



How Mobile Turns Multiple Screens  
Into Success Stories



# How mobile turns multiple screens into success stories



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## Introduction to second screen

For any PC, laptop or mobile user, chatting with a friend, searching for content on Google and watching TV are all packaged into one activity. Chances are, you do the same thing and 10 tabs already opened up.



We live in a multi-screen world that shapes our day-to-day lives, from ubiquitous mobile devices and platforms that offer instant accessibility to content and information.

This digital paradigm shift s lead to multi-tasking becoming a prevalent element to how we interact with the devices we own today.

The mobile revolution increased that multi-tasking behavior, to where people simultaneously use a laptop, tablet or smartphone while watching TV -the first screen- and the shows they're displaying.

The problem reared its head when attention span is fragmented and with nearly a third of the planet going for smart devices by the end of 2013, mobile users spend more time with their phones and apps while they're becoming disconnected from television content.

In the wake of the mobile revolution, second screen apps arose as natural mobile extension aiming complement the viewing experience, heightening emotional engagement to viewed content and leading to multi-screen convergence.

In the context of a rapidly flourishing mobile market, the goal is to paint a picture of how to take your mobile users and engage them towards loyal viewers and shape the multi-screen issue into one solution and one connected viewing experience.

This whitepaper is aimed at highlighting the benefits, opportunities and pitfalls of second screen apps for TV companies, broadcasters, entertainment media companies and television executives and how they bridge the gap between mobile users and TV viewers.

### Key highlights

- ✓ User behavior is shaped by mobile devices
- ✓ How mobile devices are used in conjunction with television content
- ✓ How second screen applications engage users with easily accessible information
- ✓ Mobile migrates into the TV ecosystem as both catalyst and initiator
- ✓ Complementary content empowers existing business models
- ✓ The future of TV media begins with mobile becoming an augmentation to user experience and evolving into one singular activity





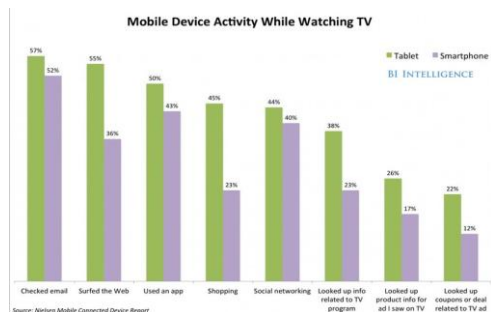
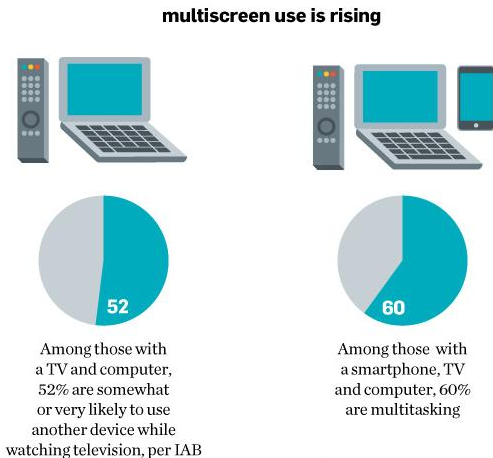
## Context: People use other devices while watching TV... so they're not actually looking

Studies show that people have increasingly been using other devices such a laptop, PC, tablet or smartphone while watching TV.

Their activities range from chatting on Facebook, checking the email, watching YouTube videos while their attention for what's happening on the TV screen is minimal at best.

### The multi-screen trend

The total number of individual mobile subscriptions in the world is at the 4.4 BN mark (Sony Ericsson) and Flurry projects 1,82 BN smartphones and tablets by the end of the year. Coupling that with the number provided by ABI Research expects that the pay-tv market will continue to grow in 2013 to reach 907 million subscribers, *The PC and laptop market will have 2 BN users by the end of 2015* (Forrester)

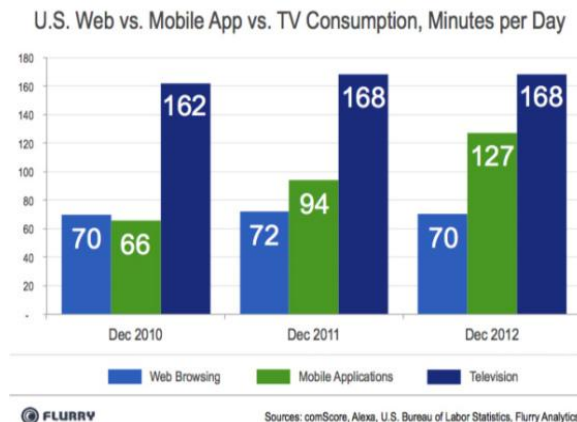


## For every home that has a TV there are at least two mobile smart devices + a PC or laptop

A study from Google in 2012 revealed that 77% of TV viewers have another device in their hand and that 81% of the 1,611 polled have used their smartphones while watching TV. Top three of activities was email at 60%, followed by internet browsing at 44%, and social networking at 42%.

