How to Monetize 5G in the B2C & B2B Market

Whale Cloud

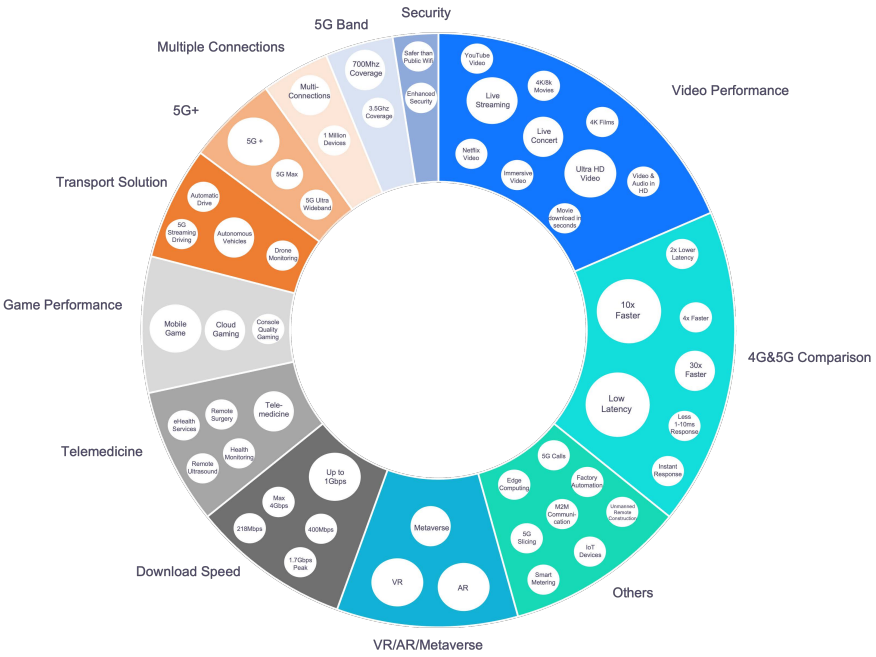
The advent of 5G technology has ushered in a new era of connectivity, promising super-fast speeds, ultra-low latency, and a multitude of exciting possibilities. While 5G holds immense potential for transforming industries and enhancing consumer experiences, it also presents a unique opportunity for businesses to tap into a lucrative market. Monetizing the B2C & B2B segments of the 5G market has become a focal point for telecommunication operators and businesses alike.

Whale Cloud conducted research (research period: March - May 2023) on the 5G Individual and Business Plans of 21 top-tier global telecommunication operators with the aim of exploring enhanced strategies for marketing 5G. This involved identifying the best-selling 5G products, determining optimal rewards and discounts, differentiating between individual and business plans, devising targeted approaches for selling 5G offerings and exploring innovative revenue streams in the higher-end B2B2X market.

Optus *Australia*	**Magenta** *Austria*	**Claro** *Brazil*
Telkomsel *Indonesia*	**Smart** *Philippines*	**Bell** *Canada*
Entel *Chile*	**Orange** *France*	**Vodafone** *Germany*
Jio *India*	**Wind Tre** *Italy*	**stc** *Saudi Arabia*
Claro *Guatemala*	**LG U+** *South Korea*	**AIS** *Thailand*
Safaricom *Kenya*	**Telcel** *Mexico*	**Verizon** *United States*
Singtel *Singapore*	**Vodacom** *South Africa*	**Etisalat** *United Arab Emirates*

Learn 5G Marketing from Top Operators

When it comes to 5G applications, operators are expected to prioritize 5G scenarios and promote the benefits of 5G networks to their existing 4G users. Among these applications, video scenarios receive the most attention from operators. 5G networks are particularly well-suited for ultra-HD video viewing, online video streaming, 4K/8K video playback, video downloads, and immersive video experiences. While the differences between 4G and 5G are minimal for activities like web browsing, voice calls, chatting, and text messages, the video viewing experience is the most intuitive and practical benefit of 5G. In addition, operators also highlight future possibilities of 5G applications using terms like VR/AR/Metaverse, telemedicine, cloud gaming, and autonomous driving to showcase the infinite possibilities of 5G applications in future scenarios. By showcasing these innovative use cases, operators aim to create excitement and anticipation among users for the potential of 5G beyond just faster speeds and lower latency.

