IBM Technical Summit 2013

Démarquez-vous

17 octobre | IBM Client Center Paris

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Analysez et optimisez l'expérience utilisateur mobile avec Tealeaf CX Mobile

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Agenda

- Tealeaf CX Mobile Overview
- Success Factors
- Case Studies
- Questions

Tealeaf CX Mobile

Tealeaf CX Mobile:
Discover what's working and what isn't – and WHY

Visibility into user success & failure

- Automatic detection of customer struggle, obstacles or issues
- Understand customer feedback for making improvements
- Visibility into your mobile usage across the user base, site and apps

Accelerate time-to-market

- Eliminate poor quality to deliver winning mobile services
- Identify cause without having to update or re-launch your services
- Rapidly evaluate mobile features – adoption, success & failure points

Make the right mobile investments

- Quantify business impact to prioritize decisions: fix, invest, remove
- See the actual usage of mobile services rather than the expected

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Obtain mobile ecosystem analysis and insight

Mobile Analytics "What is happening?"

- Quantitative
- Audience profiling
- Time-based reporting
- Mobile content measurement

Reporting

Mobile CEM "Why is it happening?"

- Qualitative
- User struggle detection
- Drill down on user behavior
- Correlate behavior with network data

Discovery

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Unprecedented Visibility into the Mobile Experience

See the complete mobile experience through the eyes of your customers

- Discover “why” customers succeed or fail
- Automatically detect customer struggles, obstacles or issues
- Drill down into actual user behavior, complete with gestures
- Translate customer feedback into actionable improvements
- Correlate customer behavior with network and application data

