

Mobile App Analytics

January 26th, 2016



Key to Winning in the Mobile App Economy

26 apps

On average, there's only 26 apps on any given smartphone phone

25%

If an app doesn't deliver, 25% of customers stop using it midway thru the transaction

3 sec's

In just 3 seconds 57% of your customers give up and moves elsewhere

End-user experience is the key!

*"Driven by the increasing significance of **mobile app** endpoints and dynamic Web technology, **end-user experience** monitoring is becoming **even more important** than it currently is **to enterprises**."*

– Gartner | October 2014

'Mobile First' Challenges: Answer Key Questions!

Visualize, Understand Impact and be Proactive

Who is using our apps?

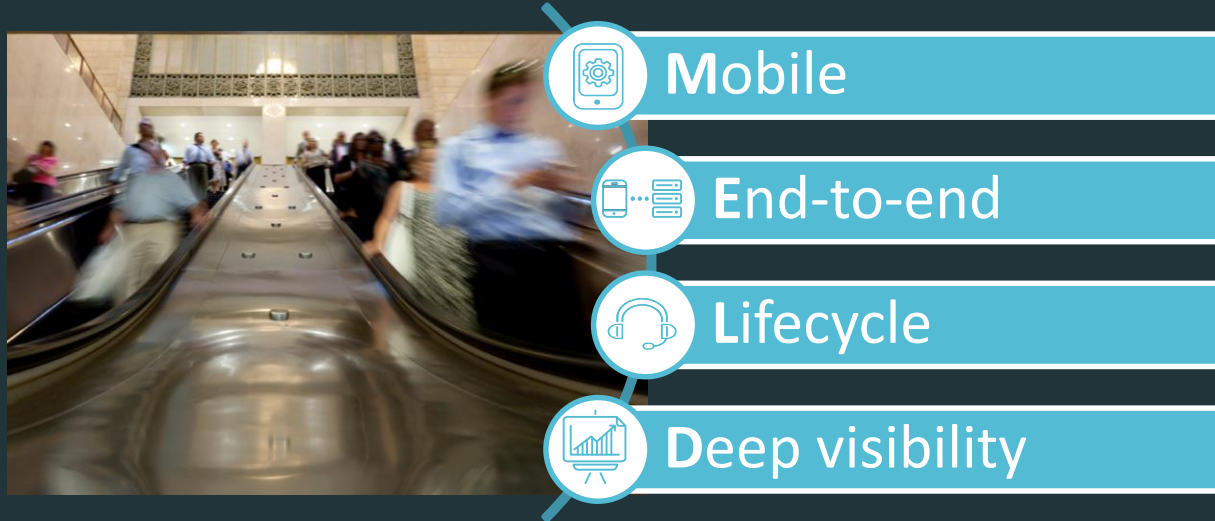
Where and **When** are they being used?

What are my users doing with our apps?

What is their experience like?

Can I **Help** users get more value?

CA Mobile App Analytics



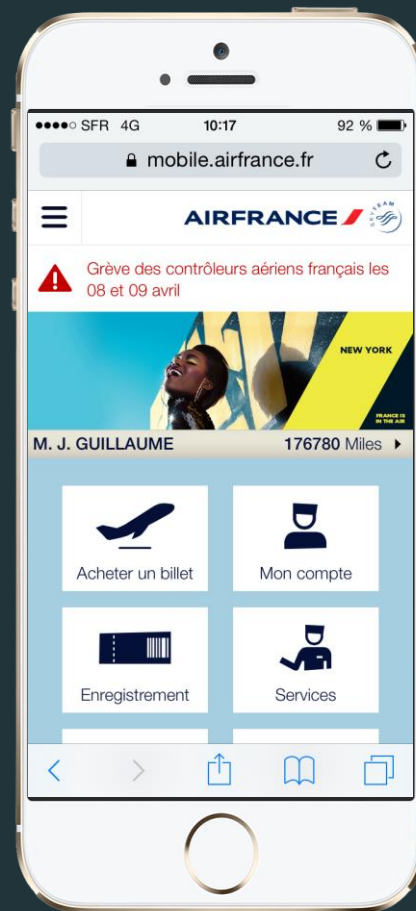
The M.E.L.D. Strategy for stellar End-User Experience

