

# The global growth of app store carrier billing

**App stores now offer carrier billed payments to tens of millions of new customers through the Bango Payment Platform, on over 100 different operator networks.**

Bango has recently launched several "first time" app store carrier billing markets, underlining the importance of the Bango Payment Platform in the growing global app store economy.

During 2015 Bango announced firsts for our app store partners in two regions of great potential for alternative payment methods.

Firstly, Bango launched Google Play and Microsoft's Windows Phone Store on multiple mobile operators in Mexico. For Google these were their first launches in Latin America, where smartphone growth has been dramatic in the last 2 years.

Commenting on Bango's investment in Latin America, Bango CEO Ray Anderson said: *"Now is the ideal time to be expanding in the Latin America region – with year on year increase of units sold reaching 59%, making it the highest growth mobile market in the world (CNBC, 2015). As global app stores invest in the region, they require a payment platform that guarantees reliability and is proven at scale. This is why they turn to Bango, to benefit from the collective intelligence of a platform used for more app store integrations than any other"*.



Secondly, Bango and Telkom South Africa partnered to launch carrier billing in Google Play, a first for Africa.

In Africa, Google's Android platform currently represents 89% of the smartphone market, according to IDC (2015). Telkom customers using Android smartphones and tablets have been quick to purchase their favorite apps, games, music and other digital content using one-click carrier billing. This gives customers with limited or no access to other payment methods the ability to buy from the huge range of content in the Google Play store.

*"Telkom is striving to make our customers' experience more streamlined and simple", said Attila Vitai, MD of Mobile and Consumer at Telkom. "This partnership with Bango provides Telkom customers with a seamless experience for purchasing apps from Google Play and charging them directly to their mobile phone bill or airtime".*

Bango CEO Ray Anderson added: *"Bango has long understood that Africa is a key growth market for our frictionless payment technology. Launching the best payment experience, for the world's most popular app store and in Africa's largest market, was a proud milestone for Bango and our partner Telkom SA. We expect to see the influence of the Bango Platform spreading into more African countries during 2016"*.

## #1 for app store carrier billing

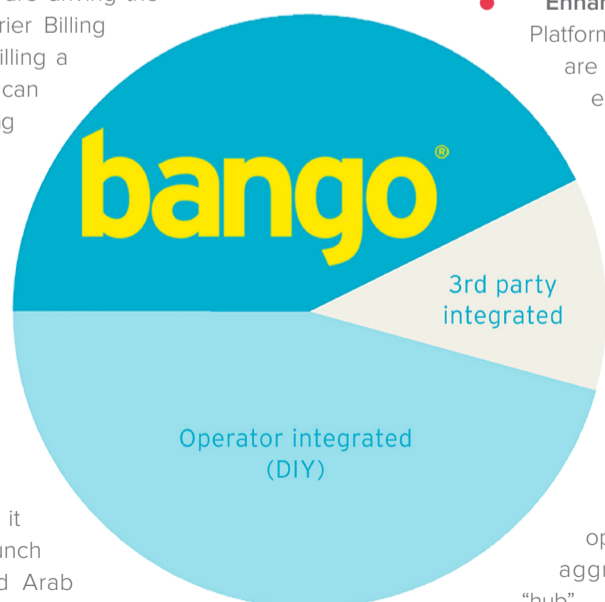
**It's official.... the Bango Payment Platform powers more app store carrier billing deployments than anyone else:**

*"Bango dominates the third party carrier billing marketplace with over 40% of the total app store direct carrier billing connections."* This is a conclusive finding of a new report published by Progressive Equity Research.

The report found that app stores are driving the demand for a unified Direct Carrier Billing (DCB) platform, to make carrier billing a global payment method, which can deliver the user experience, reporting and analytical demands of these online giants.