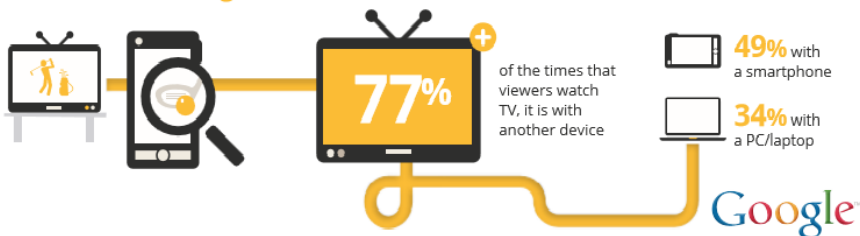
A much larger, worldwide study from Ericsson found that 62% of people use social media while watching TV and that 40% percent of them are discussing what they're watching.

Between Dec. 2011 and Dec. 2012, the average time spent inside mobile apps rose 35% from 94 minutes to 127 minutes a day. To put things in perspective, for the last two years, TV consumption has remained at a steady 168 minutes a day (Comscore, Bureau of Labor Statistics, Flurry Analytics)





## Television no longer commands our full attention



Other studies mirror the same trend.

TV is not gaining any ground with user attention.

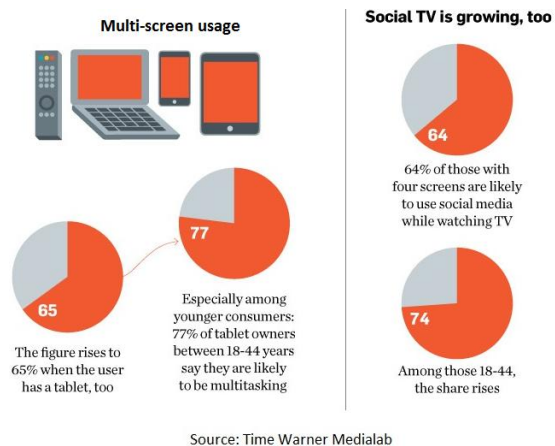
## Where does it all add up to?

With each production and innovation cycle, mobile devices are getting smarter, perform better and offer a wider range of capabilities. The dangerous aspect for TV and media companies comes into play when mobile devices are gobbling up more and more attention while ignoring what's happening on the first screen.

At the current rate of mobile consumption and mobile capabilities, television and media companies will have to face an ecosystem formed of disrupted emotional engagement and fragmented content consumption.

The question this situation generates is not whether TV companies can afford to go second screen or not.

**The question is how?**



## Second screen apps are the critical connector for multi-screener

The very nature of second screen apps is to complement the viewing experience.

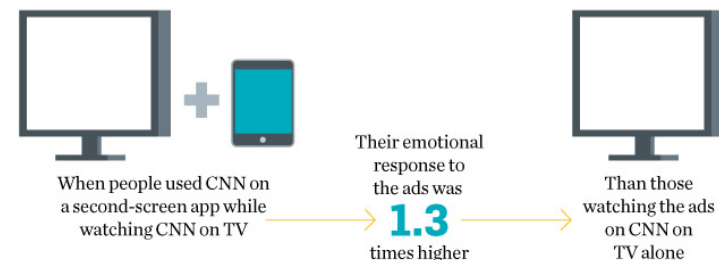
Their primary function is to drive engagement for the audience by increasing interactivity between the show and the viewers at home while continuously building and consolidating the relationship between distributed screens.

Their second nature is to reward mobile users and viewers through content and social features. Second screen apps are tied to the nature of the TV content displayed, and it varies by the entertainment format in question.

For TV networks, second screen apps are a key revenue opportunity. TV ads can be easily complemented with rich interactive in-app experiences that significantly boost the return of investment.

