CA Mobile Solutions

"Mobile App Analytics Positioning and Use cases"

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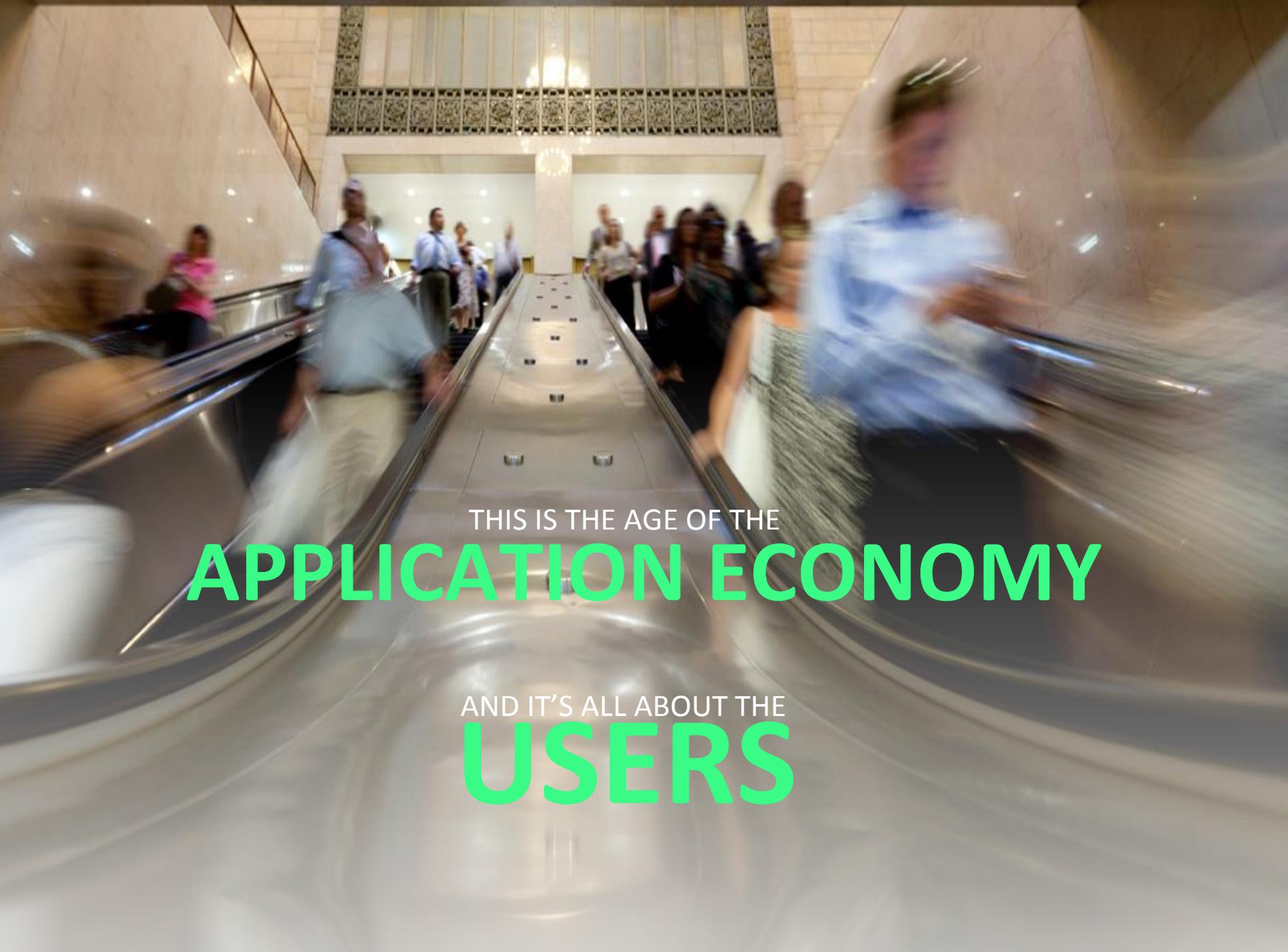
THIS IS THE AGE OF THE

APPLICATION ECONOMY

AND IT'S ALL ABOUT THE

USERS

Mobilizing The Application Economy

Growth & Opportunities

SO WHAT'S **DIFFERENT**?

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Impact on Stakeholders

LINE OF BUSINESS
QUICKLY ADAPT BUSINESS PROCESSES TO ENGAGE CUSTOMERS IN NEW AND CREATIVE WAYS

SECURITY	DEVELOPMENT	IT OPERATIONS

FINER-GRAINED ACCESS AND CONTROL
WHO can run apps. WHAT apps can be accessed. WHERE and WHEN apps are run. HOW data is stored.

DELIVER QUALITY APPS FASTER
Streamline and automate development and release processes. Leverage detailed analytics to improve mobile apps quality and performance.

BETTER INSIGHT
Breadth and depth of visibility into mobile app performance, crashes and end-user behavior.