The Bango Payment Platform offers significant advantages to app stores and operators wanting to activate carrier billing globally, which have led to this position as the number one app store carrier billing provider, including:

- **Faster speed to market** – it took just 9 months to launch carrier billing in the United Arab Emirates for Google Play, Samsung GALAXY Apps, BlackBerry World, BlackBerry Messenger and Windows Phone Store through one integration with the Bango Payment Platform.
- **Scale** – app stores using the Bango Payment Platform will scale carrier billing coverage faster. Bango ensures carrier billing already operates to app store quality in every market integrated to the platform.



- **Improved reliability** – The Bango Platform handles payment volumes at a massive scale without degrading performance. The experience of multiple integrations lowers the overall risk to operators, plus the fact your peers are already processing millions of payments through the Bango Payment Platform means your new activation is already proven.

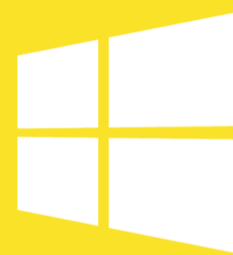
- **Enhanced performance** – the Bango Platform's integrations with each app store are highly optimized. We use our DCB experience to reduce the number of roundtrips between store and billing platform and to eliminate redundancy. The collective intelligence of the Bango Platform is enriched through the large volume of payments processed across stores, which leads to higher conversion rates.

Historically, some mobile operators took a "Do It Yourself" (DIY) approach to app store integration, especially those with operations in multiple territories that aggregated payments through a central "hub".

But as the analysis in the report reveals, greater competition in the payments space, along with increased pressures on revenue share, is driving operators to a strategic, global platform for carrier billing, which makes DCB much more attractive as a payment method. Looked at another way, there are long-term disadvantages for the industry as a whole with the "DIY" connection approach. Use the experts for app store carrier billing - use Bango.

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"I didn't plan for that!"

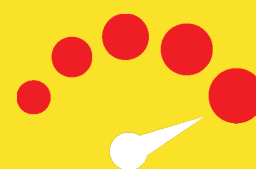
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### Spend limits best practice



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### Boost your revenue by 70%



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# Accelerating your app store launches with Bango Grid

## Q1. What is Bango Grid?

A. Bango Grid is an online tool that enables app stores to quickly and efficiently activate Direct Carrier Billing with mobile operators worldwide. Each commercial mobile operator has a profile in Bango Grid that provides everything app stores need to know about each operator's market statistics, the scope of carrier billing offered, technical capabilities of the billing platforms, plus all the financial, tax and settlement considerations for the country. You then use Bango Grid to manage your activations.

