Direct Carrier Billing: An In-Depth Look at How It Empowers Scalability

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The creed of the modern consumer can be summed up in a single word—convenience. We live in an 'on-demand' world, and we expect almost everything to be made accessible with just a few taps on our smartphone screens.

That is the 'front-end' consumer perspective—simplicity. But to deliver that front-end experience is something easier said than done.

On the back-end, it often entails massive network infrastructure and numerous third-party integrations. Much of the FinTech world's development was and still is centered around helping companies optimize the back-end so they can efficiently achieve that front-end scale and convenience.

Direct carrier billing (DCB) is one prominent example of this. In this piece, we will be taking an in-depth look at how this innovative billing method has enabled mobile network operators (MNOs) and digital services providers to sync their operations better to obtain increased economies of scale.

First, we will examine the leading players in the DCB ecosystem.

Understanding the Direct Carrier Billing Ecosystem

DCB's mechanics can be described in three words: streamlined payment channels. The concept is for digital services providers—which include over-the-top (OTT) media providers, mobile games, and apps—to ride on the existing payment channel between consumers and MNOs. So, instead of paying for apps, games, or movies using credit cards, the cost will simply be added on to their mobile bill. Payments are streamlined, and convenience is increased.

But, as mentioned, the front-end always looks simple and easy to customers. It is on the back-end where the challenges exist. In addition to MNOs and digital services providers, there is another player that plays a crucial role in the ecosystem—DCB solution providers, sometimes known as managed service provider (MSP) payment platforms.

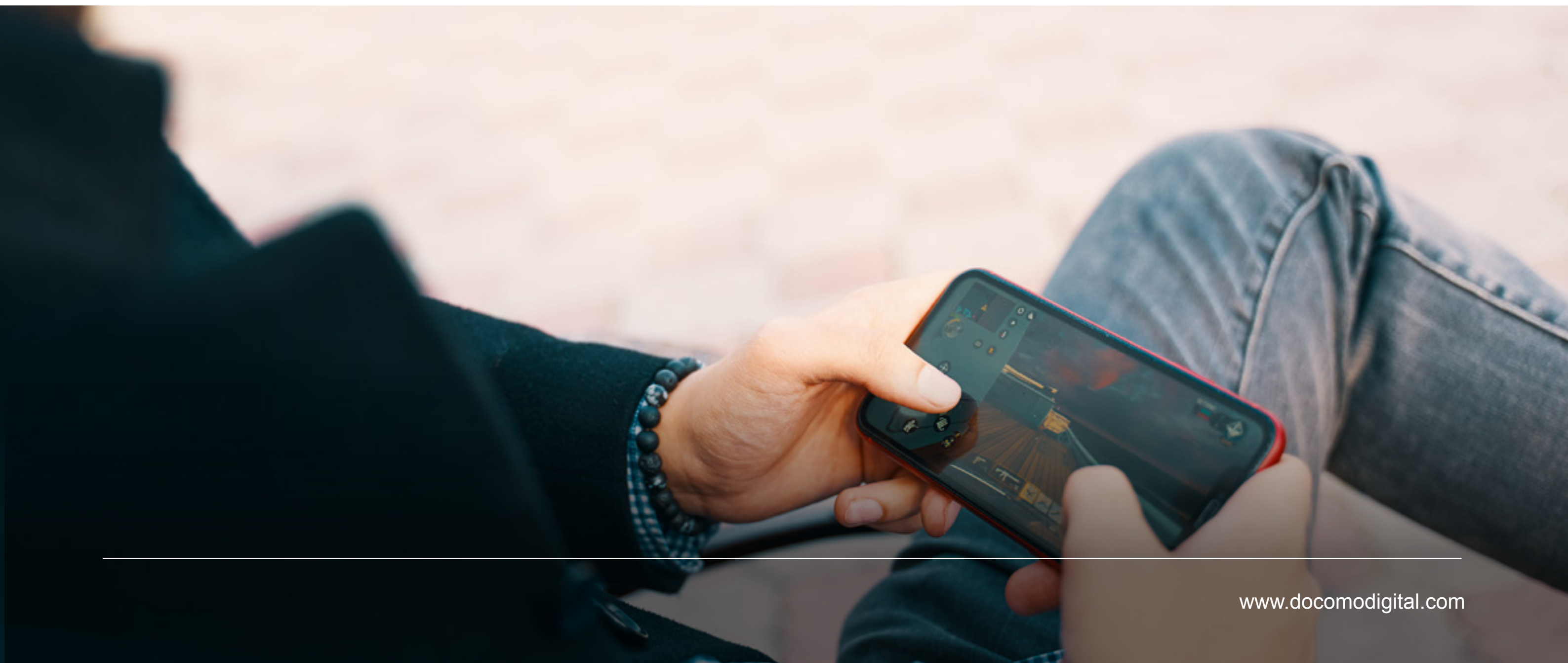
These companies play a vital intermediary role. They are responsible for providing the payment platforms which connect the MNOs on one end and the digital services providers on the other end. The services they provide to MNOs and digital services providers—which we will elaborate on later—are vital in enabling both these parties to achieve a hassle-free scale. In return for the advantages these DCB solution providers confer, they take a cut of the percentage fee that MNOs receive from the digital services providers.

