



5G Smartphone Upgrades and the Secondary Device Deluge

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Introduction

It's been a difficult few years for smartphone manufacturers. Global sales for new smartphones <u>declined by 2 percent year-on-year in 2019</u> to their lowest level since 2010. Global consumers have opted instead to hold onto their smartphones for longer, rather than engage in regular upgrade cycles. The good news for OEMs and operators however, is that new smartphone sales will again see growth in 2020, with <u>Gartner predicting an increase of 1.7 percent</u>. The arrival of 5G is a major catalyst for this market recovery with consumers increasingly captivated by the speed and service enhancements it promises.

What's good news for the new smartphone market is also good news for the secondary market. The rising costs of new smartphones is resulting in more and more global consumers trading in their old devices at the point of upgrade. The credit that can be unlocked from used devices provides a useful subsidy to make new 5G smartphones more affordable, as well as drive a more sustainable model that promotes re-use.

The secondary device market that collects and redistributes these used devices already represents big business to its major stakeholders - operators, OEMs and the third-party logistics providers (3PLs) that serve them. Industry analyst IDC expects the global market for used smartphones to be worth US\$67 billion in 2023. But what sort of impact will the vast swathes of 5G smartphone upgrades due in 2020 have on the secondary market? How many consumers intend to upgrade to 5G smartphones? How many used devices can the secondary market reasonably expect to collect in 2020? What are consumer expectations of the device buy-back and trade-in process?

Blancco commissioned independent research and asked 5,000 consumers in five different countries to find out what the secondary device market can reasonably expect in 2020. The research also considers if consumer expectations can be met given the device processing complexities and challenges that currently exist.





Executive Summary

Operators and OEMs must ensure they deliver an excellent customer experience in-store and throughout the entire mobile device lifecycle, including the buyback process.

The secondary device market can expect to receive a deluge of used devices in 2020, thanks largely to the global availability of 5G smartphones. 68 percent of global consumers would be willing to trade-in their used device at the point of 5G upgrade. Based on this number, and looking at the total number of global smartphone users today, there could be as many as 810 million used devices collected at the point of 5G upgrade this year. Given the relative infancy of the secondary market, it is unlikely that all of these collections will be possible - should the secondary market collect half this number however, it will still represent nearly double the number of used devices shipped for re-sale in 2019 (206.7 million devices, IDC).

Given the need to subsidise the cost of new 5G smartphones and find a more sustainable model for smartphone re-use, the popularity of the secondary market is set to grow. While consumer awareness increases, more than a third of global consumers (36 percent) still haven't heard of the secondary market and 62 percent have never traded in a device. It is clear therefore, that most consumers engaging in the secondary device market in 2020 will be doing so for the first time. It is critical that the operators, OEMs and 3PLs provide the best possible experience to maximize their chances of repeat business.

The success of buy-back programs is measured by the latent values extracted from collected devices. Half (51 percent) of consumers admitted that unlocking credit to put towards a new smartphone was the main reason they would trade in their old device. Furthermore, global consumers expect to receive, on average, 35 percent of the original purchase price for their old smartphone. Achieving this valuation is reliant on the efficiency of the secondary ecosystem as a whole, and more specifically, the processes within each individual organization.

Currently, the reality for operators and OEMs is that device buy-back and trade-in is just one reason why they might receive used smartphones from their customers. Other channels they must manage include diagnosing and processing devices received from warranty programs, repair requests, lease deals expiring or from insurance claims. Managing these processes concurrently and accurately is complex and takes time. The ability to receive and successfully process all these devices securely and efficiently, while preparing for a huge additional influx from buy-back programs, and preparing them for resale, will require careful planning and partner selection.

Operators and OEMs must ensure they deliver an excellent customer experience in-store and throughout the entire mobile device lifecycle, including the buy-back process. To do this, they need to consolidate existing procedures and improve visibility of every stage of a device's journey, while committing to data management and erasure best practices. As per the results of Blancco's <u>previous study in 2019</u>, making mistakes, cutting corners or taking risks with consumer data is not an option.