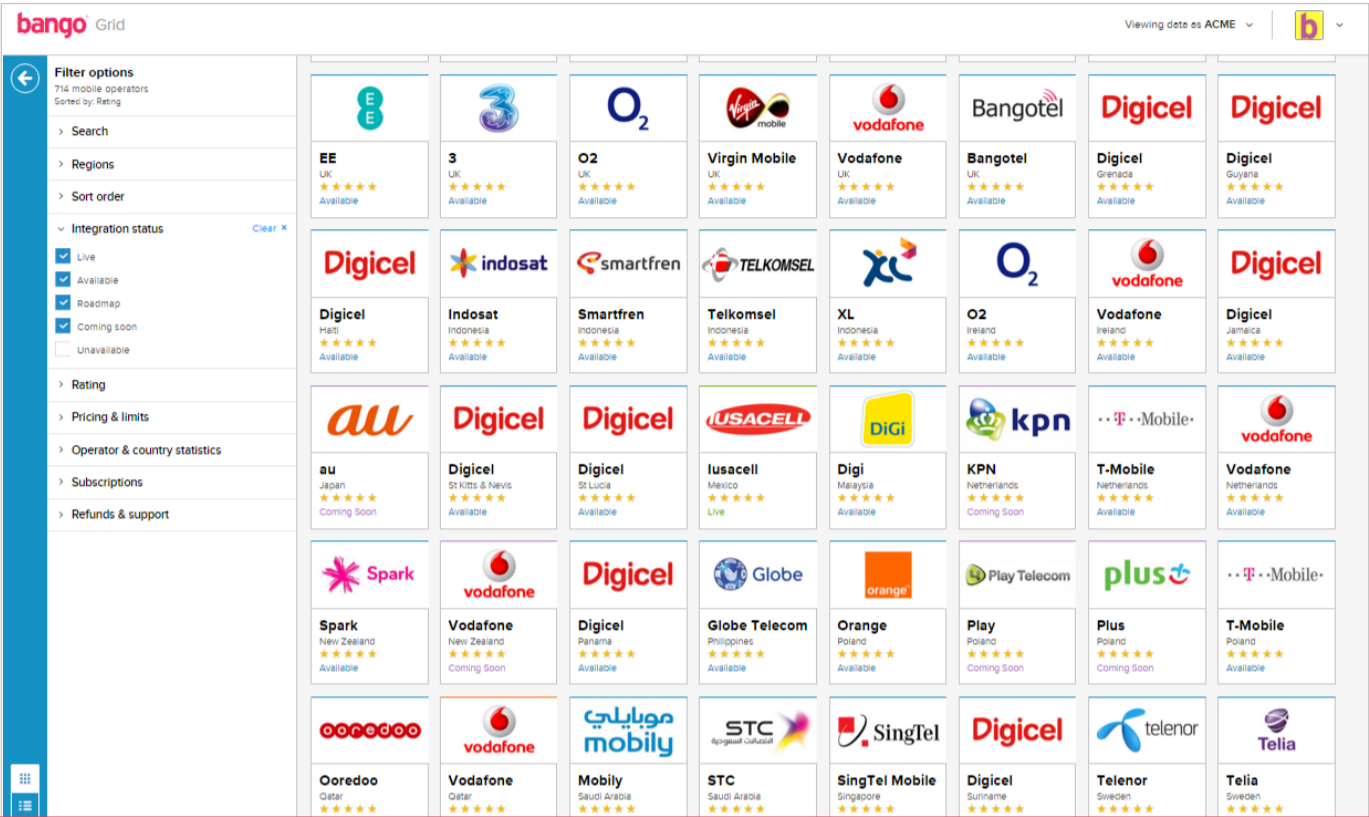
## Q2. How do app stores use Bango Grid?

A. With Bango Grid, app stores quickly identify the most suitable mobile operators and countries to launch next. It helps them rapidly assess technical compatibility and manage their full activation process with minimal risk. This gets them live with more operators, more quickly, while reducing launch costs and getting to revenue faster. All project management information, including status and next steps, is held in Bango Grid so that the information can be accessed instantly when required by you and the app stores.

Operator overview	Direct billing capability	TRUE
Country & operator statistics	Connection through Group Hub	FALSE
Technical detail	Operator hosted (redirect)	No
Pricing & limits	Billing system name	Aepona
Refunds & support	VPN required	No
Subscriptions	1 step billing support	TRUE
Finance	2 step billing support	TRUE
Settlement	Billing ID (on net)	ACR
Payment statistics	Billing ID (off net)	TRUE
Payment system performance	MNC	03,16
Content, restrictions & regulations	MCC	234
App store status		

## Q3. Why is Bango Grid important for operators?

A. Bango Grid communicates your capabilities to all the app stores, along with the opportunity your subscribers represent – it's one complete and consistent forum that app stores use to research, plan and interact. The more accurate, complete and up to date your profile is, the more you help each app store realize your capability and potential. It allows them to quickly make the most informed decisions about where to launch next.



# Do It Yourself or use the experts?

Once you decide to launch carrier billing with an app store, it's tempting to consider connecting yourself, after all, going the 'Do It Yourself' (DIY) route should save money....right? No - carrier billing is a different story and will always be more costly and troublesome. Here are some of the reasons why:



### 1 “It went over budget”

Unforeseen problems and additional expenses can quickly eat up your budget. If you don't have a refund API you will need to build one, or figure out an acceptable alternative process. If the infrastructure is not suitable for app store volumes, it will need more development. If you can handle fixed pricing but not the dynamic pricing that app stores demand, yet more development is required.

