand your stadium
- Hire / fire staff
- Handle your club economy and loans
- Buy and sell
  - Players, Coaches, Cheerleaders
- Sign the best players in the draft
  - Watch it live
- Press releases
- Training
- Communicate with others using forums and mail

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World League Football

- Community membership level
  - All basic features in the game
  - Free
- Bronze membership level
  - Statistics (Game, Team, Player, ...)
  - Private tournaments
- Silver membership level
  - Ability to design own formations and plays

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World League Football

- Agile development model
- Java Enterprise Edition 1.4 + Java ServerFaces 1.2
- Development started in 2004
- First public release: July 4th 2005
- 1 release per month
- 3 seasons per year

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Technology

- Platform
- Web
- Business layer
- Persistence
- Game engine
- Live games
- Fraud detection

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Technology

- Platform
  - Java 2 Enterprise Edition 1.4+
  - JBoss Application Server 4.2.x + patches
  - Java Standard Edition 5
  - PostgreSQL 8.2
  - Postfix mail server
  - All running on GNU/Linux based platform

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Technology

- Web
  - Java ServerFaces 1.2
  - Facelets 1.1
  - JBoss RichFaces 3.1
  - MyFaces Tomahawk
  - Extend data model with JSF methods
  - Custom security model since 'almost' all data is public

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Technology

- Business layer
  - Stateless Session EJBs
  - One facade per logical view of the data model
  - Remote EJBs to expose methods for the web layer
  - Local EJBs for internal methods
- Batch jobs
  - Economy, Hall of Fame, Training, Auctions, Ticket holders
  - JBoss Services (Scheduler)
  - Stateless Session EJBs redirects to Message Driven EJBs

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Technology

- Persistence
  - Entity CMP / CMR 2.1 EJBs
  - OH MY GOD !!!!
  - Yeah, but it works !
  - 1 or more Value Objects per Entity
  - Load-groups
    - Eager
    - Lazy
  - Always remember to let the database do the job
  - Know your jbosscmp-jdbc.xml file

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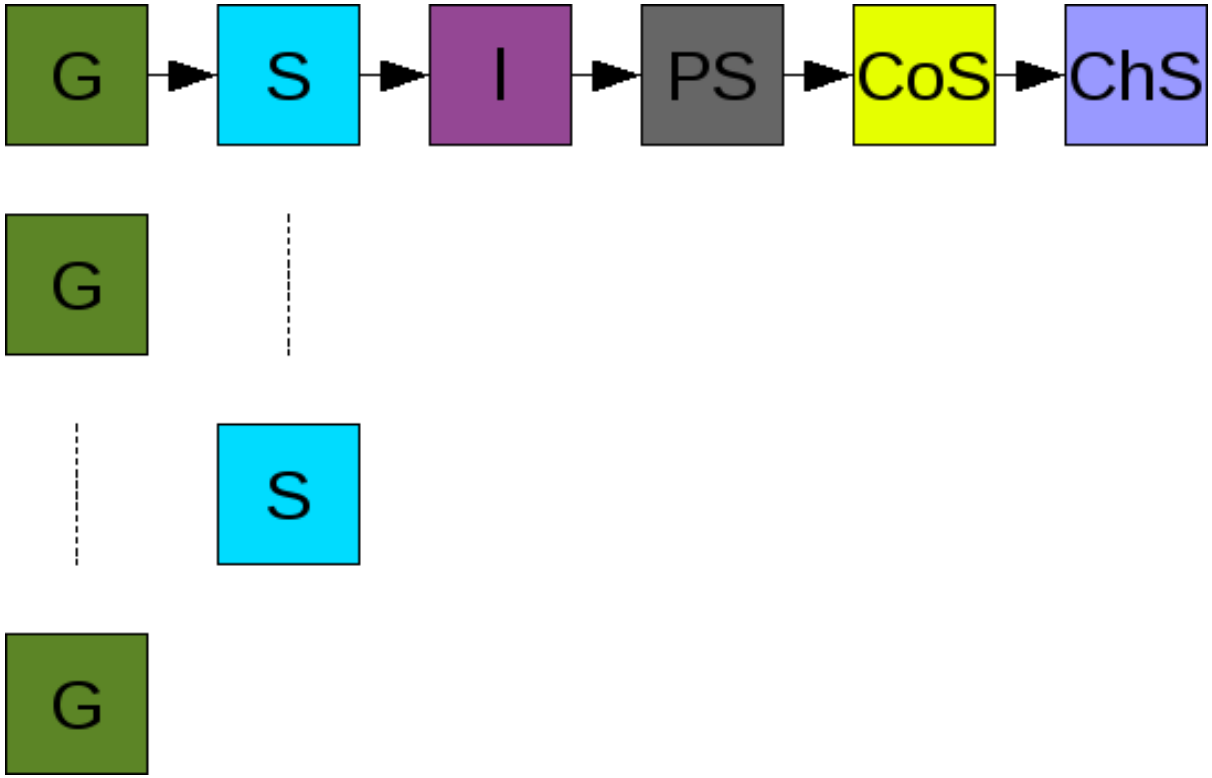
Technology

