

Mobidia for Mobile Operators

■ Mobidia's Unique Value

- ◆ Experienced team of mobile developers and big data analytics
- ◆ Data and insights crowd-sourced from millions of users of our smartphone apps
- ◆ Popular mobile data monitor will millions of active users, mature code base, and licensable, white-labeled SDK

■ Mobile data and insights

- ◆ On and off network insights including LTE,3G, Wi-Fi visibility
- ◆ Global data sets in all major countries and from all major networks
- ◆ Extensive OTT App usage data

■ APP SDK data and reporting engine

- ◆ Modular data reporting engine for inclusion in operator apps
- ◆ Data collection for internal use or end-user use

■ White-label licensing

- ◆ Customer care apps
- ◆ Travel-specific apps
- ◆ Context sensitive promotions and up-selling

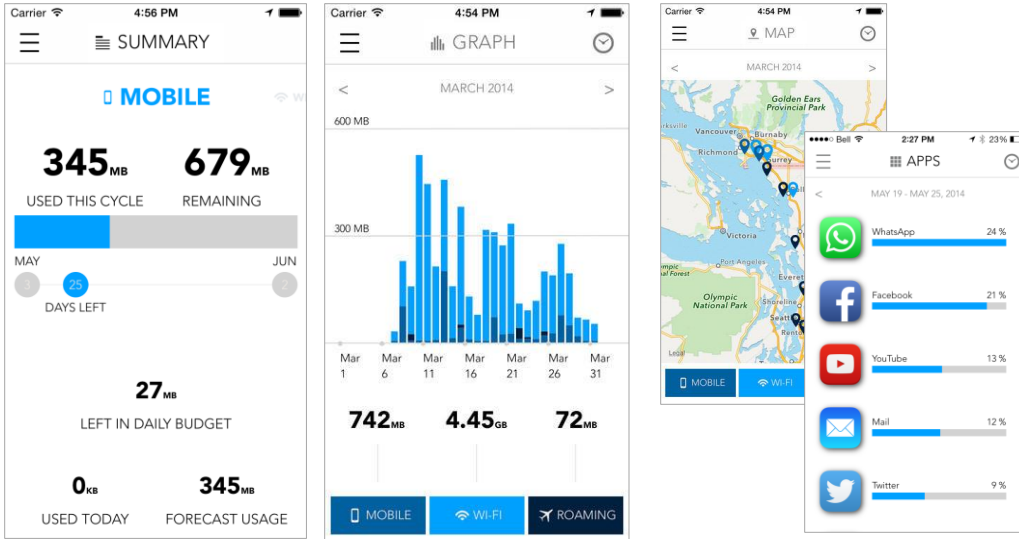
■ Mobile professional services for customer projects

Leaders in Mobile rely on Mobidia

Customers around the world use Mobidia data to understand actual mobile usage trends



Our Data: Global, crowd-sourced, mega panel



★★★★★ 4.6 Avr. rating (100K+ reviews)

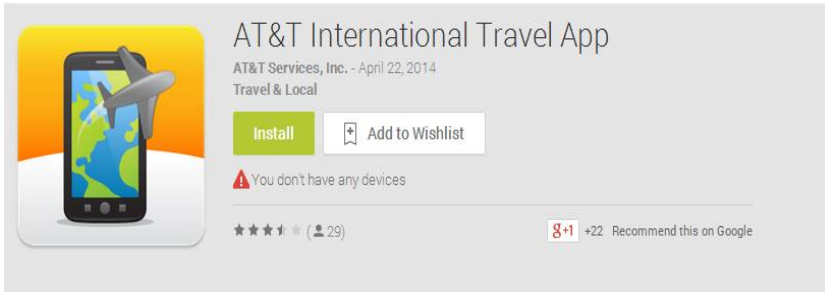
- Wildly popular free Android & iOS App "[My Data Manager](#)"
- Saves subscribers money on phone bill
- Decreases operator's customer care costs
- Global appeal, available in 14 languages



Companies promoting My Data Manager

Millions of daily users provide anonymized mobile usage data

White Label Examples

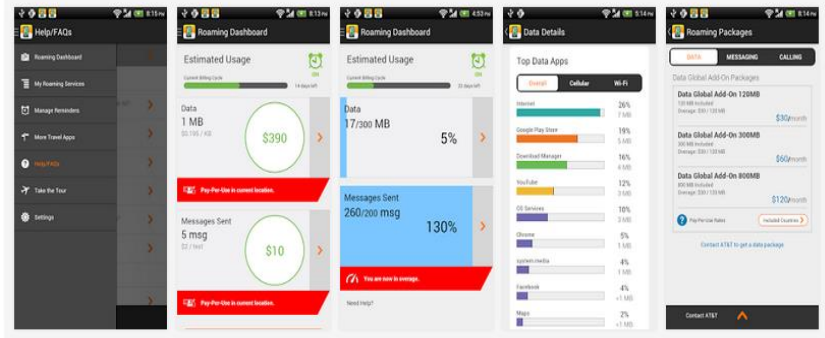


AT&T International Travel App
 AT&T Services, Inc. - April 22, 2014
 Travel & Local

Install **Add to Wishlist**

You don't have any devices

★★★★☆ (29) **+22** Recommend this on Google



Help/FAQs

Roaming Dashboard

Estimated Usage

Data 1 MB (\$1.15 / GB) **\$390**

Messages Sent 5 msg (\$1 / msg) **\$10**

Estimated Usage

Data 177000 MB 5%

Messages Sent 260/200 msg 130%

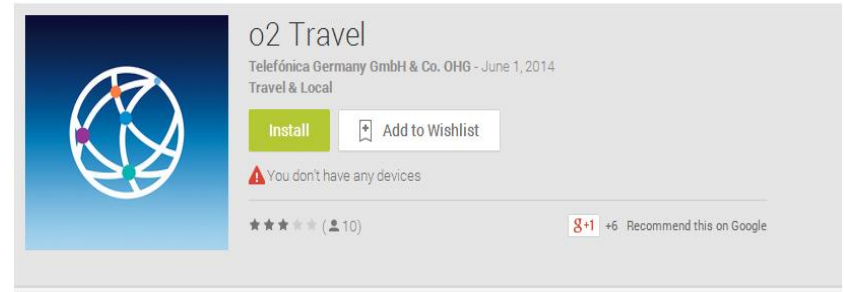
Top Data Apps

App	Usage
Internet	26%
Google Play Store	19%
Download Manager	14%
YouTube	12%
OS Services	10%
Amazon	9%
System Media	4%
Facebook	4%
Maps	2%
Others	<1%

Roaming Packages

Data Global Add-On Packages

Package	Price
Data Global Add-On 120MB	\$30/month
Data Global Add-On 300MB	\$60/month
Data Global Add-On 800MB	\$120/month

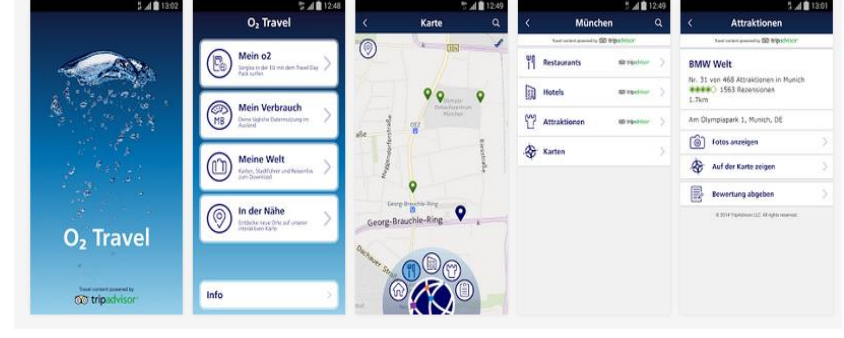


o2 Travel
 Telefónica Germany GmbH & Co. OHG - June 1, 2014
 Travel & Local

Install **Add to Wishlist**

You don't have any devices

★★★★☆ (10) **+6** Recommend this on Google



O₂ Travel

Mein o2

Mein Verbrauch

Meine Welt

In der Nähe

Karte

München

Attraktionen

Restaurants

Hotels

Attraktionen

Karten

BMW Welt

Am Olympiapark 1, München, DE

Fotos anzeigen

Auf der Karte zeigen

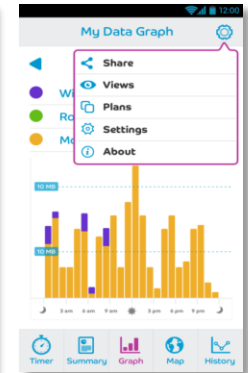
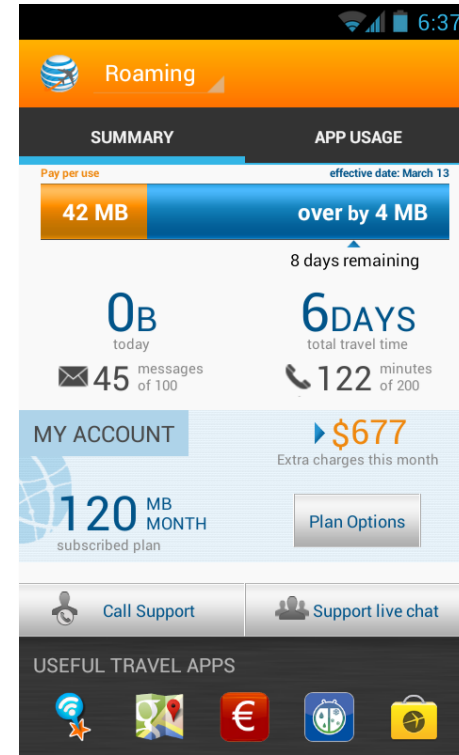
Bewertung abgeben

My Data Manager White Label Summary

- Flexible SDK integration options
 - ◆ Android and iOS SDK available to license
 - ◆ Mobidia Professional Services can provide consulting, design, development, integration, testing & support as needed
 - ◆ Flexible pricing options

- SDK provides proven and accurate on-device usage monitoring at all times, provides insights and value for app users:
 - ◆ Ongoing usage for user
 - ◆ Real-time alerts
 - ◆ New opportunities for on-device service promotion, provisioning, loyalty, support
 - ◆ On-device monitoring can be reconciled with network view of usage via integration

- Multiple integration scenarios
 - ◆ Automatic service/plan config.
 - ◆ Consistency of information (reconciliation)
 - ◆ Help & support
 - ◆ Etc.



SDK/API	Examples:
Subscriber Type	consumer vs. corporate
Authentication	token generation over https
Configuration	server-configuration runtime parameters for the app
Account Details	billing cycle, etc.
Subscribed Offers	includes packages as well as pay-per-use rates
Available Offers	includes packages as well as pay-per-use rates
Usage	includes packages as well as pay-per-use usage
Coverage Area	list of countries/network codes for each offer

Mobidia Data Overview

■ Mobidia data

- ◆ Crowd-sourced from millions of users of our smartphone apps
- ◆ Network and application usage

■ Common uses of our data:

- ◆ Identify trends for cellular & Wi-Fi
- ◆ Identify new apps
- ◆ Optimize data plans and service offers
- ◆ Develop and optimize Over-the-Top (OTT) plans
- ◆ Plan global launch strategies
- ◆ Track and benchmark competitors
- ◆ Target and optimize advertising



Mobile Application Data that is Different



Real Usage
From Real Users

Our data captures everyday usage from everyday users. We don't rely on paid users or survey questions.



Largest
Global Sample

We have millions of users around the globe providing daily reports on actual game usage.