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Omnichannel world – sets new requirements

WEARABLES

BUSINESS INITIATIVE

PLAN

MEASURE

Apps ↔ APIs

DEV & TEST

- Native apps
- Hybrid Apps
- *Web Apps*

OPERATE

DEPLOY

SMARTPHONES / TABLETS

IoT

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Process: Agile isn't Just for Development

Adopt agile and lean processes to deliver a continuous stream of customer value

Daily Reviews

TEST

OPERATE

Customer Value

Customer Interaction

MONITOR & ANALYZE

DEPLOY

BUILD

PLAN

Feedback

UPDATED PLAN

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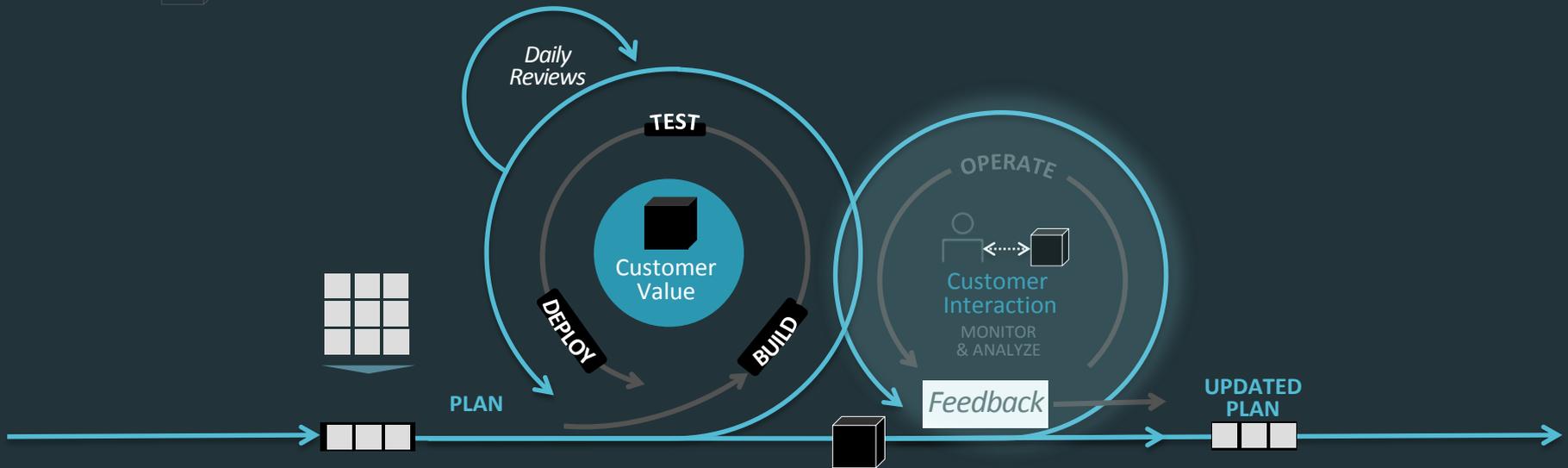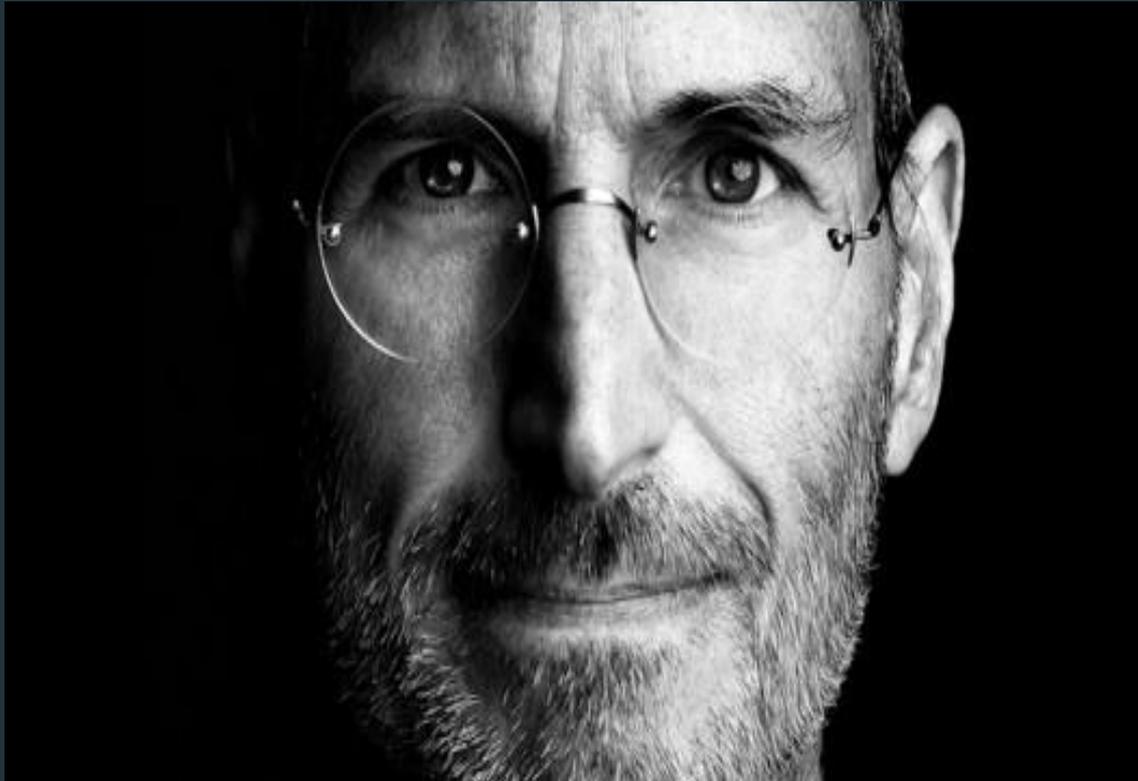
«*you have to start with the customer experience and work backwards to the technology*»