Research Methodology



Survey base equally representing consumers from five countries: UK, US, India, Philippines and Germany



5,000 consumer respondents (1,000 per country)



Interviews conducted in November 2019

Survey Results & Discussion

5G Availability Will Bring Secondary Device Tipping Point

The global market for new smartphone sales has experienced a slowdown recently. In fact, it only returned to growth towards the end of 2019 (for the first time in two years). Industry commentators have provided several explanations for this trend. Some point to new device affordability owing to the high price points for new smartphones (especially at the premium end of the market). Others have questioned whether there has been enough improvement in features and functionality between new device versions to justify these prices. Then there is 5G availability - have global consumers been waiting for 5G enabled handsets before choosing to upgrade their smartphones?

According to our research, 5G availability is having a major impact. Around half (51 percent) of global consumers have been waiting for 5G networks and devices to become available before upgrading. This number extends to more than 70 percent of people in India and the Philippines. Nearly a quarter of global consumers (23 percent) have been holding onto their old device for more than a year in expectation of 5G.

5G will move beyond early adopter stage in some countries in 2020. Most major OEMs have launched, or are set to launch, 5G compatible smartphones this year. The Samsung Galaxy S10 5G became available last summer, Huawei launched its Mate X in November 2019 and the iPhone 5G is expected in Q3 2020. These device launches neatly coincide with 5G network launches. Most major international mobile markets will be supporting commercially live 5G connections this year - some countries, including South Korea and the USA have been live, in various guises, for some time.

These commercial 5G launches are the result of significant investment from the mobile industry. Mobile operators, OEMs and their supporting partners are moving fast to meet growing consumer demand. The results of the research show that 60 percent of global consumers intend to upgrade to 5G - the majority (75 percent) intend to upgrade this year (within the next twelve months).



Secondary Device Market Set for a Deluge

What is also significant is the number of consumers who are open to trading in their current device at the point of 5G smartphone upgrade. The secondary market, which exists for the collection, re-distribution and monetization of used devices continues to experience strong global growth. In fact, industry analysts IDC expects the global market for used smartphones to be worth US \$67 billion in 2023.

In this study, half of global consumers said they would be willing to trade in their current device. This number increased to 68 percent of people intending to upgrade to a 5G smartphone. The key motivation for doing so was the need for consumers to unlock credit, tied up in used devices to help subsidise the cost of new 5G smartphones. The remainder cited a general willingness to promote re-use and reduce e-waste as their primary drivers to engage with the secondary market.

Figure 1.

60% intend to upgrade to a 5G device, with 75% of these within the next 12 months.

For those that don't intend to, it's the hassle and expense that are the most off-putting.

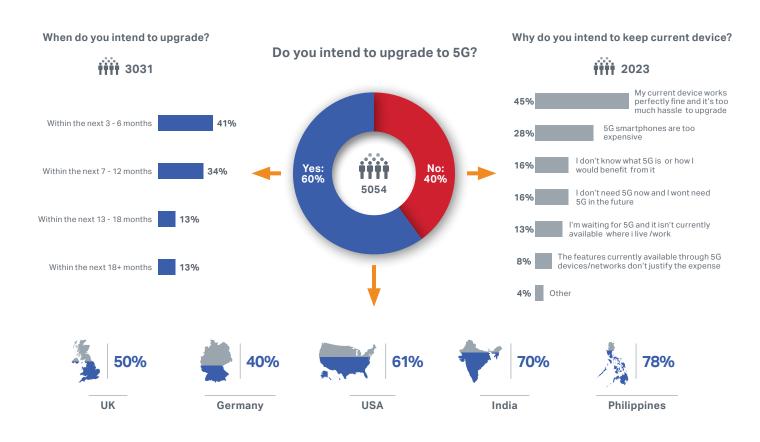
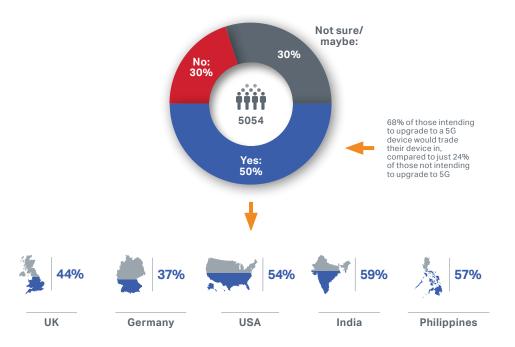




Figure 2.