### 2 “It's late”

Even if the technical integration goes ok, it is common for app store reporting and settlement requirements to take many more weeks to set up and complete. Most projects will take longer to finish than you first thought, mistakes are easy to make, and can be very time-consuming to fix. And of course a delayed launch means lost revenue and impatient customers choosing card payments instead of carrier billing

### 3 “It doesn't work like it's supposed to”

The difference between a well-done project and a poor one is in the details. The last thing you want is to be billing the wrong customers, or finding out after launch that user identity doesn't always work, or you've jammed the system because the text string being passed is too long.

### 4 “It worked ok...for a while”

Practice makes perfect! With no prior experience to compare with, you don't know everything that you need to check before going live, and you won't know how you can improve the live performance. Your authentication requests are not always working and random payments are failing, but you have no way of knowing if this is expected, or if your connection is under-performing. It's like building a wall without a spirit level - you end up with uneven edges and a sloping roof!

### 5 “I didn't plan for that!”

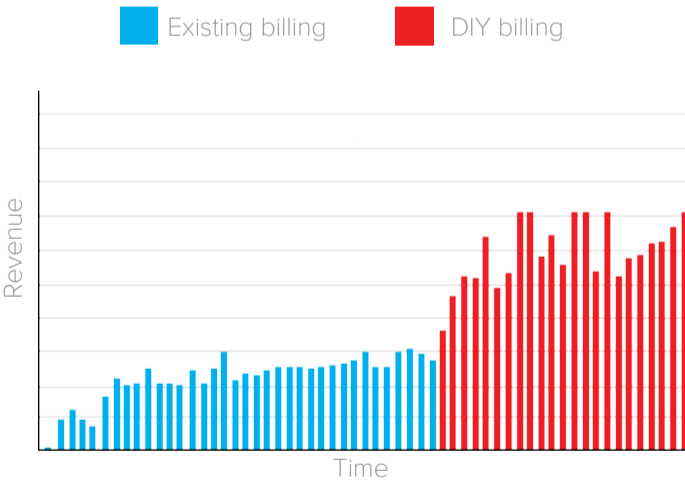
Even after you are live you can run into trouble, when payment transactions rapidly increase you find the system you built cannot handle the extra load. Apart from the lost revenue this presents a terrible user experience. With lost sales and increased customer care costs, it is back to the drawing board with the integration, your budget is gone and your project is still not completed.

Higher sales and faster time to market.

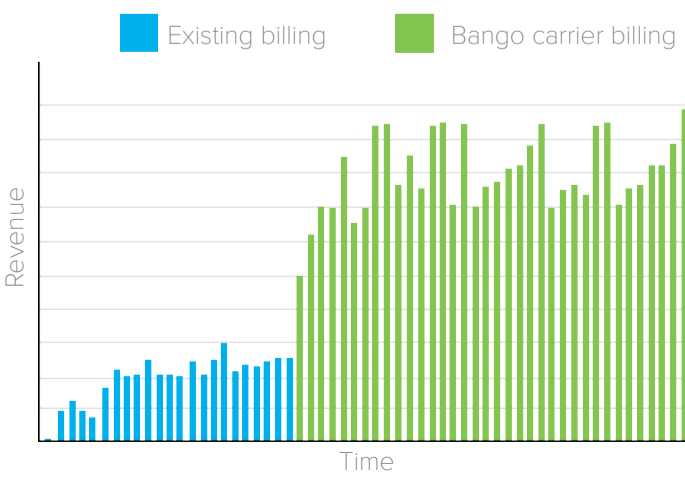
Use the experts for app store carrier billing - use Bango.