## Second-screen apps drive ad engagement

Using Innerscope, Turner looked at how second-screen apps impact engagement in programming and advertising





## Second screen apps opportunities

- ✓ Strengthening the relationship between viewers, TV networks and major brands.
- ✓ Personalized media consumption experiences and engaging interfaces generate added value for both viewers and advertisers.
- ✓ Creating new revenue streams for the television network with the use of actionable synced ads, interactive cross screen marketing campaigns featuring audio fingerprinting, augmented reality or image recognition.
- ✓ Social features strengthen and open the door to new marketing models such as ads or in app purchases for added value features and app functionality.

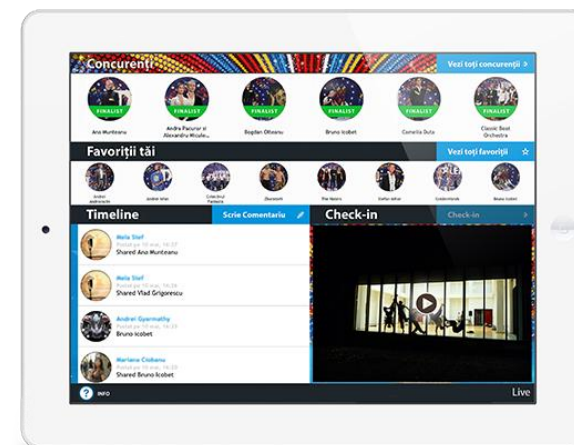
## Second Screen App Modules and Functionalities

Appscend's second screen apps are a logical choice for TV networks or Production houses that need a fast time to market with proven functionalities that delight the audience while driving business results.

All of our apps built on Appscend's award winning cloud technology that allows fast customization, simple cross-platform deployment as well as on the fly cloud updates for UX and functionality without compromising on the great native experience

**Here are some of the great features that are included in our second screen apps:**

1. **User accounts:** allow simple login with Social Networking accounts or 3<sup>rd</sup> party proprietary login systems. All accounts keep track of the actions performed by the audience within the app and award users with points and badges based on predefined rules.
2. **TV Show Check-ins:** integrate seamlessly with social networks boosting awareness and can be activated remotely during the duration of the show.
3. **Live surveys & voting:** synced between the app and the TV show are instantly available on millions of devices. The results collected from the surveys or the votes can be easily shown on screen, all in just a matter of seconds.
4. **Timeline and in app chat:** offer a similar experience to Facebook's social context for discussions between the users of the second screen mobile application.
5. **Synchronized web content distribution:** can be used for pushing additional, premium content to the mobile application in close connection to the content available on TV at specific timestamps.
6. **Second streams:** add a new viewing experience by streaming additional video from different angles and point of views.
7. **Interactive ads:** synced with the ads running on TV and distributed to millions of users within a few seconds, actionable ads are a bridge between TV and Digital advertising





## Appscend Mobile Platform Description

**Cloud backend services and application hosting.** Appscend's scalable and durable cloud infrastructure matched by our global Content Delivery Network offer a solid, reliable foundation for your apps.

**Extensive app security:** Communications between the app and Appscend's backend are industry-standard secured via a HTTPS connection. In addition, login credentials sent by users are encrypted. Sensitive data is stored on-device, in an encrypted container as security is a crucial aspect for Appscend.

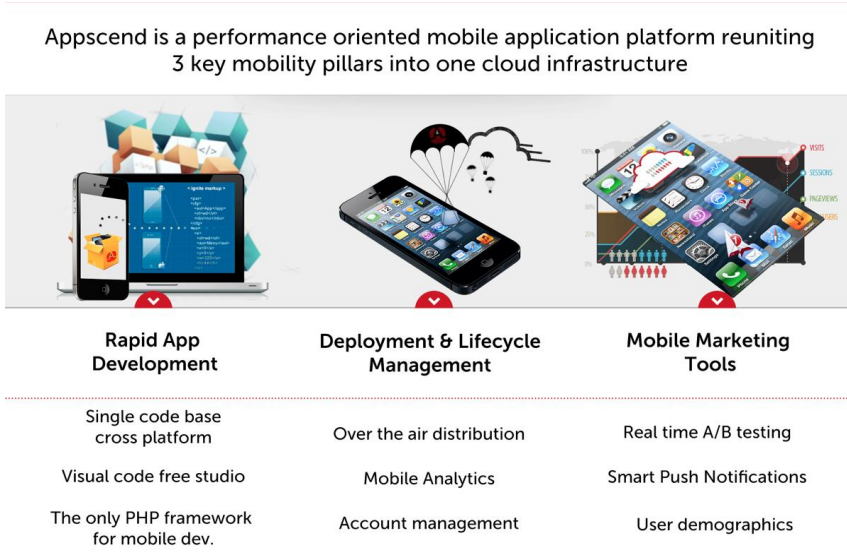
### Cross Platform Native Development in Ruby & PHP

#### Key benefits using Dolphin PHP & Dolphin Ruby

- ✓ 100 % native mobile apps covering iOS & Android
- ✓ 5X faster development => faster time to market
- ✓ Instant app updates for features & UX
- ✓ Appscend offers a one of a kind development environment, based on Dolphin PHP & Dolphin Ruby, the only frameworks available on the market today that allow native app development in 2 of the most popular web programming languages.