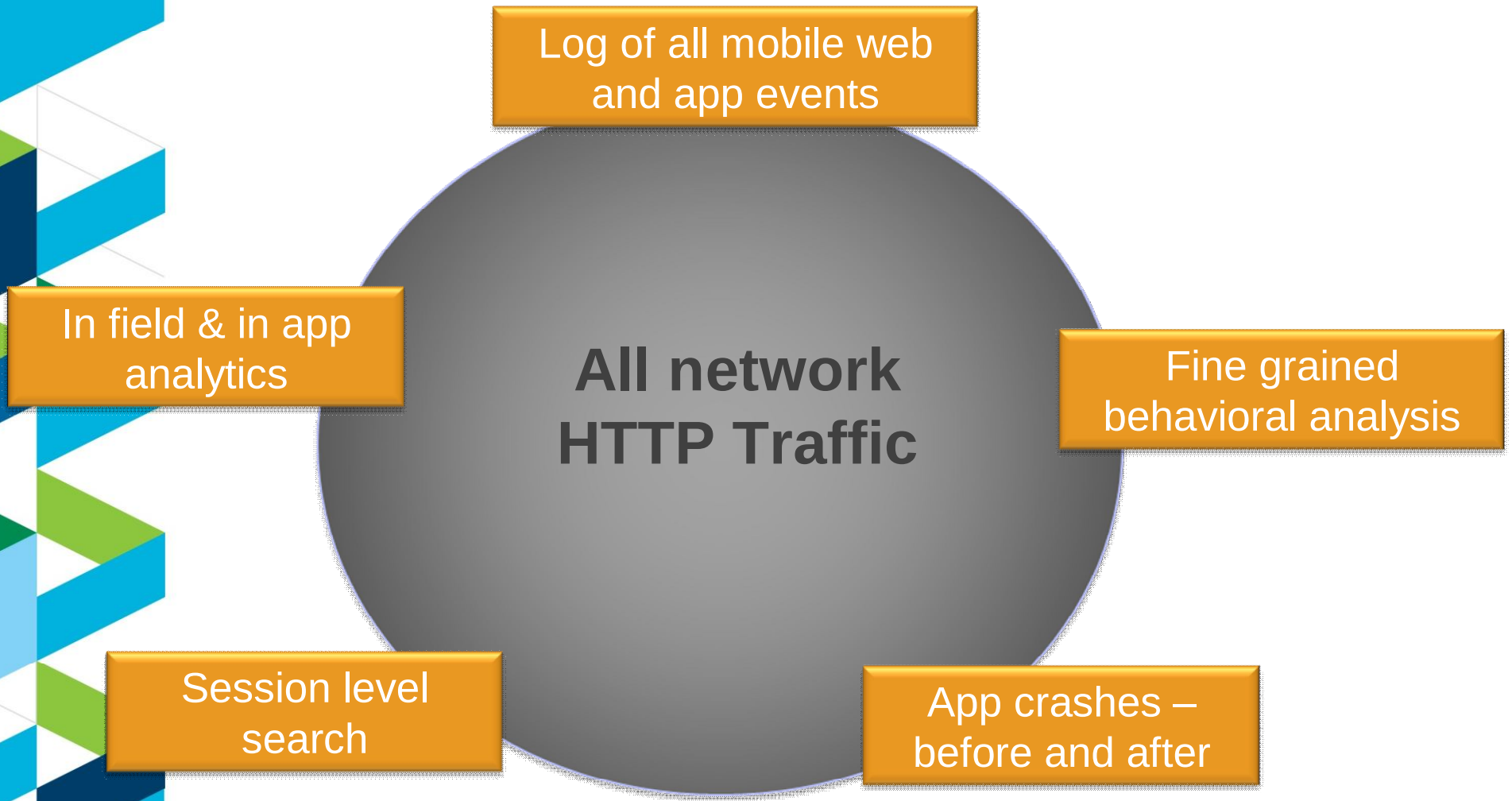
Native Apps

Mobile Site

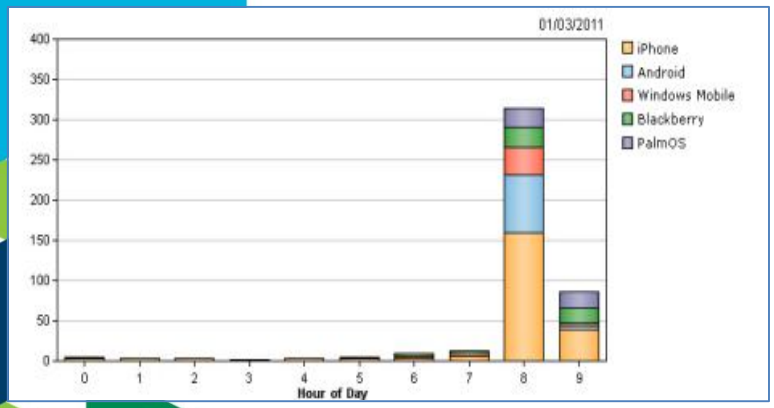
Hybrid Apps

HTML5

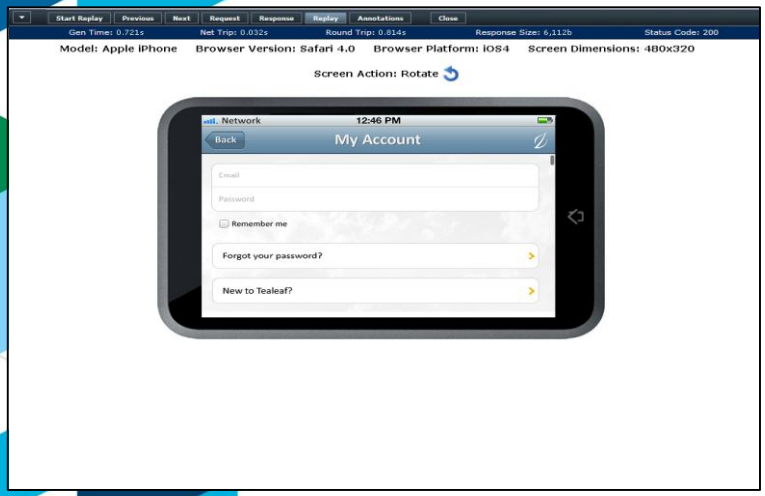
Tealeaf's unique capabilities



Tealeaf CX Mobile for mobile web



Impact Analysis Using Mobile Device Demographics



Orientation-Specific Enhanced Mobile Replay

- Intelligent Device Demographics
  - Optimized algorithm to derive device details from user agent string
  - Reliable method to power data for, troubleshooting, behavior analysis, development decisions
- Advanced In-Screen Visibility
  - SDK support for mobile-specific actions. E.g. Orientation, swipe
  - Powers rich replay and mobile experience behavior analysis
- Enhanced Mobile Browser Replay
  - Rendered using screen dimensions, device orientation, touch-screen actions
  - In-depth visibility to recreate problems and optimize mobile functionality

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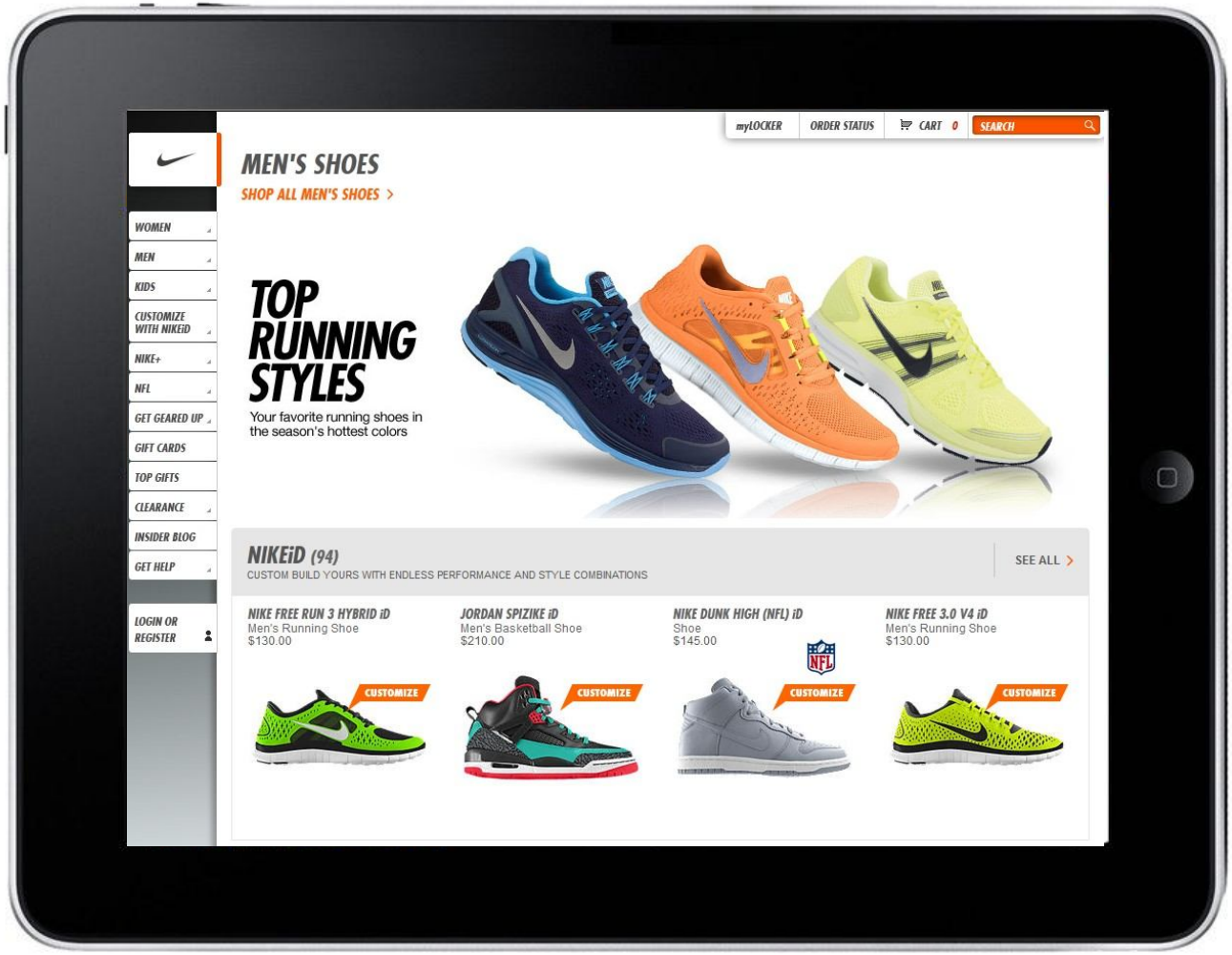
Gain insight into iPad/Tablet users

Tablet visitors are one of the fastest growing segments of users – Optimizing this channel for these users will be critical.



cxMobile provides:

- **Reports and Events for device-specific gestures**—Important for understanding struggle related to tablet interface

- **Replay in device skin and form factor** – Visually see site as customer sees it.