Application mobile versus Site Web mobile

- Mobile
- End-to-end
- Lifecycle
- Deep visibility



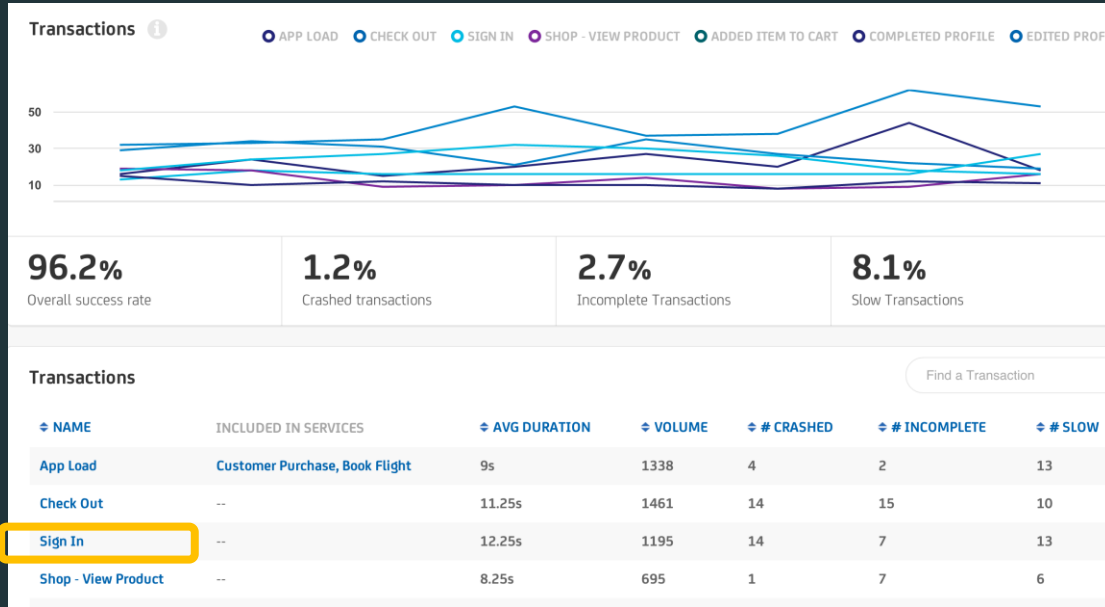
Mobile App
Analytics



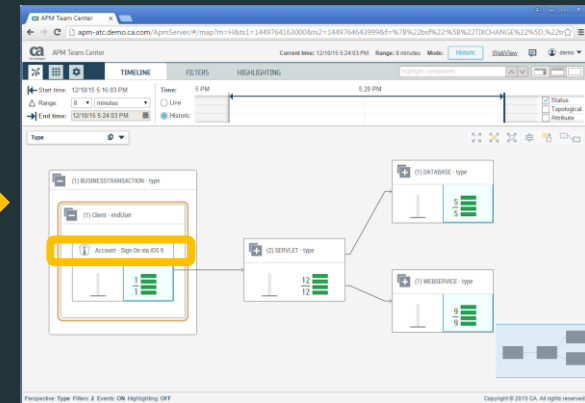
CA APM
CEM / Browser
Agent

End-to-End Transaction Visibility

CA MAA

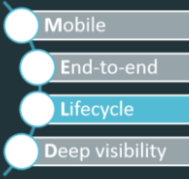


CA APM



End-to-end view of business transactions from mobile to mainframe

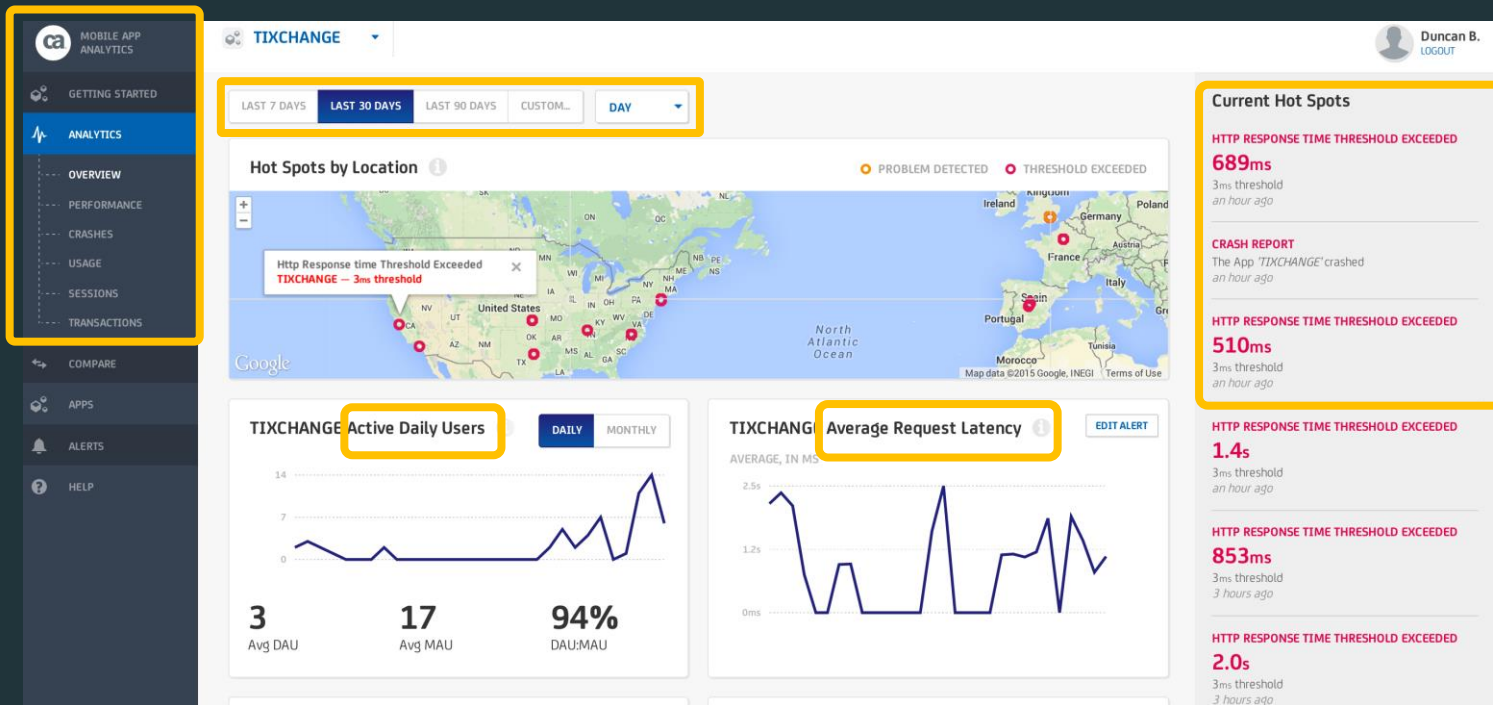
Analytics at Every Stage of Mobile App Lifecycle



Enabling 'CONTINUOUS DELIVERY' for your Mobile App Lifecycle

Deep Visibility into App Performance and Usage

- Mobile
- End-to-end
- Lifecycle
- Deep visibility



Deeper visibility = better app health & performance

CA MAA – Two Deployment Options



Cloud-based SaaS
offering



On-premise
behind the
corporate firewall

CA MAA Licensing - Two types of End Users

Consumer End-User

- File a claim
- Pay a bill
- Make a purchase

Business End-User

- Point of sale
- Service a customer
- Provision a new service

Be Up & Running with MAA

5 easy steps in 5 minutes!

1) SIGN UP

As a developer, go ahead and add an app after you signup

2) GET SDK

Add the lightweight CA MAA SDK for iOS and Android *(recommended)*

Or wrap your app with our Smart Containerization™ tool*

3) INITIALIZE

Follow steps you see on-screen to initialize

4) DEPLOY

Deploy the MAA integrated app to the field**

5) VOILA!

MAA will immediately start showing you insightful analytics

**App wrapper available only on Android*

***Presumes the iOS App Store approval*



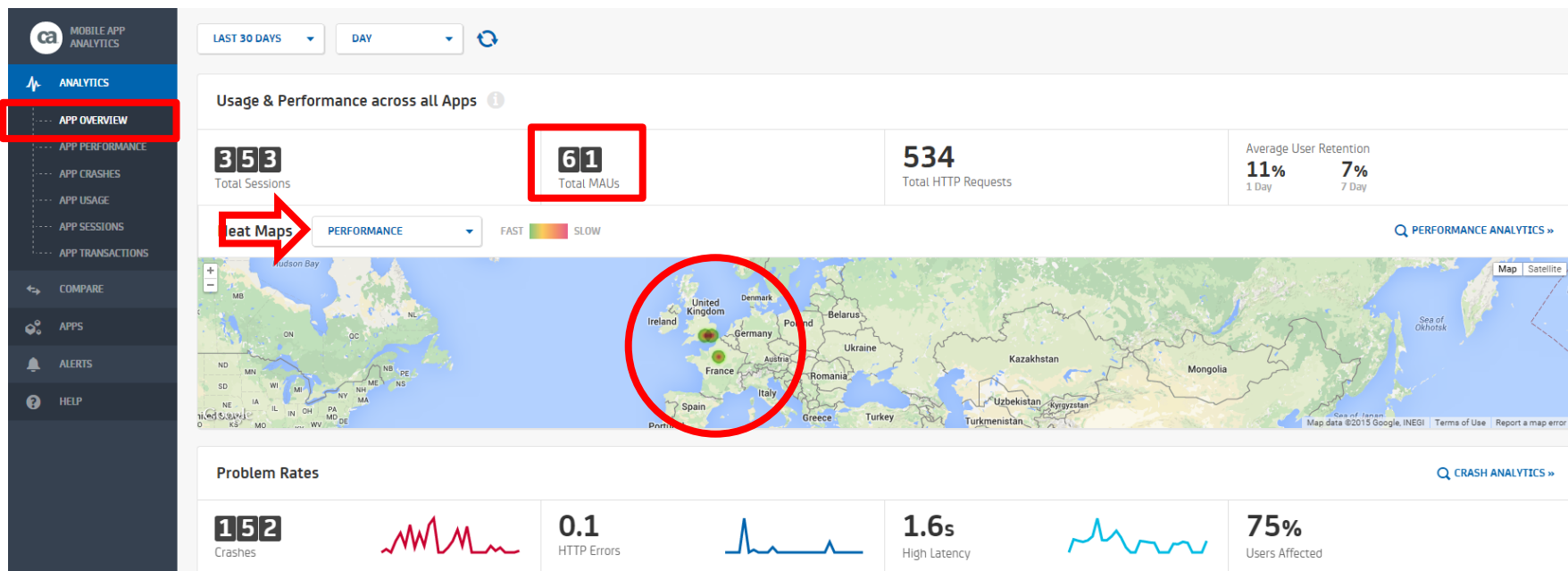
THIS IS THE AGE OF THE

APPLICATION ECONOMY

AND IT'S ALL ABOUT THE

USERS

CA Technologies propose une solution d'Analytiques pour mobile



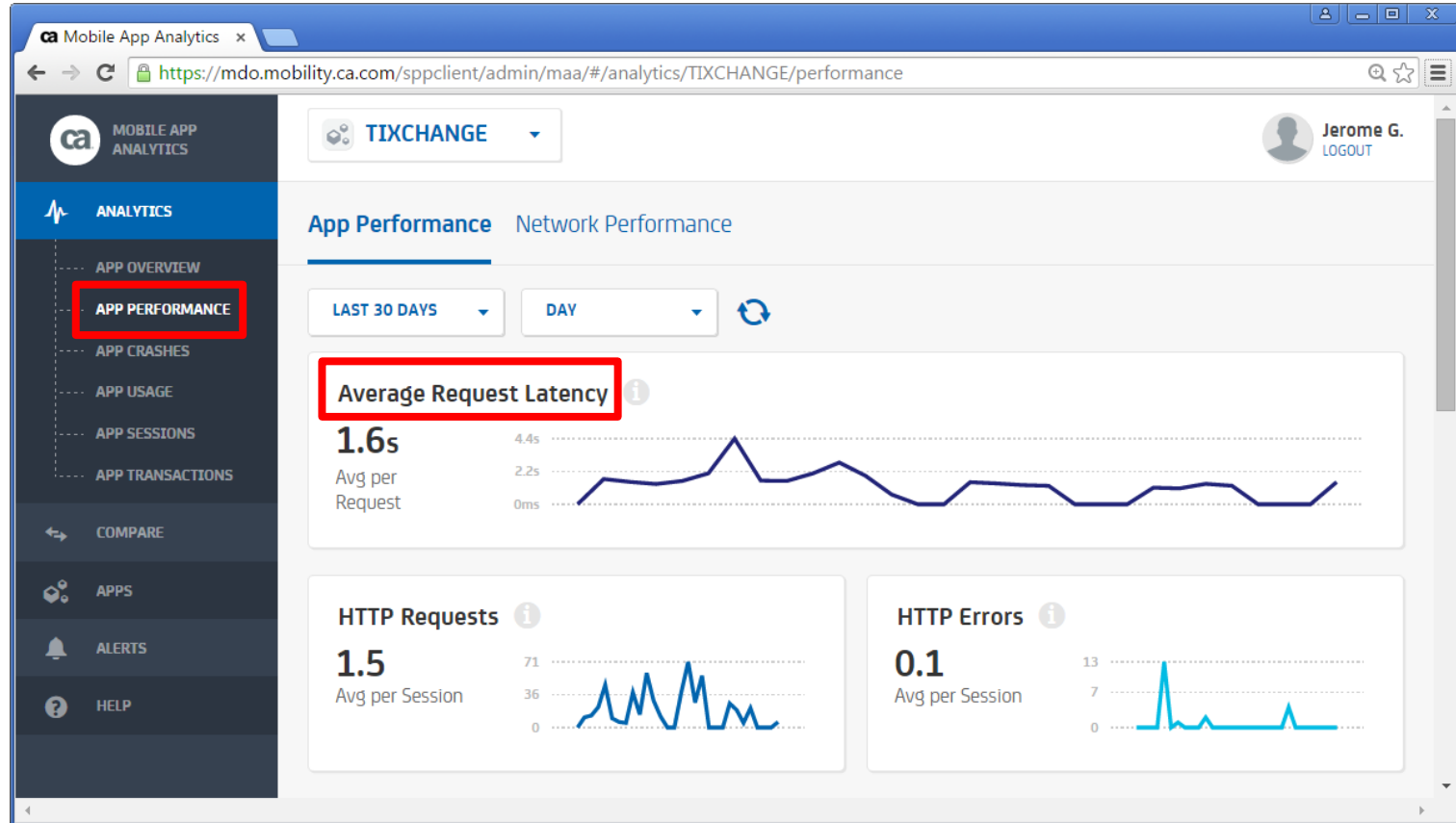
■ Quels sont les bénéfices ?