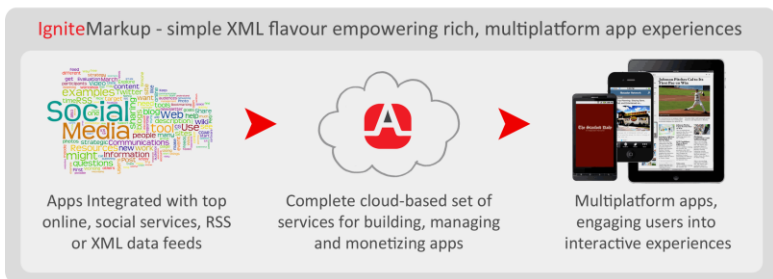
Learning the basics of Dolphin PHP & Dolphin Ruby is no challenge at all for any developer – from PHP, Ruby or Java to just about anyone who ever used HTML to create a simple webpage.

Custom interface elements, access to device resources like geo-location or camera, In-App Purchases, ads, native forms or flow control – wrapped into a few simple lines of PHP or Ruby Code.



### Rich set of tools

#### Appscend's solution



Construct your app interface by taking advantage of a fully customizable and embeddable set of views, and model the dynamics of the interaction via Ignite Actions – pieces of granular functionality that you can freely combine to fit your scenario. HTML5 can be freely embedded in the app if needed, and has interface to the action system as well as device information from the native core.

Creating device or platform optimized UI is also easy using Dolphin, as the environment offers information about the current device & operating system, plus various attached information like data being passed inter-views or stats on the current session. Mobile programming with the entire multiplatform piping beautifully encapsulated: Dolphin.



## Instant Test Environment

Appscend offers a unique and interactive method to test the application under development by using "Catalyst", an application where you will be able to preview your work and test your app at every given moment and also share it with your co-workers, stakeholders or friends.



Catalyst offers also the possibility to browse through over 10 prebuilt industry solutions for consumers, employees and second screen solutions.

### Key benefits of using Catalyst

- ✓ Get the full experience of the app on your device
- ✓ Share the app development progress with co-workers, clients or shareholders.
- ✓ Track progress over your entire development straight from your device
- ✓ Explore Appscend's prebuilt and ready to run industry solutions.

## Cloud Based Content Management System

Using our cloud based Content Management System you will be able to update the content and data of the mobile app on the fly and push information worldwide seamlessly via our global Content Delivery Network.

All of the app's data is safely stored in the Amazon cloud so the app is always safe from server crashes or system outages. Traffic spikes, a commonly encountered pit fall in second screen applications are easily handled by our specifically engineered load balancers.

Your current categories		New Category	Custom Fields
Name	Linked views	Content sources	Category ID Options
Latest	Latest memes, Latest memes	<ul style="list-style-type: none"> <li>3 9gag</li> <li>3 dailymail</li> <li>3 knowyourmeme</li> <li>3 quickmeme</li> <li>3 1000notes</li> <li>3 wknowmemes</li> </ul>	5382 <a href="#">Edit</a>
Publications			5383 <a href="#">Edit</a>
Forever alone	Forever alone, Forever alone	3 Forever alone	5387 <a href="#">Edit</a>
Y U NO	Y U NO, Y U NO	3 Y U NO	5390 <a href="#">Edit</a>
Scumbag Steve	Scumbag Steve, Scumbag Steve	3 Scumbag Steve	5391 <a href="#">Edit</a>
Philosoraptor	Philosoraptor, Philosoraptor	3 Philosoraptor	5392 <a href="#">Edit</a>

Appscend's infrastructure is designed from the ground up to be distributed and fault tolerant, from geographically redundant database servers to separated read/write API interfaces and powerful application servers backed by a granular and powerful caching system.

### Key benefits of using Appscend's Cloud CMS

- ✓ Scalable and secure backend for all your data & information
- ✓ Easily customizable to match the data profile your application needs
- ✓ No more resources wasted on backend development.