- **Advanced user-agent and device-specific metrics** – Better understand how different segments of customers are performing on your site

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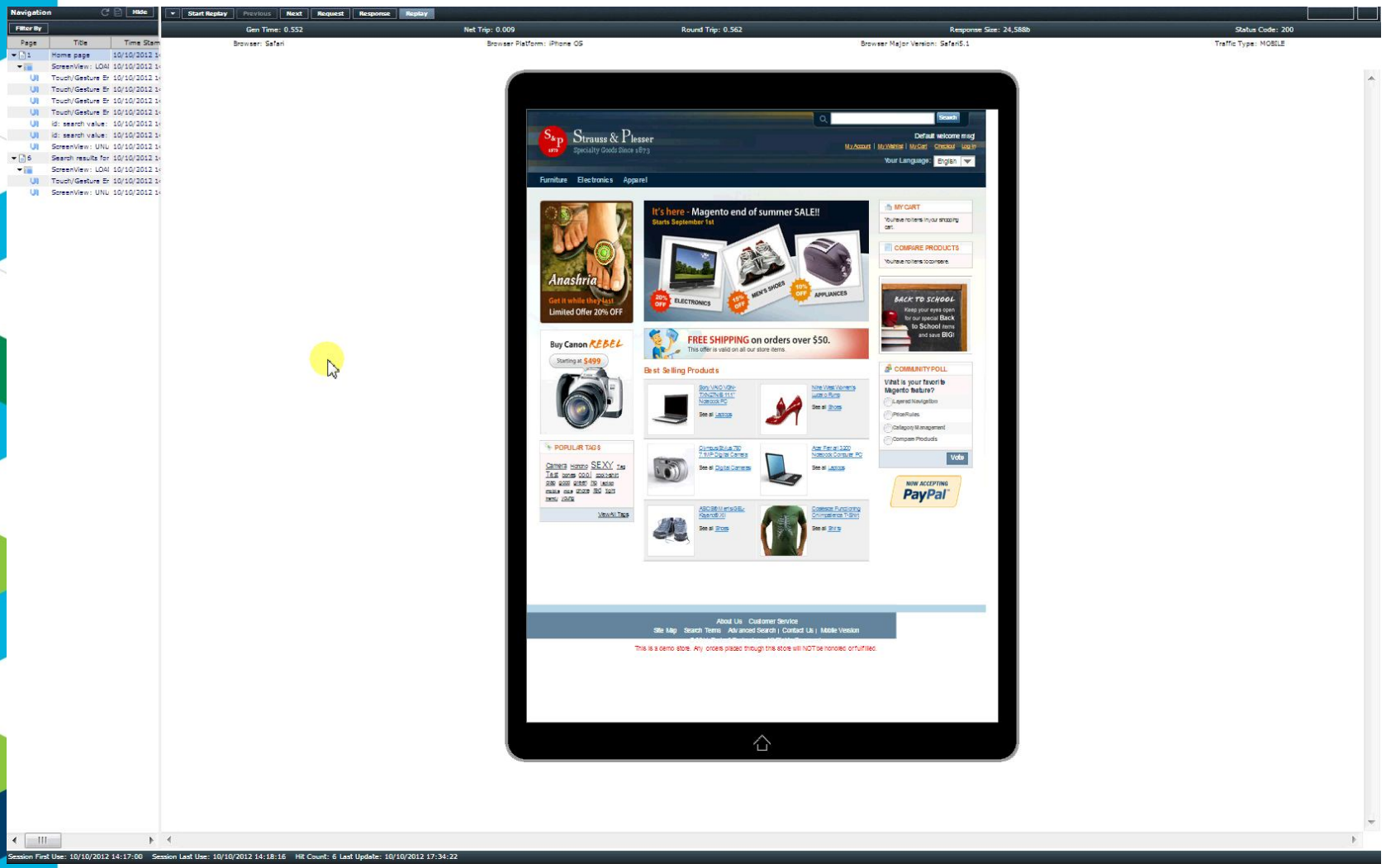
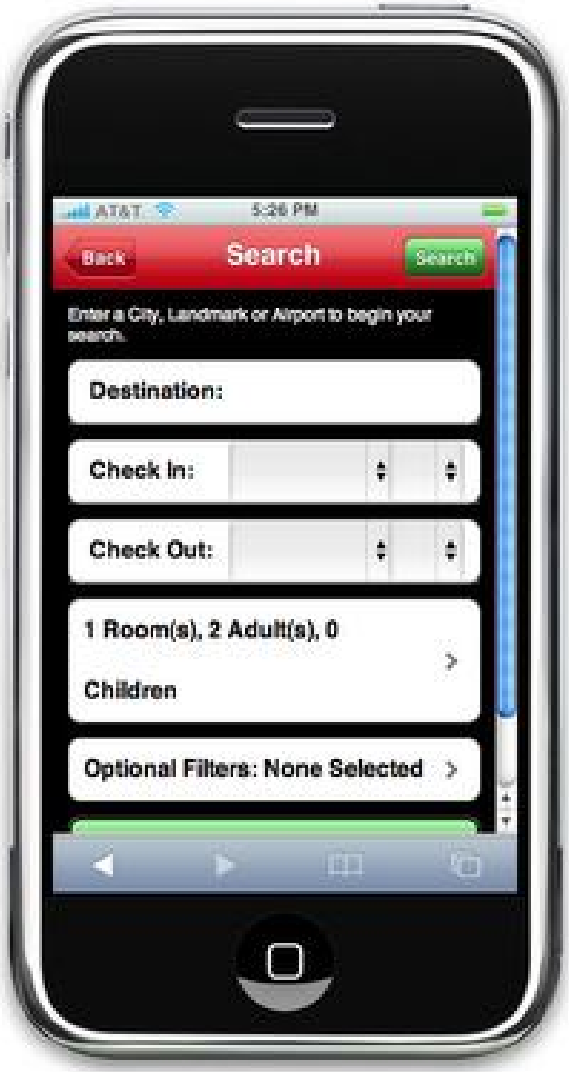
Mobile DOM Rendering