- Game Engine
  - 'Most' important component in the game
  - Plain Old Java Objects (Serializable)
  - State Machine
  - Apache Commons Math
  - Events
  - Renderers
  - Simulator

Technology

- In-container game engine



- Pipeline is implemented using Message Driven beans using Chain-of-Responsibility

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Technology

- Game pipeline
  - Game calculation
  - Attendance, Economy, Game statistics
  - Injuries
  - Player statistics
  - Coach statistics
  - Cheerleader statistics
- Based on game identifier and game events
- We don't care how long it takes...
- Implemented using MDBs
  - JBoss Messaging

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Technology

League game - Warrington Eagles vs Memphis Blizzard

Live - Play by play - Team - Drives

The Lynch Mob	7	
Texas Terror	0	
		View

XTerminators	7	
Battle Creek Crunch	0	
		View

Harrisburg Hammers	0	
Mid-Mo Headcrackers	0	
		View

Current drive:

	MEM 11	(07:18)	D. Chidlaw returns for 9 yards (J. Etievent)	View
1-10	MEM 20	(07:14)	S. Papayannopoulos to M. Youji for a 7 yard pass (C. Hornfeld)	View
2-3	MEM 27	(06:33)	S. Papayannopoulos to M. Youji for a 9 yard pass (C. Hornfeld)	View
1-10	MEM 36	(05:53)	*PENALTY L. Parthog, Defensive offside, 5 yards - No play*	View
1-5	MEM 41	(05:53)	S. Papayannopoulos to M. Youji for a 5 yard pass (C. Hornfeld)	View
1-10	MEM 46	(05:15)	S. Papayannopoulos pass incomplete to M. Youji	View
2-10	MEM 46	(05:08)	K. Shukry to H. Ousted for a 12 yard pass. FUMBLES. Recovered by H. Ousted	View
1-10	WAR 42	(05:00)	S. Papayannopoulos to M. Youji for a 5 yard pass (C. Hornfeld)	View
2-5	WAR 37	(04:29)	S. Papayannopoulos to M. Youji for a 5 yard pass (C. Hornfeld)	View

Warrington Eagles

PASSING	CP/AT	YDS	TD	INT
A. Crelot	4/6	26	0	1

RECEIVING	REC	YDS	TD	LG

Memphis Blizzard

PASSING	CP/AT	YDS	TD	INT
S. Papayannopoulos	6/7	37	0	0
K. Shukry	1/1	12	0	0

RECEIVING	REC	YDS	TD	LG

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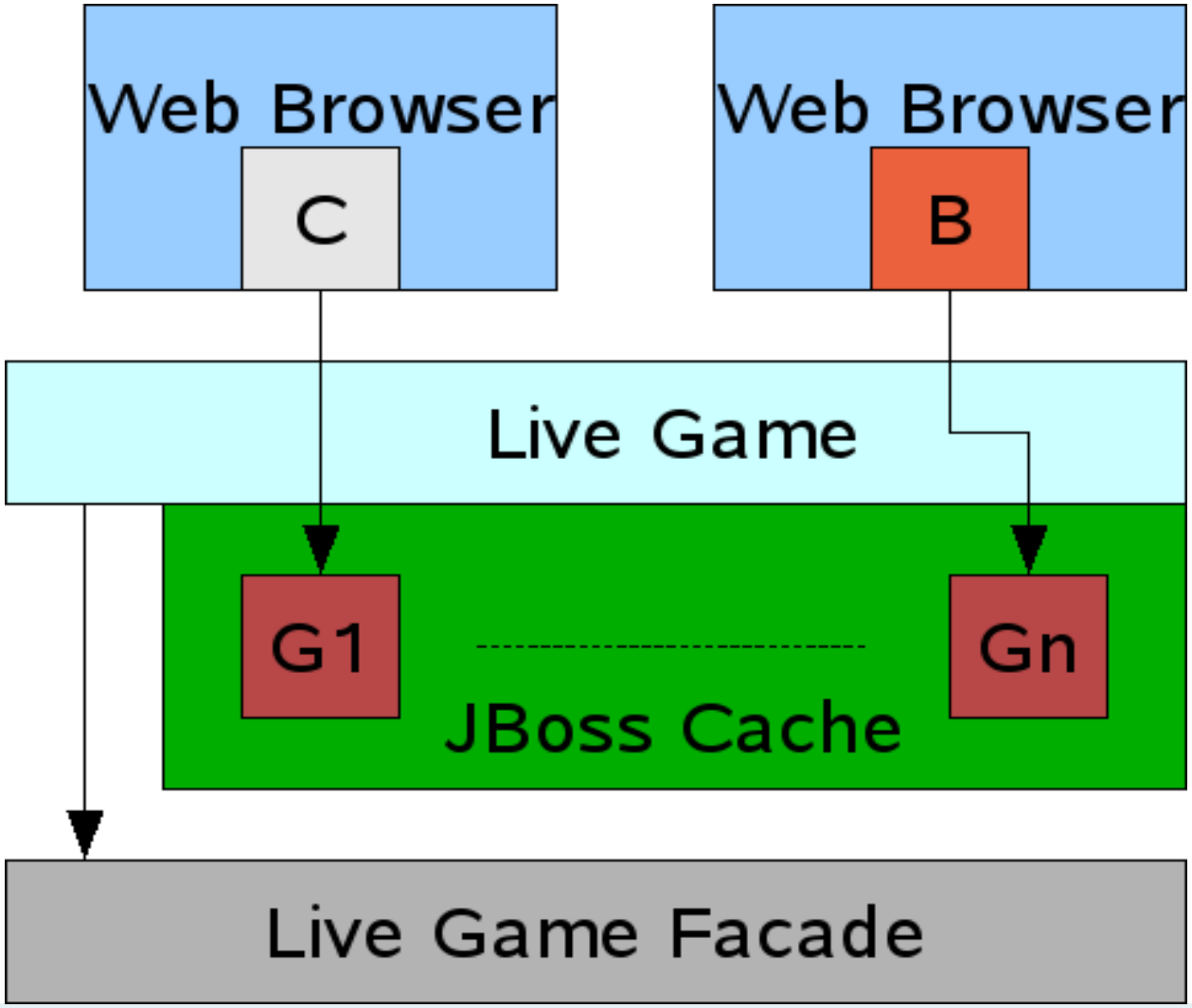
Technology