## Push Notifications, Message Dispatch and Synchronization

Push notifications are a vital component of the mobile app's lifetime value as well as a vital component for user engagement and user interaction.

Using Appscend's advanced messaging platform you can go beyond the traditional text-based, no-action notifications! Audience engagement is possible with our Smart Push Notifications that can display custom HTML5 promo screen connected with native app actions – call, download, navigate, engage.

With Appscend you can take this interaction even further, by targeting your notifications using geo-location filters, gender and age selection, and even schedule your messages for a specific date in the future.

New Smart Notification

Campaign title

Notification text

No action Video Load URL External link Expert CMS Content

Send to:

Everyone  Female 18-25  Germany Users  25-35  Females from Romania, ages 25-35  groupama  male25-35  Uk group  uk 25  UK  USA- smt  25-35 Romania and UK  fashion up  UK  females 18-35  females 18-35  18-25 male  male US  25-25 US

Platform:  Apple iOS  Google Android

Send now Schedule...

Send

### Key benefits of using Appscend's smart messaging system

- ✓ Use Notifications to trigger in-app actionable functionality
- ✓ Segment your audience and engage your users on a personal level
- ✓ Increase loyalty and engagement of your user base
- ✓ Synchronize to live content

Text	Date	Status	Options
FBI pune capăt speculațiilor. Ei sunt PRINCIPALII suspecți în atentatul din Boston	2013-04-19 09:35:49	sent to users	Delete
Ponta: Eu am aplicat legea pe baza căreia a fost numit și domnul Morar. Premierul participă la ședința USL	2013-04-03 15:26:32	sent to users	Delete
Top 10: cele mai "fierbinti" economii in 2013	2013-01-08 12:09:07	sent to users	Delete
Victor Ponta a fost desemnat prim ministru	2012-12-17 10:26:12	sent to users	Delete
Alegeri-primele rezultate: USL 60%, ARD 15%, PPDD: 12%, UDMR: 6%	2012-12-09 11:12:13	sent to users	Delete

