



Analytics To Improve Mobile Apps

Steve Cunnew

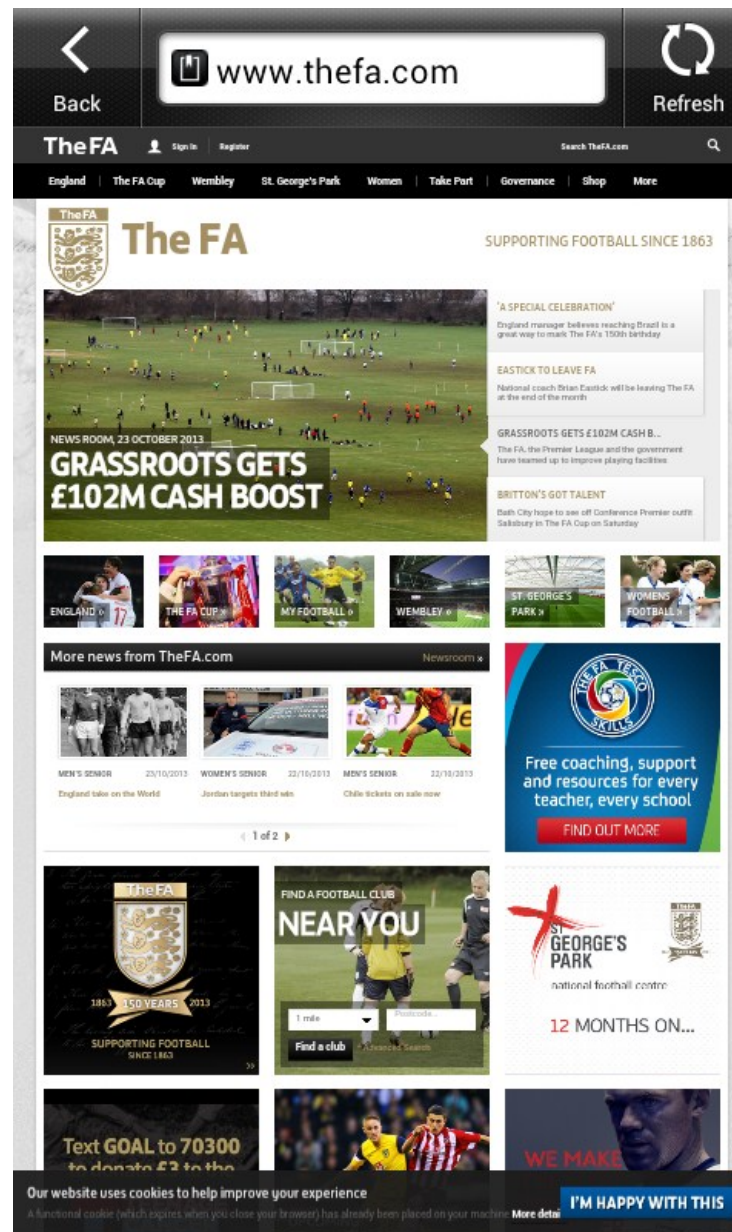
IBM Tealeaf – Senior CSP

Innovate2013

The IBM Technical Summit

USER STRUGGLE

User Experience



User Experience

Are we happy?

The screenshot shows a sports news website layout. On the left is a large vertical image of a football pitch with players. To its right are three article snippets:

- EASTICK TO LEAVE FA**
National coach Brian Eastick will be at the end of the month
- GRASSROOTS GETS £102M CAS**
The FA, the Premier League and the have teamed up to improve playing
- BRITTON'S GOT TALENT**
Bath City hope to see off Conference Salisbury in The FA Cup on Saturday

Below these are two smaller images with navigation arrows:

- WEMBLEY »** (Image of Wembley stadium at night)
- ST. GEORGE'S PARK »** (Image of St. George's Park stadium)

At the bottom is a dark overlay with a blue button:

Our web improve **I'M HAPPY WITH THIS**

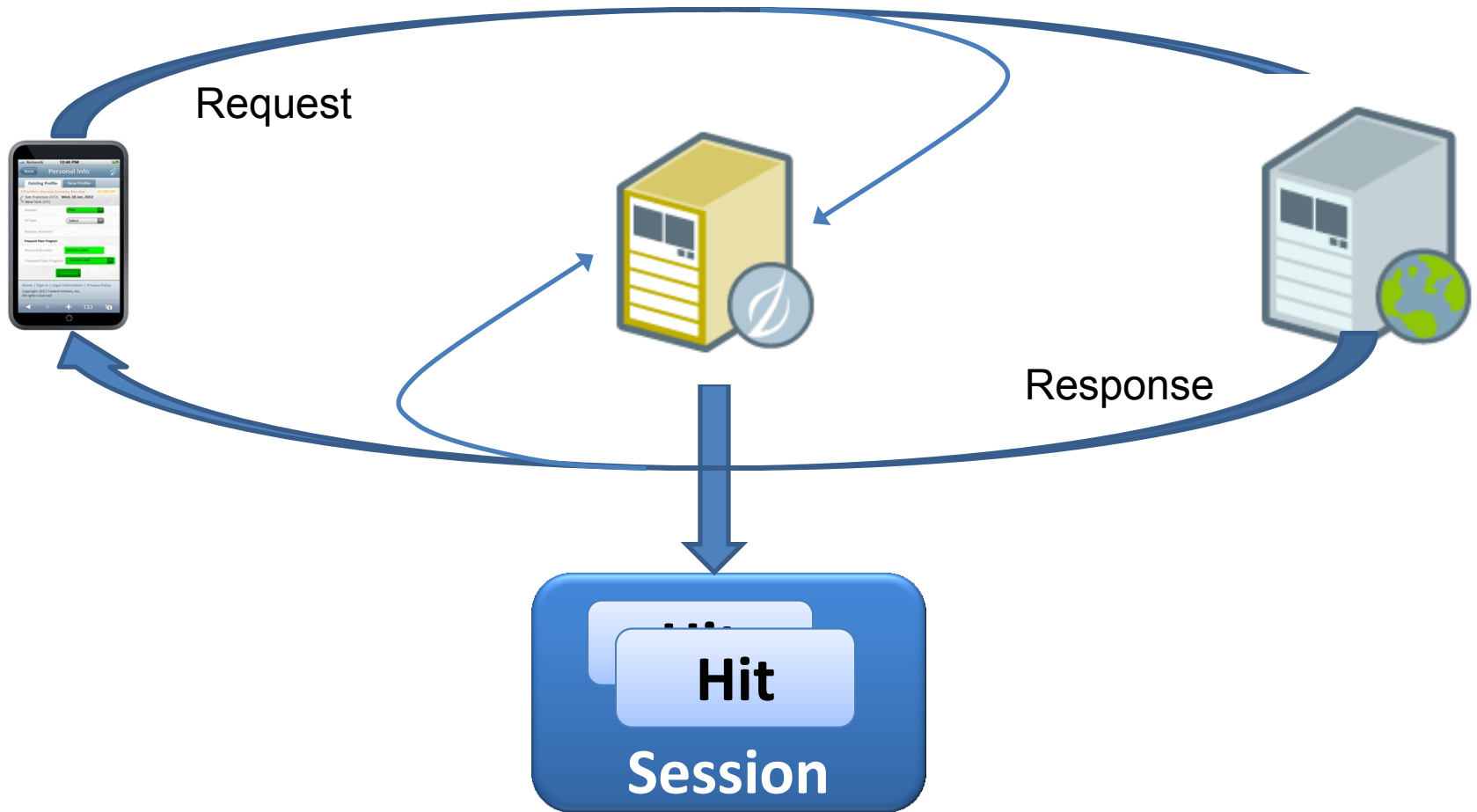
A functional cookie (which expires when you close your browser) has already been placed on your machine **More details**