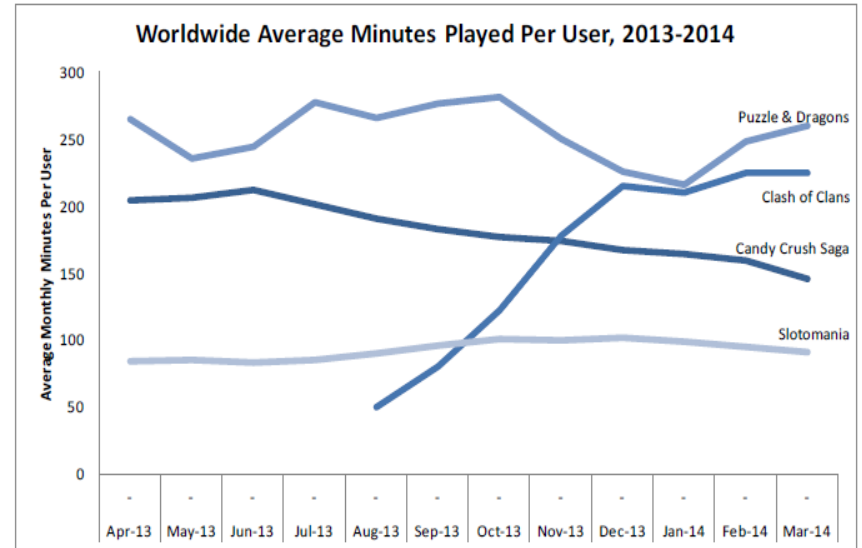
Downloads
vs Usage

Unlike download data that shows only intent, we provide data on what games people are actually playing.



Complete
Network Visibility

Our data includes cellular, wi-fi and roaming usage. There are no gaps in network visibility.



**Mobidia is the
only company with
global app usage
data at scale**

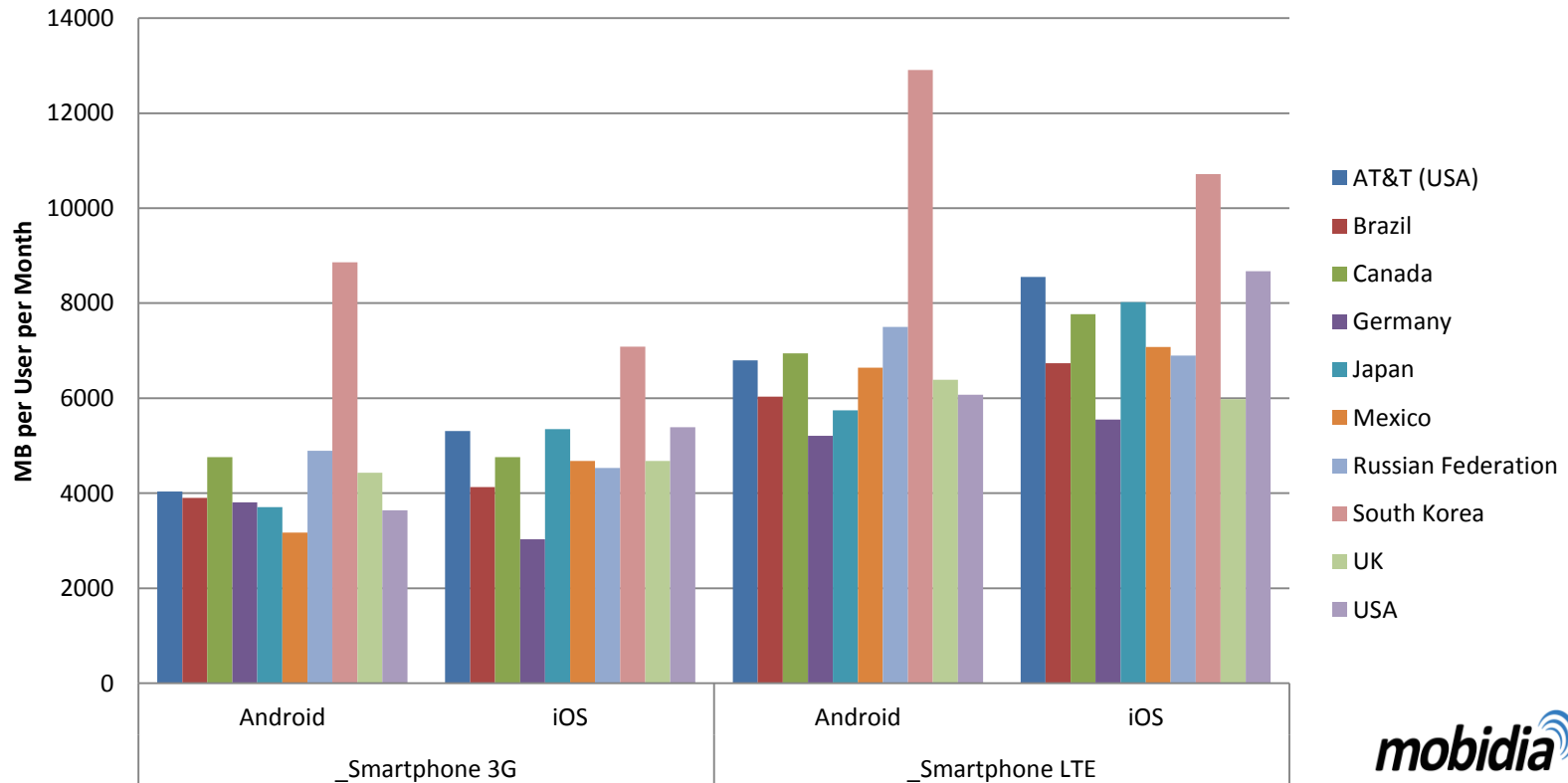
Summary of Available Data



	Network Usage Data	App Usage Data
Metrics & Pivots	<ul style="list-style-type: none"> Data usage (cellular, roaming, Wi-Fi) Private vs. public Wi-Fi usage 3G vs. LTE usage Cellular usage by plan size Cellular plan utilization Pivots: Country, Operator, Platform, OS, Device 	<ul style="list-style-type: none"> App Penetration & Engagement (DAU, WAU, MAU's) App Usage Metrics (Android): time in app, sessions, MB used, network usage Top Apps Used & Cohorts Pivots: App Categories, Country, Operator, Platform, OS, Device
Customer Value	<ul style="list-style-type: none"> 3G/LTE roll-out and trends Marketing and pricing strategies Wi-Fi offload strategies Wi-Fi compete strategies Public Wi-Fi roll-outs 	<ul style="list-style-type: none"> Track competitors Understand market & OTT trends Benchmark and trend analysis Understand user behavior & long-tail of global mobile app usage
Coming Soon...	App churn & life-cycle, Lat/long, App install/uninstalls, Usage predictions	

LTE Subs using More Data than 3G Counterparts across the Globe

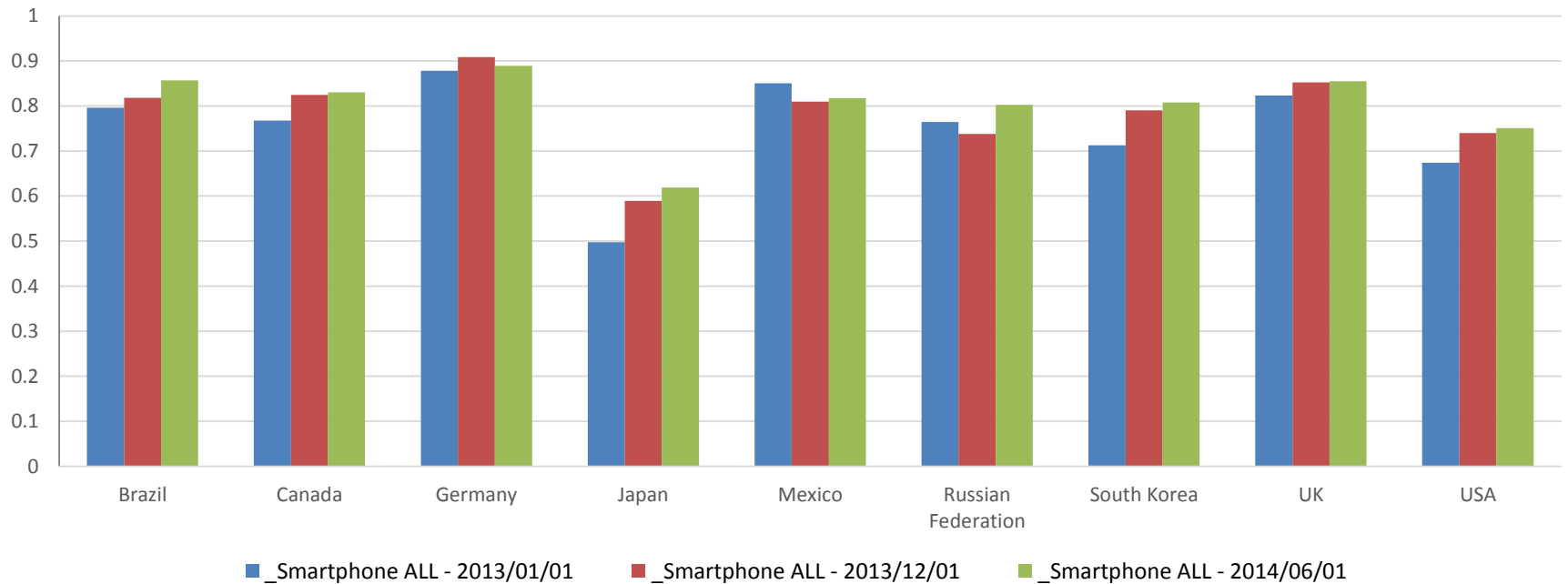
3G vs LTE Cellular Usage
2014



Wi-Fi Continues to be Used Heavily



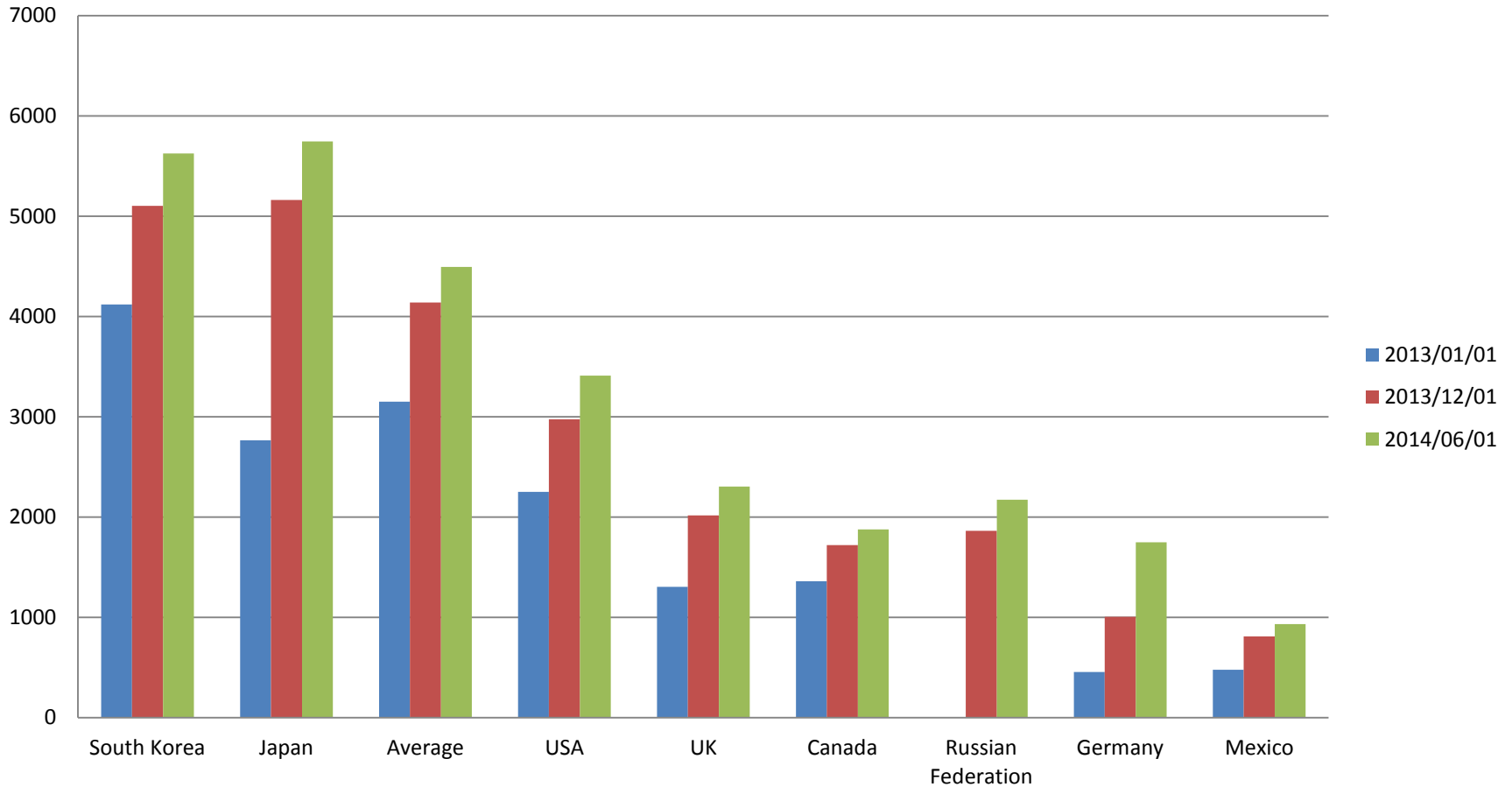
Wi-Fi Data as a Ratio of Total Data Consumption
Monthly Consumption per User