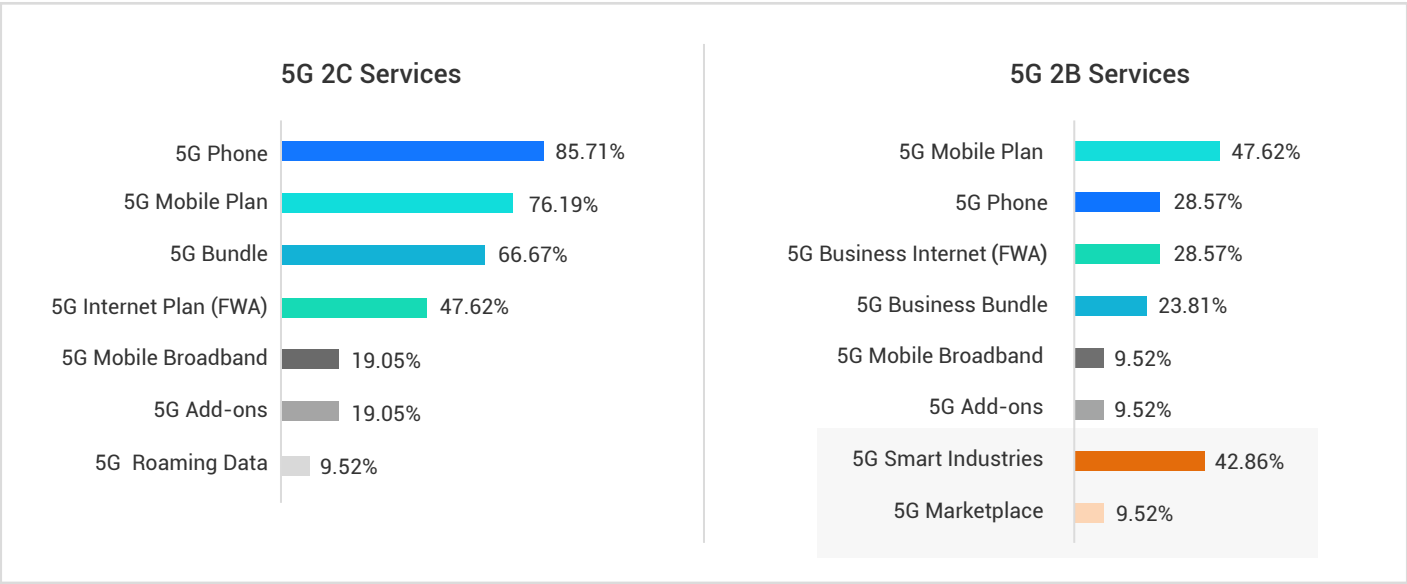


Top operators are aggressively marketing the speed advantage of 5G as a key selling point for this new technology. They emphasize the stark contrast between 5G and 4G, underscoring the significantly higher speeds and lower latency of 5G. Operators employ phrases like “4 to 30 times faster than 4G”, “lower delay”, and “millisecond response speed” to demonstrate the superiority of 5G over 4G. They also highlight the faster download speeds achievable with 5G, citing figures like “up to 1Gbps”, “average speeds of 400Mps”, and even “the fastest speeds of 4Gbps”. To further differentiate their 5G offerings from those of competitors, operators using 5G Standalone (SA) assign special titles such as "5G+", "5G Max," and "5G Ultra-Wideband" to their offerings. These titles allow users to immediately recognize the difference between 4G and 5G and create a perception that 5G holds higher value. Consequently, users may be more willing to pay for 5G services.

From a connectivity and security perspective, 5G offers the ability to support multiple devices connecting simultaneously, with the capacity to accommodate up to 1 million devices at once. Furthermore, the security mechanism of 5G is more robust, offering enhanced protection against potential security breaches.