Signs of user struggle

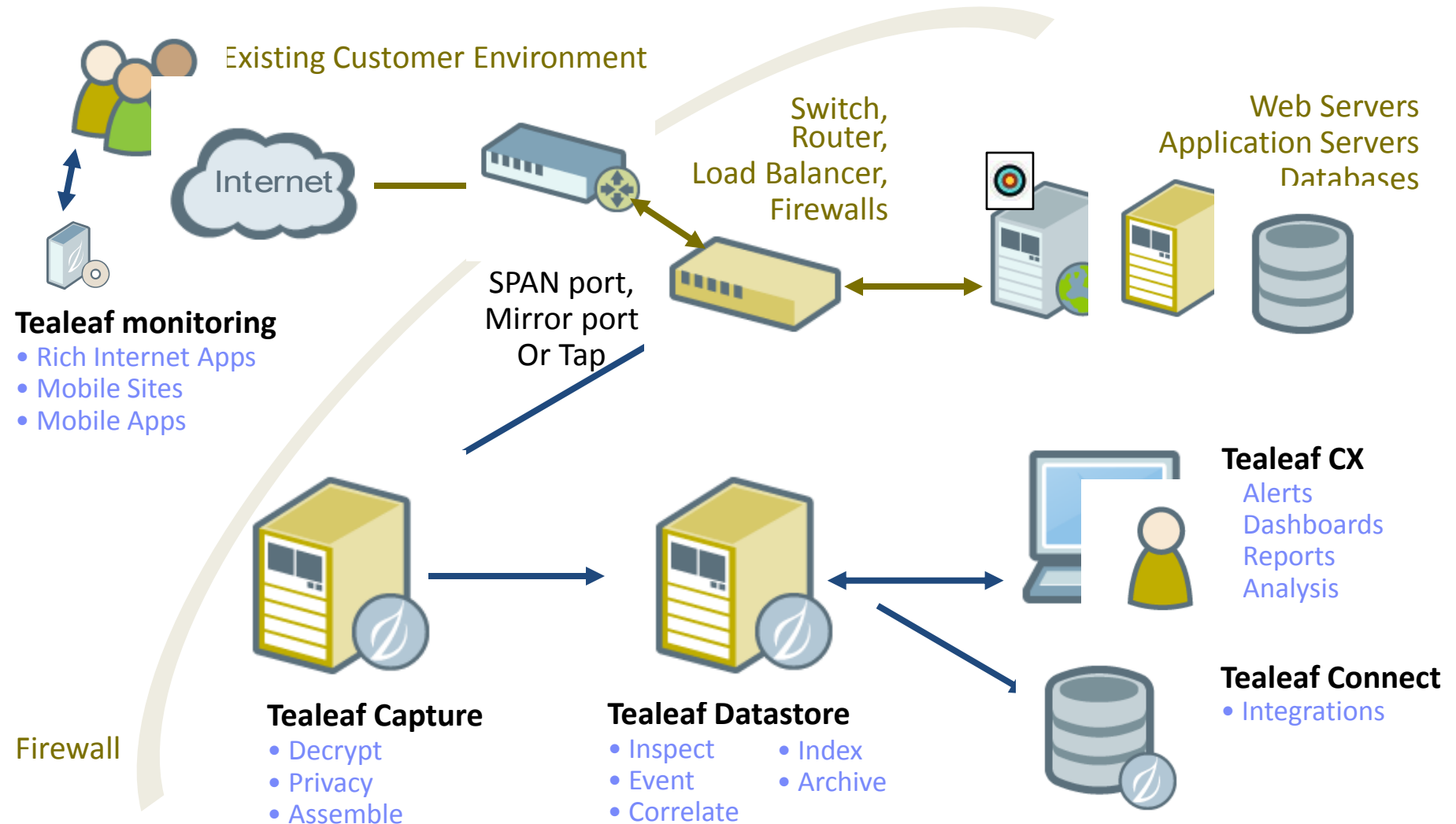
- 404/500 Errors
- Crashes
- JavaScript Errors
- Zoom in/out
- Rotate screen
- Repeat steps
- Multiple clicks
- Abandonment