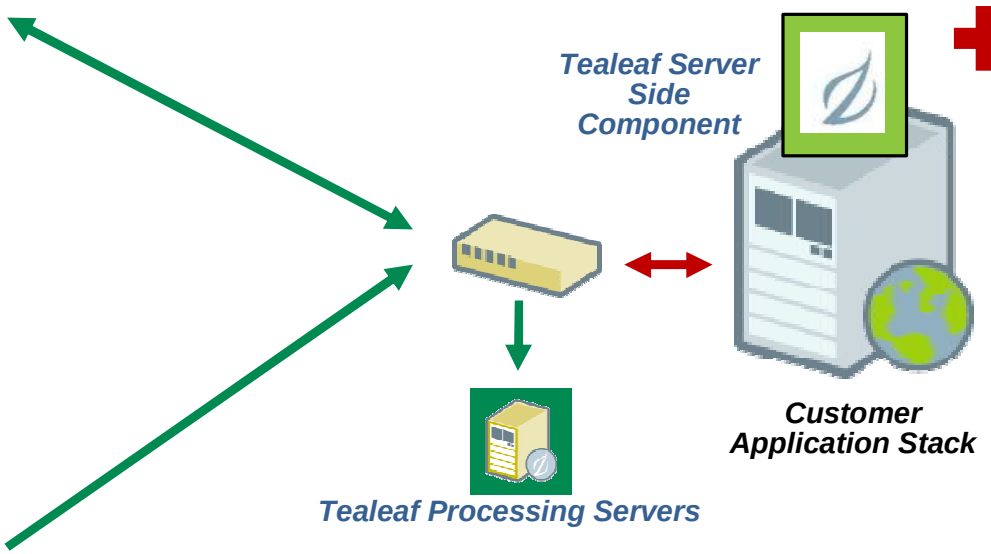


Tealeaf CX Mobile for native applications



Intelligent Logging Framework for iOS & Android

Intelligently record and transmit customer behavior activity, app health and environmental data



Active Server Agent

Dynamically instruct logging framework

Passive Network Capture

Passive HTTP(S) capture to unify logging framework and network data

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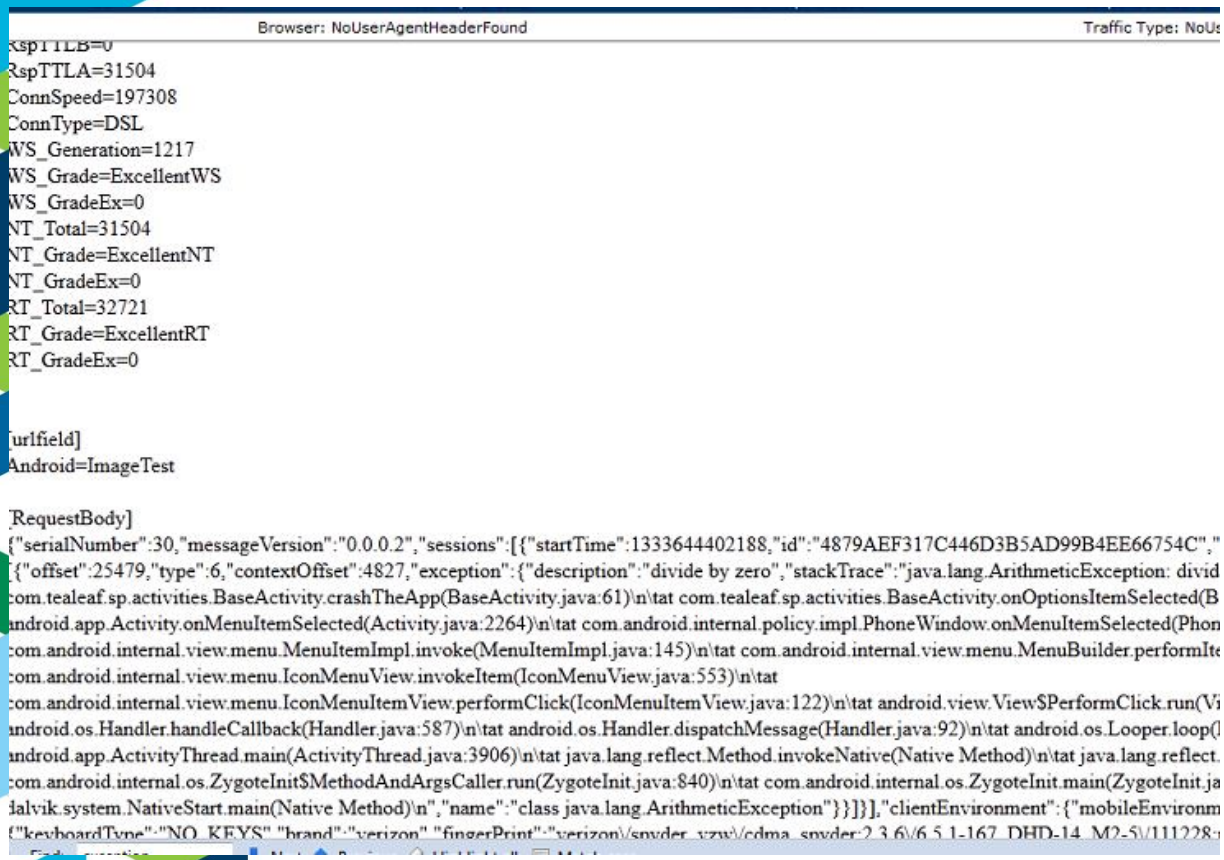
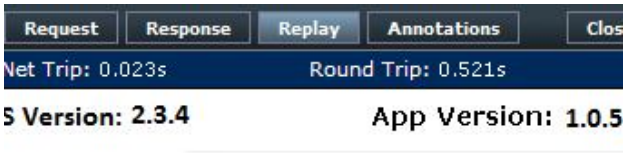
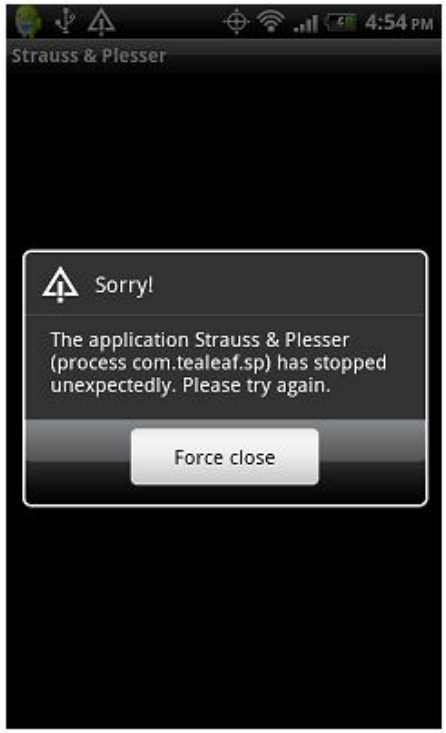
Logging framework and screen capture