- Live Games



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Technology

- Live Games
  - Only one full representation of a game
  - Only one summary representation of a game
  - View per client (with / without statistics)
  - View is updated through an AJAX call
  - Web layer connects to LiveFacade to get latest update
  - The cache is updated each x seconds from back-end
  - Cache is refresh with game events that has been played
  - JBoss Cache
  - TreeCache with LRU policy / TimeToLive

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Technology

- Fraud detection
  - Because users cheat !
  - Or at least try their best...
- Problems
  - Multiple teams
  - Player transfers
  - and so on
- Solution
  - Express each way to cheat as a rule
  - Check rules each time an entry point is hit
  - F.ex. Login: how many teams from the IP address
  - JBoss Rules

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Recommendations

- JBoss products are ready for deployment !
  - Proven
  - Mature
  - Support, training and certifications
  - Use JBoss Enterprise Application Platform for production environments
- Invest time in research
  - Products
  - Proof of Concepts
  - Learn from others
  - It's Open Source !

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Recommendations

- Java Enterprise Edition 5
  - Provides an excellent platform for many years to come
  - Now: JBoss Application Server 4.2
  - Later: JBoss Application Server 5.0
- Enterprise JavaBeans 3.0
  - Simple development model
  - Light-weight
  - Native queries
- Powerful web frameworks
  - JBoss Seam
  - JBoss RichFaces
  - MyFaces Trinidad

Recommendations

- Agile development
  - Excellent model for a changing environment
  - Keep the development cycles short: 2-4 weeks
  - Motivates developers since each task is quickly completed
  - Quick feedback from end-users
  - Reschedule tasks as quickly as possible
  - Continuous attention to technical excellence and good design
  - Use an issue tracking tool to keep the overview
  - Manage source under Subversion or similar VCS

Recommendations

- Transfer knowledge between projects
  - Research
  - In-house development (eat your own medicine)
  - Customer project
  - Goto 1
- Keep track of good and especially bad ideas
  - Wiki
  - Proof-of-Concepts
  - Sample projects – starting points for future projects
  - 'Show and Tell' with experiences or products

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Community

- Ask not what your country can do for you; ask what you can do for your country (JFK, 1961)
- Give back to the community
  - Don't talk about how much time you will invest – invest the time!
- Bug reports
  - Patches
- Features
  - Patches
- Forum postings
  - Help to newbies
  - Give input from user PoV to developers

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Community

- What have we done ?
  - JBoss Application Server
    - Enterprise JavaBeans 2.x CMP patches
  - JBoss Profiler 2
    - 100% pure Java 5 Standard Edition
    - Java Enterprise Edition 5 profiler
      - EJBs, JSPs/Servlets, JSF, POJOs, MBeans, plugins
    - http://jira.jboss.com/JBPROFILER-50
  - Various patches to Open Source projects

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Future

- World League Football
  - Continue with Agile development model
  - 1 release per month
  - A lot of new features
  - A lot of enhancements
  - Gold membership level
  - Expanding user base in all countries
  - Join, play and submit your own ideas

Future

- Technology
  - Java Enterprise Edition 5
  - JBoss Application Server 5.0 GA
  - Enterprise JavaBeans 3.x
  - PostgreSQL 8.3
  - JBoss Seam
  - MyFaces Trinidad
  - AJAX, AJAX and AJAX

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Questions ?

- What ... ?
- How ... ?

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Thank you !

- Feel free to contact me with questions
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