Platform	Count
Apple iOS	42607
Google Android	7648

Days	Text	Actions
3	Afla care sunt cele mai fierbinti stiri ale zilei!	Delete

Add

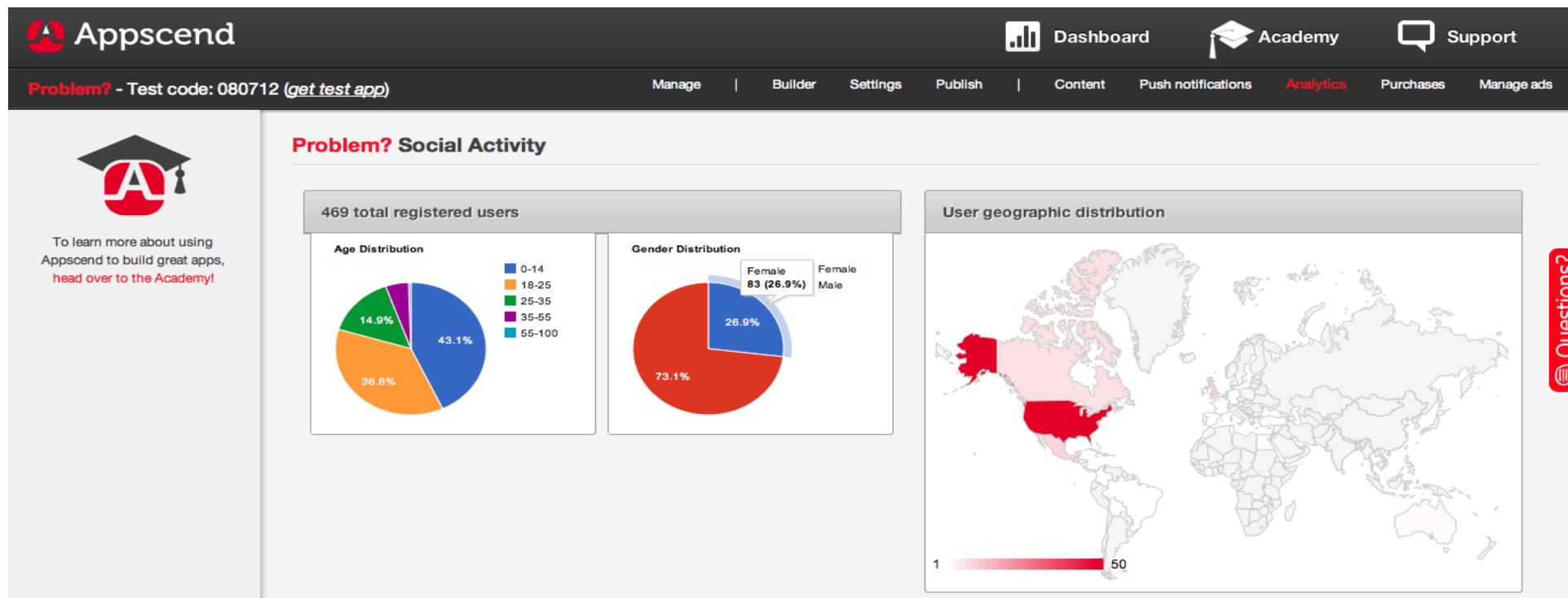


## Advanced User Demographics & Management

Understanding more about your users as well as their activity within the mobile application is a key competitive advantage that will help you accelerate and improve your business results.

### Key benefits of using Appscend's user demographics panel

- ✓ Action based Push Notifications will boost app's ROI
- ✓ Segment your audience and engage your users on a personal level
- ✓ Increase loyalty and engagement of your user base.

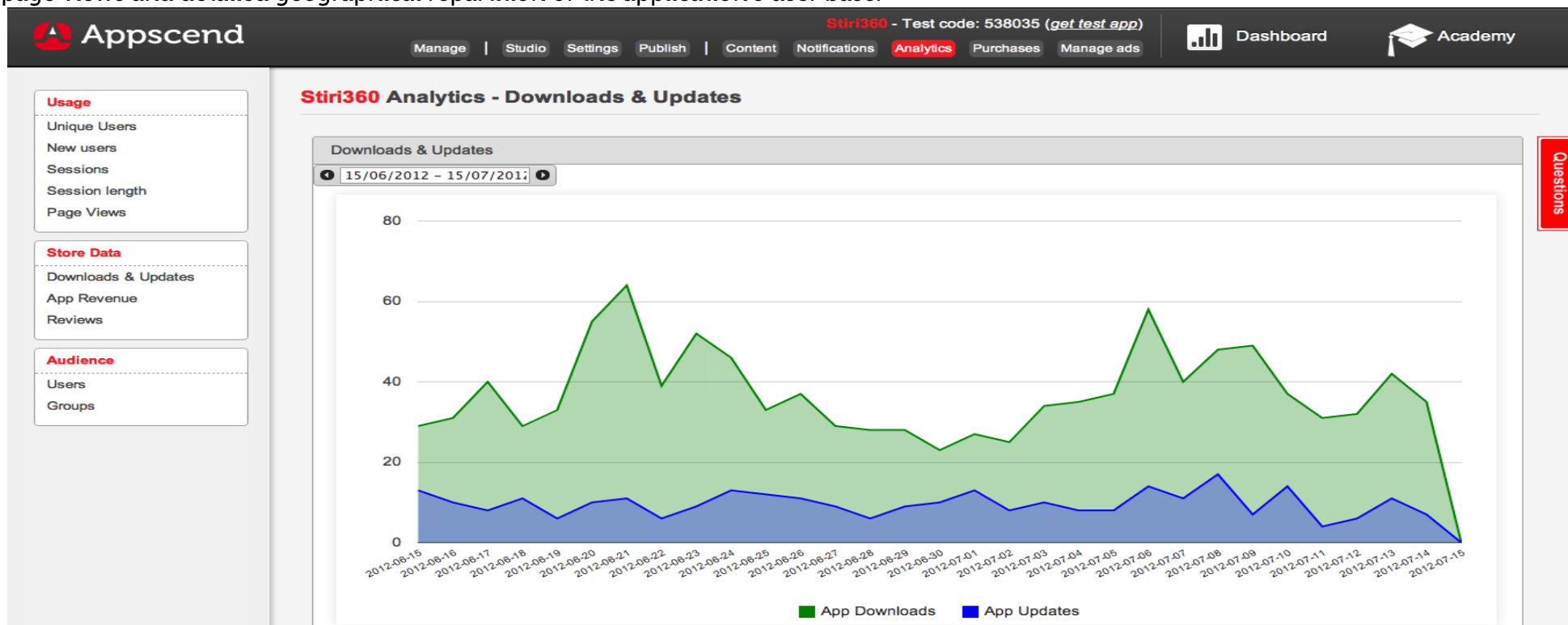


For each user that logs into your Appscend app, we retrieve demographical data – gender, location and age group. Additionally, you can store your own custom data attached to every user; set and retrieve it inside your app, use it to create custom segments relevant to you. Use the data you have about your users to create custom segments and user groups. Get up-to-date reports and use groups to send targeted Push Notifications for the best results!



