OUR PRODUCTS
INTERESTING STATS

3.7M+ registered customers
140 locations
17 languages
£300M funds on deposit
£68M 2010 World Cup Final
30,000 bets placed one minute
WHAT’S THE PROBLEM?

We haven’t invested in website performance

“during the world cup the site has run like treacle”

“the site is frequently slow and freezes too often”

“very slow and glitchy”

“I find Betfair slow”
OUR CUSTOMER COMMITMENT


Product & Technology
We'll focus on the quality and reliability of our products and services.

5.1 The quality and reliability of our service is most important to us.

5.2 Our products will meet the needs of our customers by delivering a quick and responsive experience.

5.3 We'll commit to concentrating planned updates to key systems during a defined change period.
PERFORMANCE
HIERARCHY OF WEBSITE NEEDS

- It Works
- It’s Fast
- It’s Useful
- It’s Cool
OUR PLAN

• Deliver incrementally
• Build a complete slice of functionality
• Broaden the offering
CONTINUOUS DELIVERY

• It's not about changing the product daily
• It's about confidence in the quality of your product
• It's about eliminating waste from your development cycle
CHALLENGES

- Automation is key
- Branch in code
- Technology only takes you so far; it’s a cultural shift
- “Developers aren’t done until the tests pass”
CONCURRENCY MODEL

- dispatch service calls
- controller’s job done
- rendering starts early
PERFORMANCE OPTIMIZATIONS

- Reduce HTTP requests
- Minify and compress assets
- Split requests across domains
- Use cookie-free CDN hostnames
- Flush the buffer early
- Defer loading of content
- Etc...
SLAS

- 3 second full page load
- For 95% of customers
- Under peak loads
- With no errors
- Over typical bandwidth
- From common browsers
PERFORMANCE MEASUREMENT

[Graph showing load time over the last 7 days]
LOG MINING

Access logs: User agents, response times, payload sizes
Performance logs: Timings of code paths and dependent service calls
Correlation IDs to trace requests across tiers
GRAPHHS
### Server-Side Waterfall Graph

![Server-Side Waterfall Graph](image)

#### Home Preview HAR About Schema

<table>
<thead>
<tr>
<th>Request</th>
<th>Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET /football</td>
<td>19ms</td>
</tr>
<tr>
<td>GET AccountSettings</td>
<td>0ms</td>
</tr>
<tr>
<td>GET Login.Module Content</td>
<td>0ms</td>
</tr>
<tr>
<td>GET Navigation.getNavigationMenu</td>
<td>0ms</td>
</tr>
<tr>
<td>GET Login.LoginData</td>
<td>8ms</td>
</tr>
<tr>
<td>GET SportsService.Event updates</td>
<td>25ms</td>
</tr>
<tr>
<td>GET SportsService.Get Events</td>
<td>81ms</td>
</tr>
<tr>
<td>GET SportsService.Get Event Data</td>
<td>32ms</td>
</tr>
</tbody>
</table>

- **Total Request Time:** 384ms
- **Total Responses:** 9 Requests

#### Popular Coupons

- Thursday InPlay Coupon
- Barclays Premier League
- The Championship

#### Highlights

Barclays Premier League

*Saturday, 5 November 2011*

<table>
<thead>
<tr>
<th>Team 1</th>
<th>Team 2</th>
<th>Back Lay</th>
<th>Back Lay</th>
<th>Draw</th>
<th>Draw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newcastle</td>
<td>Bournemouth</td>
<td>3.32</td>
<td>3.45</td>
<td>3.5</td>
<td>3.55</td>
</tr>
</tbody>
</table>

*Match 15*
Networking device thwarting flush()

Magic setting:  
`httpcompressonpush=1`
SO WHAT CHANGED OVERALL?
CUSTOMER FEEDBACK

“Faster”

“Seems faster and more user friendly”

“page loaded quicker”

“The pages seem to load a lot faster”
RESULTS

• Sessions that bet: up 2 percentage points

• Bounce rate: improved 40%

• Page views: 2x

• 1% opt-out rate
WHAT HAVE WE LEARNED?

- Performance improvements are tangible
- Measurably improves the bottom line
- There’s lots more to do
THANK YOU