Half of customers would be prepared to trade in their device, although this drops to 36% in Germany and rises to 59% in India.

68% of those intending to upgrade to a 5G device would trade their device in, compared to just 24% of those not intending to upgrade to 5G.



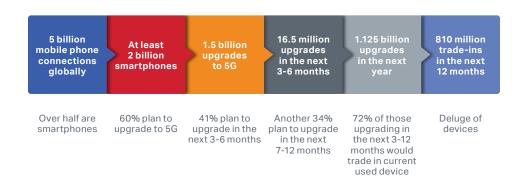
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Figure 3.

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It is unlikely that all these potential trade-ins will present used devices that are all fit for re-distribution and re-sale. However, every device received by an operator, 3PL or OEM would still be subject to the same diagnostics and evaluation to determine its suitability for resale or re-use. Conservatively speaking, say 50 percent of these used devices could be re-sold, this would still be double the number of refurbished and used smartphones that were shipped globally last year (206.7 million units, IDC). The secondary device market needs to be ready for a device deluge. But is it ready, and can it cope?





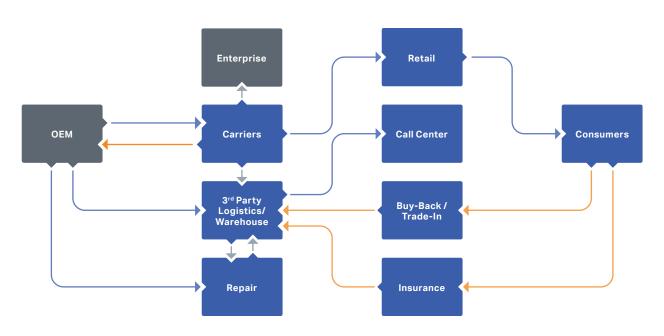
Fighting Fragmentation, Combatting Complexity, Protecting Privacy

To answer this question, we must first consider the layers of complexity that currently impact the reverse device supply chain (the process of receiving, processing and re-distributing devices) for operators, OEMs and the third-party logistics providers (3PLs) that serve them.

The collection, diagnosis and re-distribution of devices received from a device trade-in or buy-back program is, after all, one of many channels that operators, OEMs and 3PLs must manage as part of their day-to-day business. In addition, these organizations must also manage devices returned for general repair, as part of warranty claims, insurance claims or perhaps the termination of lease plans. Every single one of these devices will be subject to its own decision pathway: does a refund need to be issued? Is a replacement device required? If so, does it need to be a new or used device? Is an upgrade due? Is the returned used device fit for data erasure, refurbishment and re-sale? If it's a repair, insurance or warranty claim, is there actually anything wrong with the device?

Figure 4.

Mobile Device Lifecycle



These are just some of the available options. In fact, by evaluating all the potential reasons why operators and OEMs might receive a device, and the various options available to them upon receiving them, there are approximately 80 different return and decision pathways they might choose. The predicted aggressive increase in devices being collected from buy-back programs, therefore, will serve to add greater complexity to an already challenging process.





First Impressions Count: Ensuring a Consistent Customer Experience

Operators and OEMs continue to add subsidies to device trade-in values to make new smartphones more affordable and drive more regular upgrades. Despite its global success to date, the secondary device market remains in its infancy. According to the research, 62 percent of global consumers have never traded in a mobile device. This is significant as it means many people are set to engage with device buy-back and trade-in programs for the first time in 2020. As with all new services, it is critical that operators and OEMs give a positive first impression and deliver the best possible experience - from the initial collection from a retail store, or online, through the back-end warehouse operation and then back to the consumer.

Given the complexities surrounding multiple decision pathways highlighted previously, it is not always easy to emulate excellent customer experiences within the retail environment all the way to the back-end of the process. Traditionally, a variety of different partners have taken responsibility for various steps in the reverse device supply chain. It has therefore not always been easy to map the journey of a device along the secondary lifecycle, from collection to return or redistribution. This has also contributed to the number of decision pathways that exist for all collected devices. The presence of multiple partners, each operating with their own siloed processes, has led to an inability for operators and OEMs to identify potential areas for consolidation to improve overall effectiveness, efficiency and reliability.