5G Beginner's Guide: What to Sell?

After analyzing the 5G B2C and B2B Services provided by 21 top telecom operators, we have compiled the findings into two charts for easy reference: 5G B2C Services and 5G B2B Services.



5G B2C Services are specifically designed for individual users and include the following:
5G Mobile Phones (85.71%), 5G Mobile Plan (76.19%), 5G Bundle (66.67%), 5G Home Internet/FWA Service (47.62%), 5G Mobile Broadband/Portable Wi-Fi (19.05%), 5G Add-ons (19.05%), and 5G Roaming collaborating with overseas operators (9.52%);

On the other hand, 5G B2B Services cater to enterprise users are divided into two areas:

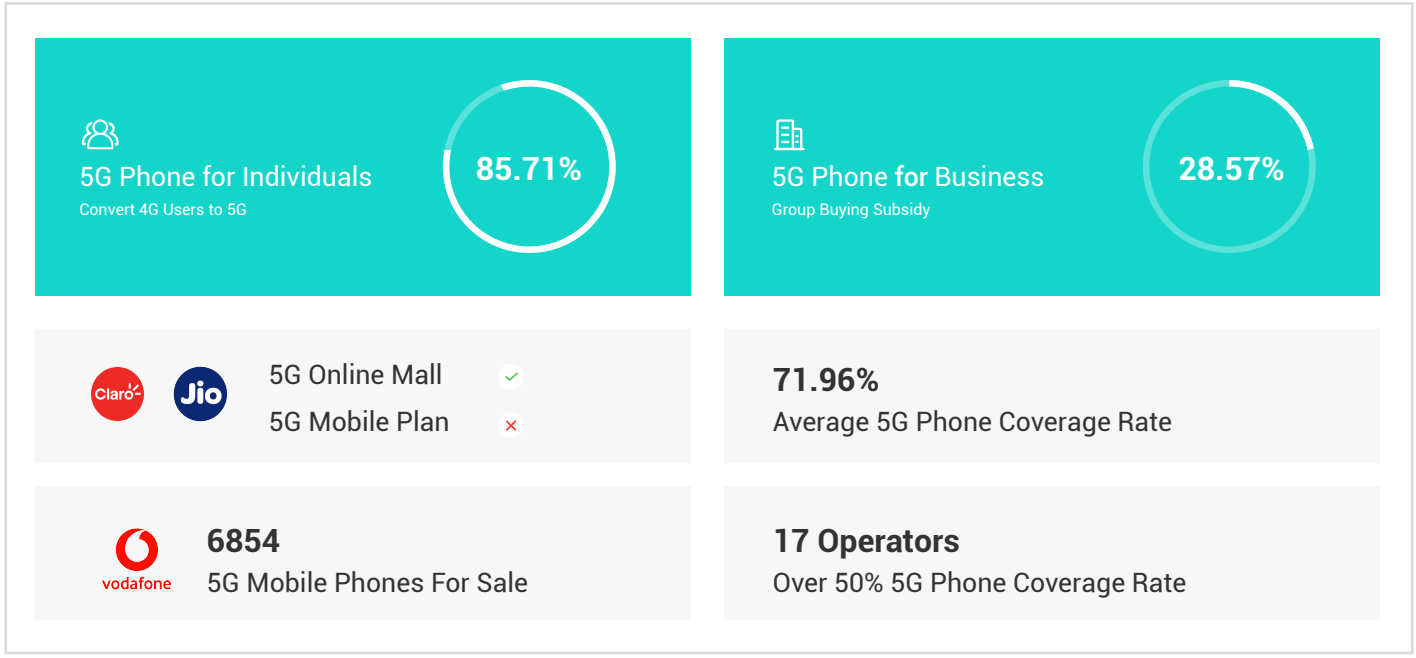
- 5G Business Plan, which includes 5G Business Mobile Plan (47.62%), 5G Business Mobile Phones (28.57%), 5G Business Internet/FWA Business Service (28.57%), 5G Business Bundle (23.81%), 5G Business Mobile broadband/Portable Wi-Fi (9.52%), 5G Business Add-ons (9.52%).
- 5G Business Solutions, which primarily consists of 5G Smart Solution (42.86%) and 5G Marketplace (9.52%).