See more at: [bango.com/dont-diy](https://bango.com/dont-diy)

## DIY payment



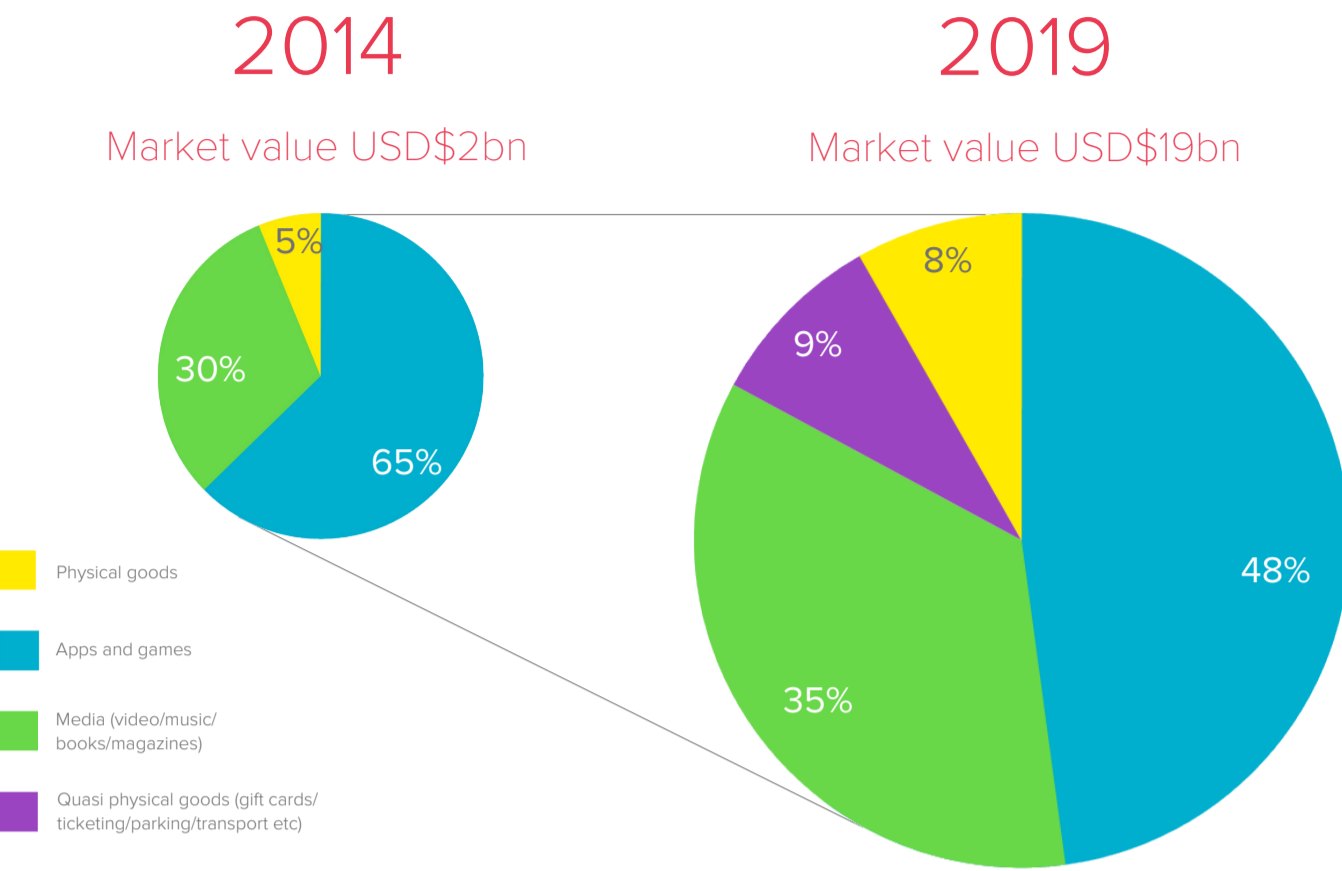
## Bango payment



# DON'T D.I.Y

# Where is carrier billing heading?

The carrier billing market has been fueled by the growth in app stores. Progressive Equity Research (2015) valued the app store segment of the carrier billing market at \$1.3bn in 2014, forecasting that it will rise to \$11.8bn in 2019. Here we look beyond app stores, to the entire carrier billing market and how it will grow in the next five years, and which categories and services will be driving this growth.