Steve Jobs

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It`s not all about apps,
it`s all about **user rating & success**!

Application rating Google Play:
French Digital TV

2.1
★★☆☆☆
674 Reviews

★5 92
★4 61
★3 62
★2 95
★1 364

All ratings average: 2.8 for 11,255 total reviews

Kevin Dutter ★★☆☆☆
*Il y aura plus d'étoiles quand les bug seront régler surtout au niveau canal play (je ne peux*

Pierre Helie ★☆☆☆☆
Une merde! Depuis qu'il y a zive. Ça saute tout le temps. Comme je bosse le soir je

Application rating Google Play:
UK Bank

4,0
★★★★☆
Totalt 👤 40 534

★5 24 543
★4 6 614
★3 1 862
★2 1 168
★1 6 347

Application rating Google Play:
German car manufacturing

Reviews

3.6
★★★☆☆
👤 23 total

★5 11
★4 3
★3 2
★2 2
★1 5
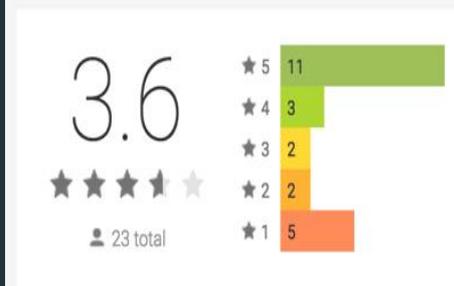
Adrian Walker ★★★☆☆
As a few people have mentioned, this is no more than a glorified link to the website. The other thing to consider

Richard Mccann ★☆☆☆☆
Does not recognise car I have to agree with previous review, you register your car and then go to

Users Hold the Power
And They Demand Perfection

67% Of mobile users are unwilling to wait for slow app load times

⭐☆☆☆☆ "Crashes" is one of the most common words in 1-star reviews

27% Of users will consider abandoning a brand over a poor application experience

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How to Succeed in the Mobile App Economy

Performance ▶ Deep Visibility
for superior availability

**Quality** ▶ Rapid Analysis
for seamless user interaction

**Value** ▶ Actionable Analytics
for user data driven decisions
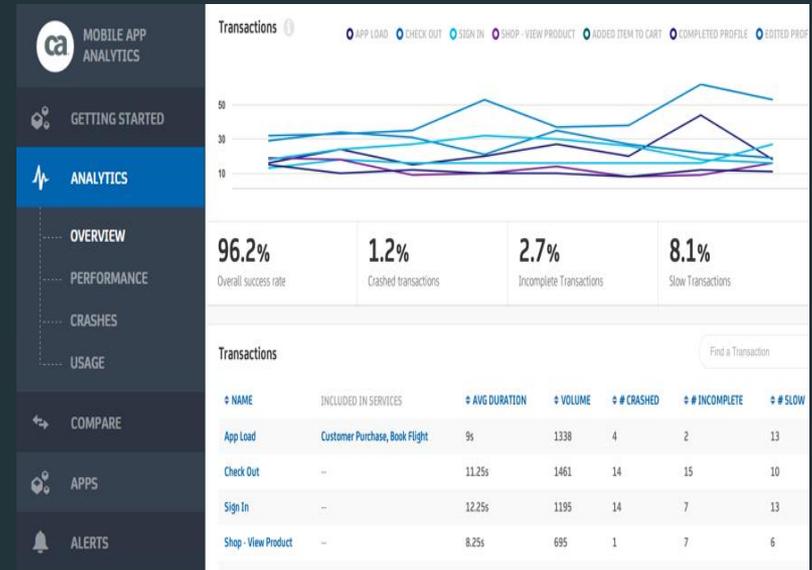
DevOps for Mobile