LTE Driving Increased Cellular Usage



Cellular Usage
LTE Subscribers, MB per user Per Month



Understand Global App Penetration & Engagement

Chart 1: Monthly Penetration Rates for Leading Smartphone Games on iOS, Worldwide, 2013

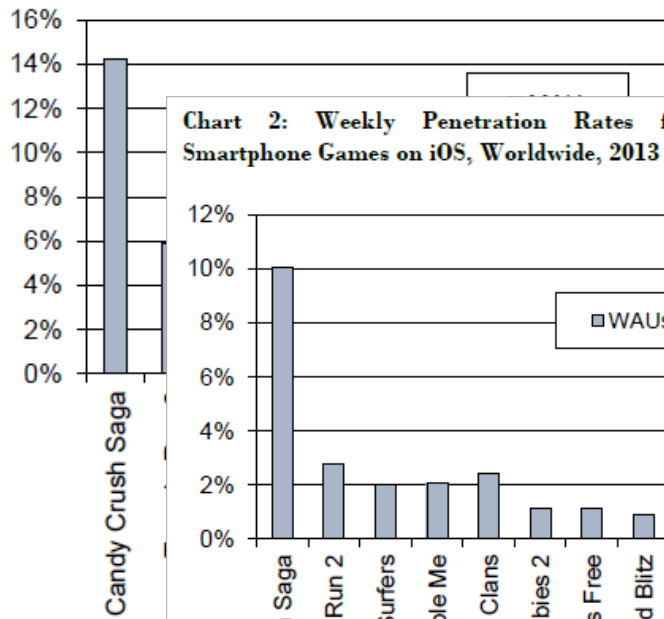


Chart 2: Weekly Penetration Rates for Leading Smartphone Games on iOS, Worldwide, 2013

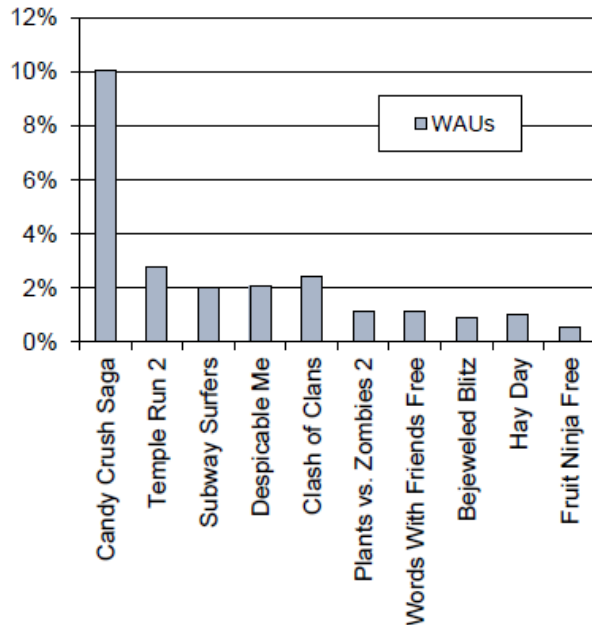


Chart 3: Engagement Rates for Leading Smartphone Games on iOS, Worldwide, 2013

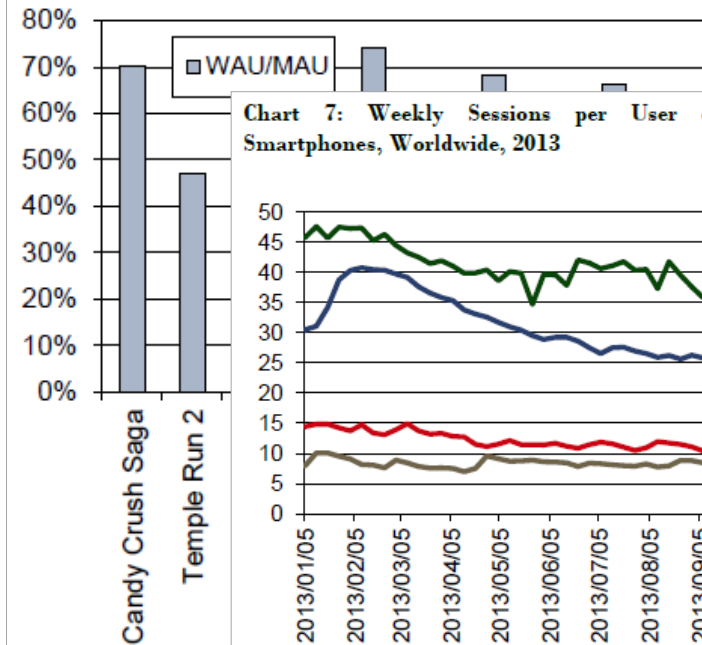
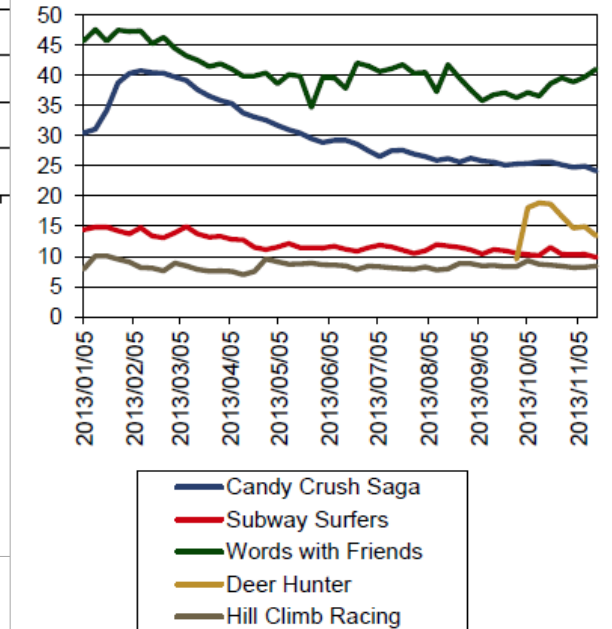


Chart 7: Weekly Sessions per User on Android Smartphones, Worldwide, 2013



Summary

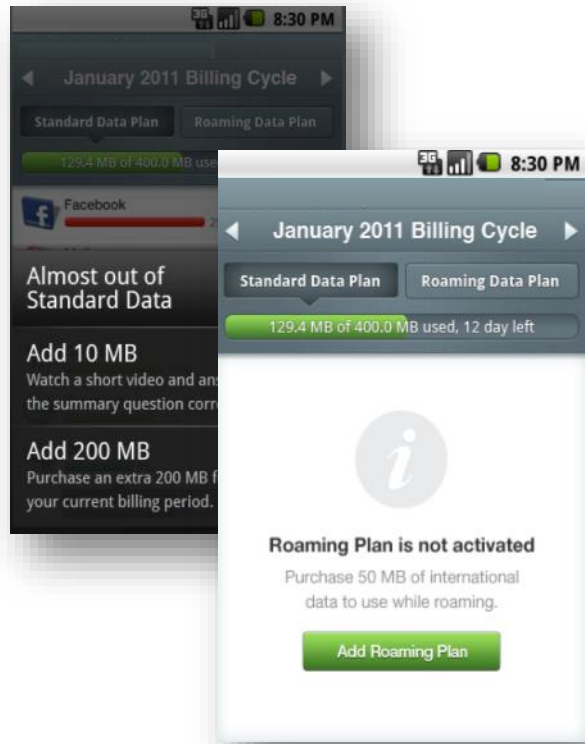
- Mobidia leverages its mobile experience and unique technology to help operators increase revenue and decrease costs
- My Data Manager
 - Promotional opportunities with free app
 - White-label for hyper-targeted upselling and promotions
 - SDK for inclusion of monitoring and reporting engine in 3rd party apps
- Mobile data for on and off network visibility and OTT app usage



Download: www.mydatamanagerapp.com

Mobidia SDK for Licensing Data Monitoring and Collection Engine

Standard Customization Opportunities

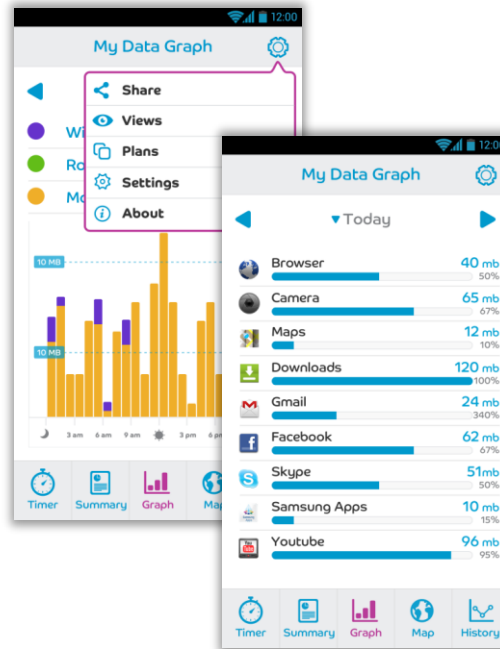


- Brand-able and customizable user interface
 - Launcher Icon
 - Splash screens
 - In-app art and colors
- Optimized plan configuration and usage accounting including plan names
 - Decrease user configuration
 - Move from MB to \$\$\$
- Inclusion of web-based interface to billing information
- ◆ Customized data offers with notifications or ad insertion



Customize to increase the value to your customers

Customized Versions of My Data Manager



AT&T Travel Companion

- Leverage **My Data Manager**
 - Mature starting point
 - Highly featured monitoring
 - Reporting
- Travel Companion specific UI matching AT&T style and apps
- Integrate with AT&T interfaces

Simple Branding

- Apply branding to public design to assist promotion

Custom Design

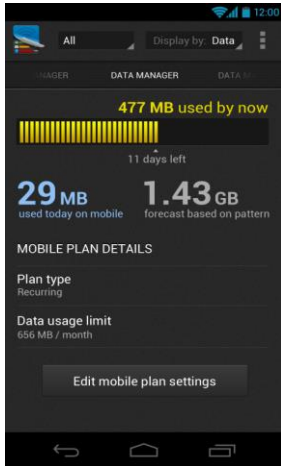
- Align with corporate style existing apps design paradigms

Custom App

- Align with corporate style existing apps design paradigms

Building a Better Roaming Experience

Underlying My Data Manager technology

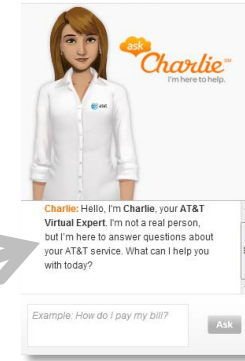
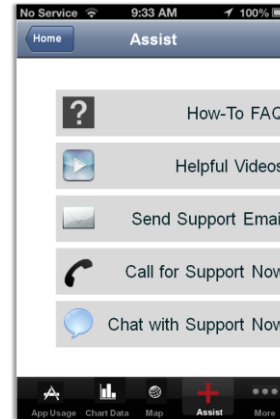


Consider trips as **events!** Maintain history of trips and connect data usage to the trips.