## App Analytics 360

All your data in one place: Measuring your second screen app's evolution is a key part of success. Appscend's analytics system provides daily information about key metrics within the mobile application: number of downloads, sessions, session length, daily usage distribution, app page views and detailed geographical repartition of the application's user base.



### Key benefits of using Appscend's analytics panel

- ✓ Centralized information about your app's usage.
- ✓ Deep insights on your app's performance
- ✓ Geographic distribution of your app's downloads and users



## Pre-integrated Ads, In-app-Purchases and Subscriptions

Select Ad Network

No Ads

<input type="radio"/>	<input type="checkbox"/> iOS <input type="checkbox"/> Android	Mobclix iOS Application ID	<input type="text"/>	<input type="button" value="Sign up"/>
<input type="radio"/>	<input type="checkbox"/> iOS <input type="checkbox"/> Android	AdMob iOS Ad Unit ID	<input type="text"/>	<input type="button" value="Sign up"/>
<input type="radio"/>	<input type="checkbox"/> iOS <input type="checkbox"/> Android	Millennial Media iOS APID	<input type="text"/>	<input type="button" value="Sign up"/>
<input type="radio"/>	<input type="checkbox"/> iOS <input type="checkbox"/> Android	Jumptap Publisher ID	<input type="text"/>	<input type="button" value="Sign up"/>
		Jumptap iOS Site ID	<input type="text"/>	
<input type="radio"/>	<input type="checkbox"/> iOS <input type="checkbox"/> Android	InMobi iOS Application ID	<input type="text"/>	<input type="button" value="Sign up"/>
<input type="radio"/>				<input type="button" value="Read more"/>
<input type="radio"/>	<input type="checkbox"/> iOS <input type="checkbox"/> Android		<input type="text" value="320x50"/> <input type="text" value="320x250"/> <input type="text" value="728x90"/> <input type="text" value="120x600"/> <input type="text" value="488x80"/>	<input type="button" value="add banner"/>

Whenever you deploy an application with Appscend, your ROI is our top priority. That's why when you are using Appscend you have access to In App Purchases, Subscriptions and your very own Ad Server right out of the box.

In app purchases and subscriptions offer your users the easiest way to pay for virtual goods inside your application, without having to input any card information. Subscriptions will enable you to create a stable revenue channel and a great way of delivering premium content additional features or virtual goods to your app's users.

Using our Ad Server you can start advertising inside your application from day one. Choose from a wide variety of top ad-networks: Mobclicks, AdMob, Millennial Media, Jumptap, iAd, InMobi, or run your very own campaigns using house ads.



## About Appscend

Appscend is the world's first 2<sup>nd</sup> screen oriented mobile application platform.

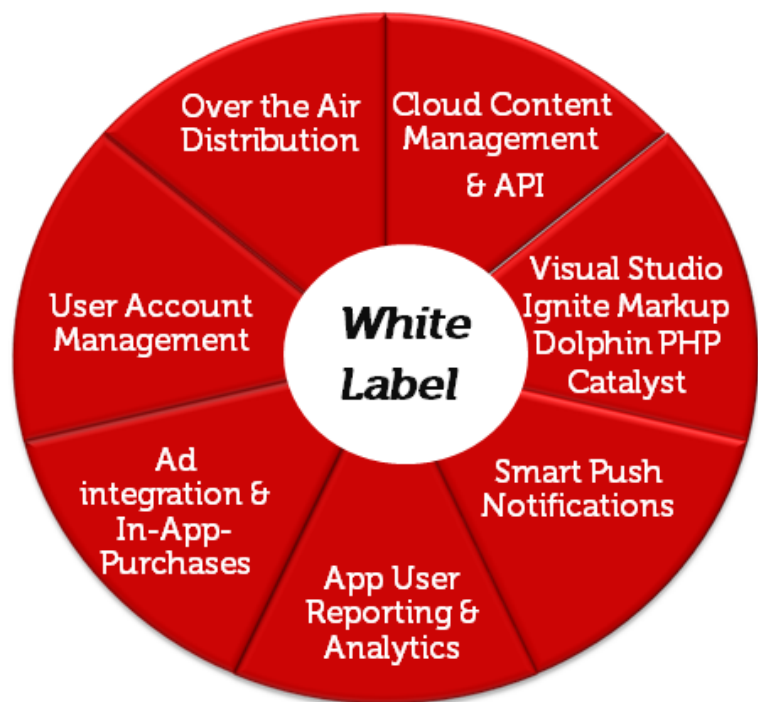
The platform reunites the fastest development technology available on the market with a complete set of backend technologies that ensure app & user management, a powerful push platform and application analytics.