for faster time to market & a competitive edge

Dev & Test → Deployment → Production → Support

5 ★

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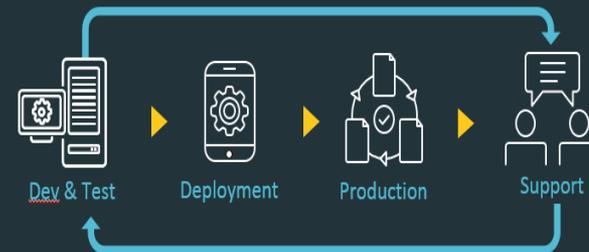
CA Mobile Application Analytics
Comprehensive visibility into your mobile apps
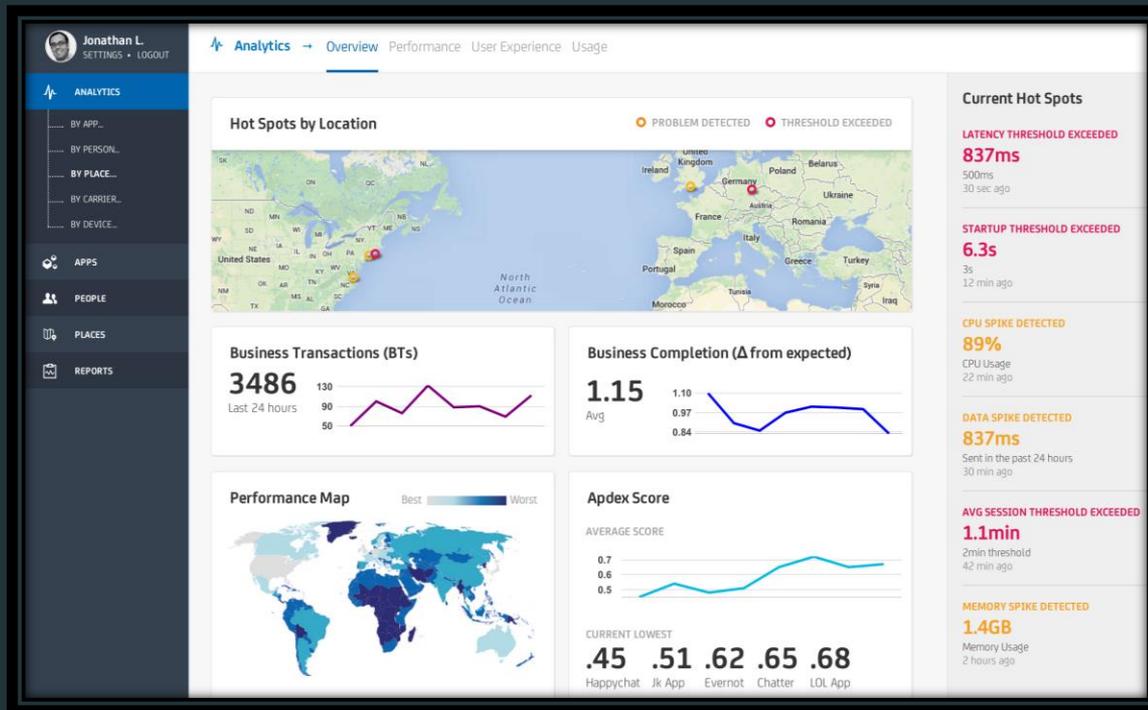
- **END-TO-END**. Transaction visibility, from mobile to all the way to the mainframe and other backend systems.
- **ANALYTICS AT EVERY STAGE** of the App "Lifecycle".
- **DEEP VISIBLITY** into app performance and usage.
- **FLEXIBLE** cloud-based or on-premise deployment.
- **SIMPLE & EASY**. Five steps in five minutes.

So who wants Mobile Analytics/mAPM?