Real-time monitoring – instant response

Integrate with AT&T API and billing to support auto plan setting and plan purchase options

Future: Integrate with travel services to further enhance user experiences

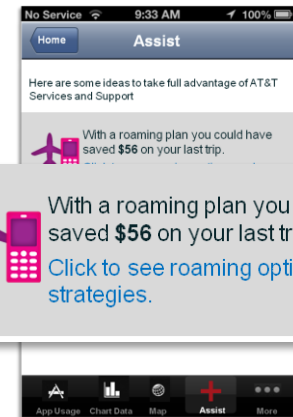


Bring familiar **support** to users overseas

Context triggered info brings relevant and highly **actionable** messages to users

Maintain history of user and their behaviours to accurately target the correct plan or promotion

Profile user behaviours



These views are functional representations only and do not represent design suggestions

Extensible App Architecture

mobidia My Data Manager

← Swipe navigation between views; Views can be contextually visible, triggered →



Real-time mobile data usage reporting, Notifications, Plan monitoring, Usage history



My AT&T view
(linked to operator billing)



Present Promotions



Savings Calculator



Other tools

Support for Custom Views (integrated into My Data Manager)

Allows for Efficient Operator Customization

Sell More Roaming and Data Plans with App Context

100MB

Sell and upgrade data and roaming plans

- Move entry level to premium plans
- Sell top-ups
- Sell more roaming plans

1GB



Promote Operator services

- Target Netflix users with operator TV
- Target Pandora users with operator music
- Etc.



Sell more accessories & hardware

- Sell headphones to Spotify users
- Move smartphone users to superphones

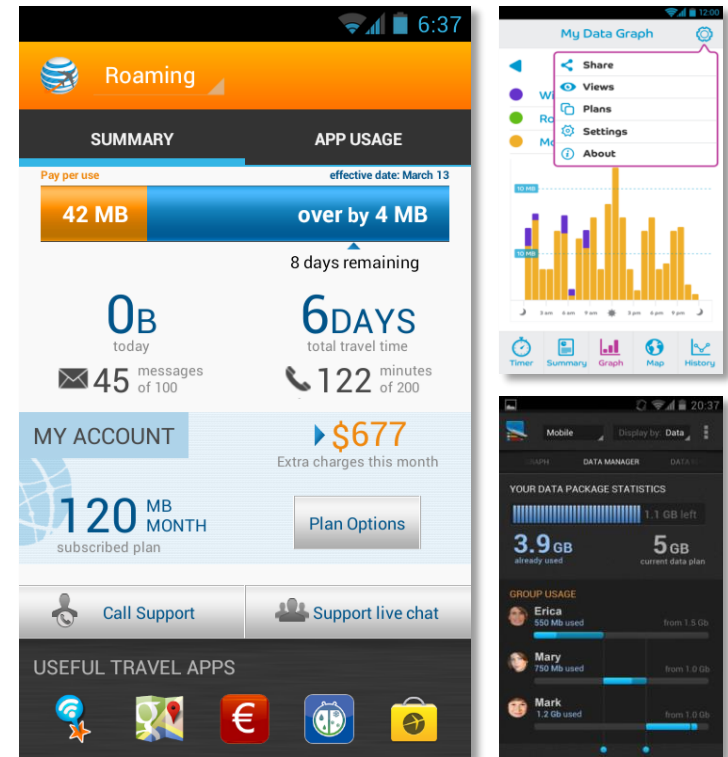


MDM Operator Integration: Summary

- Flexible integration options
 - ◆ Mobidia Professional Services can provide consulting, design, development, integration, testing & support

- On-device usage monitoring for subscriber at all times, provides insights and value:
 - ◆ Ongoing usage for user
 - ◆ Real-time alerts
 - ◆ Superior user experience & ease of use
 - ◆ New opportunities for on-device service promotion, provisioning, loyalty, support
 - ◆ On-device monitoring can be reconciled with network view of usage for accuracy and to avoid 'bill shock'

- Multiple integration scenarios
 - ◆ Automatic service/plan config.
 - ◆ Consistency of information (reconciliation)
 - ◆ Help & support
 - ◆ Etc.



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3rd Party App Integration: Solution Summary

3rd Party App or UI

- UI controllers, activities, views, fragments, graphics, etc.
- App Engagement Integration (optional Mobidia Pro Svcs)
- Mobidia MDM UI foundation classes*

API, links, GUI's

Display content

** MDM UI foundation classes can be freely used w/ valid MDM Core Engine license*

My Data Manager SDK / API's

MDM Core Engine (Mobidia)

- SDK/API's delivered as framework/libraries, documentation
- On-device monitoring metrics & context, reconcile network vs. on-device reporting, data persistence, etc.
- Server-side Usage & Data analytics reporting (optional)
- Device OS integration
- Mobidia Professional Services