- Fournir des données visuelles avec une granularité géo (pays ou ville) pour analyser la performance, les problèmes et l'usage
- La représentation visuelle des données permet de détecter des modèles de dysfonctionnements

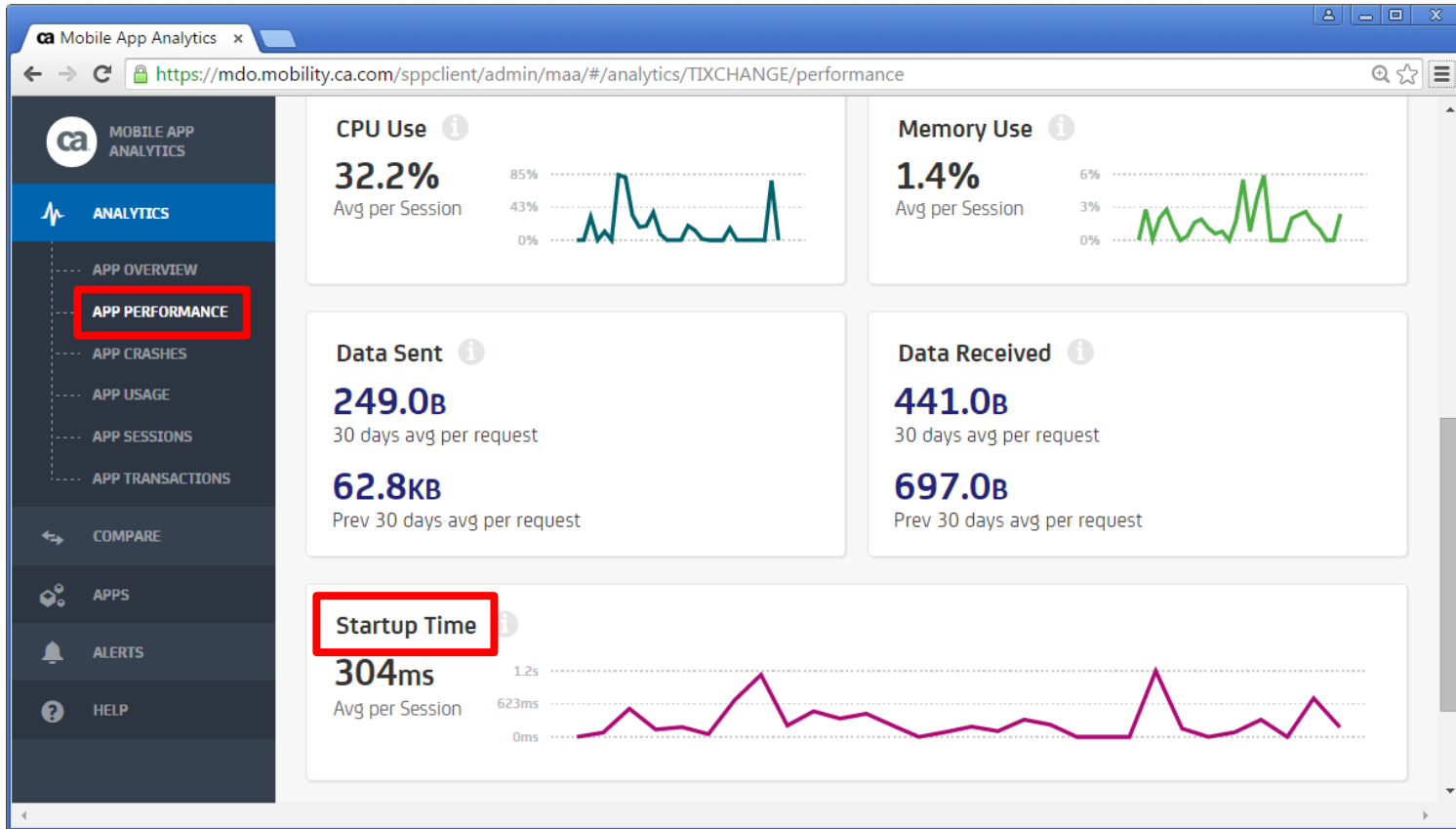
■ Pourquoi est-ce important ?

- Visualiser un point technique dans une zone géographique particulière
- Le propriétaire de l'application utilise ces données pour dérouler une campagne dans cette zone

Métriques de performances des applications



Métriques de performances des applications



Métriques de performances des applications

Mobile App Analytics x APM WebView

https://mdo.mobility.ca.com/sppclient/admin/maa/#/analytics/TIXCHANGE/performance

App Performance **Network Performance**

LAST 30 DAYS DAY

URL Ranking

REQUESTS

- http://tixchange.demo.ca.com:80/jtixchange_web/shop/view 232
- http://tixchange.demo.ca.com:80/jtixchange_web/shop/ad... 161
- http://tixchange.demo.ca.com:80/jtixchange_web/shop/sl... 103
- http://192.168.157.167:7080/jtixchange_web/shop/viewP... 12

Problematic URLs

FAILURE

- http://tixchange.demo.ca.com:8080/jtixchange_web/shop/sl 100%
- http://camaa151:80/jtixchange_web/shop/viewProduct.shtml 100%
- http://tixchange.demo.ca.com:80/jtixchange_web/shop/view 100%
- http://192.168.157.167:7070/jtixchange_web/shop/viewPro 100%