Entertainment categories dominate the current carrier billing market. Apps and games account for the majority of sales, with a few leading titles including Clash of Clans and Candy Crush Saga dominating category sales. Music is the highest seller in the media category outselling video and reading materials.

Sales of physical goods are limited to Japan and Korea. Quasi physical goods sales offer a negligible contribution today, with a limited number of ticketing and virtual goods being trialled in several markets.

The value of the market is over 10x that of 2014. Entertainment categories still dominate the market but as the breadth and availability of media content across stores increases, media content will deliver a higher proportion of carrier billed revenue.

A measurable contribution will be made from the rocketing value of physical goods sold, although the geographical market will still be limited. The biggest growth contribution is from quasi physical goods, e.g. transportation, ticketing. The strength of carrier billing is realized where speed and convenience is important, or card payments are not practical.

## Carrier billing spend limits best practice

### Pre-paid customers

Many mobile operators think that their pre-paid customers have a fixed monthly spend on mobile services. Bango analysis clearly shows that this is unfounded when these customers can spend in app stores.

The introduction of Direct Carrier Billing with app stores grows overall monthly spend without significantly impacting traditional mobile services. Customers on average top up by a factor of 2.5 times more, increasing annual revenue per user (ARPU), resulting in a significantly higher average pre-paid balance for pre-paid users.

### Bango best practice recommendations:

Remove all spend limits for pre-paid customers, encouraging these customers to top up more often and spend this additional money on the products and services they want. Daily, monthly or other spend limits for pre-paid users simply cause customer dissatisfaction and introduce increased customer care costs.

Operators that mandate limits as a safety net to protect against internal billing system issues or potential pre-paid fraud should consider a high limit, approximately three times the average daily spending of their pre-paid customers.



### Post-paid customers

It is common to implement a single, moderately low spend limit across the entire customer base in an attempt to manage bad debt and limit risk. This limit often severely caps actual spending across each customer segment, especially newly emerging customer segments where spending on app store entertainment exceeds anything previously seen.

### Bango best practice recommendations:

When launching app store billing, Bango best practice for post-paid subscribers is to:

1. Review monthly spending caps immediately at launch. You need to accommodate significantly increased spending from games, music and other apps.
2. Don't focus on absolute value of spending, but monitor high velocity spending to ensure customers do not inadvertently spend more than they intend and to monitor potential fraud.

Finally, use Bango Boost to refine and implement tiered spend limits for post-paid customers based on loyalty, payment history and spend segmentation. The Bango Platform can be used by operators to implement specific limits for each customer.

Indicative parameters to guide an operator are:

1. Average individual transaction values range between \$4.00 to \$7.00 USD
2. However, most revenue is produced from purchases at price points above \$20USD
3. Approximately 15% of customers generate 80% of revenue from app stores
4. More customers makes between 1 and 4 purchases each month, but some make hundreds of purchases in a month

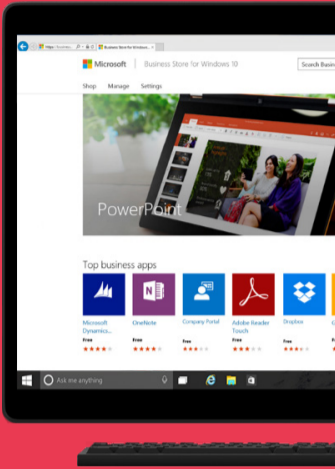
Talk to Bango for more details on how to optimize your customer experience and capture more revenue from app store carrier billing: [sales@bango.com](mailto:sales@bango.com)

# How Bango helps you get more from Windows 10 Store

Bango has been selected by Microsoft to provide carrier billing for the Windows 10 platform.

Windows 10 provides a unified content store with a sophisticated ecommerce platform for all kinds of products, pricing models and payment methods. Bango has successfully integrated, tested and validated carrier billing with the new Store APIs.

