

NN4M

# ALL ABOUT ANDROID

A GUIDE FOR  
RETAILERS



# All About Android

## What Retailers Need to Know

*Along with Apple, Google is revealing the future of mobile technology with the long-anticipated Google Glass and the announcement of new devices such as Android Wear smart watches and significant changes coming to Android smartphones through its new "Lollipop" operating system. In this paper we will explore the changes that affect retailers and the opportunities available through Android.*



## Why Retailers Need an Android App

First of all, let's take a quick look at the data that supports the development of Android apps for retail. According to the latest smartphone sales data from Kantar Worldpanel ComTech, the percentage of Android market share is increasing year on year. Android already has an 84.7% share of global smartphone shipments, according to research company IDC. Across Europe, Android remains the leading mobile operating system in countries including the UK, France, Germany, Spain and Italy, boasting a 74.0% share to Apple's 15.3%. In the UK, by August 2014, Android commanded 59.5% of the market while Apple held 28.6%. In Spain, Android holds nearly 90% of the smartphone market.

This means that there is a huge segment of the market to capture via an Android app. For one of our clients, in its first month, the Android app accounted for 6% of mobile app traffic and 2.5% of the revenue that the iPhone version made. Last month, the Android app accounted for 23% of the traffic and 29% of the revenue of its very strong iOS counterpart. We expect the Android app to continue on this upward trajectory.

For another of our clients that has only an iOS app, 42% of their website visits come from Android smartphones. The client is now starting development of a native Android app to better capture this audience.

Traditionally, many Android apps are simple replicas of their iPhone counterparts. Now, with the number of Android users increasing every day, retailers have the opportunity to further delight their customers by using more of the Android-specific features and functions that will be discussed below.

## Android 5.0 'Lollipop'

Android 5.0 Lollipop will be rolled out to Android devices by the end of November 2014. Existing apps will not be affected by an upgrade to Android Lollipop. However, if you take advantage of the new opportunities afforded to you by this update to Android's operating system, your apps will definitely have an edge.

Android Lollipop brings a concept called Material Design, which is basically a more dynamic and intelligent user interface. It provides a flatter design with a tile-like feel and simplified icons, bright colours and focus on cleaner navigation. In addition, Google has put in a lot of work behind the scenes to ensure that Android Lollipop is the fastest yet.

### PUSH NOTIFICATIONS ON THE LOCK SCREEN

Google has transformed notifications in Android Lollipop, so only the most relevant information about your apps will be presented. The notification panel is being merged with the lock screen so users can see an overview of the most important information before they unlock their phone. Android Lollipop will also learn from users, figuring out what they look at and interact with more often to prioritise the most relevant notifications.



## Potential for retailers

Push notifications will get more attention in Android Lollipop as they are now located on the lock screen, but users can now turn off individual app notifications – although this has always been possible on iOS. In order to encourage users to keep your Push notifications enabled, we suggest more intelligent use of Push to ensure that users receive only the most relevant messages. This can be done using NN4M's Push platform. Additionally, giving users more control over the types and timings of Pushes that they receive will likely dissuade them from disabling notifications completely.

## "OK GOOGLE" SEARCH

Android Lollipop has now made it possible to integrate voice-activated "OK Google" search with native apps. With the simple addition of several lines of code into an app, users who have enabled "OK Google" will be able to search for products in your app through voice commands. For instance, if an app user said "OK Google, search for tops in [a retailer app]," the app will receive the search for "tops" and run the code accordingly, pulling up the same results as if the user had typed "tops" into the search bar.

## Potential for retailers

This feature offers users ease of access to your app. If a user is too busy or unable to type a search onto a small screen, they will now be able to interact with your app using voice commands. A recent Google study found that 55% of teens aged 13-18 use voice search every day, while 56% of adults said using voice search makes them feel tech-savvy.

## Little-used Pre-Android Lollipop Features

### WIDGETS

Android widgets have been supported since Android 3.0, which means they are supported by 100% of NN4M apps. Widgets can be placed both on the home screen and on the lock screen. Widgets can provide some simple functionality directly on the lock/home screen without launching the app and can then take customers directly into a specific section of the app.

## Potential for retailers

You have the opportunity to add widgets to the home screen and lock screen, which extends your brand's presence to other areas in a user's device. This could be implemented quite seamlessly through your app and could, for example, feature scrolling new-in products which, when tapped, link straight to that product's page in your app.

### ACTIVE WALLPAPER

A live wallpaper is an animated image that takes the place of a static image on the Android home screen. Some live wallpapers are interactive and react to certain gestures or motions on the device. Wallpapers can include access to GPS as well as the internet.