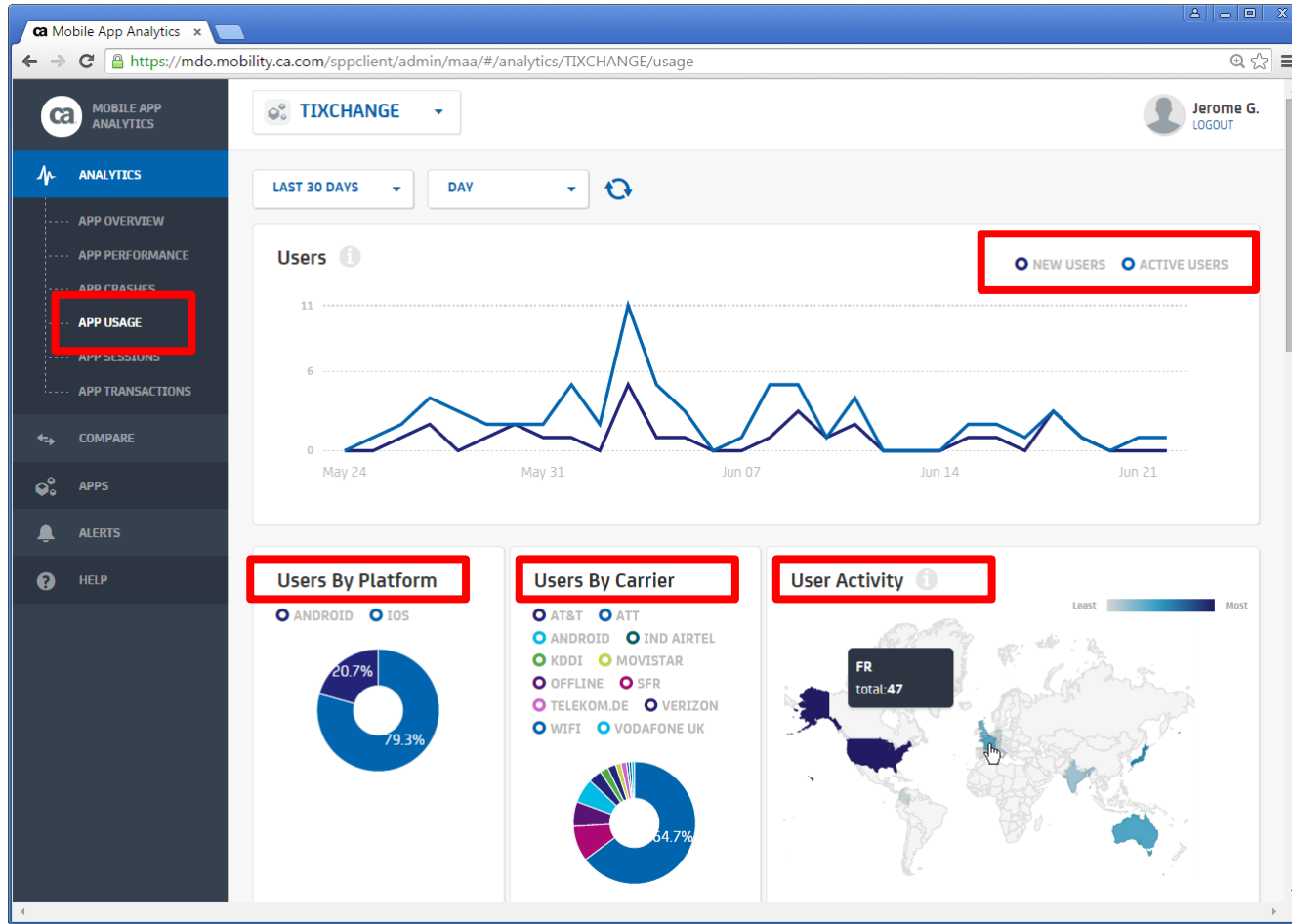
Network Performance

URL CONTAINS Search term

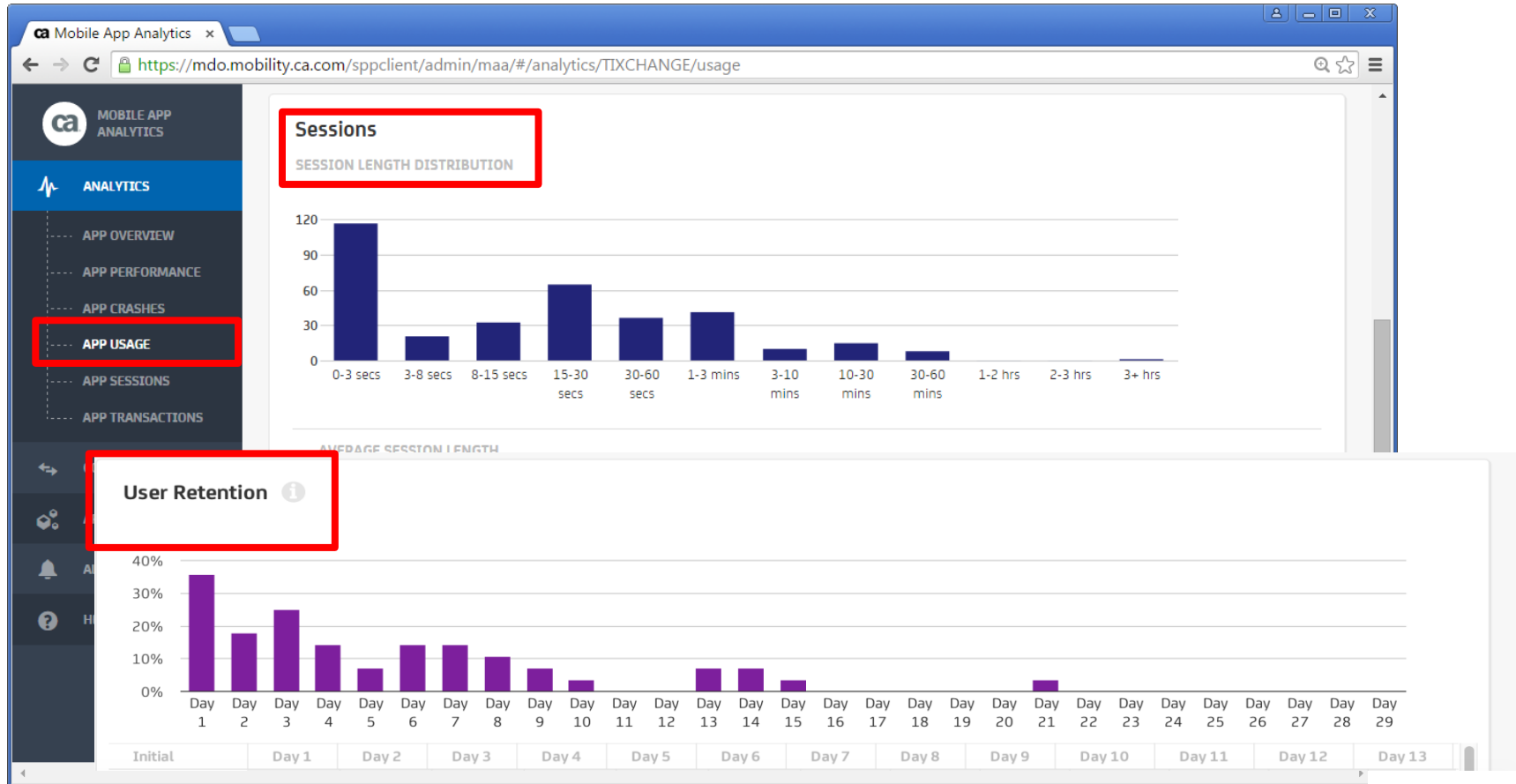
+ SEARCH BY ERROR CODE

URL	REQUESTS	FAILURE	AVG LATENCY	AVG DATA IN / OUT
tixchange.demo.ca.com:80 /jtixchange_web/shop/viewProduct.shtml	232	0.9%	2.8s	690.0B / 558.0B
tixchange.demo.ca.com:80 /jtixchange_web/shop/signon.shtml	103	1%	830ms	220.0B / 0bytes
tixchange.demo.ca.com:80 /jtixchange_web/shop/addItemToCart.shtml?sessionId=0147E4F2094...	161	0%	654ms	269.0B / 0bytes
10.129.138.138:7080 /jtixchange_web/shop/viewProduct.shtml	4	0%	645ms	294.0B / 0bytes

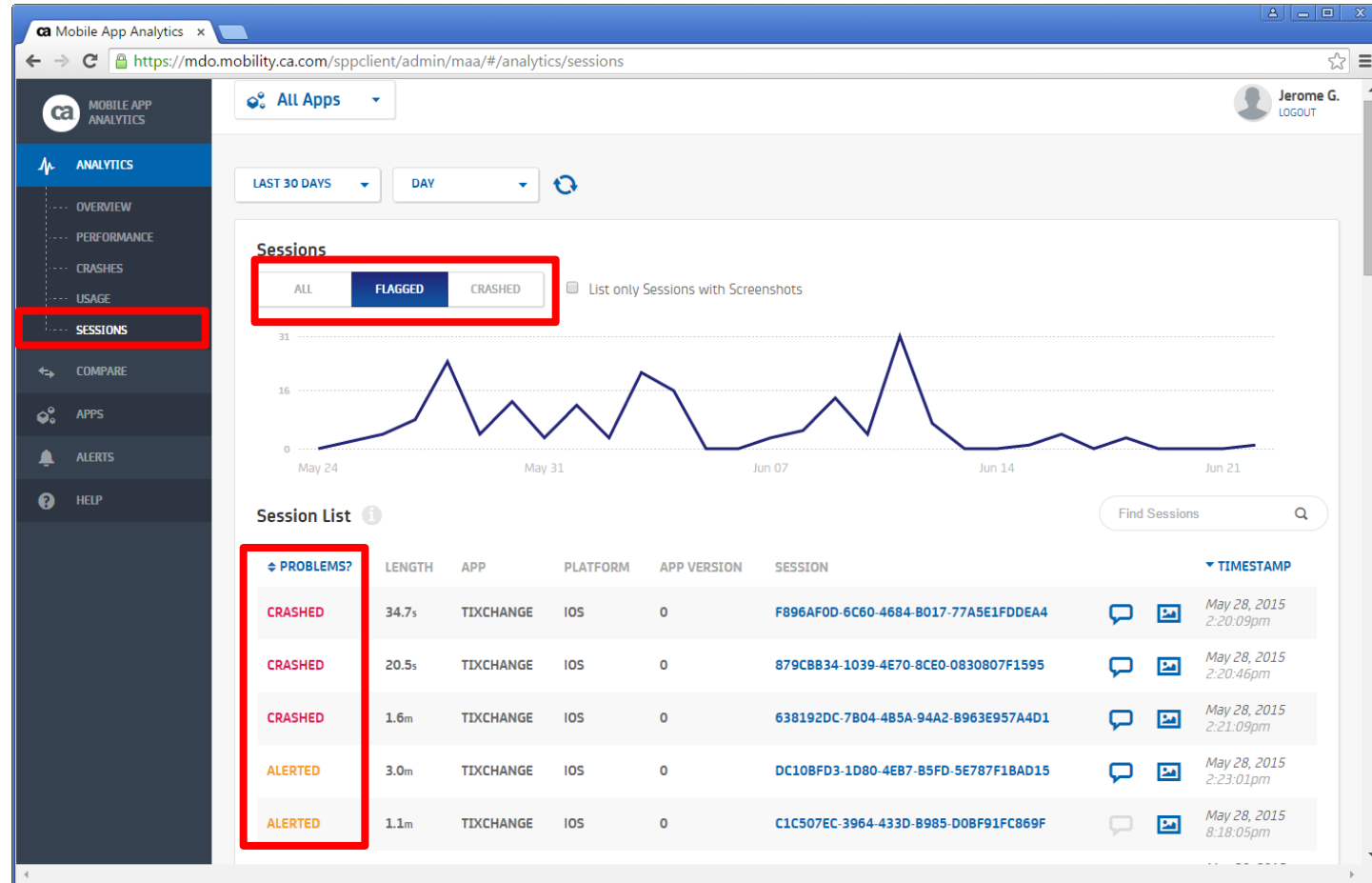
Métriques d'utilisation des Applications