These charts provide an overview of the various 5G services offered by telecom operators for both individual and enterprise users.

5G Phones: Forerunner of 5G Monetization

In our survey of 21 top-level operators, we found that 85.71% of them have released 5G mobile phones for individuals on their official websites, and 28.57% have also introduced 5G mobile phones designed for business purposes.

We further studied the proportion of 5G mobile phones among all the mobile phones (including both 4G & 5G models) offered by these operators, which we refer to as the 5G mobile phone coverage rate. On average, the coverage rate of 5G mobile phones for individual users was 71.96%, with 17 operators having a coverage rate exceeding 50%.

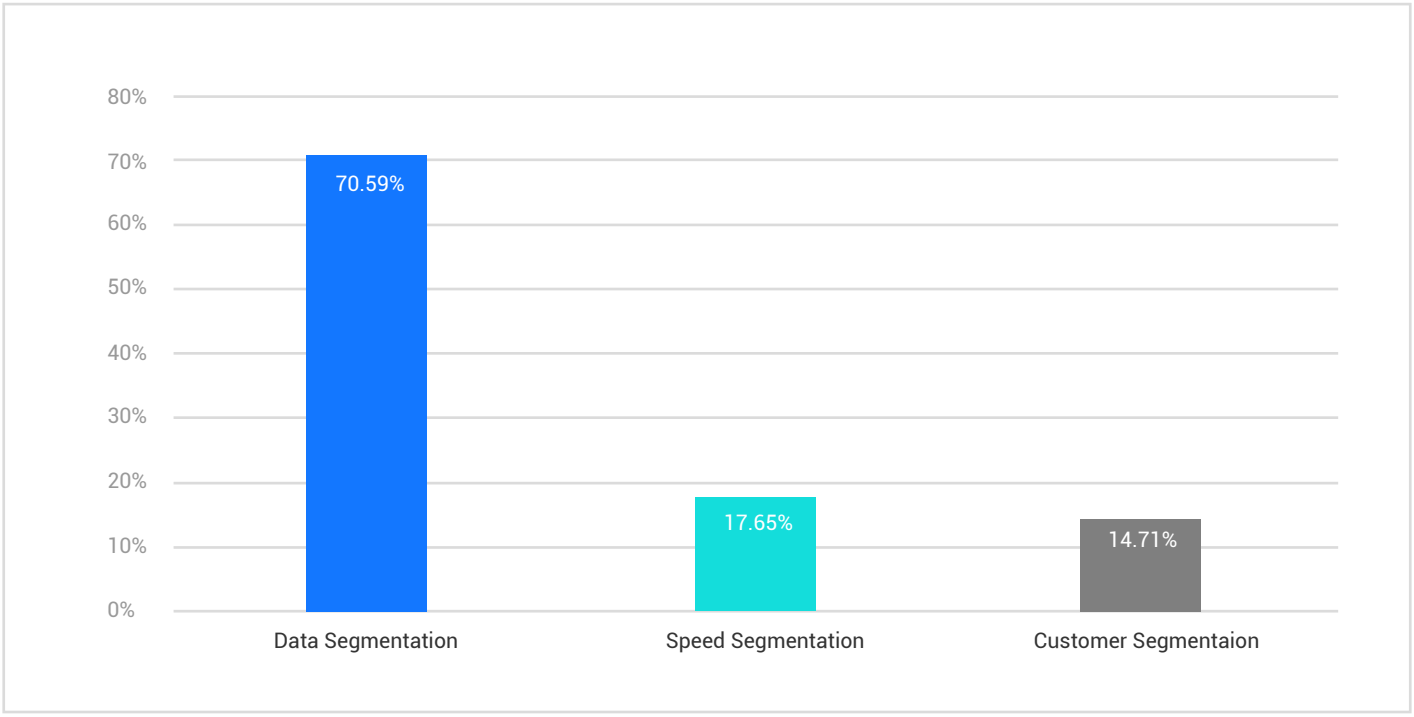


5G mobile phones play a critical role in promoting 5G and converting 4G customers into 5G users. Even in countries where 5G construction is still in the early stages and 5G plans have yet to be launched, operators such as Claro in Brazil and Jio in India have started promoting the advantages of 5G and 5G mobile phones. Vodacom in South Africa has listed 6,854 5G mobile phones on its official website, which is the operator with the largest number of 5G mobile phones compared to all other operators.

To effectively demonstrate the advantages of 5G plans, the availability of 5G devices is essential. Therefore, building an online device mall and encouraging users to update to 5G mobile phones are crucial steps in preparing for the subsequent promotion of 5G mobile plans.

5G Data is the Dominant Factor Influencing 5G Mobile Plan Price

In the realm of 5G mobile plans, pricing is determined by three primary factors: data, speed, and customer segmentation. Out of the 21 operators surveyed, 16 have introduced individual 5G plans, totalling 34 plans altogether.