Capture of stack trace for application exception





Screen capture to give developers context to when exception occurred

CX Mobile provides visibility and value

- User Behavior
  - Screens viewed, Referring screen
  - Text field, Text Field value
  - Touches, Motion
  - App launched, Entered background
- Environmental
  - App version, iOS/Android version,
  - Device Model
  - Device orientation, IP, Memory
  - Connectivity
  - Carrier, GPS
- Application Health
  - Exception, Crash
  - Server connection success / error

- **Detect customers struggling to change reservation or order**
- **Isolate by application version, by error, by input**
- **Quantify users impacted**
- **Analyze customer behavior – sequence of events, screen logs, server calls**
- **Search to find other impacted users**

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A low impact, high ROI solution

- **Tealeaf SDK**
  - Logging framework to communicate with Tealeaf servers
  - Sample application
  - Integration documentation
  - Total library size between 75 to 400KB (variable by amount of instrumentation)
- **Integration**
  - Low level of effort to add library → add log statement to your corresponding event handlers (manual process)
  - xCode (iOS) or Eclipse (Android) for auto instrumentation
- **Size of payload sent to server dependent on the amount of data collected**
  - Tealeaf uses gzip for data compression OTA (Over The Air)
- **Buffer**
  - Configure to keep it in memory or save to file
  - Buffer full – oldest data deleted first
- **Radio Intelligence**
  - Intelligence for radio usage and/or WiFi – log levels can be configured based on available network
  - Tealeaf sends at end of session or on timed intervals

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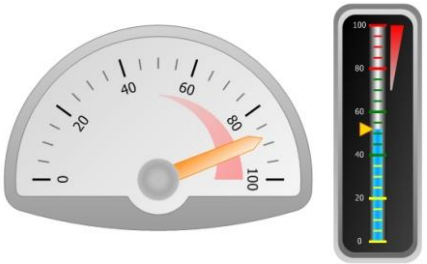
Mobile app development controls



- **Sampling**
  - Turn on logging for only a sample of users (e.g. start with 1%)
  - Controlled from the server at runtime (can change over time)
  - Enables controlled rollout of logging framework
- **Controlled instrumentation**
  - Separate levels of instrumentation for dev and production
  - Lighter weight logging for production
  - Can be customized for specific apps: control what to capture
- **Eventing and reporting**
  - JSON format and parser to simplify eventing off of data

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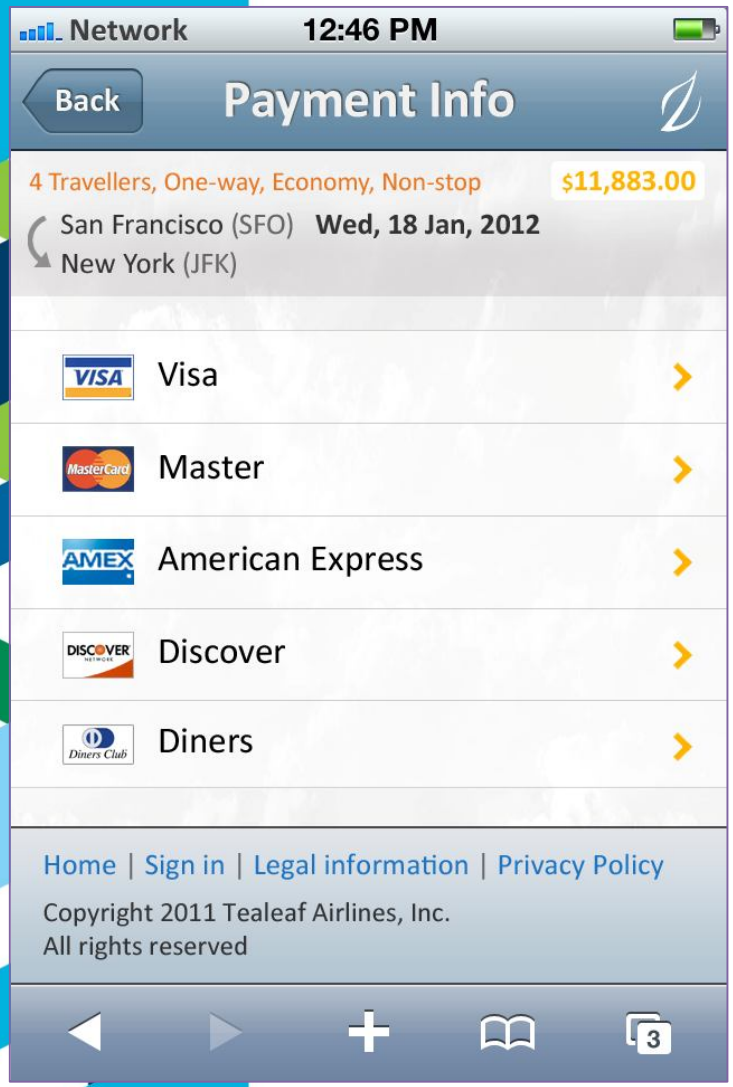
Tealeaf CX Mobile for Hybrid Apps