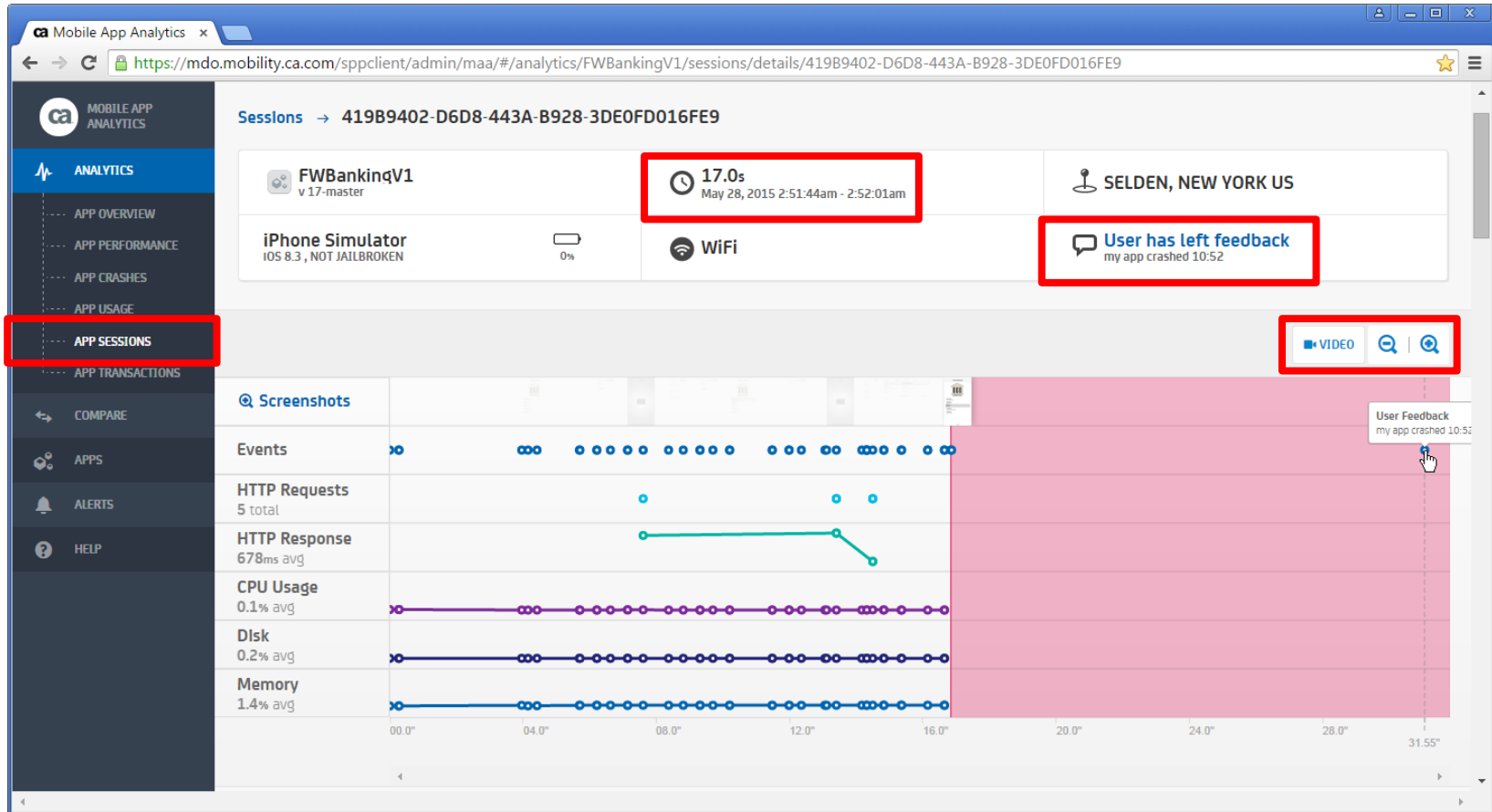
Métriques d'utilisation des Applications



Analyse des sessions Utilisateurs



Analyse détaillée d'une session Utilisateur



Analyse détaillée d'une session Utilisateur

The screenshot displays the Mobile App Analytics interface for a session ID 419B9402-D6D8-443A-B928-3DE0FD016FE9. The sidebar on the left contains navigation options: ANALYTICS, APP OVERVIEW, APP PERFORMANCE, APP CRASHES, APP USAGE, APP SESSIONS (highlighted with a red box), APP TRANSACTIONS, COMPARE, APPS, ALERTS, and HELP. The main table lists various events, with a red box highlighting a specific 'View Did Appear' event for the 'Accounts' transaction. The right-hand panel provides detailed information about the selected event, including resource usage (Memory, CPU, Disk) and a preview of the app's UI.

Event Type	Event Name	View Name	MEM	CPU	DISK	Duration
VIEW_TOUCH_EVENTS	Touch Ended	UITableViewLabel:Accounts	MEM	CPU	DISK	5.8s
TXN_EVENTS	Transaction Start	Accounts	MEM	CPU	DISK	5.9s
VIEW_EVENTS	View Did Disappear	Forward_Bank.HomeView	MEM	CPU	DISK	6.4s
VIEW_EVENTS	View Did Appear	Forward_Bank.ProductsVi	MEM	CPU	DISK	6.4s
VIEW_TOUCH_EVENTS	Touch Ended	Touch at x:121.5 y:89	MEM	CPU	DISK	6.8s
VIEW_EVENTS	View Did Disappear	Forward_Bank.ProductsVi	MEM	CPU	DISK	7.3s
VIEW_EVENTS	View Did Appear	Forward_Bank.ProductDei	MEM	CPU	DISK	7.3s
TXN_EVENTS	Transaction End	Accounts	MEM	CPU	DISK	7.7s
NETWORK	Http://192.168.253.176:7	Web/shop/viewproduct.sr	MEM	CPU	DISK	968ms
VIEW_EVENTS	View Did Appear	MMPProgressHUDViewCon	MEM	CPU	DISK	7.7s
VIEW_EVENTS	View Did Appear	MMPProgressHUDViewCon	MEM	CPU	DISK	8.5s