Buyers and personas: their needs

- User uptake / retention
- User experience
- Marketing analytics

- Crash analytics
- User interface dynamics / flows

Application owner

Developers

Architects

Infrastructure Operations

Application Support

- App performance and health
- End-end transaction visibility

- App performance and health
- End-end transaction visibility

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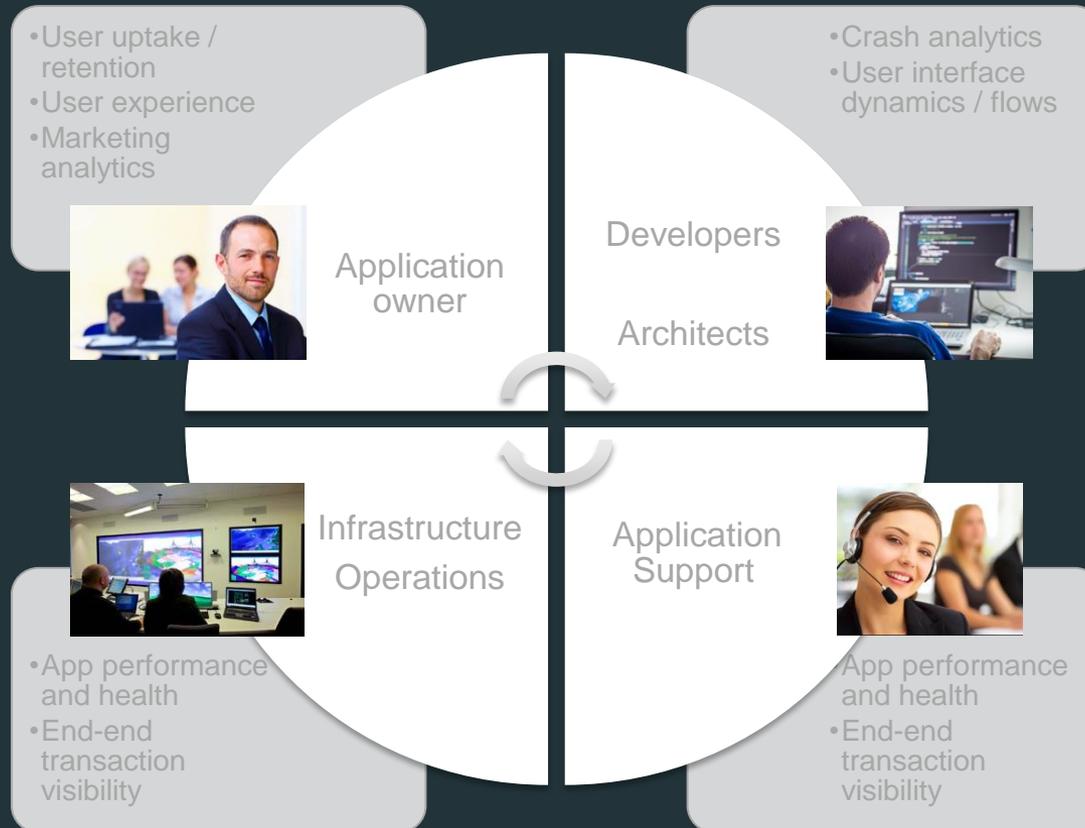
Mobile App Analytics - Fosters Collaboration

DEVELOPER   **APP OWNER**   **OPS**

Success Requires Collaboration from Stakeholders

ACTIONABLE ANALYTICS, RAPID ANALYSIS, DEEP VISIBILITY
Data-driven decisions & Continuous improvement

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Key areas affecting End-User Experience !

APP PERFORMANCE

TRANSACTION RESPONSE TIME

CRASHES AND ISSUE RESOLUTION

VALUE DELIVERED BY YOUR MOBILE APP

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Visualise, 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?

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Agile Operations Innovations

MOBILE APP ANALYTICS

For Dev, Ops and Business:

- App Heat Maps

- App User Flows

- Apple iWatch Support

- Deep APM integration

MAA 15.4

Usage By Platform

● iOS ● HYBRID ○ APPLE WATCH

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Why CA Mobile App Analytics ?

Mobile

End-to-end

Lifecycle

Deep visibility

Thrive in the Mobile App Economy with the M.E.L.D. Strategy

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Where does CA Mobile App Analytics fit ?

- ✓ Large / Midsize companies
- ✓ Companies with a high Consumer focus
- ✓ Companies that have started the Digital transformation
- ✓ ......OR new digital players
- ✓ Selected verticals
- ✓ Existing or new CA APM customers
- ✓ Companies with Supported Apps (OS) in volumes
- ✓ Consumer apps or internal enterprise apps
- ✓ Business critical / mission critical apps

Digital transformation

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Mobility is driving the App Economy – What Apps ?

B2E   **B2C – B2B**   **B2M**

Employees   **Customers**   **Internet of Things**

Higher Productivity   **Higher Profits & Competitors**   **Strategic Advantage**

Spotify

ABN·AMRO

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Use cases/references

Mobile App Analytics

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What use cases and verticals !

Large consumer base! - Business critical! - Existing Mobile Apps!

Verticals	Key mobile apps
✓ Bank / Financial	Mobile banking
✓ Telco	Digital TV /Music streaming
✓ Retail	mPayment / mCommerce
✓ Media	Digital news
✓ Transportation/logistics	mReservation
✓ Healthcare	mHealth
✓ Public	mPublic service

Digital transformation

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Case Study: A Multi-national bank
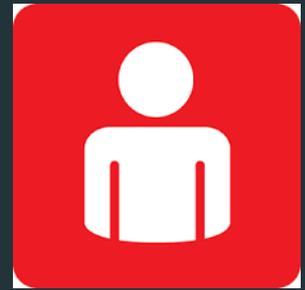
Situation:

- ✓ Good control of Web banking and Core Banking – APM in place
- ✓ Understood that mobility is a challenge
- ✓ Act faster when resolving problems
- ✓ The issue was driven initially from the IT Operation
- ✓ It was a challenge when crossing different parts of the company
- ✓ Looked for a "Glue between different departments"
- ✓ Help to "break the glass" between different silos

Problem:

- ✓ Problem with network performance / crash of mobile banking app
- ✓ Did not get the insight needed to solve the problem fast
- ✓ Difficult to get resources from different groups to cooperate fast

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Case Study: A Multi-National Bank
End-to-end txn. visibility w/APM from mobile to mainframe

Santander Bank

SITUATION

- **Top-20 global bank** with over 100M customers
- Goal to become the bank of choice for digital customers
- Key partnership to support **mobile payments** for consumers
- Over **2 million mobile banking** customers