A Holistic View is Needed, Because Efficiency is King!

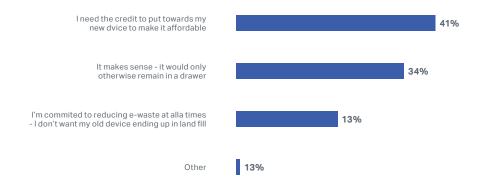
Just over half (51 percent) of global consumers are clear that the ability to unlock the latent value in their old device was the major reason why they would be prepared to trade it in. Furthermore, on average, these consumers expect to receive at least 35 percent of its retail value (this varies between 30 percent for UK consumers up to 38 percent for people in India). This is not unrealistic. In fact, it could be considered conservative given the secondary values that some smartphones achieve. However, to meet these consumer expectations, the secondary market must process all devices as efficiently as possible and validate which are fit for resale and which are not. It currently takes, on average, 30 minutes to assess and process a device. This is assuming the device is accurately categorised at the point of return. A huge amount of time and money is currently wasted on the mis assessment of devices, which in turn leads to the wrong process being followed. It is imperative that these mistakes are eradicated, to fully capture the latent value of a used device and achieve high prices the point of resale.

Streamlining the existing reverse supply chain within operators and OEMs is a critical step towards driving these efficiency gains. By consolidating key processes, keeping more key processing steps in-house and benefiting from the latest technological innovations, devices can be assessed and processed in a fraction of the time.



Figure 5.

Overall, credit is the main reason for trading in, although this is more prevalent in India and the Philippines than Germany and the UK, where the top reason is 'it makes sense'



Top reason for trading in:



Another incentive for operators and OEMs to consider is that, at present, one fifth (20 percent) of all consumers avoid the structured operator or OEM-led secondary market entirely thinking that they'll achieve a higher price by selling their used device privately, rather than trade it in. While this is true in many cases, there is no doubt that more accurate and efficient diagnostic testing increases the value of used devices.





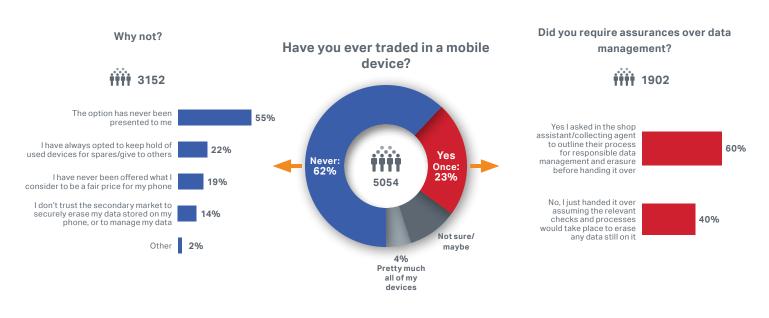
Reliability Rules - Mistakes are Not an Option

A major component of maintaining an excellent customer experience is ensuring that all personal data stored on a used device is fully erased prior to collection.

Of the total number of global consumers that have traded in a device, 60 percent wanted assurances over the secure management of their data before handing it over. Furthermore, more than three quarters (77 percent) of consumers are at least somewhat concerned that data stored on their old device might be compromised after and trade-in. This represents an 11 percent increase compared to a study completed by Blancco in 2019 which asked the same question. This proves that consumer sensitivities towards data and privacy protection are becoming more acute. Almost half of consumers (47 percent) expect organizations that collect devices to follow stringent processes to ensure used devices are fully wiped. In fact, 17 percent confessed that their reservations and concerns regarding the security of their data was the primary reason why they wouldn't consider trading in a device.

Figure 6.

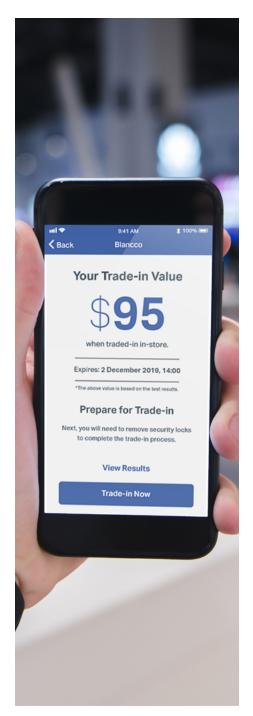
62% of consumers have never traded in a mobile device, 55% say this is because the option has never been presented. Of those who have traded in, 60% wanted assurances over data management processes.