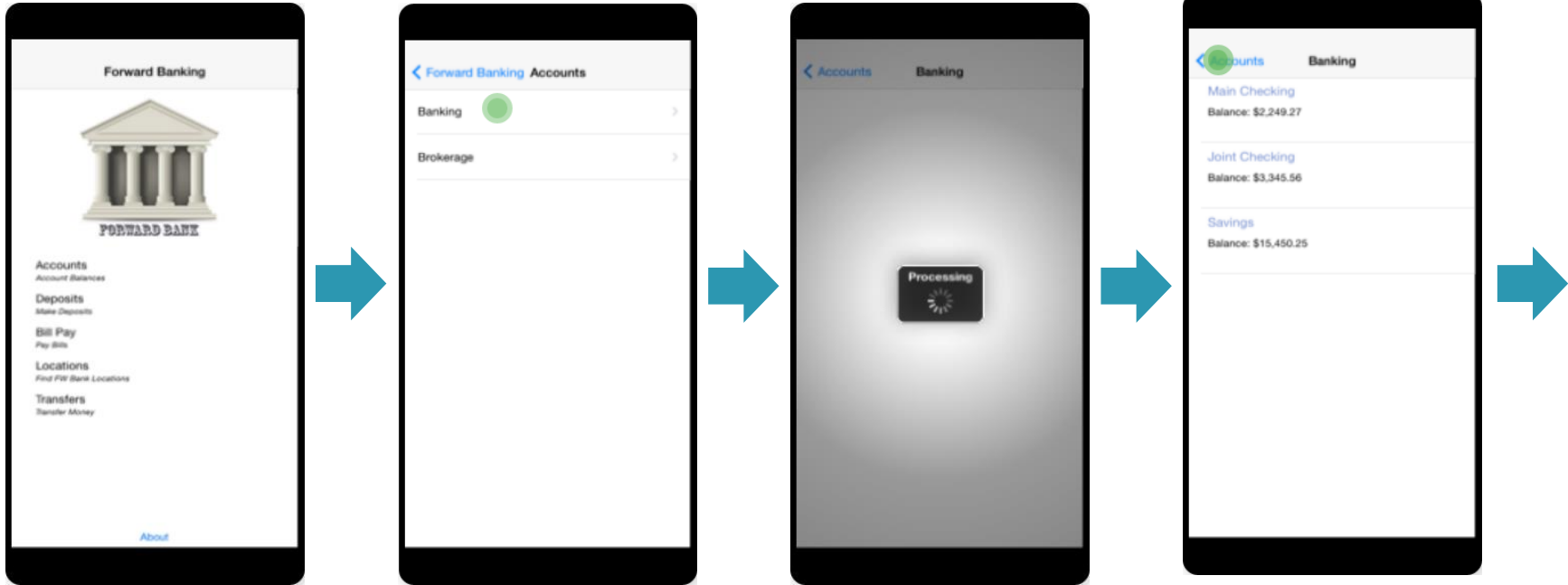
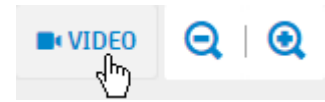
View Did Appear

MEMORY USE: 1.5% CPU USE: 0.1% DISK USE: 0.2%

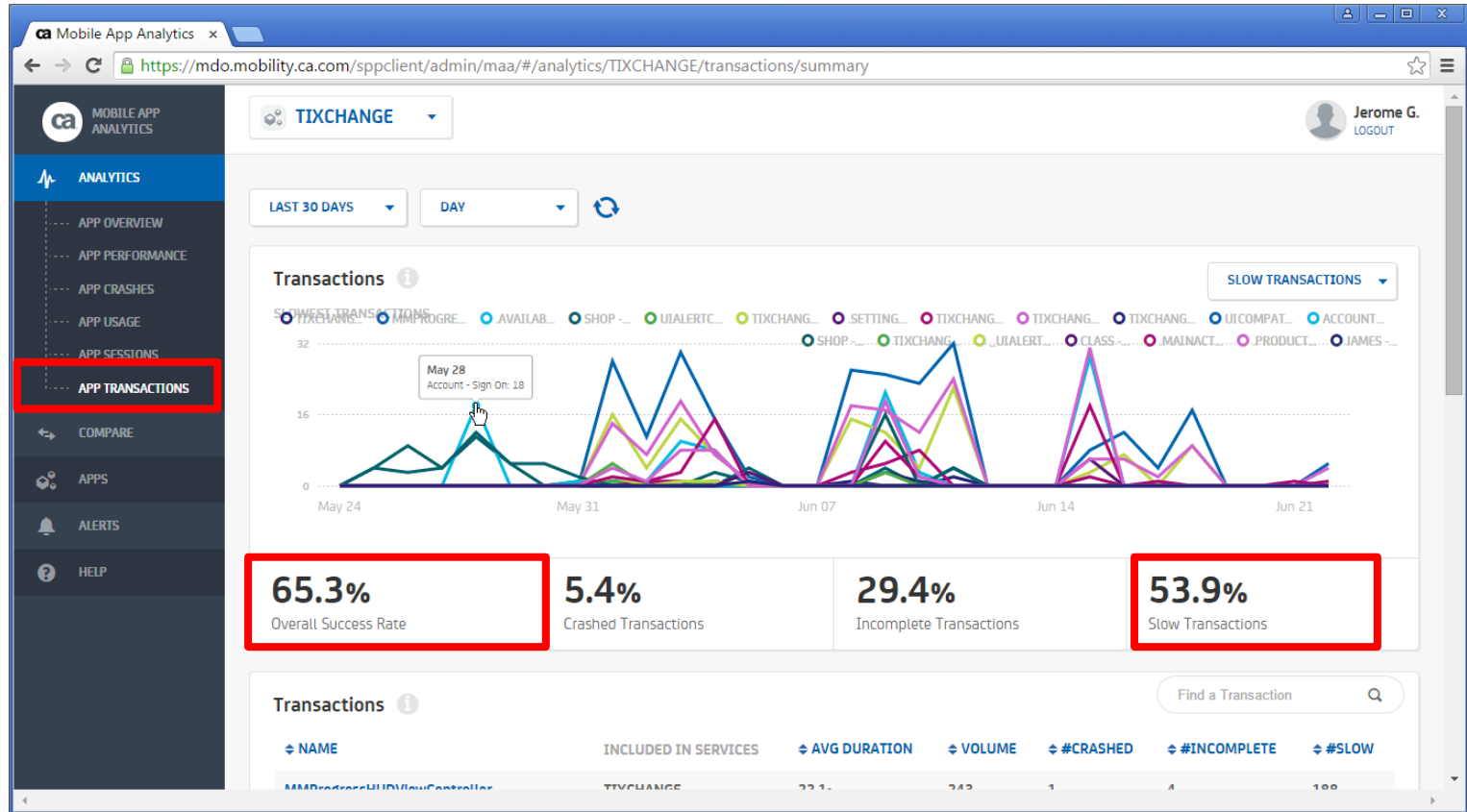
Type: VIEW_EVENTS
Value: Forward_Bank.ProductDetailViewController
Service: Forward Bank
Transaction: Accounts
Transaction Start Time: May 28, 2015 4:51:49am