CAPTURING STRUGGLE DATA

Data Capture Architecture



IBM Tealeaf Architecture



Identifying Struggle in Data

Start Checkout



Delivery



Payment



Success

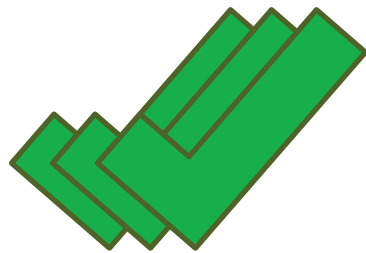


Identifying Struggle in Data

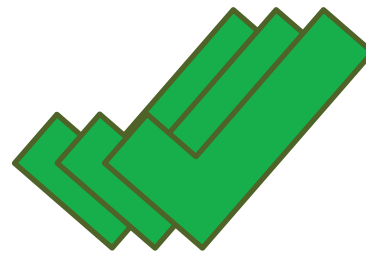
Start Checkout



Delivery



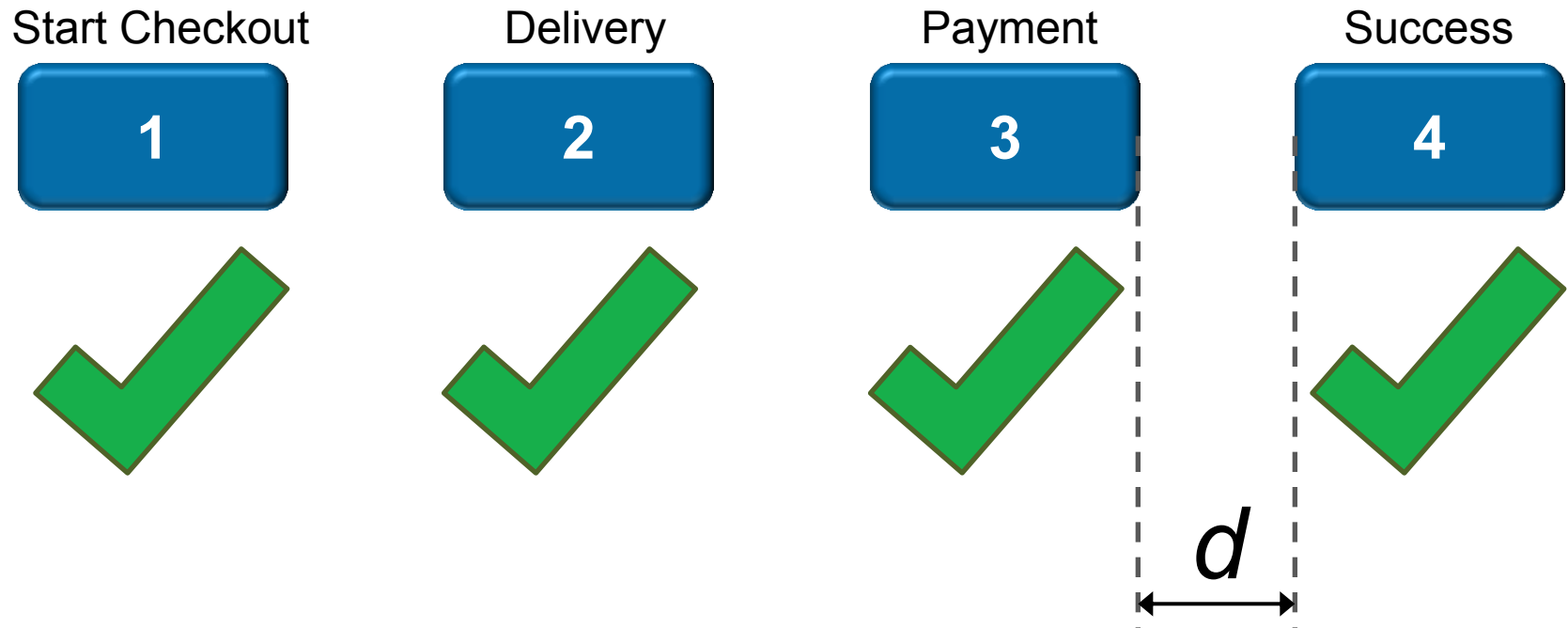
Payment



Success



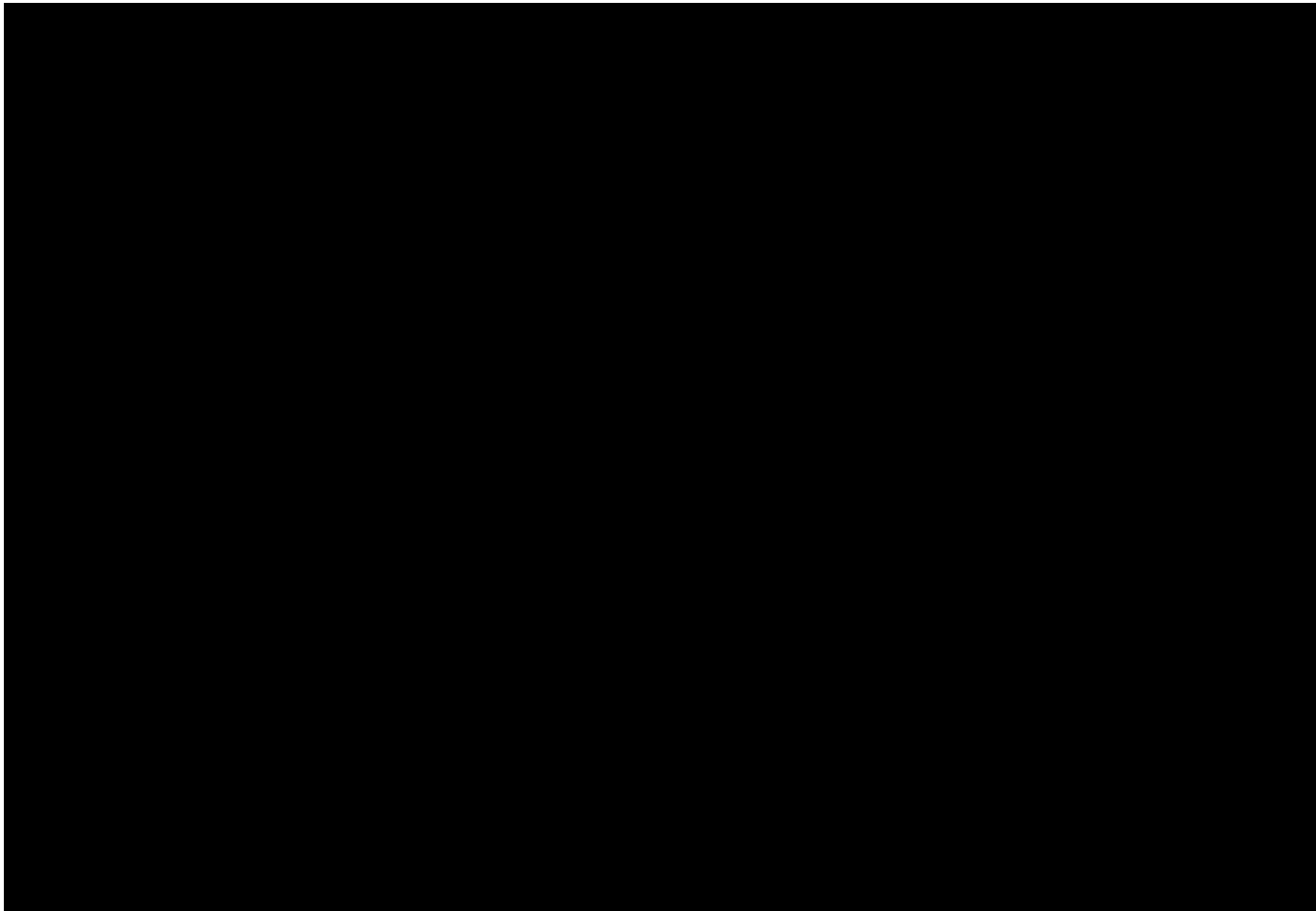
Identifying Struggle in Data



$d = \# \text{ hits, } \# \text{ steps, or elapsed time}$

THE ANALYTICS BIT...

Reports, dashboards and alerts to detect issues



Search, drill down, replay...

Dashboards Active Search Analyze Configure Tealeaf Help ADMIN: Logout

tealeaf
an IBM Company

Completed Session Search

Template: <Default Completed> This will search across available Completed sessions.

Search Range: Only Today Available Dates: 01/02/2011 12:01 - 01/03/2011 9:31

Search Scope: AND - Same S

Events
Session includes

Text in Response
Text in Response includes

Login ID
Login ID includes

Search

tealeaf
Completed Session Search > Session List
Displaying 100 of 391 matching sessions.