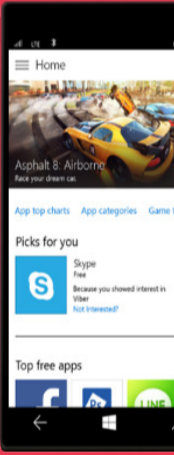
With this API now implemented in the Bango Payment Platform, operators do not need to develop anything to take immediate advantage of the Windows 10 environment. The Bango Payment Platform does all of the hard work, incorporating the new requirements for Windows 10 and providing higher performance standards to meet the demands of desktop, tablet and smartphone user experience.



Uniquely, the Bango advantage does not stop once you have launched carrier billing.....

The Bango Payment Platform you use to launch billing for Windows 10 includes Bango Dashboard and Bango Boost. These two products are essential for optimizing the customer experience on Windows 10 and the long-term revenue performance from carrier billing on your network.

- Bango Dashboard tells you everything that is going on with Windows 10 payments on your network, in real-time and includes critical KPI monitoring
- Bango Boost unlocks payment blockages, identifies spending patterns across different consumer segments, and recommends how to optimize spending for every customer



Operators using Bango Dashboard and Bango Boost have experienced a 70% uplift in end user spending as a result of the optimizations delivered through the Bango Payment Platform.

Make the most of the Windows 10 opportunity. Expand the reach of your carrier billing to a huge customer base. Then optimize your app store carrier billing performance with Bango's post launch monitoring and analysis.

The first step in getting live with Windows 10 is to let Bango know you would like to be prioritized for this program. Email us at [sales@bango.com](mailto:sales@bango.com)