Mobile App Preview: Accounts Banking

Capture d'écran des actions Utilisateur



Analyse des transactions Utilisateurs



Analyse des transactions Utilisateurs

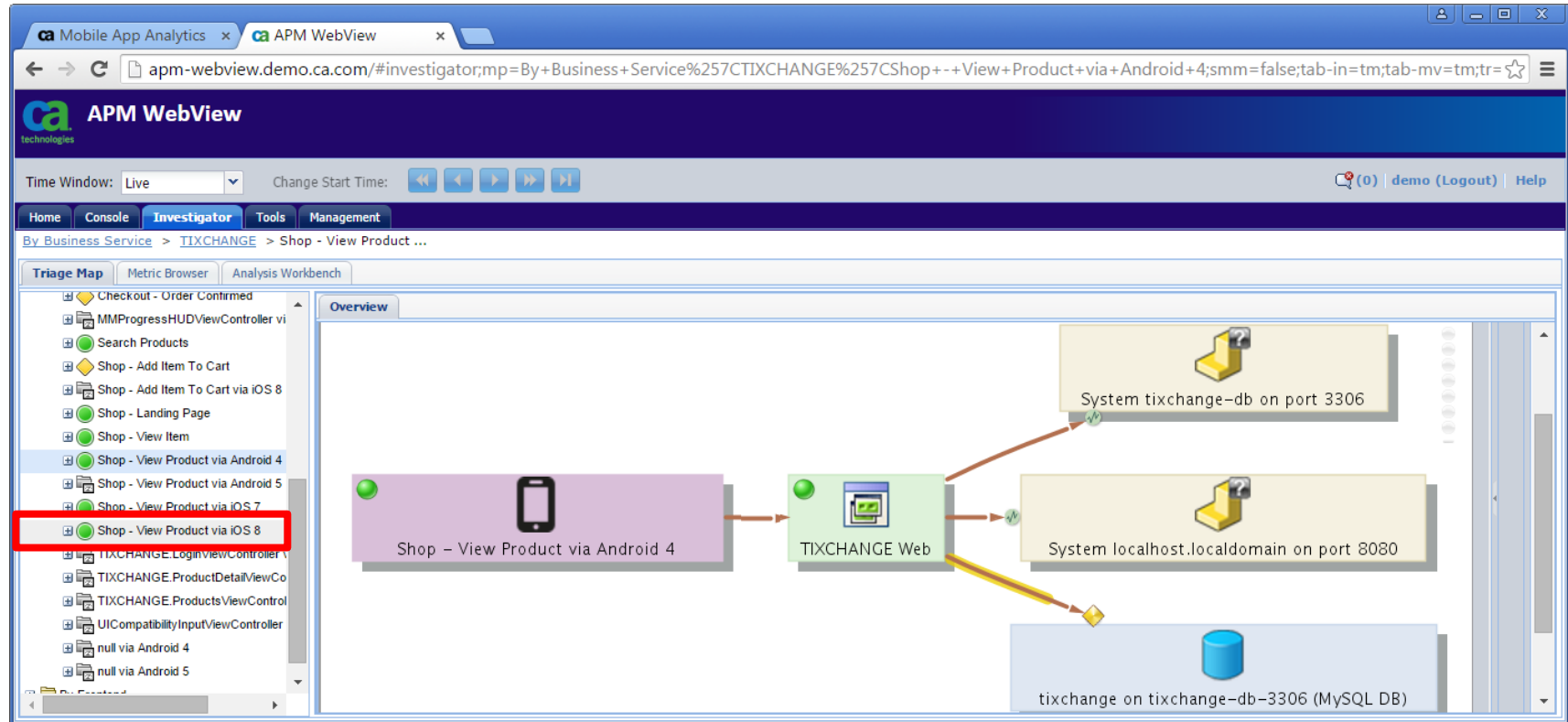
Transactions

-

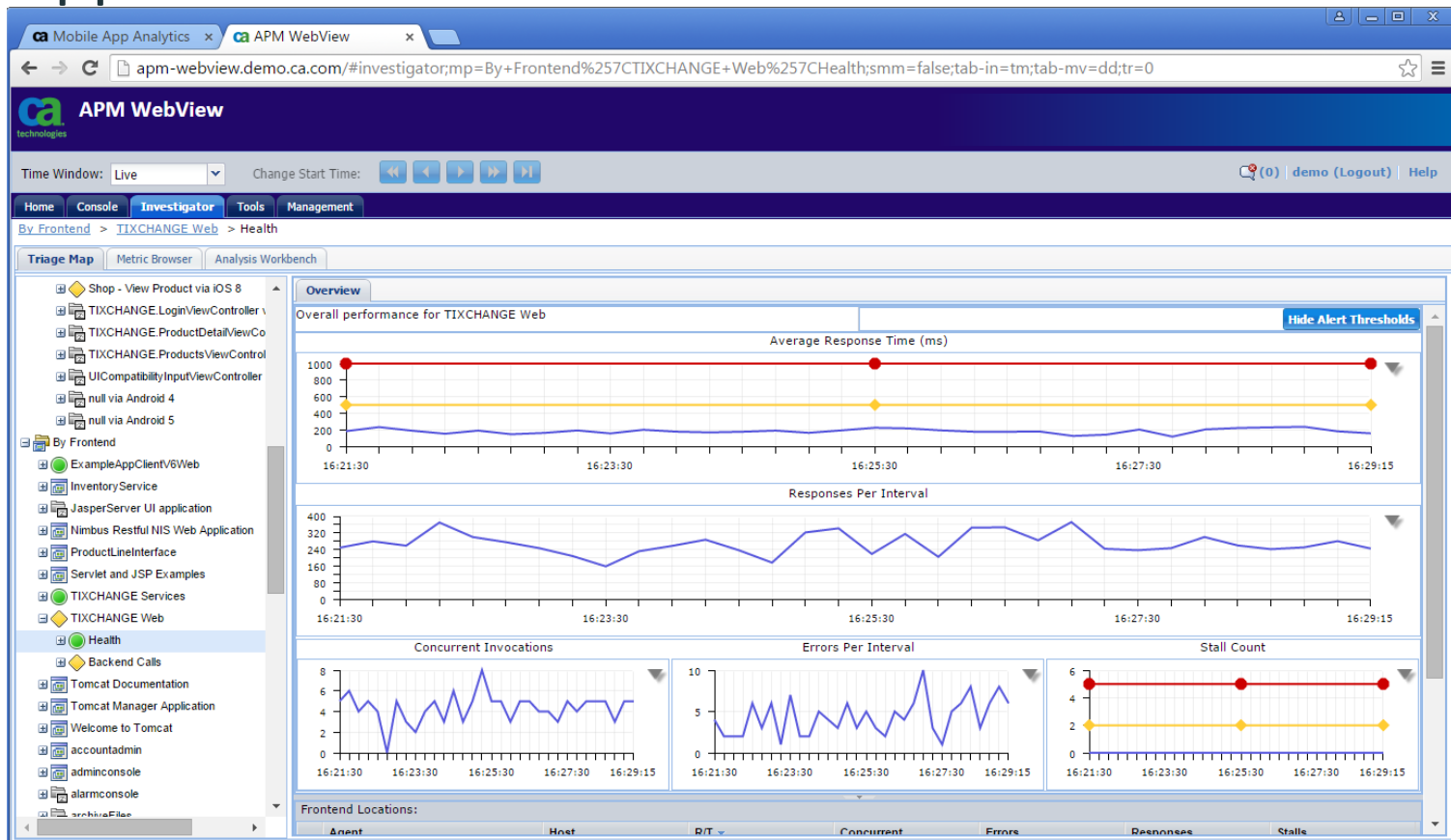


NAME	INCLUDED IN SERVICES	AVG DURATION	VOLUME	#CRASHED	#INCOMPLETE	#SLOW
Account - Sign On	TIXCHANGE	5.8s	94	14	61	12
Shop - View Product	TIXCHANGE	2.6s	66	1	0	64
JAMES - View Product	TIXCHANGE	1.4s	1	0	0	1
Shop - Add Item To Cart	TIXCHANGE,Shop	553ms	40	0	0	19
CLASS - View Product	TIXCHANGE	402ms	3	0	0	2

Analyse de bout-en-bout : du mobile jusqu'à la BDD



Analyse de la transaction mobile au sein des serveurs d'application



Analyse de la transaction mobile au sein des serveurs d'application

Overview General **Traces** Errors Search Metric Count

Status	Timestamp	Duration	Description
	06/22/15 16:17:46 GMT+200	3158	/jtixchange_web/shop/viewProduct.shtml
✖	06/22/15 16:20:15 GMT+200	248	/jtixchange_web/shop/viewOrder.shtml
✖	06/22/15 16:31:07 GMT+200	167	/jtixchange_web/shop/viewOrder.shtml
✖	06/22/15 16:26:58 GMT+200	166	/jtixchange_web/shop/viewOrder.shtml
✖	06/22/15 16:21:46 GMT+200	166	/jtixchange_web/shop/viewOrder.shtml

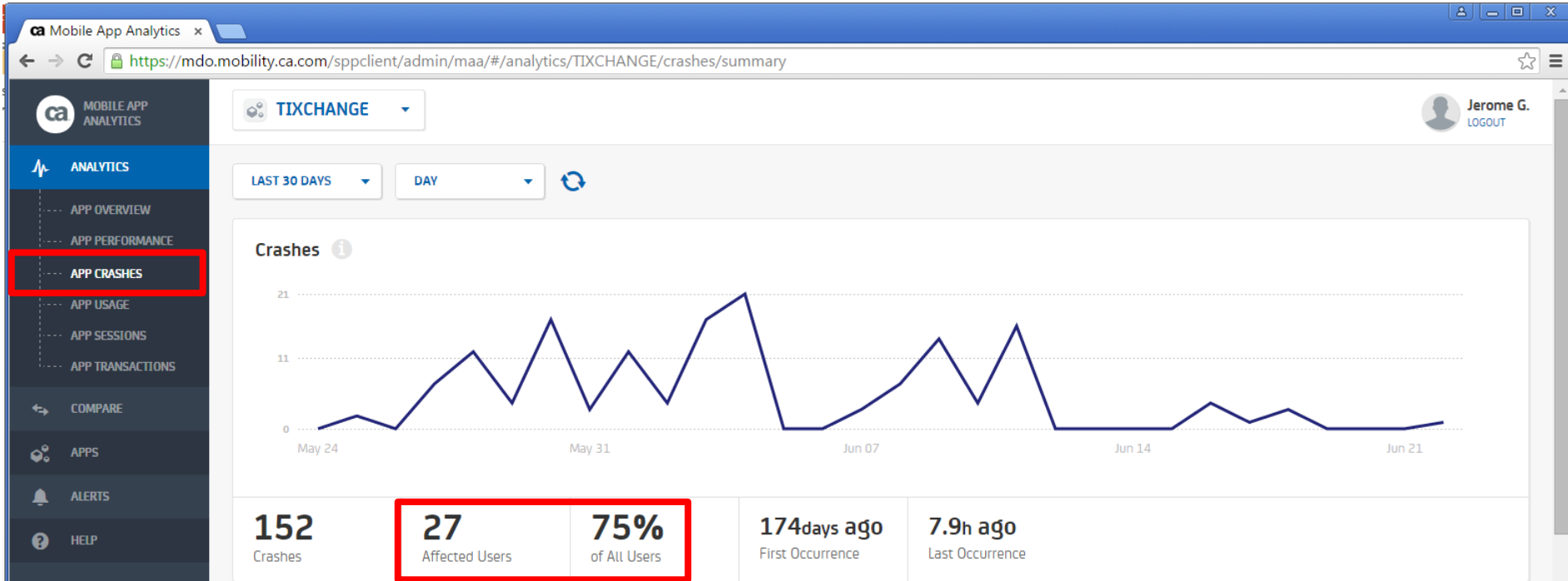
Summary View Trace View **Tree View**

Agent: *SuperDomain*|tixchange-web1|Tomcat|tixchange-web1
Timestamp: 2015 Jun 22 16:17:46
Duration: 3158 ms