CHALLENGES FACED

- Partial visibility with Google Analytics "**I know something is wrong. But I can't tell where the problem is.**"
- Lack of visibility into business metrics such as user retention
- Lack of visibility into crash and performance metrics

SOLUTION & RESULTS

- **Wrapped** CA MAA on top of **Android app for quick proof**, then integrated MAA SDK
- Captured metrics from **user retention** to **stack traces**
- Gained end-to-end transaction visibility from **mobile to mainframe, with APM**

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Interested in ***ensuring Mobile Application Performance*** for business critical and customer-facing applications

Point Of Sale application for retail locations

MY VERIZON | ADD A LINE

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Case Study: A Large Wireless Provider
Visibility into app/network challenges impacting revenue

Stats from Devices

Apple   LATENCY   CRASHES

Verizon Wireless

142
Sessions

10 (100%)
Affected users
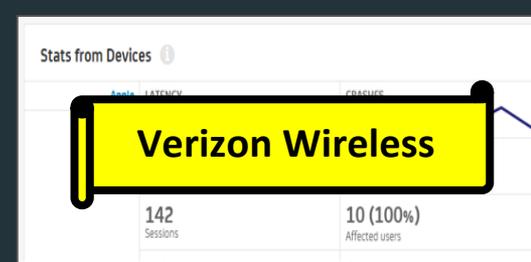
SITUATION	CHALLENGES FACED	SOLUTION & RESULTS
▪ **Top-10 wireless provider** with over 50M subscribers	▪ **Unresponsive** POS mobile **app hurting device sales** and service upgrades	▪ Deployed **CA MAA in conjunction** w/existing investments in **APM**
▪ Thousands of stores and POS mobile apps that drive revenue	▪ "How can I know what users are seeing? **App works fine here in my Dev**"	▪ Deep visibility into network performance
▪ Ensure mobile app performance for **business-critical and end-user apps**	▪ Lack of visibility into performance of key business services	▪ Crash reporting and **user activity at crash time**
		▪ App business transactions and **usage by geo, device**

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About Verizon Wireless

- **Wholly owned subsidiary of Verizon Communications**

- **~110.8 million retail connections**

- **~2330 locations**

- **US $127.1 billion 2014 revenue - Verizon Communications**

- **~177,000 employees - Verizon Communications**

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Key Verizon Mobile Apps

Verizon @ Work**

    HR app for internal Verizon Employees

    User Base: Over 100K users

PoS Mobile**

    Point of Sale App at our stores

    User Base: Over 25K users across 1700+ stores

My Verizon Enterprise

    B2B app for business customers

    User Base: Over 20K users

My Verizon Mobile

    B2C app available on iOS and Android

    Use Base: Over 40 million users

**MAA Enablement in progress
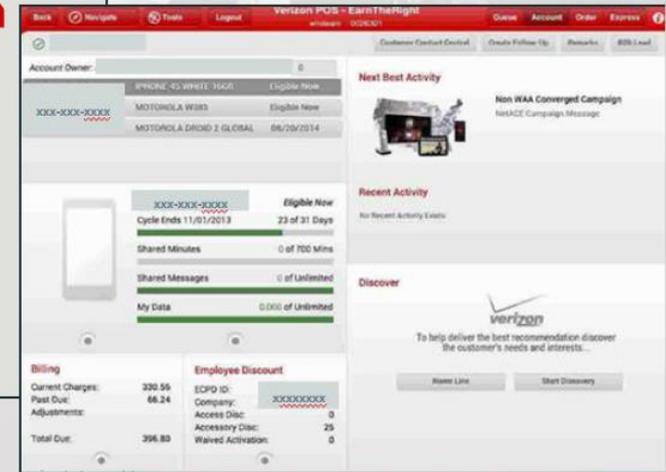
It's all about the Customer Experience!

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What are Verizon Mobile Apps Trends & Challenges ?

- **Mobile Applications are growing in the Enterprise across channels/departments**
  - Mission Critical Apps: Retail, Call Centers, Indirect, B2B, HR
  - User base of mobile apps is increasing quickly
  - Every milli-second counts for apps that are critical to our business

- **Highly complex applications with frequent releases/changes & large multi tiered infrastructures/networks**
  - Many apps over a million lines of code
  - Most Transactions traverse over 6 tiers, over 25 dependent apps/systems, peripherals, networks
  - Most apps are hybrid apps (Webview – Browser bundled into a native app to leverage existing web apps)

- **Limited visibility of Customer Experience & end to end flow starting with the mobile device**
  - Problems identified by customers not detected by existing tools
  - Limited end to end visibility in context with business transactions, network, datacenter

- **Real world scenarios are not fully understood and tested**
  - App/Network/Device latency (Variability in app load, WiFi, 3G/4G, Device CPU/Memory)
  - Critical App Flow navigation by users

Number of Global Users (Millions)

2,000								
1,800								
1,600								
1,400								
1,200								
1,000								— Desktop
800								— Mobile
600								
400								
200								
0								
2007	2008	2009	2010	2011	2012	2013	2014	2015