API

Subscriber profile

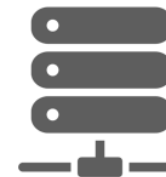
Usage

Offers

Device OS

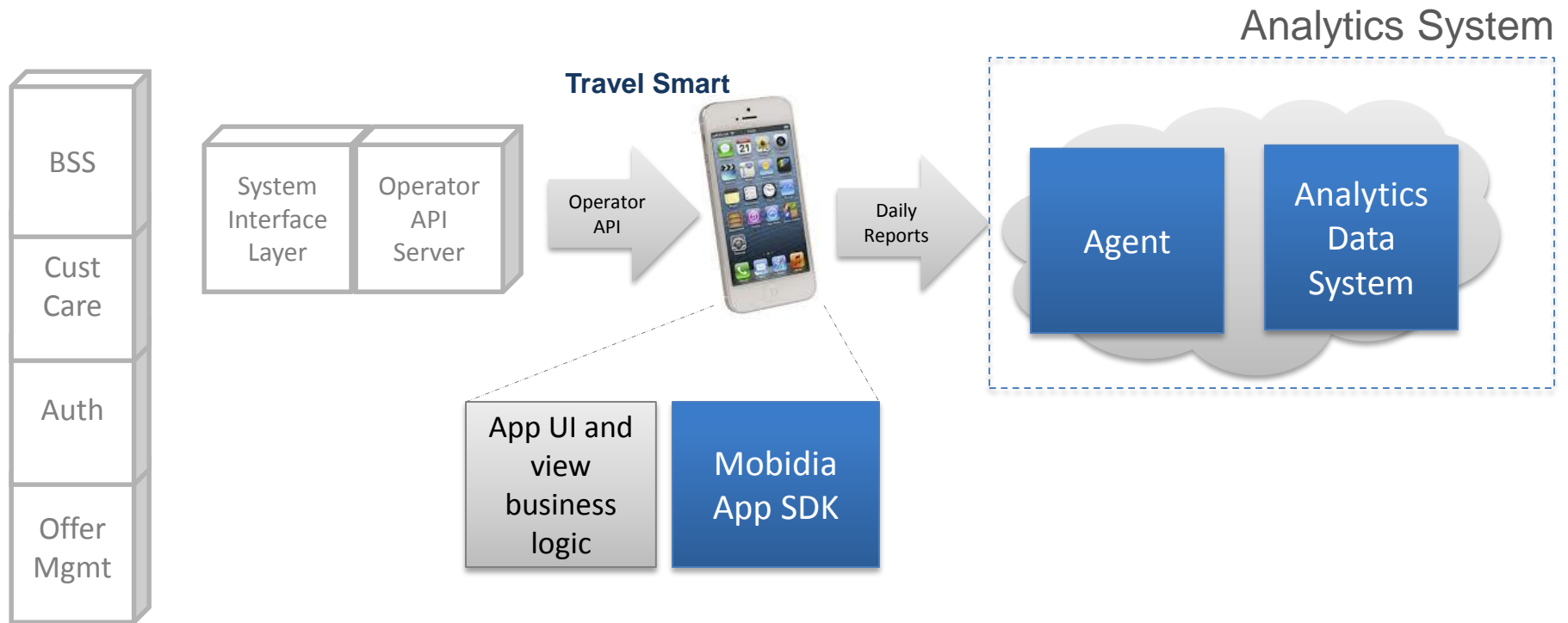


Mobidia
Professional
Services



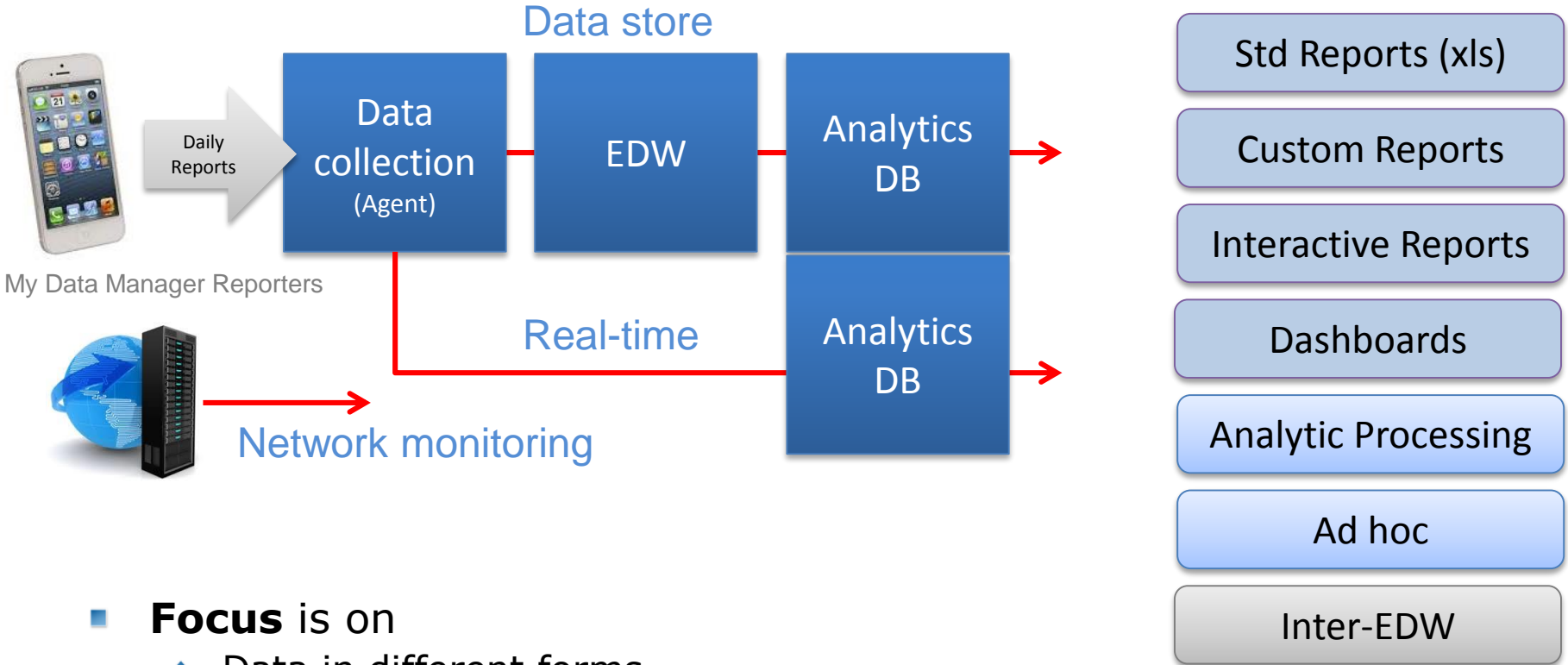
Operator
OSS/BSS &
Offer Mgmt

System Diagram



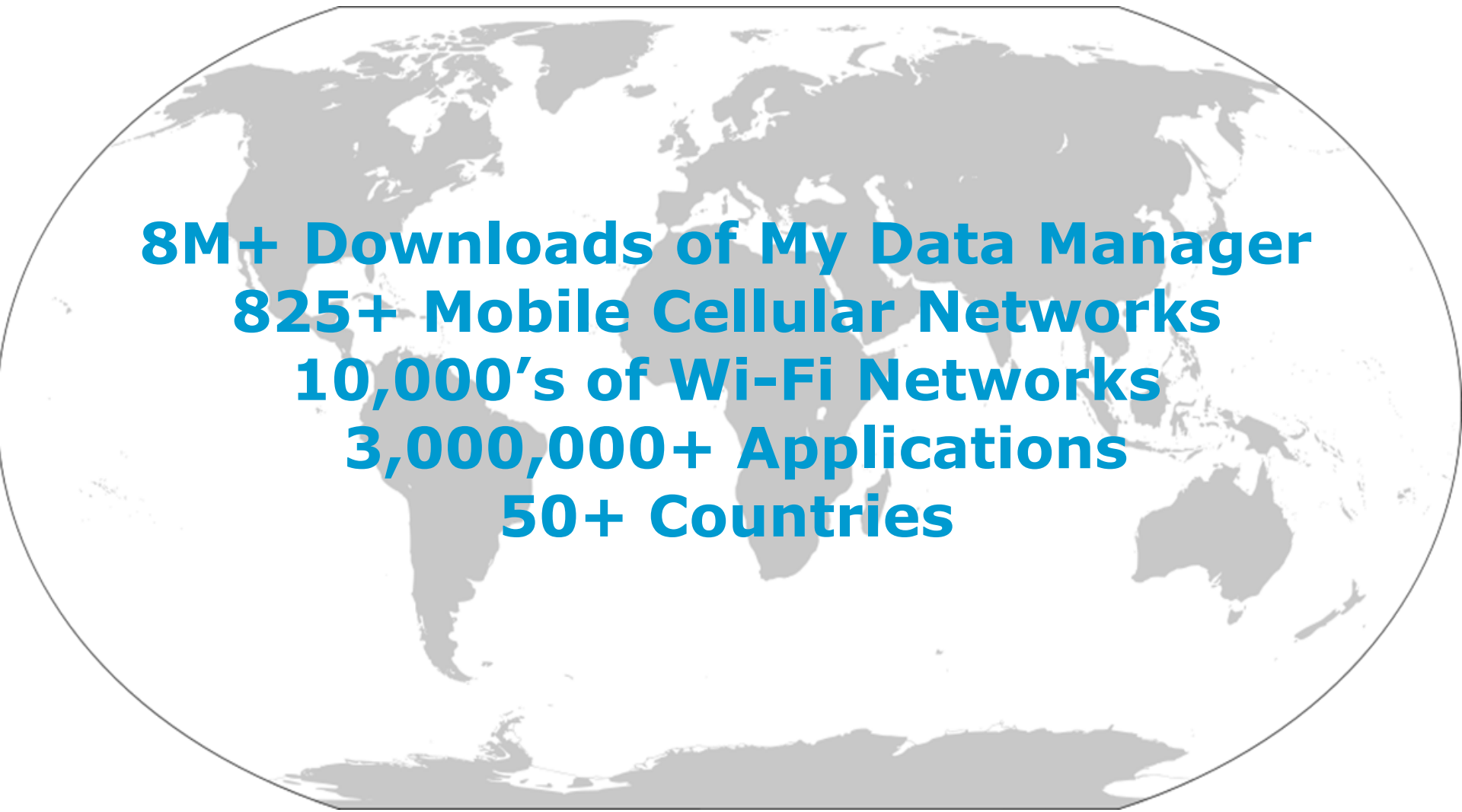
- Backend system are show generically – expect variations between OPCO
- Operator API can be common

Mobidia Analytics



- **Focus** is on
 - ◆ Data in different forms
 - ◆ Velocity of access to data
 - ◆ Data patterns, user level processing, retention, referral, demographics and cohorts
 - ◆ Enhanced delivery options
 - ◆ System efficiencies

Mobidia's Industry Leading Sample

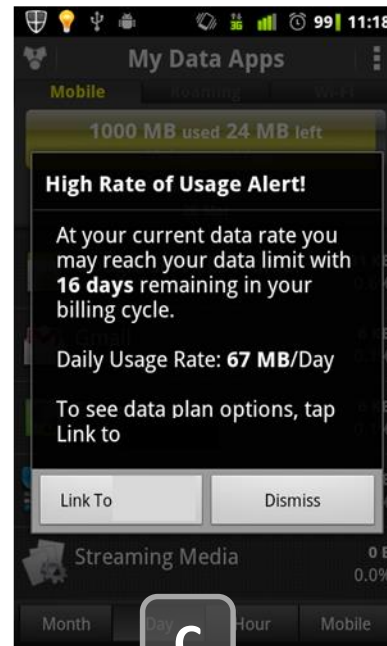
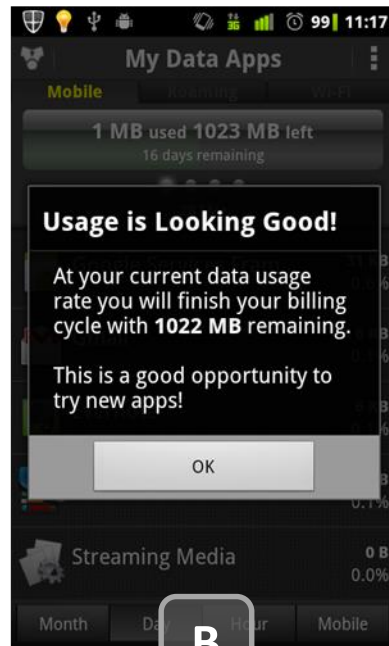
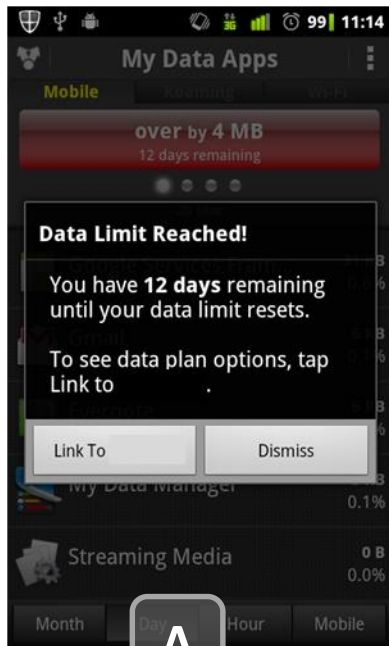


8M+ Downloads of My Data Manager
825+ Mobile Cellular Networks
10,000's of Wi-Fi Networks
3,000,000+ Applications
50+ Countries

Huge Global Sample Growing Daily

USA	Singapore	Argentina
South Korea	Thailand	Peru
Netherlands	France	Romania
Canada	Philippines	Venezuela
United Kingdom	Taiwan	New Zealand
Hong Kong	Saudi Arabia	UAE
India	Brazil	Poland
Mexico	Indonesia	Slovakia
China	Egypt	Israel
Spain	Hungary	Ireland
Malaysia	Turkey	Ecuador
Australia	Colombia	Russian Fed
Japan	Belgium	Greece
Germany	Portugal	Kuwait
South Africa	Switzerland	Lebanon
Italy	Panama	Nigeria
Czech Republic	Denmark	

My Data Manager Alert Examples



- A) Configurable thresholds that trigger promotions for upsells and toppers
- B) Example of a Guidance Notification which can encourage more usage
- C) Caution alert that can be triggered based on thresholds, rates, specific network (eg roaming). More guidance gives subscribers confidence to use more
- D) Cross-sell example

Consumer Up sell Trial with NA Operator

- Parameters
 - 30-60 days trial
 - 10K consumers
 - 5 specific context based offers
 - ◆ Based on data usage
 - ◆ And specific app usage
- Results
 - 2-3X more click-through than SMS offers
 - Significant purchases of larger data plans
 - 18% of customers likely to upgrade data plan due to app
 - 89% understand mobile data better
 - 37% used more data because of the app

1

Data Limit Reached!

You have **13 days** remaining until your data limit resets.

Click below to connect to [link] and see data plan options.

Link To T-Mobile Dismiss

Clear

2

High Rate of Usage Alert!

You will reach your data limit with **13 days** remaining in your billing cycle at your current usage rate.

Daily Rate: **0.1MB/day**

Click below to connect to [link] and see data plan options.

Link To T-Mobile Dismiss

Usage is Looking Good!

At your current data usage rate you will finish your billing cycle with **4095.9MB** remaining.

This is a good opportunity to try new apps!

OK

3

Risk of High Data Usage!

It has been identified that you are using apps that consume a lot of data, like **YouTube**.

Your plan limit of **1024 MB** could be exceeded if you use these types of apps frequently. It is suggested that you increase your data limit, or use Wi-Fi to avoid overage.

Click below to connect to [link] and see data plan options.

Link To T-Mobile Dismiss

4

Mobile HotSpot Warning!

Most carriers require an additional service to use your phone as a hotspot.

Click below to connect to [link] to verify your plan and see Mobile HotSpot options.

Link To T-Mobile Dismiss

5

Mobile TV is Available!

We noticed that you like to watch video and your device has [link] TV. This service allows you to watch TV on-the-go!

Link to T-Mobile TV Dismiss

- Upsell Details
1. Show if customer exceeds plan limit
 2. Show if customer's rate will exceed limit
 - Show every 5 days
 - Tests upgrade and downgrade
 3. Show if customer uses data heavy apps
 - Video, Audio, Netflix
 - VOIP
 4. Show uses Tethering without SMHS
 5. Show Operator TV cross sell for video users

First Run Experience

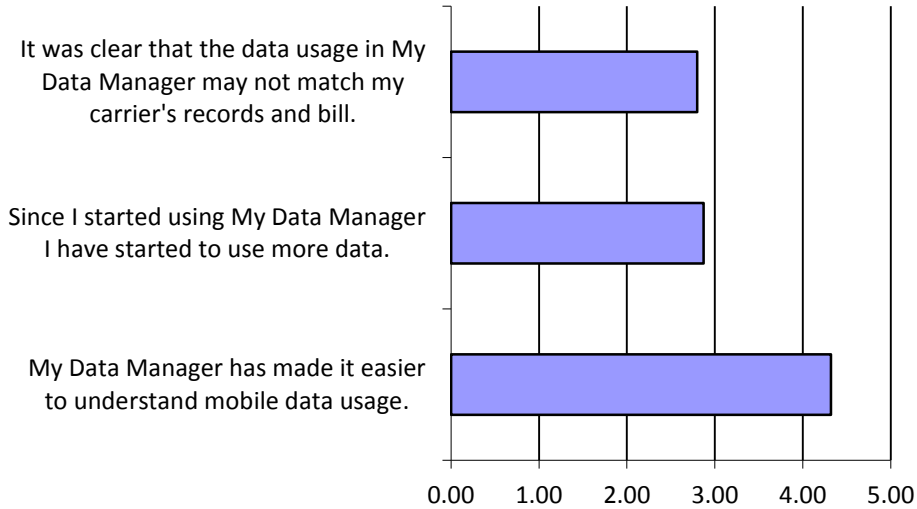


Control of Domestic Roaming Usage

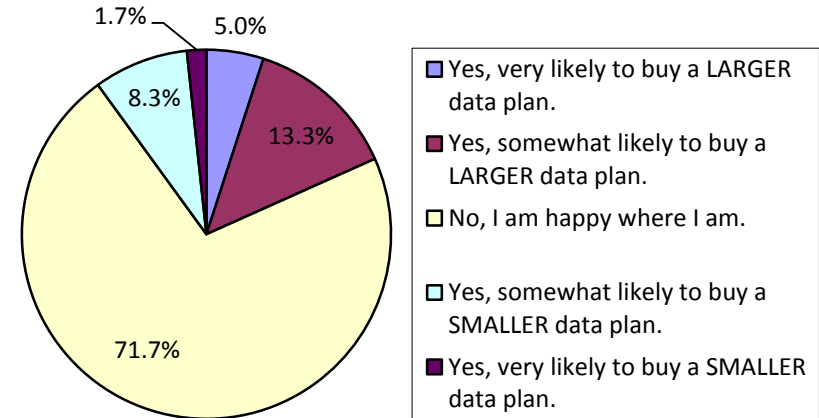


My Data Manager Consumer Trial Summary Survey Results

My Data Manager - Data Understanding and Usage (5 means user strongly agrees with statement)