Next, we will take a broad overview of the advantages of the DCB payment method.

Streamline payments channels

3 key players: MNOs, digital services providers and DCB solution providers

DCB solution providers enables a hassle free scale



Leveraging the Strength of the MNO Payment Channel

From the consumer perspective, the primary and most apparent benefit consumers receive from DCB is convenience.

Deloitte estimates that mobile phone penetration in both the developed world has exceeded 90%.

Smartphone penetration, while lower, is not far behind, with penetration rates in both markets already surpassing 80%. This makes the payment channel between consumers and MNOs one of the strongest, stickiest, and most-trafficked payment channels.

DCB allows digital services providers to capitalize on the strength of this single payment channel. Because most consumers only use one MNO at a time, the MNO payment channel has little to no competition.

In contrast, even the biggest digital services providers must compete—consider the example of Disney+ as a challenge to Netflix's dominance in the space. Leveraging on the MNO channel is thus the most convenient way for digital services providers to reach paying consumers.

The benefit of this increased convenience should not be understated. In the digital marketing world, conversion rates—the percentage of visitors you can convert into paying customers—is a key metric. A subset of this is 'cart abandonment' rates, whereby the business loses the customer at the point of purchase. Increasing conversion rates and lowering abandonment rates are thus one of the most important goals of digital businesses. By removing most of the friction between the consumer and the purchase (no need to fill out additional personal information), DCB can help businesses achieve these goals.

Targeting Growth Segment. Emerging Markets and the Underbanked

Emerging markets are a key growth segment for digital services providers. Boston Consulting Group estimates that emerging markets' total value of digitally influenced spending will approach $4 trillion by 2022—more than doubling in five years. The economic opportunity here is massive, and DCB can help MNOs and digital services providers win a larger slice of this pie.

One way DCB enables them to do that (beyond the convenience factor) is by targeting a chronically underserved market — the unbanked— the population without access to the traditional banking facilities, something most in the developed world take for granted. This is a problem that 1.7 billion adults worldwide faced as recently as 2017.

However, with the rise of budget smartphones, even most of the developing world own smartphones, especially since they can use prepaid cash top-ups to settle their mobile phone bills. DCB gives them the opportunity to access paid digital services using a payment method they are already familiar with.

While it is true that the underbanked population is economically disadvantaged, this does not mean they are not a consumer group that can be targeted. Most digital services are largely for entertainment purposes, something that all demographics crave. Further, individual content pieces are typically not prohibitively expensive, even to those without any economic means. DCB often allows a 'pay-as-you-go' model, which suits their economic situation.

Finally, by capturing these consumers early and building a sticky consumer habit of purchasing digital services (via their MNO as a payment channel), MNOs and digital services providers can better lock in this customer behavior. This makes it an effective long-term strategy for customer retention, especially since many of the underbanked will eventually move up the economic ladder—increasing their lifetime customer value.

The Bottom Line: The Optimal Option for Expanding Companies

The benefits of DCB are clear. By leveraging the strength of the MNO payment channel, DCB creates convenience and higher conversions. And by being able to access the unbanked, DCB allows digital services providers to reach emerging growth markets and establish sticky consumer habits. Consider a 2019 survey which found that as many as 23% of American millennials did not use credit cards, meaning that even in developed markets, DCB can significantly boost market access.