Source: comScore

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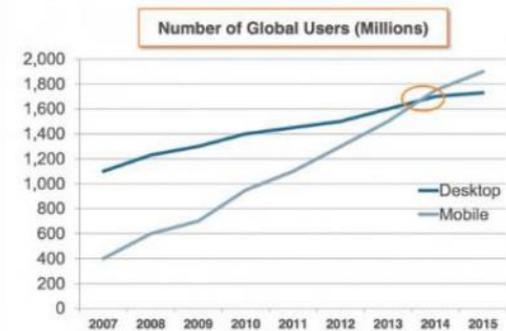
Verizon@Work – Use case Overview
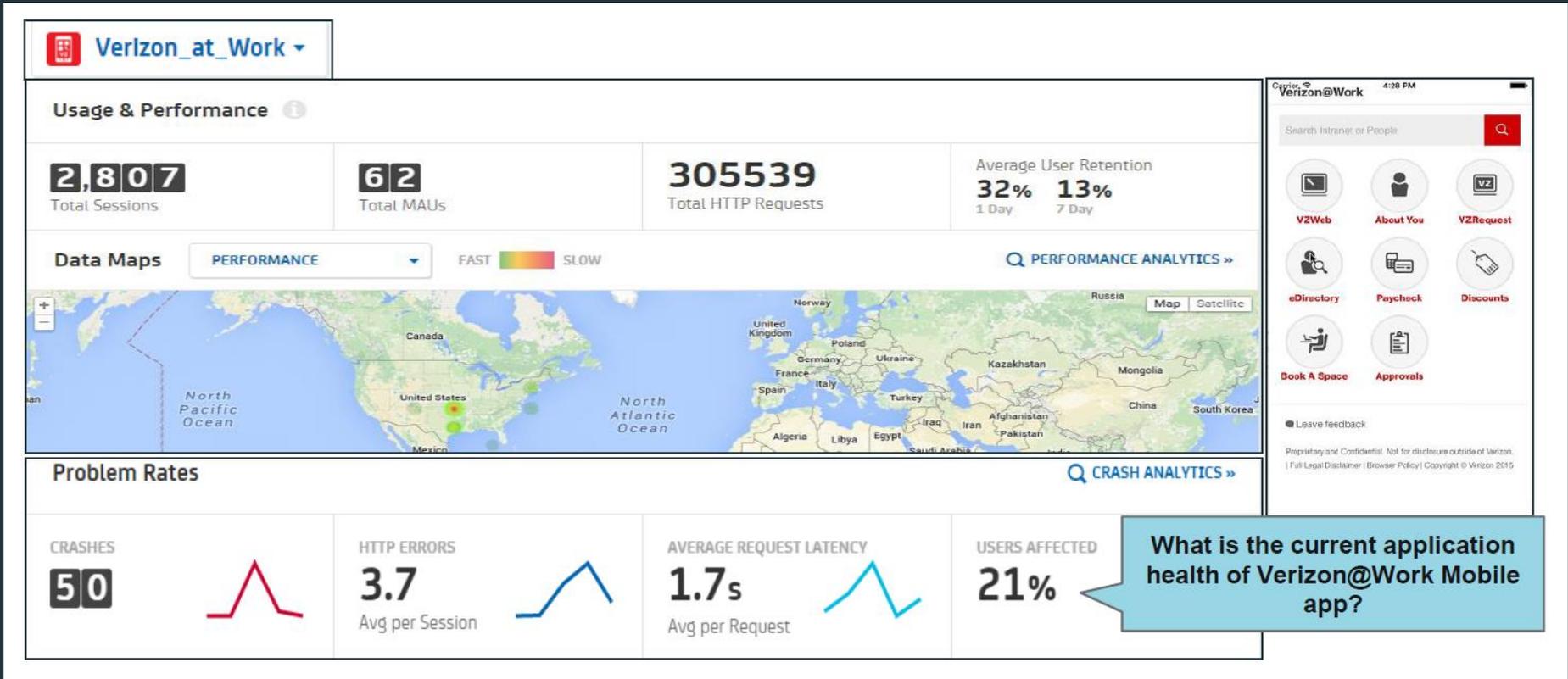
Verizon@Work – Use case App Crash

Mobile POS – Use Case – Retail store slow transactions

Verizon MAA implementation timeline

PRODUCT / BU	JAN'15	MAR	MAY	JUL	SEP	NOV	JAN'16	MAR	MAY	JUL	SEP	NOV
MAA / Verizon@Work						MAA implementation ~100k Employees targeted						
MAA / PoS Mobile						PoS Mobile – ~25k Sales Reps targeted						
MAA for My Enterprise View								MAA implementation for ~20K Business Customers targeted				
MAA + APM integration									MAA + APM 10.x deep integration			

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Summary
A Few Words Review

End to End Visibility

CA MAA & APM tools will help provide end to end app architecture visibility/insight to app development, operations, business app owners and network operations folks

Enhanced Data Analytics

Leverage Differential & Predictive Analytics to support proactive monitoring & alerting in prod/non prod before an actual crash/decreased performance as well as help with improving testing scenarios

Customer Experiences

Using MAA and APM on Verizon's IT infrastructure has helped prioritize focus on critical impacting crashes over other issues to support an optimal user experience and high productivity

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Mobility – means we need to change some focus !