## Potential for retailers

A retail app could, for instance, implement a live wallpaper that flicks between the latest clothing images or updates with live price changes of products and sale information. This would come bundled as part of an Android app and not require a separate download, meaning the user would simply launch the app and tap "Enable Live Wallpaper."



## INTERLOCKING APPLICATIONS

Google allows apps to talk to, open and link to one another. This means that it is possible to extend your app features into third party apps.

### Potential for retailers

For example, your app could be linked to Facebook, Whatsapp or Instagram and allow users to share an image of a product directly through one of those apps. Additionally, you could configure your app so that the maps feature opens directly in the Google Maps app.

## ENHANCEMENTS TO PUSH MESSAGES

Android has offered enhanced Push messaging since Android 4.2 Jelly Bean with:

- Expanded layouts - this allows a Push message to have two different sizes - a contracted layout and expanded layout. If there is room, the message will be expanded by default, otherwise a user can swipe down to expand it
- Actions - this allows buttons to be placed inside a Push notification that users can respond to

### Potential for retailers

Google offers greater flexibility for your Push messages. Actions are perhaps the most important addition – now you have the opportunity to solicit detailed feedback from your users. For example, you could send a Push alerting the user to a sale and offer the opportunity to respond “Shop Now”, “Remind Me” or “No Thanks.” In order for your notifications to have the desired effect, they must contain personalized and relevant content.

## Google Wallet

In 2011, Google introduced Google Wallet which, similar to Apple Pay, allows one click purchasing of goods. Google Wallet can use near field communication (NFC) to make secure payments fast and convenient by simply tapping the phone on any PayPass-enabled terminal at checkout. Currently, Google Wallet is only available in the United States to those 18 or older.

### Potential for retailers

Google Wallet can be used in the US only for in-app purchases and in compatible stores as well as on Gmail, Google Chrome and Google Chrome extensions. We expect that with Apple Pay looking to launch in the rest of the world during 2015 we will see movement from Google into other markets as well.

## Google Glass

What happened to that Google Glass thing? Glass was not mentioned at Google I/O 2014 and is still in beta. We expect another year or so of development before general release. While wearable technology like Google Glass is still in its infancy, the hordes of would-be users clamouring for the final release of this device should make retailers pay attention.

### Potential for retailers

Google Glass and other new wearable technologies may offer valuable new ways to connect with consumers. Google Glass has the potential to improve the customer experience at all stages of the shopping cycle – whether it's information on product availability, special offers and suggested alternatives or directions to what they're looking for in-store.



Recent research by Econsultancy combined with YouGov showed that even now before Glass has launched publicly, a large number of consumers would see advantages in the new device. 38% of consumers said that they would use Google Glass to create a shopping route, while 27% would use it to check stock availability and 22% said they would like Glass to unlock additional offers and promotions.

At NN4M, we have developed a demo app for Google Glass which allows a user to take a photo of a product and Glass will return information about that product. This could be used by staff to check stock, for example. It is in its early stages, but we're excited about the vast potential for this device and will keep you updated on further developments.

## Android Wear

As an accompaniment to Glass, Google has announced Android Wear, which is effectively the Android Watch. It requires an Android device running 4.2 Jelly Bean and above (about 80% of NN4M Android app users). We can do two things with the wear watch: deploy a stand-alone app that is installed onto the watch and runs from the watch, or communicate from the watch with an app on a phone. Android wear will also display any notifications sent to a user's Android device (e.g. when a Push message is sent to a device, the wear watch will automatically display it).

### Potential for retailers

Android Wear could be used to allow e-receipts to display on a user's watch for a more seamless shopping experience. Additionally, the watch could store gift vouchers or loyalty card information via a QR code that could be scanned at checkout. This could also allow retail staff to carry out stock checks straight from their watch. Additionally, Android Wear could combine location technology with a user's wish list and could, for example, alert a user when they are nearby your store if an item on their wish list is available in their size.

## Chromebooks

Google has recently introduced the ability to run Android apps on a Chromebook with no changes required to the app. This means that an Android app could be downloaded from the chrome web store and run natively on a Chromebook.

As the Chrome web browser is based heavily on Chrome OS (the OS used on Chromebooks), this functionality could soon come to the Chrome web browser, opening it up to a huge number of people. The latest stats show the Chrome web browser has a 40% market share.

### Potential for retailers

Anyone using a Chromebook (and soon the chrome browser) will be able to download and use Android apps and run them natively on their machine through the Chrome browser. With little work, your apps could gain a great deal more functionality across different scenarios and devices. This development will allow your app to reach a much broader audience and provide a more well-rounded experience. This also means that for the first time ever, there is potential for Push notifications to be delivered to devices using Google Chrome, giving retailers a greater playing field to target and engage customers.