Analyze Segment Manage Segments Download All

Drag Column Headers Here To Group

| Session Time | Events | Country | Billin |
|--------------------|--------|---------|-----------------------------|
| 01/03/2011 0:01:45 | 1 2 3 | FR | jkim@gm |
| 01/03/2011 3:22:23 | 1 2 3 | US | dylim@gn |
| 01/03/2011 5:14:01 | 1 2 3 | US | jasonsmil |
| 01/03/2011 6:17:32 | 1 2 3 | CA | eg@hotmail |
| 01/03/2011 6:35:45 | 1 2 3 | UK | timk@yah |
| 01/03/2011 7:22:21 | 1 2 3 | US | wes@gma |
| 01/03/2011 7:45:05 | 1 2 3 | UK | walter@ac |
| 01/03/2011 7:51:11 | 1 2 3 | UK | ravi@yah |
| 01/03/2011 7:55:43 | 1 2 3 | US | cwan@gm |
| 01/03/2011 8:01:32 | 1 2 3 | UK | jkim@hot |
| 01/03/2011 8:10:15 | 1 2 3 | FR | masonc@hotmail.com 983.22 |
| 01/03/2011 8:11:02 | 1 2 3 | CA | ebutcher@hotmail.com 332.99 |
| 01/03/2011 8:12:15 | 1 2 3 | UK | rhoey@yahoo.com 1199.99 |
| 01/03/2011 8:15:32 | 1 2 3 | UK | wfinch@gmail.com 432.12 |
| 01/03/2011 8:17:51 | 1 2 3 | FR | cbelz@gmail.com 1199.99 |
| 01/03/2011 8:24:32 | 1 2 3 | CA | vknot@hotmail.com 142.32 |
| 01/03/2011 8:25:04 | 1 2 3 | US | maurice@gmail.com 652.99 |
| 01/03/2011 8:29:17 | 1 2 3 | CA | charwin@aol.com 1241.9 |
| 01/03/2011 8:31:04 | 1 2 3 | UK | ruby@gmail.com 652.99 |
| 01/03/2011 8:32:46 | 1 2 3 | UK | robsmith@gmail.com 1241.94 |

Page 1 of 5 (100 items)

Show Server Results Distribution

Safari Web View [Session List: 1]

Search online store here. Search

Default welcome msg

Your Language: English

Net Trip: 0.025s Round Trip: 0.815s Response Size: 17,133b

Browser Version: Safari 4.0 Browser Platform: iOS4 Screen Di

Screen Action: Scroll Down

12:46 PM

Back Personal Info

Existing Profile New Profile

4 Travellers, One-way, Economy, Non-stop \$11,883.00

San Francisco (SFO) Wed, 18 Jan, 2012

New York (JFK)