Among these 34 plans, 70.59% utilize data segmentation to set price points, while 17.65% rely on speed segmentation and 14.71% make use of customer segmentation. It is evident that data segmentation is the most commonly employed method for price differentiation in 5G mobile plans.

Data segmentation primarily involves distinguishing between limited data and unlimited data offerings. **Speed segmentation** can be divided into three categories: download/upload speeds measured in Mbps or Gbps, the comparison between 4G and 5G, the distinction between National 5G and Ultra 5G (also known as NSA and SA). **Customer segmentation** primarily focuses on different customer categories, such as youth, adults, seniors and students, regular users and new users, vulnerable groups and common groups.

Unlimited 5G: Targeting and Engaging Your Most Valuable Customers

Based on our research, we have found that Unlimited 5G accounts for a significant percentage of individual mobile plans at 50%, while 5G business mobile plans make up 57.14%. As previously mentioned, the pricing of mobile plans is determined by data segmentation, specifically Limited Data and Unlimited Data. Therefore, Unlimited 5G sets the upper limit for the mobile plan as it is typically the most expensive option offered by operators.

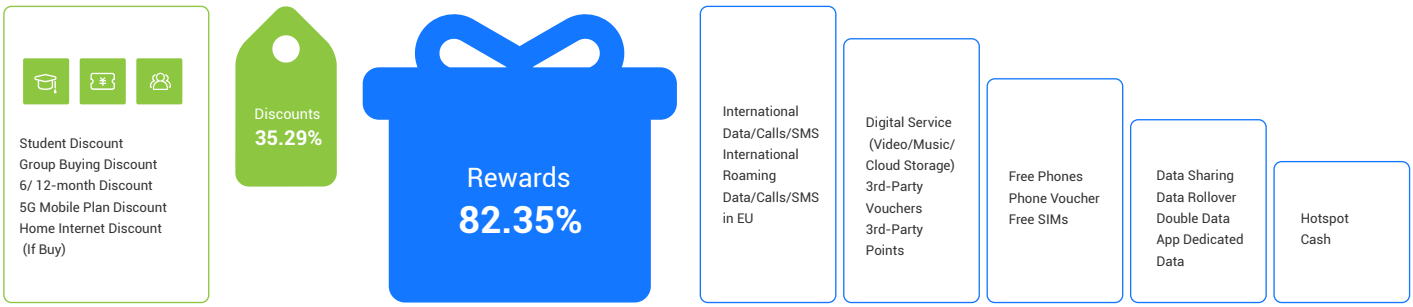
However, it is important to note that Unlimited 5G is a pricing tactic and does not necessarily equate to unrestricted data usage. Firstly, it is limited by the 5G coverage of the operator. Currently, global 5G coverage is generally low, with some operators having less than 50% coverage and a few with only a small number of 5G base stations. As a result, the term "5G Unlimited" refers to access to faster 5G speeds in areas with coverage, while unlimited data usage is available on the 3G or 4G network in areas without 5G coverage.