We started our journey in late 2008, developing mobile and web solutions and soon realized that in a market that is growing so fast, tool fragmentation will become a significant problem for companies trying to embrace mobility.

The idea of creating a unified solution powerful and scalable enough to match the ever-growing demand for mobile solutions quickly emerged, and came to life at the beginning of 2011 when the platform was publically launched.

With offices in US (NYC) and Europe (Bucharest, RO), currently Appscend assists hundreds of companies worldwide in deploying their mobile strategy regardless of the industry they are in.

### All-in-one Mobile Platform



### On Demand Professional Services

#### Custom Mobile App Development

- Research & Documentation
- Application UX & Graphics design
- App implementation in Dolphin PHP or Ignite Markup
- Project Management
- Store & Over the Air deployment.

#### Support Services

#### Training Services



## “ What people are saying about Appscend

Reviewing what they did in an year, believing that Appscend was a fair bet – in the last 12 months, the company attracted over 2,000 companies on the platform, has launched 250 apps reaching over 500,000 consumers and extended the team from 3 to 10 people (including 3 only on sales & business development). – [Forbes.ro](#)

Appscend offers its own markup-based coding language, Ignite Markup, as well as the option of a code-free visual interface. Appscend, unlike most other app building frameworks, also offers analytics, a content management backend, an ad server and tools to push notifications to users. – [VentureVillage.eu](#)

<http://venturevillage.eu/appscend-new-york-times-iphone-app>

Appscend enables cross-platform development in the cloud and features application management, analytics, and push messaging. An XML markup structure, IgniteMarkup, enables application deployment from a single code base.- [Infoworld](#)

<http://www.infoworld.com/slideshow/101586/programmer-picks-7-must-try-mobile-dev-tools-218867#slide3>

Romania TV's news will reach to channel's viewers via iPhone, iPad and Android through apps developed together with Appscend. The apps allow easy access to the newest news in all domains and to live broadcasts from Romania TV, optimized for mobile.- [AdHunger](#)

<http://www.adhunger.net/2013/04/05/appscend-developed-apps-for-iphone-ipad-and-android-for-romania-tv/>

Appscend specializes in analytics, push messaging and cloud features. Creativity is very high in this mobile development tool- [ValueInfo](#)

<http://valueinfotools.blogspot.ro/2013/06/seven-mobile-development-tools.html>



“Mobile communications these days are like Klondyke, everyone rushes after the gold. Any many will try to profit without elivering quality. Appscend has built an app platform which is both full of features – and easy to build & manage. This product is ready for the future.”

**Øystein Svarød, App Producer & Owner**  
**Svarød Direct, Oslo, Norway**



“Working with Appscend's technology for both development & app management has proven to be a crucial factor for our application's success”

**Cristian Corobana, Consultant**  
**TVR, Romania**



“Appscend is a game-changer for all the companies that develop apps, for themselves or for their customers.”

**Doug Richard, Founder**  
**School For Startups, London, UK**



"Mobile is becoming a huge opportunity for businesses everywhere, and mobile apps will soon become a key factor in any digital marketing mix. We're excited to use Appscend's technology for our customers due to its flexibility, complete feature set and reliable customer support"

**Drew Himel, Owner**  
**MyWSISolution, USA**



"I have spent a lot of time searching and evaluating features of different providers until I decided that Appscend is the best from my point of view, so I am eager to recommend it to our customers, as well. Appscend is user friendly, powerful and has a very nice looking end product. Customer service is also great."

**Motaz Mosameh, Network Engineer**  
**ALROWAD IT Solutions, UAE**



"Developing mobile apps is a natural step in growing our Romania TV and RTV.NET businesses, given that Romania is quickly following the global trend of consuming more and more information on mobile devices. As our audience studies show, people love our content on TVs as well as on our online news portal, so it's natural that we adopt mobile as well as a growing communication channel with our audience."

**Costin Ilie, Publisher**  
**Romania TV**

*"Appscend's cloud based technology was a key contributing factor to the mobile application's success."*

*"We were particularly satisfied with the possibility of updating the app's functionality and UX in real time as well as with the large number of useful data points about our users and their behaviour, collected by the platform."*

**Adrian Tranca, C.I.O**  
**PRO TV S.A-part of CME group**



**Motor AG**



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