Gender: Male

Id Type: Select

Redress Number*

Frequent Flyer Program

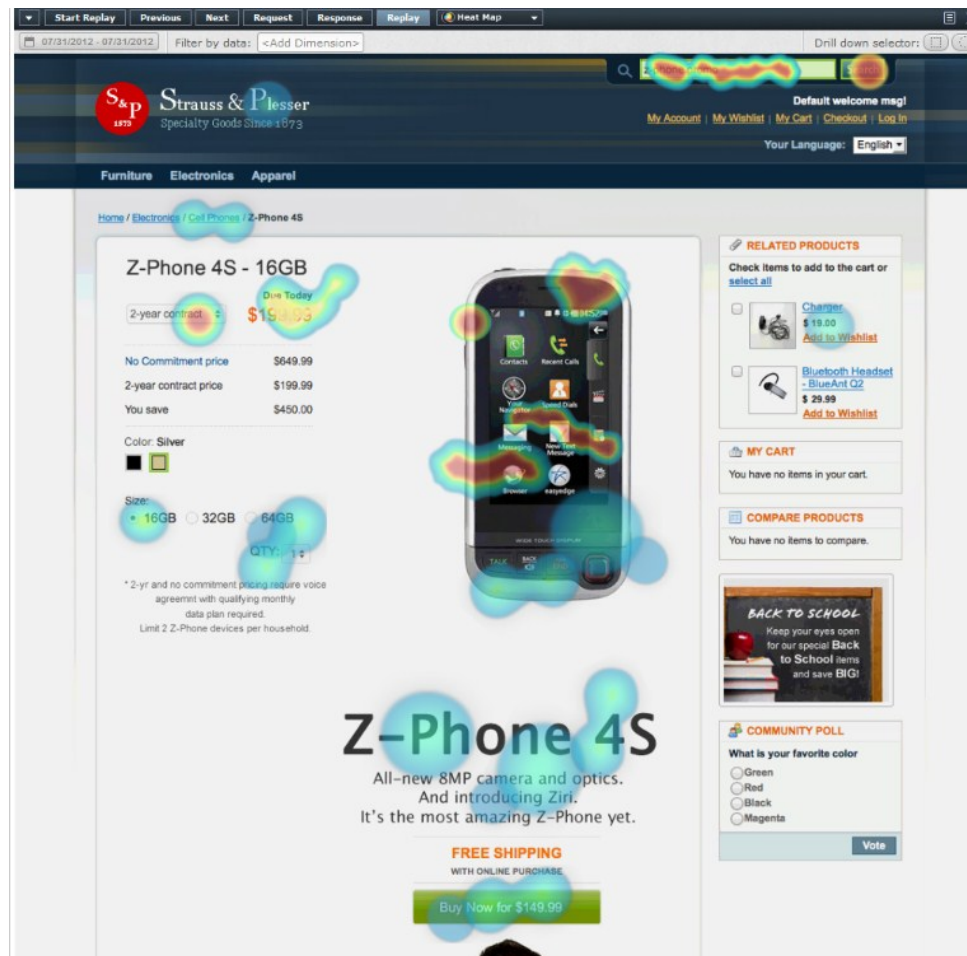
Account Number: 00201511042

Frequent Flyer Program: Golden Leaf

Home | Sign in | Legal information | Privacy Policy

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Where did users click/touch?



What could the users see?

The screenshot shows a web browser window displaying the product page for the Z-Phone 4S - 16GB on the Straus & Plesser website. The browser's address bar shows the date range 07/31/2012 - 07/31/2012 and a search filter for 'Appliances'. The website header includes the Straus & Plesser logo, navigation links for Furniture, Electronics, and Apparel, and a search bar. The main content area features the product name 'Z-Phone 4S - 16GB' with a 'Due Today' badge and a price of '\$199.99'. Below the price, it lists 'No Commitment price: \$649.99', '2-year contract price: \$199.99', and 'You save: \$450.00'. The color is 'Silver' and the size is '16GB'. A 'QTY: 12' is shown. To the right, there are sections for 'RELATED PRODUCTS' (Charger for \$19.00 and Budget Headset for \$29.99), 'MY CART' (empty), and 'COMPARE PRODUCTS' (empty). At the bottom, there is a 'BACK TO SCHOOL' promotion and a 'COMMUNITY POLL' asking 'What is your favorite color?' with options: Green, Red, Black, and Magenta. The page also features a 'FREE SHIPPING WITH ONLINE PURCHASE' banner.

Which links are being used (or not)?



Filling in forms, or giving up?

The screenshot shows a web form with a 'Field Completion Report' overlay. The report displays the following data:

| Field | Completion Rate |
|------------|-----------------|
| First_Name | 0% |
| Last_Name | 15% |
| Address | 45% |
| City | 61% |
| Zip | 62% |
| Telephone | 64% |

Summary statistics from the report:

- Form Abandonment: 64.29%
- Form Completion: 35.71%

The background form includes fields for Last Name (DAVIS), Address (555 Jackson St, Apt 206), City (MOUNTAIN VIEW), State (CA), Zip (94041), and Telephone (415-445-3423). A 'Continue' button is visible at the bottom right of the form.

NATIVE APPS

Tealeaf Frameworks for Native/Hybrid Apps



- Currently no support for Windows phone

Using the Framework in your Apps

- Include/import the Tealeaf Framework Libraries
- Include the configuration/properties
- Add/modify overrides as required (main(), onCreate(), etc)
- Create/modify sendAction() and sendEvent() methods
- Use AutoInstrumentation, or customise as needed

- Or if using Worklight...