- 100% - Frontends|Apps|TIXCHANGE Web|URLs|Default|service|/jtixchange_web/shop/viewProduct.shtml 3158(ms)
- 100% - Servlets|ActionServlet|service|/jtixchange_web/shop/viewProduct.shtml 3158(ms)
 - 100% - Struts|ViewProductActionHandler|execute 3157(ms)
 - 100% - jtixchange|Action|CatalogBean|viewProduct 3157(ms)
 - 3% - jtixchange|Service|CatalogService|getItemListByProduct 90(ms)
 - 96% - jtixchange|Service|CatalogService|getProduct 3035(ms)
 - 0% - Servlets|JspServlet|service 1(ms)

Server Port: 8080
Session ID: 02A41AAA7D6DC356D41AE97E211569FB
URL: /jtixchange_web/shop/viewProduct.shtml
URL Query: productId=MU-EL-01

Analyse des crashes



Analyse des crashes

Mobile App Analytics

https://mdo.mobility.ca.com/sppclient/admin/maa/#/analytics/TIXCHANGE/crashes/summary

Find Crashes

List of TIXCHANGE Crash Types

APPS	PLATFORM	COUNT	CRASH TYPE	% OF AFFECTED USERS	TOTAL AFFECTED USERS	FIRST OCCURRENCE	LAST OCCURRENCE
TIXCHANGE (v0)	IOS	72	SIGTRAP Unknown (Unknown:0)	100%	18	42days ago	7.6n ago
TIXCHANGE (v0-)	IOS	11	SIGILL Unknown (Unknown:0)	66%	6	161days ago	4days ago
TIXCHANGE (v15.1)	Android	17	android.content.ActivityNotFoundException android.app.Instrumentation (checkStartActivityResult:1761)	71%	5	84days ago	19days ago
TIXCHANGE (v0-HEAD)	IOS	7	SIGILL Unknown (Unknown:0)	50%	5	35days ago	19days ago
TIXCHANGE (v17-	IOS	6	SIGILL	100%	3	137days ago	19days ago

Analyse des crashes

ca Mobile App Analytics

https://mdo.mobility.ca.com/sppclient/admin/maa/#/analytics/TIXCHANGE/crash_incident/VEIYQ0hBTkdFfDE1LjF8QW5kcm9pZHxhbmRyb2lkLmNvbNf

MOBILE APP ANALYTICS

ANALYTICS

- APP OVERVIEW
- APP PERFORMANCE
- APP CRASHES**
- APP USAGE
- APP SESSIONS
- APP TRANSACTIONS

COMPARE

APPS

ALERTS

HELP

TIXCHANGE

Crash Report

Crashes → android.content.ActivityNotFoundException

SESSION
25bb7072-4811-45f0-9fb3-b51b9373c7a8

TIXCHANGE v 15.1	1.6m Jun 03, 2015 11:58:38am - 12:00:18pm	MINTABIE, SOUTH AUSTRA...
sdk_phone_armv7 Android 5.0, NOT JAILBROKEN 50%	Offline	No feedback

CHECKSTARTACTIVITYRESULT
android.content.ActivityNotFoundException
android.app.Instrumentation

Export

87% CPU Usage	0% Mem Usage	1% Disk Space Used
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Analyse des crashes

Crashed

android.content.ActivityNotFoundException

USER_CRASH_DATE=2015-06-03T17:30:16.000+05:30

APP_VERSION_NAME=15.1

EXCEPTION_CAUSE=android.content.ActivityNotFoundException

EXCEPTION_CLASSNAME=android.app.Instrumentation

EXCEPTION_METHODNAME=checkStartActivityResult

EXCEPTION_LINENUMBER=1761

MEM=0.0

DISK=1.0

android.content.ActivityNotFoundException: Unable to find explicit activity class
{com.ca.tixchange/com.ca.tixchange.CrashActivity}; have you declared this activity in your
AndroidManifest.xml?

at android.app.Instrumentation.checkStartActivityResult(Instrumentation.java:1761)

at android.app.Instrumentation.execStartActivity(Instrumentation.java:1485)

at android.app.Activity.startActivityForResult(Activity.java:3736)

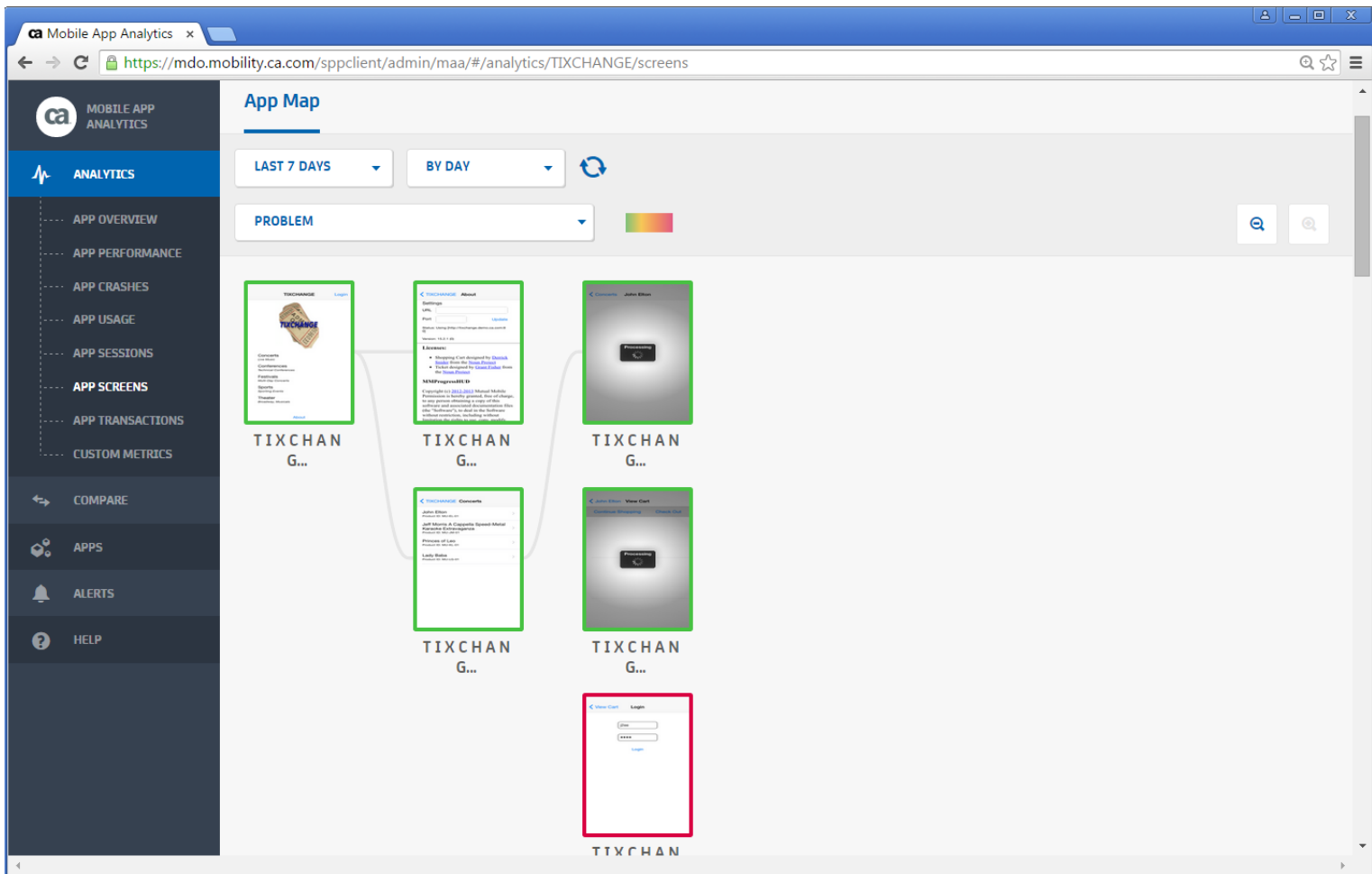
at android.app.Activity.startActivityForResult(Activity.java:3697)

at android.app.Activity.startActivity(Activity.java:4007)

at android.app.Activity.startActivity(Activity.java:3975)

at com.ca.tixchange.AvailableSeatsActivity.onOptionsItemSelected(AvailableSeatsActivity.java:265)

[54 MORE](#)





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Intégration du SDK MAA