This research builds on a <u>study completed in 2019</u> that underlines the significance of preserving consumer trust in the secondary device market. With so much expectation, it is critical that operators, OEMs and 3PLs behave as responsibly as possible with customer data to ensure consumers continue to surrender their old devices.

With so much pressure on creating the maximum possible efficiency throughout the secondary device ecosystem, operators, OEMs and 3PLs must continue to resist the temptation to cut corners to accelerate the time it takes to take a used device from the initial point of collection to re-sale.





Dealing with the Deluge: Blancco's Belief

Every time consumers visit a retail store or interact with a mobile brand online or via an app, they expect a high-quality experience. This includes situations such as device return, buy-back / trade-in or purchasing insurance. To provide these excellent customer experiences to the end customer, mobile providers need to quickly and accurately assess device condition. Devices that are bought back, returned or traded-up must then go through streamlined processing, including secure erasure to ensure sensitive data is not exposed.

Blancco gives mobile organizations the ability to efficiently provide mobile diagnostics, erasure and grading across the full mobile lifecycle—from addressing customer issues in-store with accurate, trusted solutions to ensuring 3PLs have the most effective processing possible in place when those devices reach back-of-house.

Once these devices reach the warehouse, Blancco enables operators, OEMs and 3PLs to securely streamline their operations with grading, erasure and diagnostic workflows to accurately sort and value devices, saving time and preserving device value to increase profits. And because Blancco solutions cover the full mobile lifecycle, organizations have a clear view of what's happened to the device while in-store once it reaches the warehouse. For example, if a factory reset has already been complete or the device has already been tested for faults, the warehouse will be able to skip those steps and optimize device processing.

Recently, Blancco introduced new Al capabilities that determine the condition of a device's screen in under a minute. One of these tests, cracked glass detection, utilizes a device's own camera to look for screen deficiencies. The images are then sent to the cloud where Al technology quickly evaluates the device for cracks and other screen damage. Pair this with additional LCD screen testing and other diagnostic tests, such as battery wear, and these new capabilities will give operators and OEMs the ability to assess the condition of a used device more quickly, as well as improve fraud detection during the remote buy-back / trade-in process. By offering accurate remote diagnostic and cracked glass detection capabilities, Blancco has built a new customer touchpoint for carriers and operators, while also enhancing the customer trade-in experience with a quick, reliable solution that can be accessed anywhere.

As this study proves, global consumers want to engage with the buy-back / trade-in process and secondary device market, but they have high expectations. Operators, OEMs and 3PLs must overcome significant complexity to meet these expectations and ensure its ongoing success. Blanco has the global presence, technology and expertise to drive new levels of efficiency to all stakeholders across the full mobile ecosystem and comfortably manage the exciting deluge of devices that awaits the secondary market.



About Blancco

Blancco is the industry standard in data erasure and mobile device diagnostics software. Our data erasure software provides thousands of organizations the tools they need to enable sustainable data sanitization processes across the widest array of IT assets. By focusing on erasing and reusing assets instead of physically destroying them, organizations can improve their security posture and address corporate social responsibility requirements, while also ensuring compliance with local and global data privacy requirements.

Blancco data erasure solutions have been tested, certified, approved and recommended by 15+ governing bodies and leading organizations around the world. No other data erasure software can boast this level of compliance with the rigorous requirements set by government agencies, legal authorities and independent testing laboratories. All Blancco erasures are verified and certified, resulting in a tamper-proof audit trail.

With Blancco Mobile Solutions, organizations can achieve real-time valuation for mobile devices with a simple tool that enables consistent, accurate and measurable diagnostic testing, in-store or remotely via a customer-facing app, with workflows purpose-built for buy-back/trade-in, mobile insurance and returns reduction.

Additionally, mobile processors can achieve operational excellence while maximizing profits with Blancco Mobile Diagnostics & Erasure-a purpose-built solution that streamlines diagnostics, erasure and grading processes to prevent unnecessary touchpoints and increase efficiency.

For more information, visit our website at blancco.com.

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