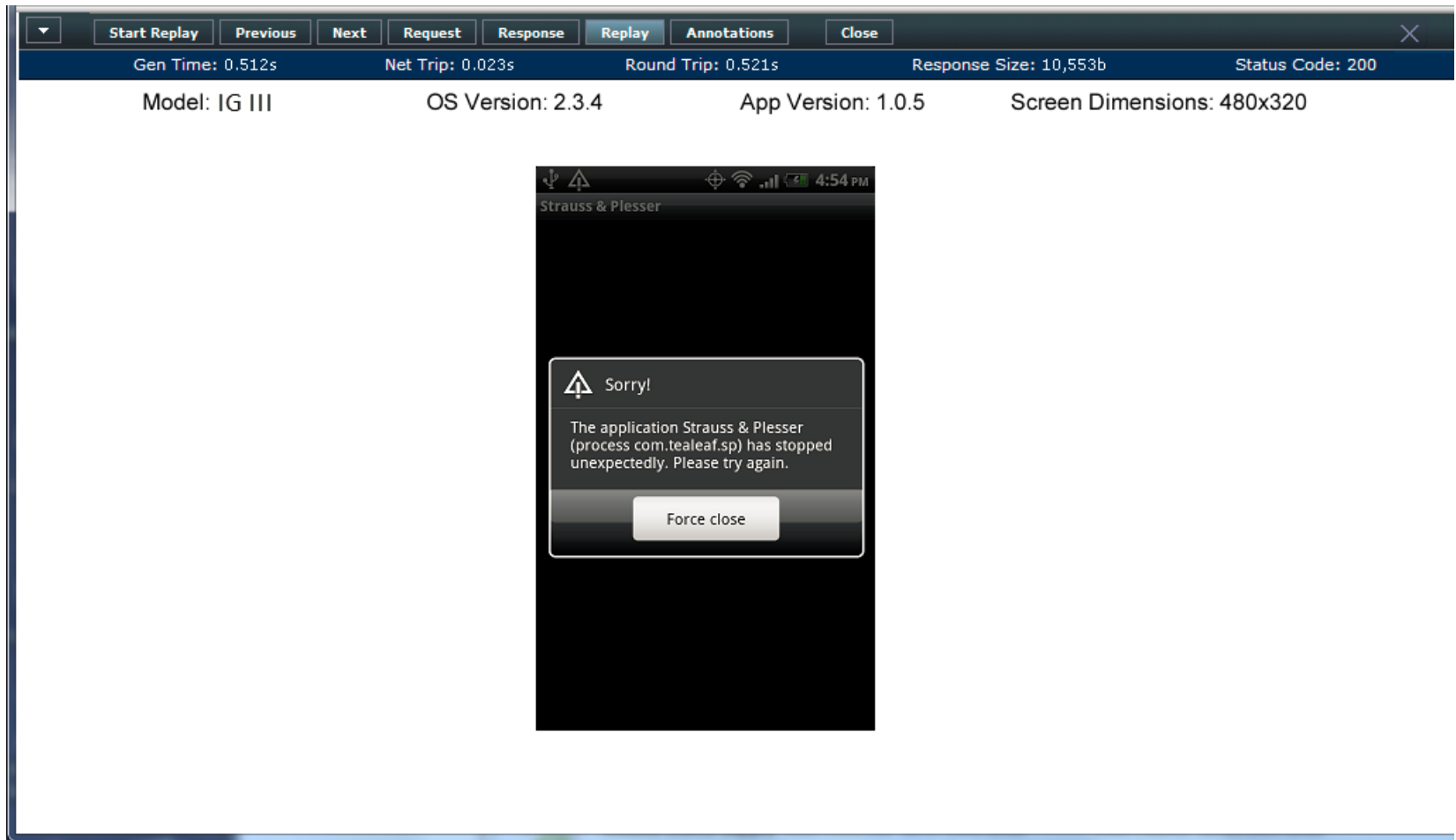
- Tealeaf Framework now integrated!

Reviewing Events from Native Apps

The screenshot shows the IBM Tealeaf CX interface in a Firefox browser window. The browser address bar shows the URL: localhost:55320/iRise/reader/render;jsessionid=C6799339231D92676166E2C869D2E871?dummy=0.37436. The page title is "Mobile_03202013". The interface includes a navigation bar with "Dashboards", "Active", "Search", "Analyze", "Configure", "Tealeaf", and "Admin" menus. A search bar for "Search Online Help" is also present. The main content area displays a table of event details for a session on 04/13/2013 at 8:01:32. The session is identified as "SX II" with a login ID of "roblastname@gmail.com", a total value of 2502.00, and a success status of "No". Below this, a list of events is shown, ordered by page number. The events include App Launch, Login Attempt, Login Failure, Flight Search, Select Flight, and Server Error, each with a corresponding value.

| Page | Event | Value |
|------|---------------|-----------------------|
| 1 | App Launch | v1 |
| 2 | Login Attempt | roblastname |
| 3 | Login Failure | n\a |
| 4 | Login Attempt | roblastname@gmail.com |
| 5 | Flight Search | Round Trip |
| 6 | Select Flight | 2502.00 |
| 7 | Server Error | n\a |

App Screenshots



DEMO

Questions



Thank You

2013





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