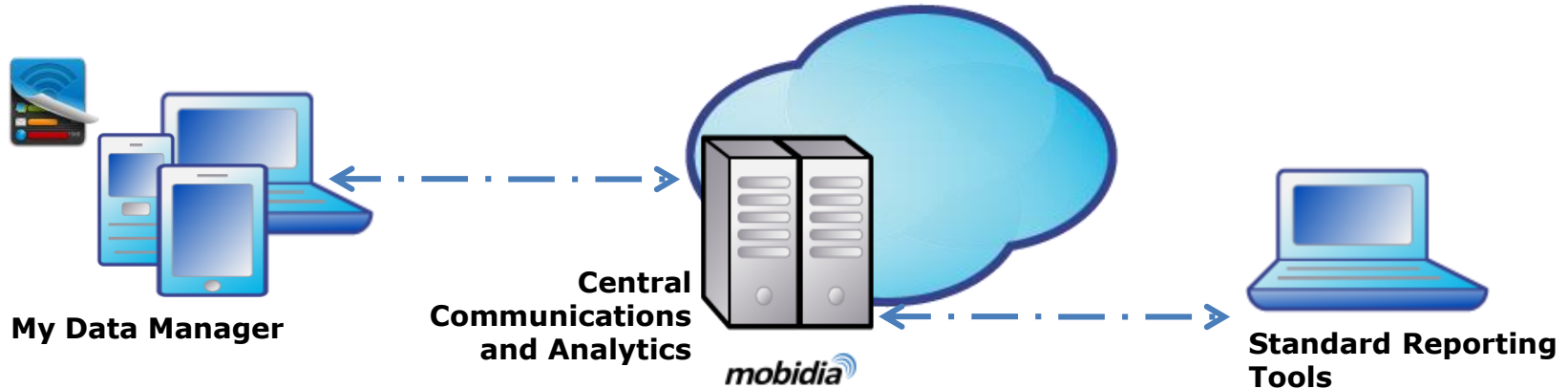


Since using the My Data Manager application are you more or less likely to change your data plan with your carrier?



- 71 Users have responded as of 5/30
- Usage Understanding:**
 - 89% of users 'agree' that the app helped them understand data usage
 - 37% of users 'agree' that the app has helped them use more data
- Plan Upgrade/Downgrade:**
 - 72% of users state that they are OK with their current plan
 - 18% of users stated that are likely to upgrade due to the app
- Overall**
 - Customers seem to have gained a better understanding of data usage due to MDM
 - Customers show a willingness to upgrade significantly higher than we see in upgrade analysis (~2-3% of user upgrade in a billing cycle)

Sole Source Of This Type Of Data at Global scale



Unique Device-Based Analytics

- App, device and network usage trends (iOS and Android)
- 3G, 4G, LTE, Wi-Fi, Roaming usage
- App penetration & engagement

Breadth and Depth of the Data

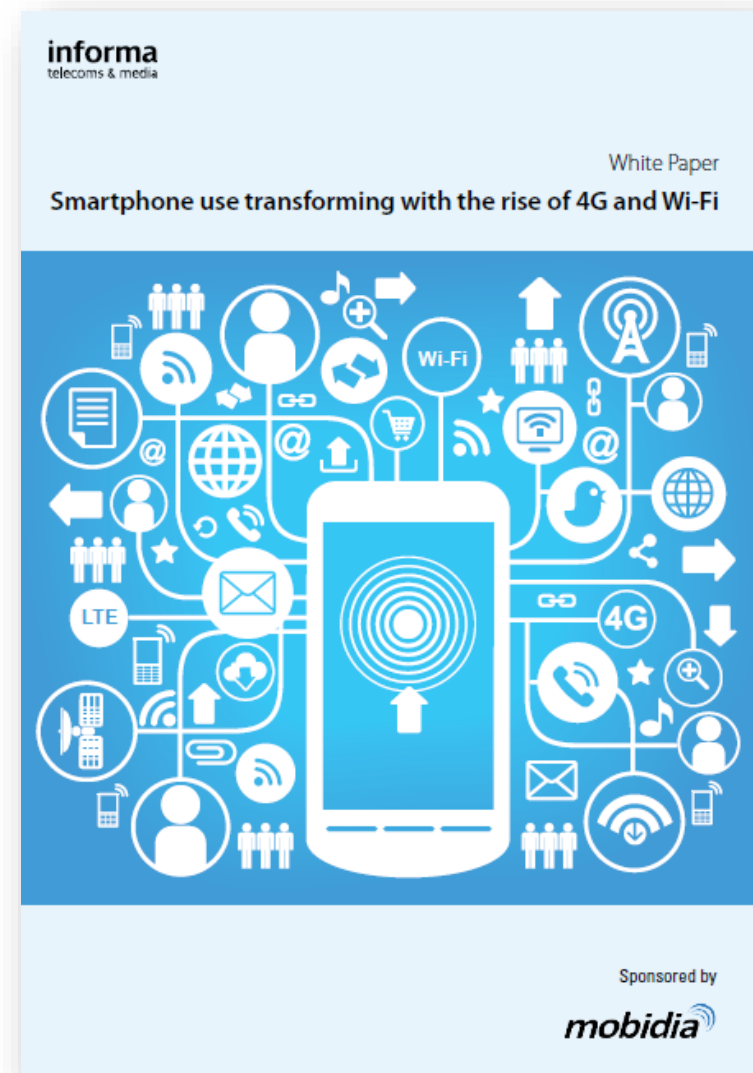
- Continuous stream of usage details provides real-time view of mobile world
- Millions of actions around the world processed daily

Why Mobidia Data is Different

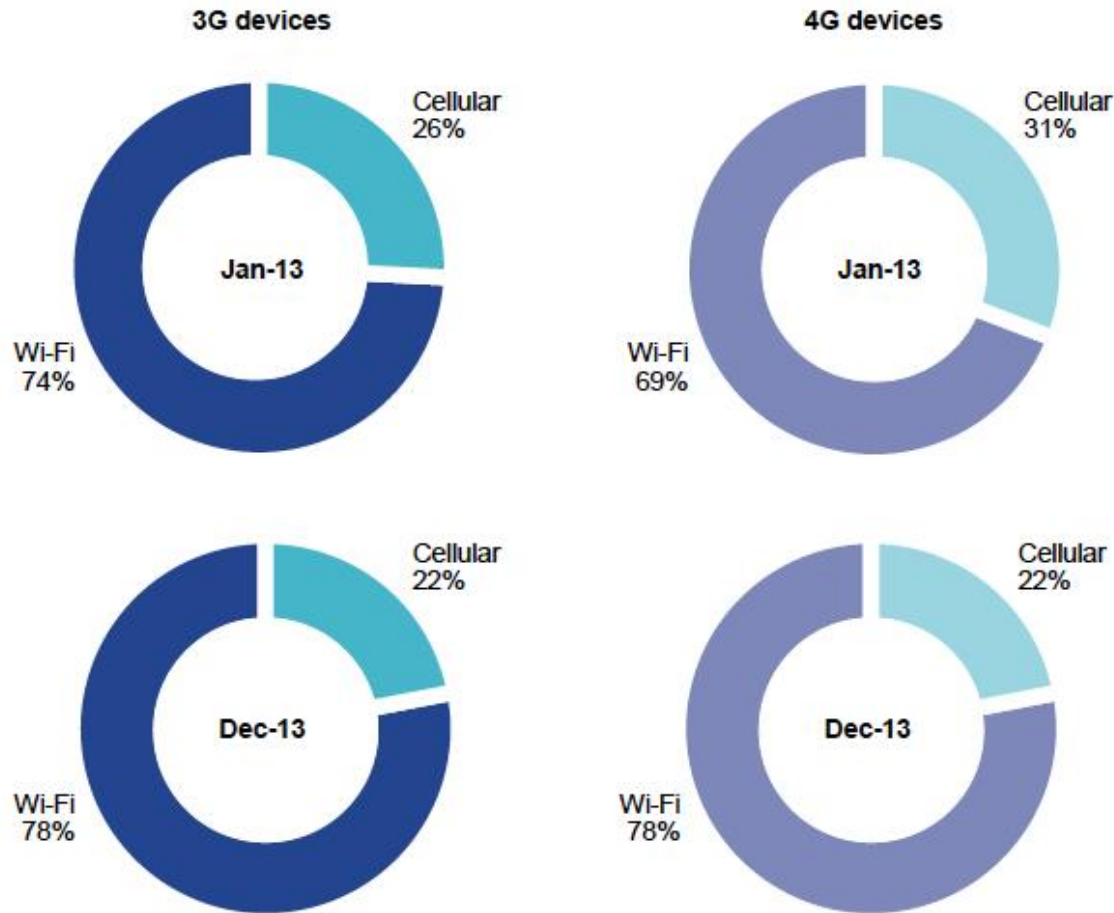
- ON and OFF network visibility
- Real usage from real users
- More accurate, valuable and insightful than download data
- Largest global sample from millions of mobile subscribers
- Statistically valid coverage in more than 50 countries, and 200+ countries in total
- Visibility into actual usage of long-tail of apps (800,000+) globally

Latest Usage White Paper

- Hundreds of thousands of users
- Full 2013 Analysis
- Expanded view of leading LTE markets representing 90%+ of LTE subscribers
 - Brazil
 - Canada
 - Germany
 - Japan
 - Korea
 - Russia
 - Saudi Arabia
 - South Africa
 - United Kingdom
 - United States
- Focus
 - 3G, LTE, Wi-Fi usage trends
 - Plan utilization and app usage

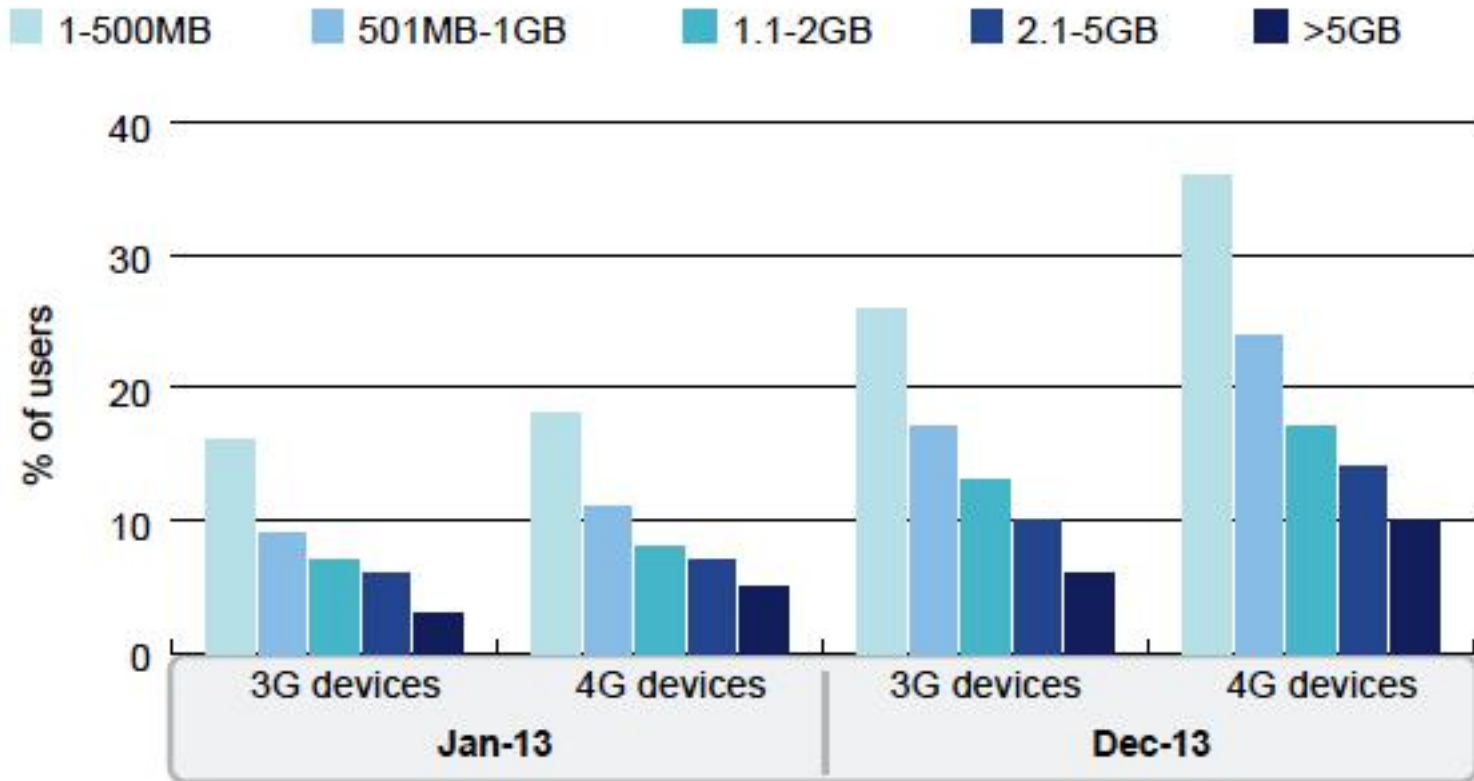


Wi-Fi Continues to be Primary Connection



Global, Wi-Fi and cellular share of monthly data use, Android smartphone users, Jan-13 and Dec-13