Test it live !
"CA Mobile App Analytics"

Request trial:

*http://www.ca.com/trial*

Product info:

http://www.ca.com/maa

*Monthly MAA webinars:*

cainc.to/pPmuZZ
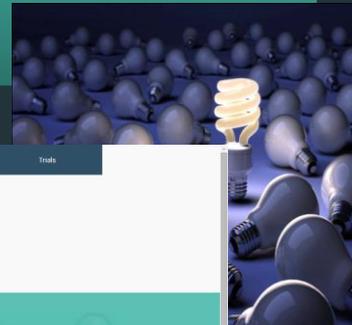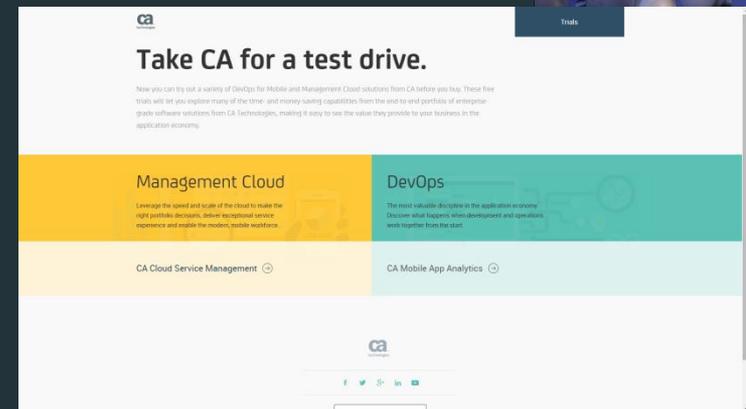
CA Solutions addressing the App Economy !

**OMNI-CHANNEL ACCESS
(WEB, MOBILE, APIS)**
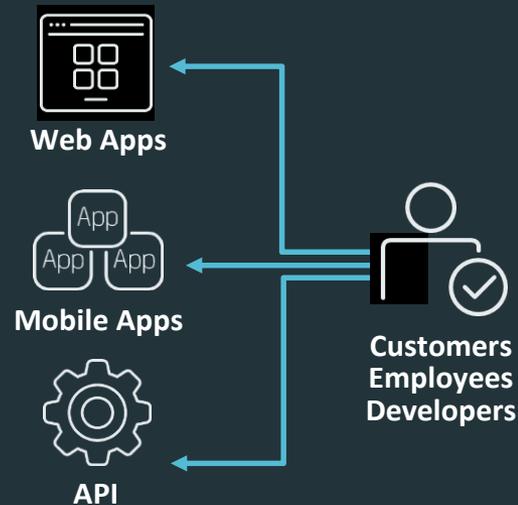
**COMPLETE SUPPORT OF
APP DELIVERY LIFE CYCLE**

END-TO-END INSIGHT

Web Apps

Mobile Apps

API

**Customers
Employees
Developers**

Ideas

Dev &
Test

Support

Production

Deploy

**Customers
Employees
Partners**

Data Center
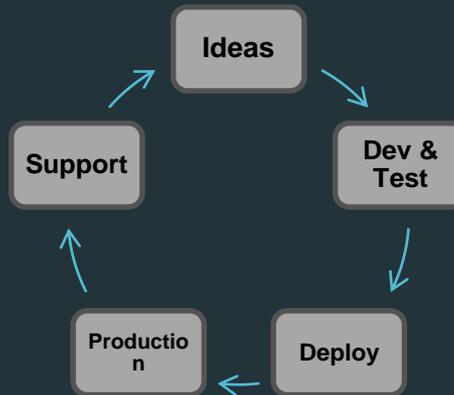
app-savvy partner to support your mobility journey

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Mobile Analytics- the "Insight" and door to AppEconomy !
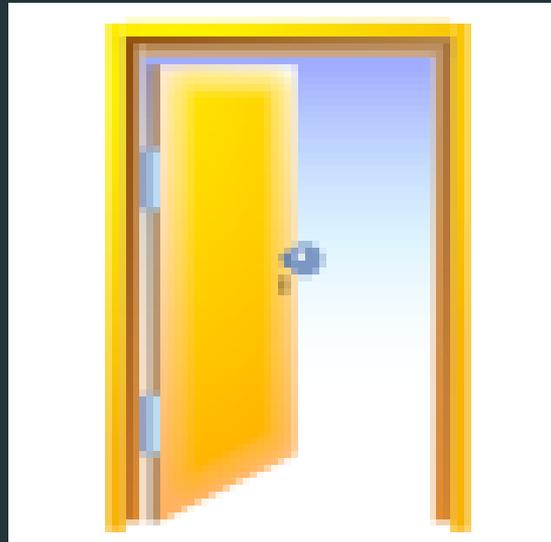
Thank You !

Please contact us for further questions / support !

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