Combining these two benefits makes DCB the optimal option for companies looking to expand and quickly create scale.

However, while these 'front-end' benefits are clear, overcoming the back-end challenges to implement DCB systems at scale seamlessly is another matter altogether. Chief among these implementation challenges is the widespread coordination of payment methods and systems.

Navigating the Labyrinth of Global Payment Networks

The almost omnipresent nature of the payment network titans like Visa and Mastercard—Visa alone boasts over $11 trillion in total payment volume—can give the impression of a seamless and unified global payment network. But the reality on the back-end is far different, and businesses face many challenges when navigating the payment network labyrinth.

Digital services providers rarely limit their customer base to a specific country; they are largely international. For digital services providers to implement separate DCB arrangements with individual MNOs would be highly inefficient as they would have to account for both different currencies and payment preferences.

For instance, consider the use of direct bank debit as a payment mode, something consumers use heavily in most countries. The payment networks in play vary by country. In the USA, it's called ACH (Automated Clearing House). In Japan, it's Zengin. Australia uses the BECS (Bulk Electronic Clearing System).

DCB Solution Providers with Global Capabilities are Needed to Implement DCB at Scale

Without a global centralized payment platform that digital services providers can connect to—with local MNOs on the other end—they would have to constantly switch payment partners as they transition from one geography to another. This would increase costs (both time and money) and inhibit scale.

The optimal solution for digital services providers looking to scale quickly is to partner with a DCB solution provider with global capabilities. One of the leaders in the space is DOCOMO Digital, which has already integrated over 300 MNOs on its platform—more than the number of countries in the world.

This means that by partnering with DOCOMO Digital, digital services providers will be able to target the customer base of over 300 MNOs. Their products and services can be made available to a large international customer base, who can pay for them in the method and currency they are already most familiar with. It is essentially 'plug-and-play' scalability.

On the digital services provider side, the primary benefit of partnering with global DCB solution providers like DOCOMO Digital is clear—being able to achieve a global scale quickly. But what about from the MNOs' perspective? What advantages does DCB confer upon them?

Enabling MNOs to Better Tap New Revenue Sources

The main challenge facing MNOs today is finding new sources of revenue to tap.

The old staples, voice, and SMS see stagnant or even shrinking revenues as the popularity of data-based voice and messaging apps like WhatsApp and WeChat continue to grow.

Juniper Research estimates that globally, MNOs are losing over $100 billion a year as consumers migrate from voice and text services to messaging services and social media.

Cognizant of this, MNOs are eyeing a new pie—the digital media and app ecosystem. A few relevant statistics:

The OTT media market is projected to reach $332.5 billion by 2025—an annualized 16.7% growth rate

Mobile games made up a market of $68.5 billion in 2019

Global spending on mobile apps is forecast to hit $171 billion by 2024, a 15% annualized growth rate

DCB gives MNOs the ability to capture a greater proportion of the massive revenues generated in the ecosystem. And although some MNOs have been hesitant to partner with DCB solution providers because of the revenue-sharing required, DCB is viewed as a "lower-margin" payment option for MNOs. Margins are indeed tighter, and using this to justify not adopting the DCB solution by giving up a few revenue streams is short-term thinking while losing on a long-term opportunity.

Some of the MNOs have suspected that launching app store DCB can cannibalize their revenue. However, some of the carrier billing implementation case studies have shown an increase in revenues after launching carrier billing with the mobile app stores.

On top of giving MNOs greater access to the digital media and app ecosystem, DCB solution providers give MNOs a whole suite of other ancillary benefits as well.

Managing Unsynchronized Billing Cycles

Broadly speaking, the revenue model of most of the digital media and app ecosystem can be broken into two—the 'pay-as-you-go' model and the subscription model. As MNOs increase the number of digital services providers they partner with (as they collect a share of the revenues), the complexity of managing their various unsynchronized billing cycles increases as well.

The top DCB solution providers take this tedious job from the MNOs' hands. MNOs no longer have to worry about tracking and reconciling all these billing cycles, especially as consumers are continuously upgrading or downgrading their subscription services. They can simply become passive collection agents—the DCB solution providers will handle the rest.