Overage Growing and Increases on LTE

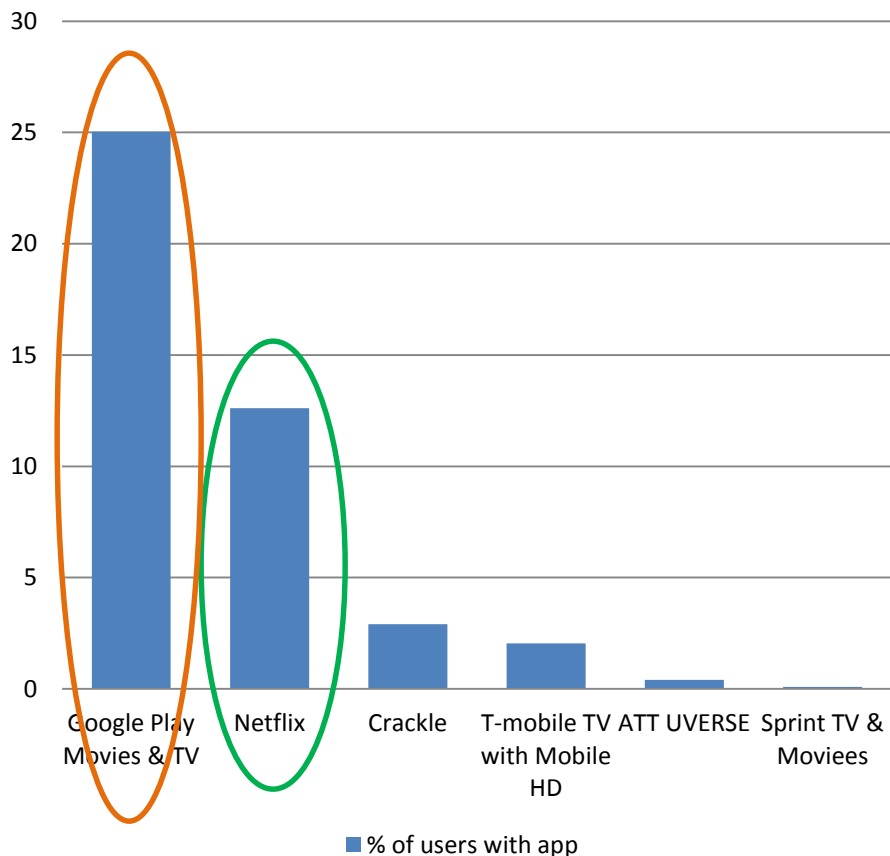


Global, share of Android 3G and 4G smartphone users using 100% of monthly data limit, by plan, Jan-13 and Dec-13

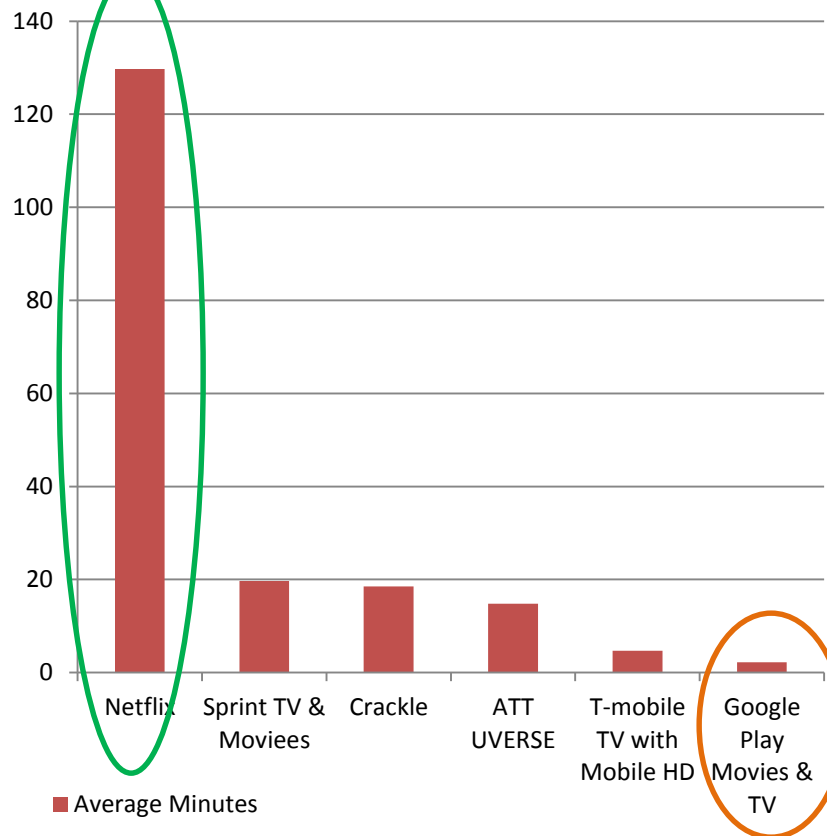
App Usage More Relevant than Downloads

Most People Have Dozens of Apps They Rarely Use

App Downloads: % of Users of App



App Usage: Average Minutes

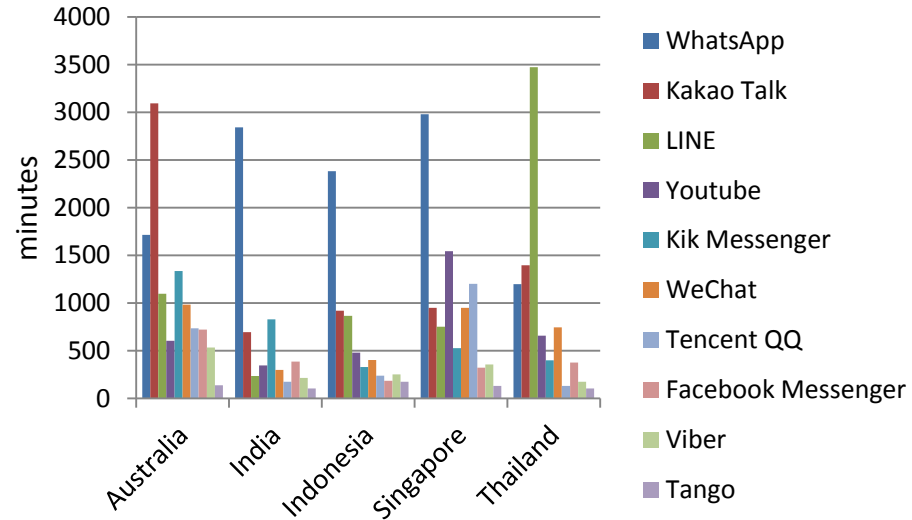


Mobile App Usage Analytic

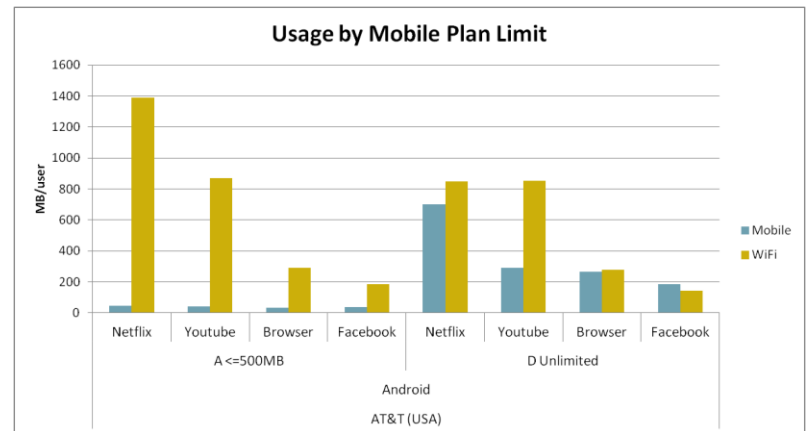
Where Mobidia Adds Intelligence

- Penetration
- Engagement
 - DAUs, WAUs and MAUs
- Usage Metrics
 - Time in app
 - Sessions
 - MB consumed
- Top App Rankings
- Pivots: country, operator, OS, device

Time in App, per User, Jan 2013



Usage by Mobile Plan Limit



Distribution of Android Smartphone-Originated Traffic Across Networks, Jan 2013

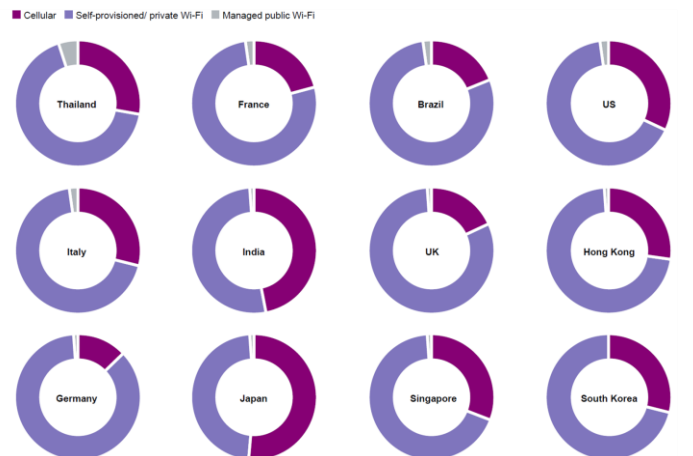
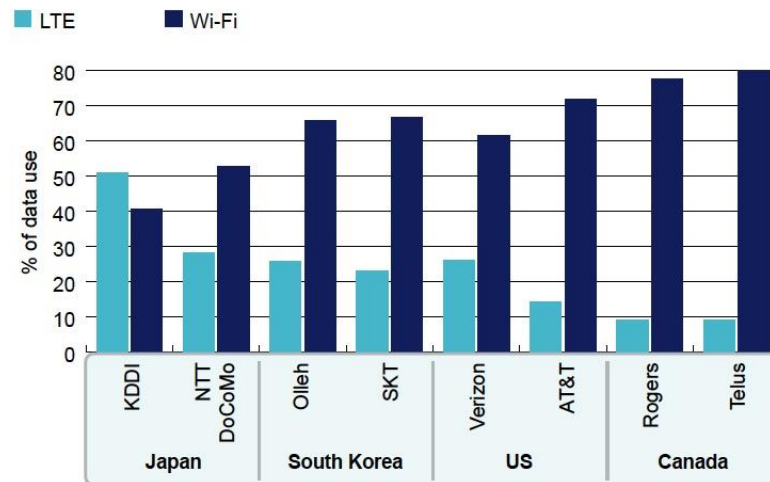
Network Usage Analytics

- ON and OFF network usage is different and valuable
 - Off network can be 80% of usage

- Wi-Fi vs. cellular analysis
- Private vs. public Wi-Fi usage
- LTE usage metrics
- Cellular usage by cellular plan size
- Cellular plan utilization
- Country and operator granularity