Windows 10

110M

devices upgraded

192

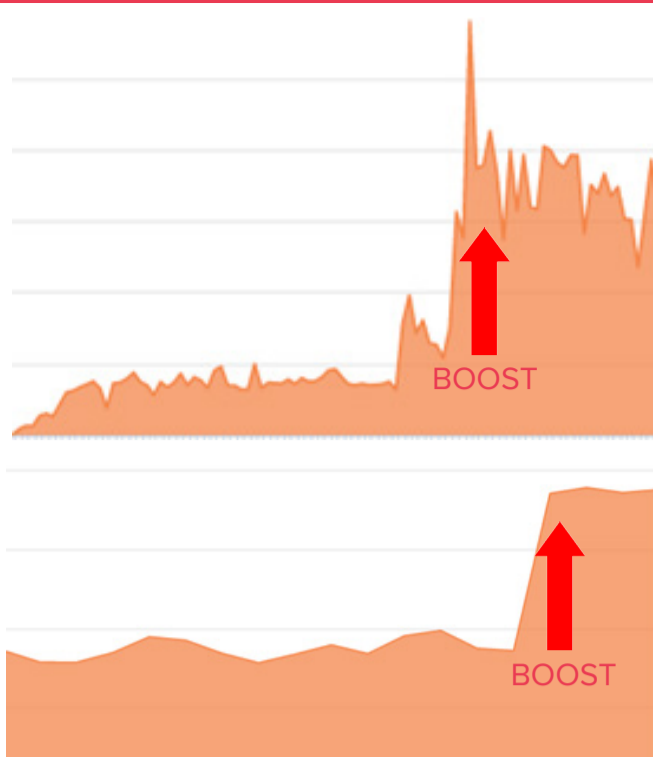
countries

6x

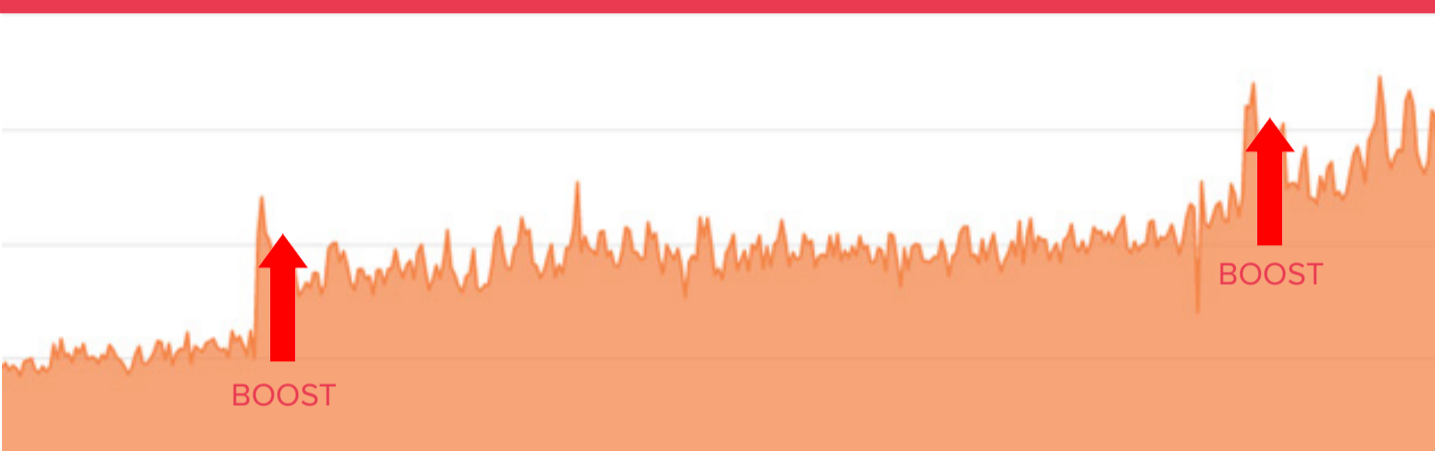
growth in app downloads per device

# Boost your carrier billing revenue

Bango Boost is an important new product available to all operators as part of the Bango Payment Platform. It quickly maximizes app store revenues and increases customer satisfaction by monitoring, analyzing and comparing key data points. This includes conversion rates, spend limits, payment success and failure, price points per store and per market, user cohorts, promotions and other factors that can impact DCB performance. The analysis is made possible by harnessing unique Bango Payment Platform technology which constantly measures peer performance across all app stores and mobile operators to achieve industry best. In trials, operators have benefited from 20% - 40% revenue gains on average, and in the best case by over 70%.



Operators have gained over 70% growth in end user spend due to Bango Boost



## How to maximize carrier billing revenue from app stores

**This guide explains how operators can unlock the full carrier billing revenue opportunity from app stores.**

Simply activating Direct Carrier Billing in an app store will not deliver the full revenue potential. In fact, the majority of operators fall some way short of this and accept the initial results as the best they can get. For maximum potential to be realized, there are multiple activities operators should undertake.

This guide will help operators capture the full revenue opportunity that DCB offers by recommending ways to:

1. Boost the number of subscribers making payments
2. Increase your subscribers' motivation to purchase
3. Maximize spend limits for post-paid customers
4. Compare revenue performance against market benchmarks
5. Get the most from pre-paid subscribers
6. Minimize payment failures
7. Increase payment success with a faster purchase experience

Finally we summarize the three "must do" actions that every operator needs to take to support carrier billing for app stores.

Download your free copy at [bango.com/resources](http://bango.com/resources)



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## About Bango

Bango's mobile payment platform is vital to the global growth in digital content sales. The giants of mobile choose the Bango Payment Platform to provide a delightful and immediate payment experience that maximizes sales of digital content.

With over 140 markets activated by our partners, the Bango Payment Platform is established as the global standard for app stores to offer carrier billing. As the next billion consumers pick up their first smartphone, Bango technology will be there to unlock the universe of apps, video, games and other content that bring those smartphones to life. Global leaders plugging into Bango include Amazon, BlackBerry, Facebook, Google, Samsung, Microsoft and Mozilla.

## Contact us

To discuss how you can boost your revenues by integrating with the Bango Payment Platform, contact:

Email [sales@bango.com](mailto:sales@bango.com) or call +44 1223 269 580

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