But their value extends beyond merely handling such back-end integrations. They also provide MNOs with additional capabilities, particularly from a customer data and control standpoint.

Maximizing the Value of Customer Data

If data is indeed the new oil, as many have claimed, MNOs are sitting on top of vast oil fields. The challenge is appropriately mining those vast stores of data to distill them down into actionable insights they can translate into bottom-line results.

DCB solution providers are equipped to help MNOs do that. And because they have access to a much more extensive range of data (from their other MNO partners), they can use the insights gleaned to strengthen MNOs' risk management practices.

Preemptively Plugging Bad Debt Revenue Leakages

It's not only the banks and money lenders of the world who have to deal with bad debt—MNOs must too. Management consulting firm Oliver Wyman estimates that MNOs write off about 1–2% of revenues every year to bad debt. While that might seem minuscule, consider that MNOs are facing shrinking margins in their core businesses. Any improvement in their bad debt metrics can go a long way toward defending their margins.

And unlike banks, MNOs also face significant opportunity costs when pursuing these debtors. Amounts owed per subscriber are typically very low, and MNOs must balance these small recoveries against the cost of potentially losing that subscriber for life. Oliver Wyman estimates that as much as 25% of MNOs' customer churn stems from bad debt. This implies that in many cases, the opportunity cost factor wins out, and MNOs elect not to collect or cut them off aggressively.

This means that when it comes to MNOs' bad debt problem, prevention is far better than cure. Preemptive measures are needed, and DCB solution providers can equip MNOs with these tools.

This is done through a mechanism often referred to as an adaptive spend limit, which gives MNOs the ability to set individualized spending limits on specific subscribers. Of course, this is not done manually, but automatically, using cutting-edge machine learning algorithms optimized to reduce both bad debt metrics and subscriber churn. The best part is that as the algorithm learns from the data, its performance will likely only improve over time.

Take the example of Spanish MNO Movistar. Before it partnered with DOCOMO Digital, the company attempted to form DCB relationships directly with the digital services providers. This lack of synchronization led to billing disputes—and bad debt—to pile up. DOCOMO Digital quickly implemented a customer self-care and adaptive spend limit tool, which resulted in a 40% decrease in bad debt and a 20% increase in realized revenue.

But DCB solution providers' advantages to MNOs extend beyond simply plugging revenue leakage.

Boosting Revenues Through AI-Led Microlending

Earlier, we talked about how DCB can increase conversion rates and lower cart abandonment rates by removing a lot of the friction between the consumer and the purchase, for instance, the friction created by having to fill in personal information.

But some DCB solution providers, such as DOCOMO Digital, are taking it one step further. It is now also targeting another form of friction—the friction generated by a consumer's transaction being rejected because they have insufficient funds.

In DOCOMO Digital's case, it does this by partnering with AI-led microlending pioneer Juvo, which builds up robust risk profiles of the MNOs' customers to determine credit limits. So, when a consumer makes a transaction, as long as any 'fall-short' amount remains within the credit limit, the system will automatically 'lend' the amount to the consumer—resulting in a seamless and uninterrupted customer purchasing experience.

DCB Helps With Many Forms of Scale

Scale takes many forms. It can be increasing the number of markets, customers, or revenue streams. Or it could be optimizing what you already have, for instance, scaling per-user revenue metrics. DCB can help with all of them. On the digital services provider side, it facilitates entering new markets and converting captive MNO consumers. And on the MNO side, DCB enables them to capture new revenue streams while optimizing per-user metrics.

It's no wonder then that Juniper Research estimates that the percentage of all digital content spend flowing through DCB will rise to 22% by 2024 compared to 12% in 2018. In a competitive business world, the benefits that DCB provides are simply too great to ignore.

ABOUT US

DOCOMO Digital is the international payments business of NTT DOCOMO. We partner with carriers, merchants, OTT services, app stores and payment providers in both developed and emerging markets around the world. We solve the challenges of customer acquisition and retention, regulation, and complexity for our partners with alternative payment methods such as direct carrier billing and digital wallets. With teams based in fifteen countries, we enable our partners to grow their digital services revenues while enhancing the customer experience for their users. Our robust managed services platform and coverage across carriers and the most locally relevant payment methods enable faster time-to-market, especially for streaming, gaming, eCommerce, and productivity application providers.

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