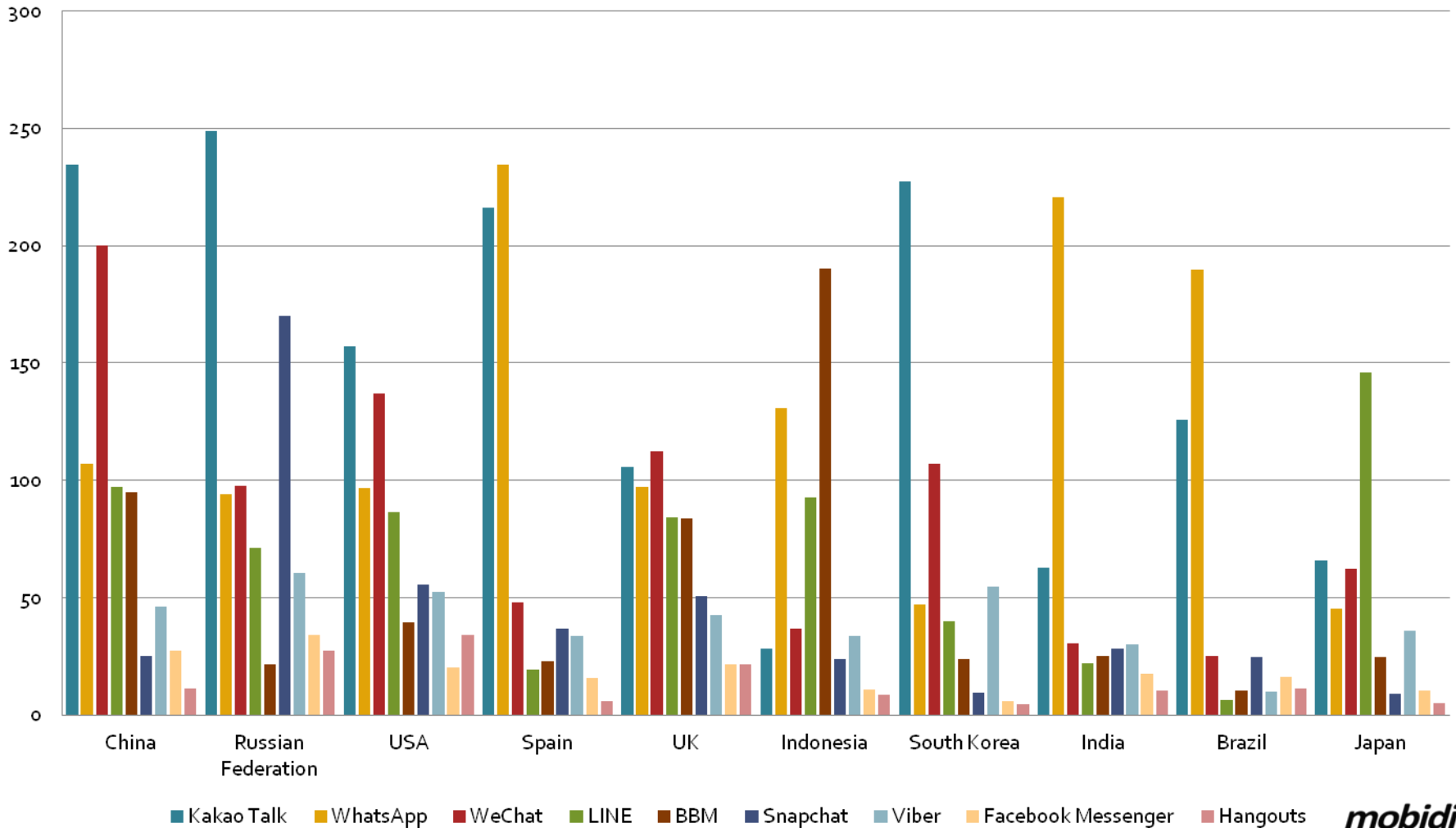
- Uses
 - ◆ Wi-Fi offload strategies
 - ◆ Wi-Fi compete strategies
 - ◆ Public Wi-Fi roll-outs
 - ◆ LTE roll-out performance
 - ◆ Marketing and pricing strategies

Wi-Fi Usage as a Percentage of All Data, 3G and LTE Users

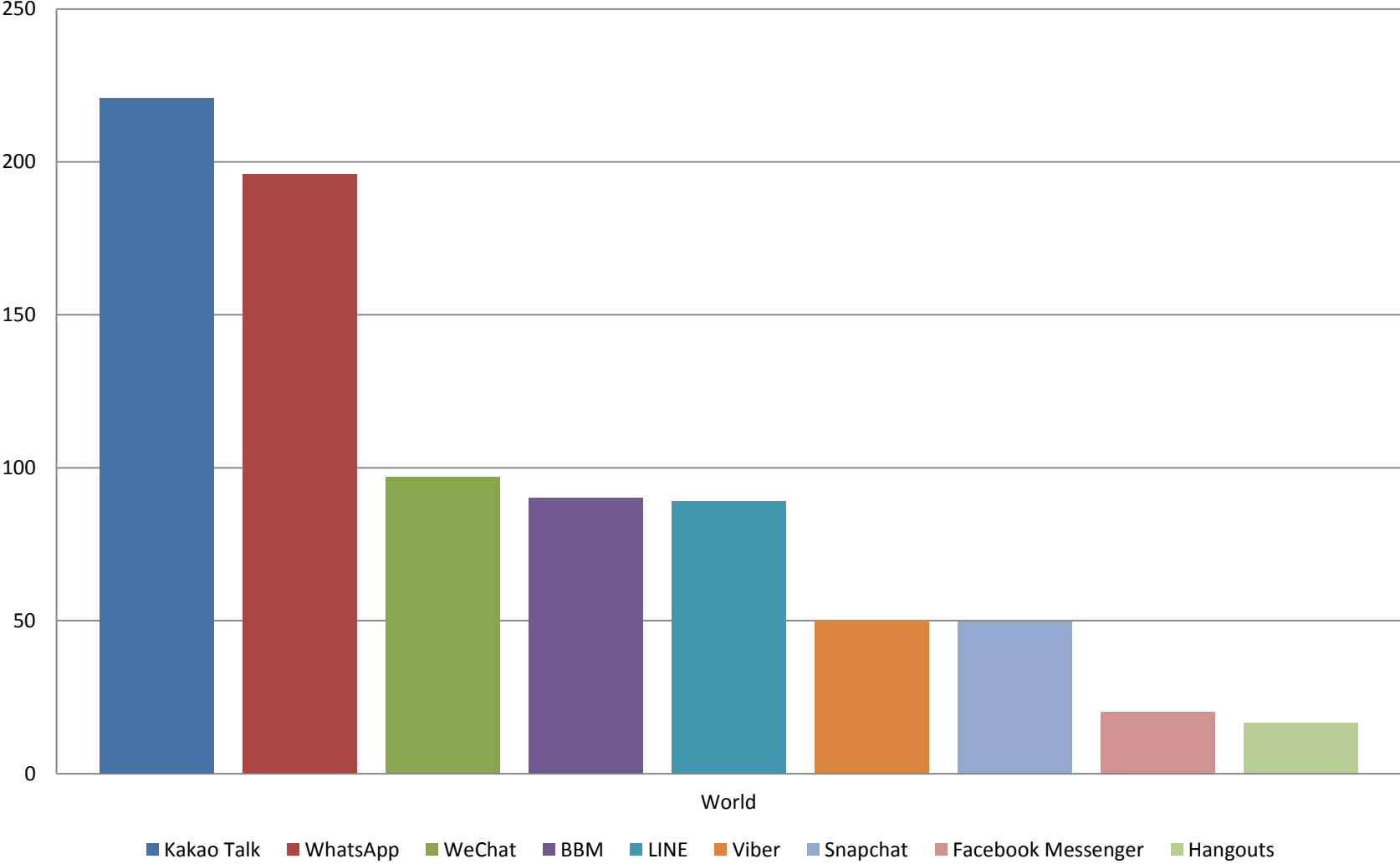


Distribution of Android Smartphone-Originated Traffic Across Networks, Jan 2013

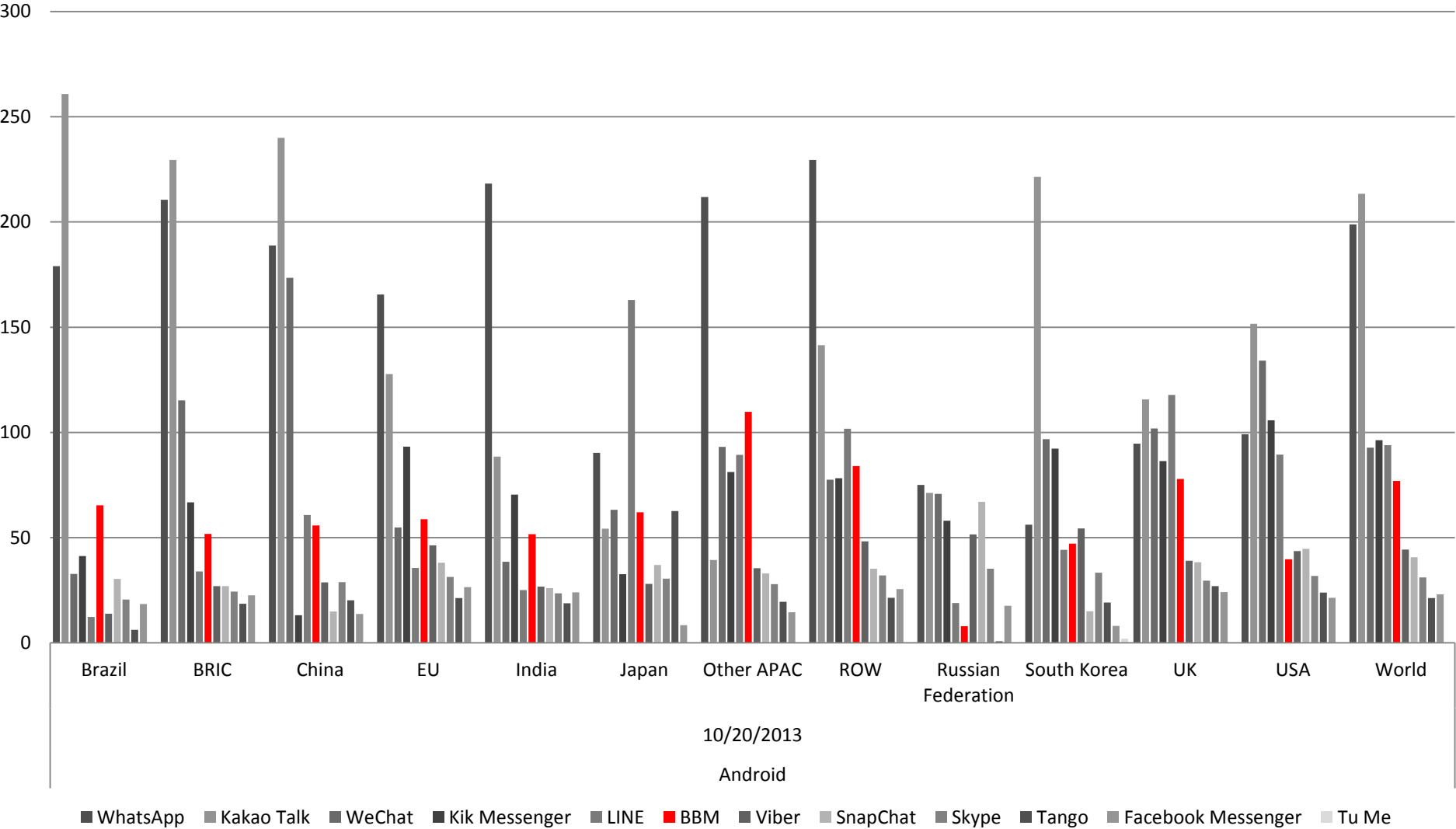
Average Minutes of Weekly Usage, Social Messaging Apps Android, World, Jan 2014



Average Minutes of Weekly Usage, Social Messaging Apps Android, World, Jan 2014



Panel Penetration of BBM and Selected Apps USA, Android, Week of October 20, 2013



Average Minutes of Monthly Use Twitter, Vine and Selected Apps, USA, 2013