- Combines traffic from HTML and native portions of the app
- Complete view of all user actions regardless of where they occur
- Replay the HTML portions of user sessions
- Screen shots of native app portions of user sessions

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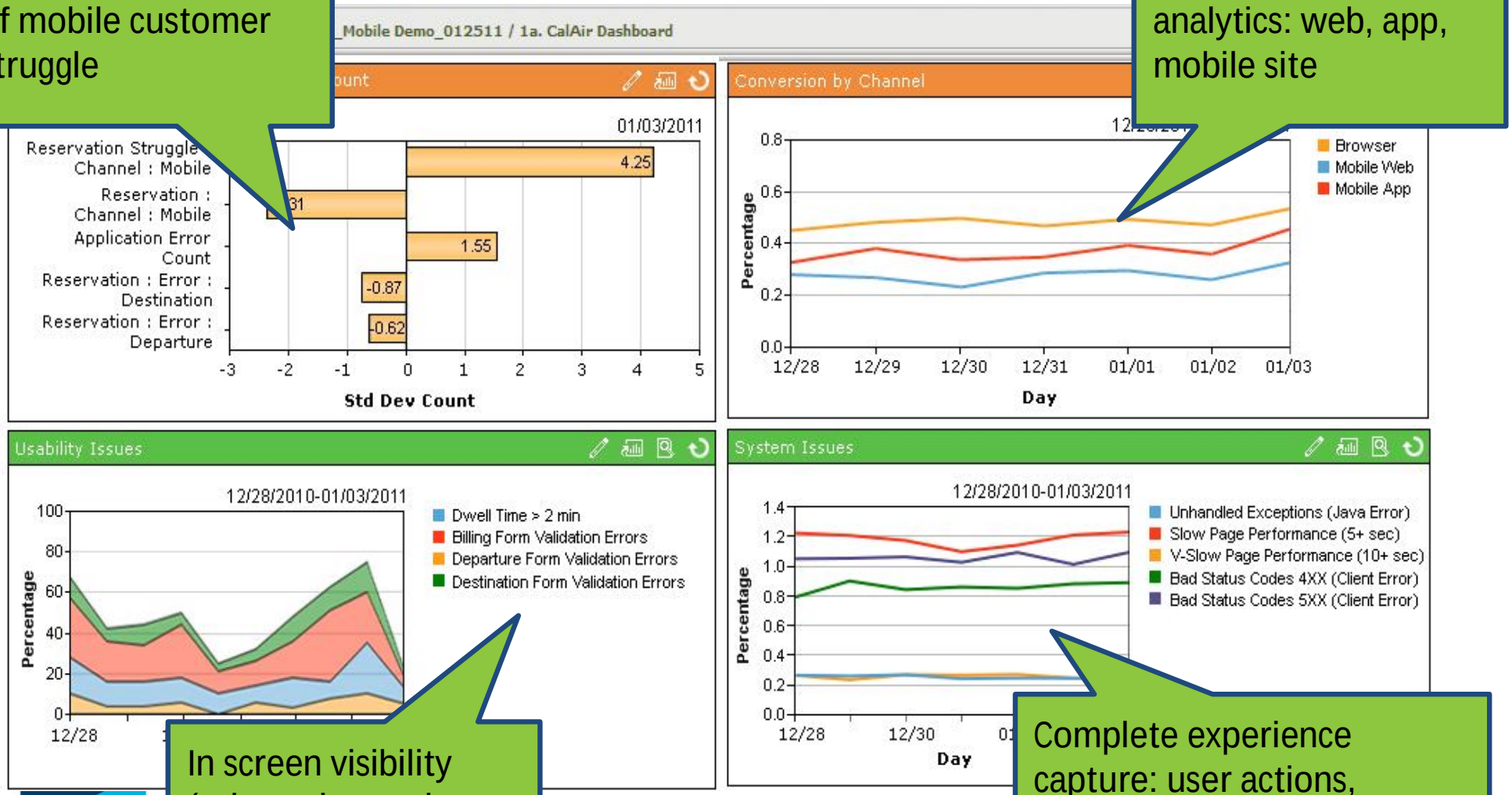
Success Factors

Mobile dashboard

Automatic detection of mobile customer struggle

Cross channel analytics: web, app, mobile site

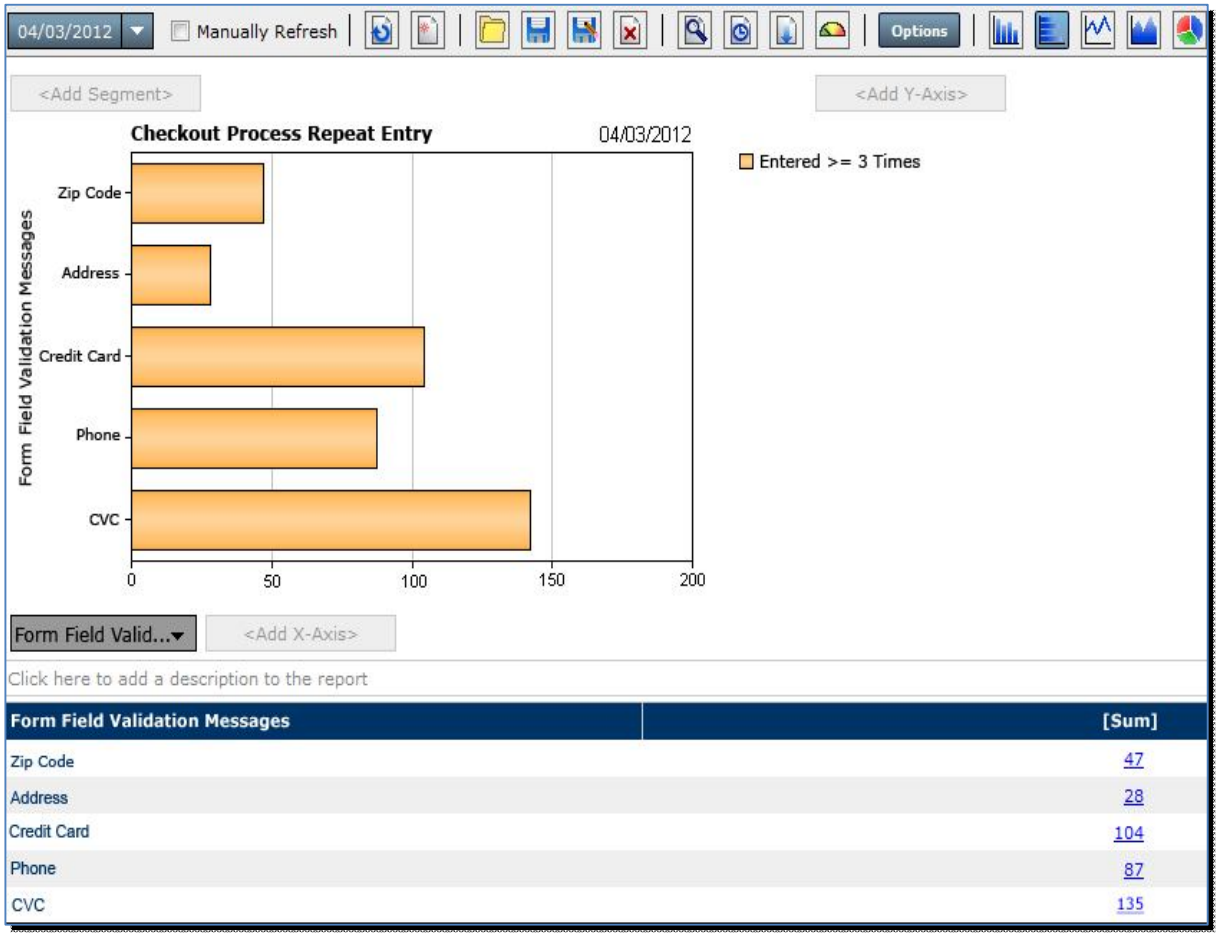


In screen visibility (orientation, swipe, form entry, clicks) to track usability issues

Complete experience capture: user actions, application, environmental and network data

Usability reports

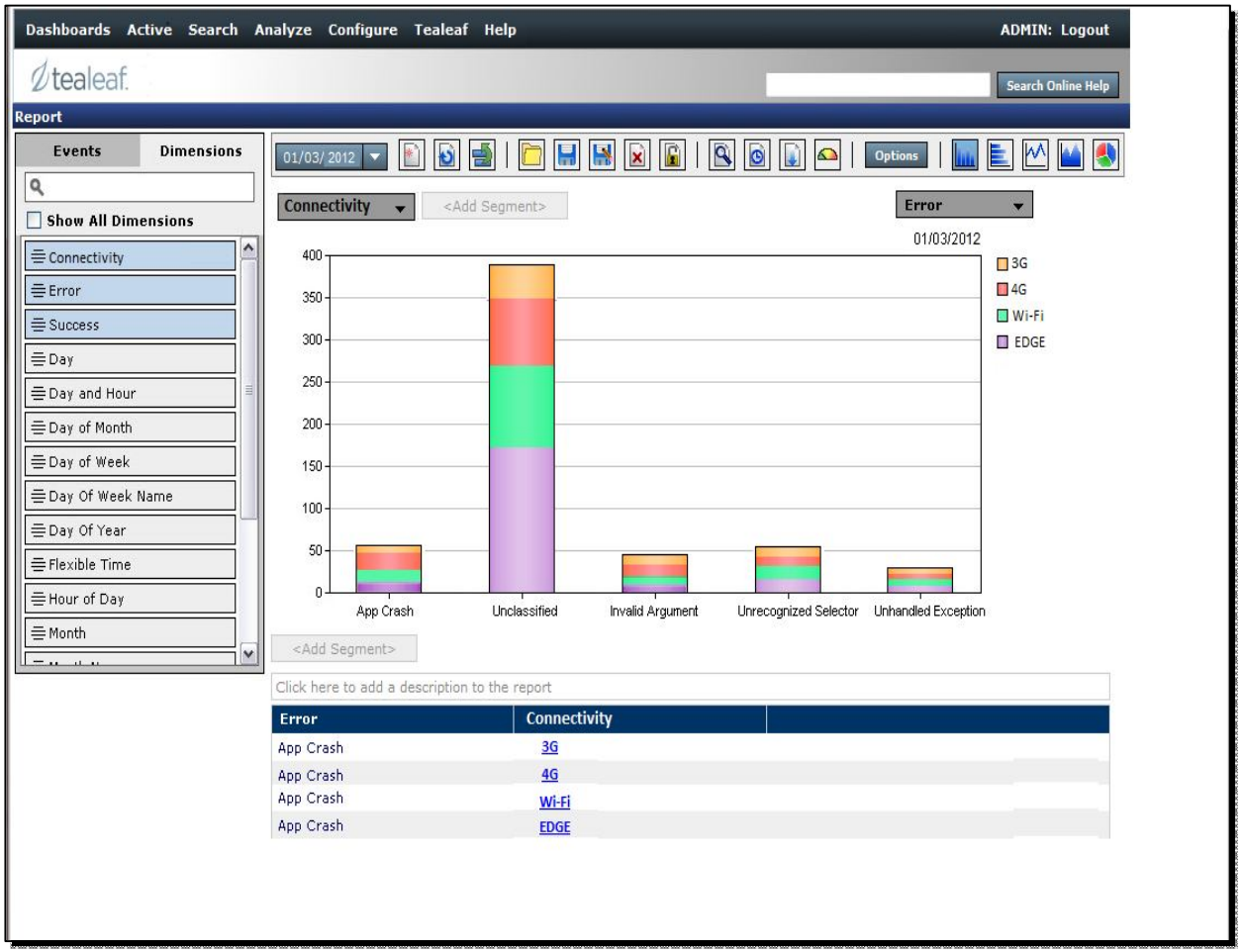
- Top fields with longest dwell time
- Top fields based on 1st or last entered per URL
- Client-side validation failures
- Avg time to fill out form
- Longest times to fill out a form
- Number of orientation changes
- Number of gestures (zooms in/out)
- Total screens viewed
- Top links based on average number of times clicked per session



Form Field Validation Messages	[Sum]
Zip Code	47
Address	28
Credit Card	104
Phone	87
CVC	135

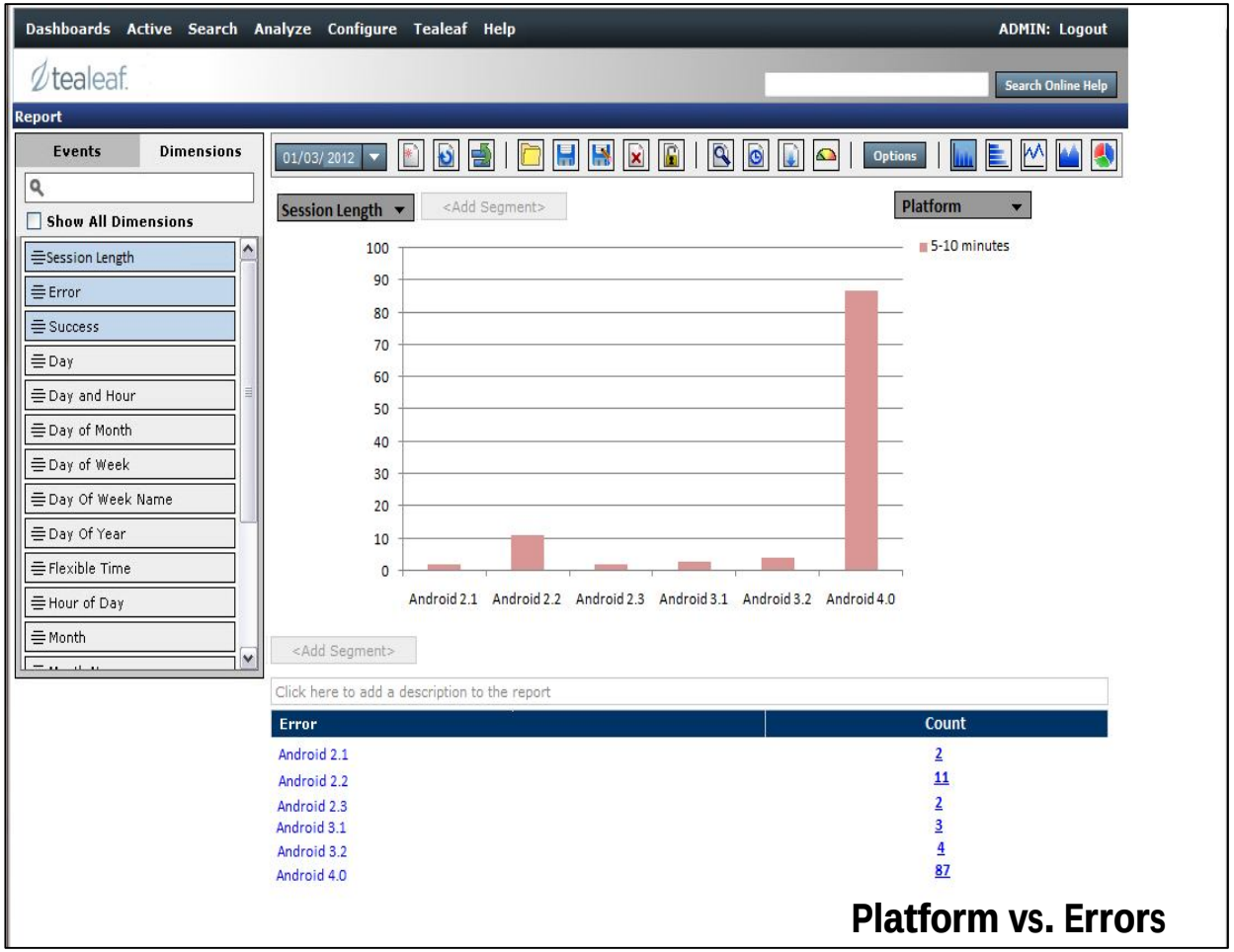
Performance reports

- Conversion Rates by API response. Errors by:
  - Connectivity
  - Session length
  - Battery state
- Avg. length of mobile web session (time)
- Number of lost connections per session
- Network time top pages



Business and application reports

- Application errors by:
- Mobile OS platform
- OS platform version
- Application version
- What were customers doing when application errors occurred?
- Conversion rate by:
- Mobile OS platform
- OS platform version
- Application version
- Struggle by:
- Mobile OS platform
- OS platform version
- Application version



Platform vs. Errors

Battery level vs. Errors

Case Studies

Zions Bank Case Study

- Challenge:
  - User experience on mobile devices is harder to ensure than on the Web - hard to match usability to consumer expectations.
  - Zions Bank is growing its mobile banking suite needs to respond quickly to ongoing user experience issues and navigation tendencies.
- How CX Mobile helped:
  - Zions is tracking mobile usage with Tealeaf to view users' preferences, such as screen orientation and scrolling; as well as isolate and quantify deeper issues.
  - The bank can then view a synopsis of the customer or customers' sessions to make changes on the fly through integration with its underlying mFoundry mobile banking engine.
- Benefits:
  - Able to replay user sessions and see what the user was looking at when they were using mobile banking
  - Capitalized on small window of opportunity to capture people on mobile and have right design.

Matthew Wilcox, Director of Interactive Design Services at Zions: "Customer experience is vital to growing our business and the mobile channel is particularly critical. With Tealeaf CX Mobile we're able to identify opportunities to make the experience better or solve problems we might not know existed."

Skybet Case Study

- Challenge:
  - 1/3 of all bets are placed through the mobile device.
  - Emerging channels like mobile are key to the company's future success and user experience on the mobile is a competitive differentiator
- How CX Mobile Helped:
  - Identified a time consuming and confusing process around conversion rates for ID recovery – a relatively common occurrence for people trying to login from a stadium to bet on a soccer match
  - Developed better understanding of the optimal customer path for betting from login to bet placement.
- Benefits:
  - Recovery of 400 customers a day that were being lost in poorly the User ID/PIN recovery system
  - Saw an overall jump in betting conversion based on optimized design path.

Steve Morrison, Tealeaf Manager at Skybet: "with Tealeaf we know how our customers are using mobile and thanks to Tealeaf we leave nothing to chance."

Questions?