Secondly, certain operators impose a "Speed Limit" on Unlimited 5G plans due to the Fair Usage Policy (FUP), where the speed is slowed down when the user exceeds a certain threshold of gigabytes. For example, Verizon in the United States launched a mobile plan called Unlimited Plus $60, which capped the premium network at 50GB Premium Network. If a user exceeds 50GB of 5G data usage, the speed will be reduced when the network is congested.

Despite not being truly unlimited, Unlimited 5G plans serve as a symbol of high-value offerings and can attract customers who are willing to pay high tariffs, thereby increasing the Average Revenue Per User (ARPU) value.

5G Benefits: Rewards and Discounts

In our research on individual 5G mobile plans, we found that operators commonly use rewards and discounts to increase the attractiveness of their plans. Rewards are included in 82.35% of plans, while discounts are featured in 35.29% of plans, as shown in the picture.



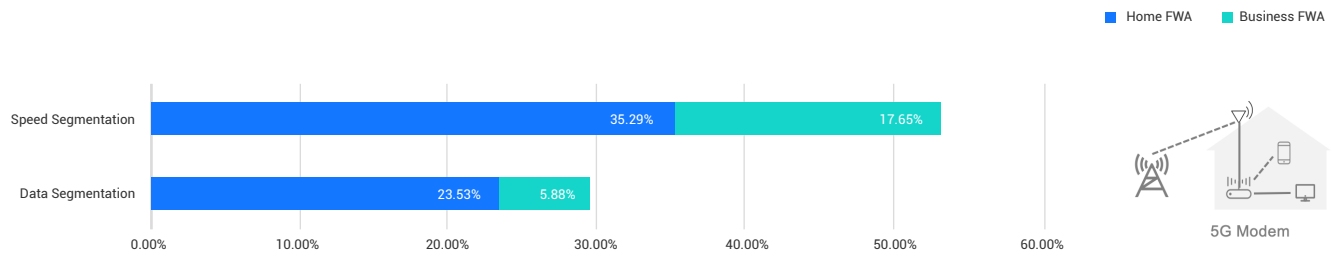
Among the benefits offered, international data/calls/SMS and international roaming are the most frequent, with a particular focus on the European Union and the Americas region. Offering international services can encourage European customers or high-value customers who frequently travel overseas to purchase the 5G mobile plan, which will increase the added value of the plan and boost sales.

Free SIM cards, group buying discounts, and data sharing are also prevalent. Operators can engage users' families and friends by providing additional SIM cards, recommending users to purchase more lines, and encouraging users to share data with family and friends, thereby increasing market share.

Another common way for operators to increase the attractiveness of their plans is through digital services, which reflects their ability to build successful third-party partnerships. Our research revealed that operators prefer to offer free video or music subscriptions as content services to users. This strategy shows that 5G is more suitable for users with high demand for video content, and cultivates user habits of using data-intensive apps. Furthermore, it adds value to the plan and effectively avoids direct price comparisons with other operators.

5G FWA: A Speed-Driven, Complementary Service to Fixed Broadband

Fixed Wireless Access (FWA) is a 5G wireless technology that uses radio frequency to achieve fixed broadband access. With FWA, operators can directly connect to end users through wireless, eliminating the need for cable installations in apartments or office units.



Operators often refer to 5G FWA service as 5G Home Internet or 5G Home Wireless. In chapter two, we highlighted the prevalence of FWA services, with 47.62% of operators offering home FWA, and 23.81% offering business FWA. So, what are the main factors that differentiate FWA prices?

The cost of 5G FWA service is determined by its speed, similar to fixed broadband plans. Despite being a 5G product, FWA is not necessarily faster than traditional fixed broadband. For instance, in Austria, Magenta's highest speed for home broadband is 1000 Mbps, which is much faster than the maximum speed of 500 Mbps offered by its 5G FWA.

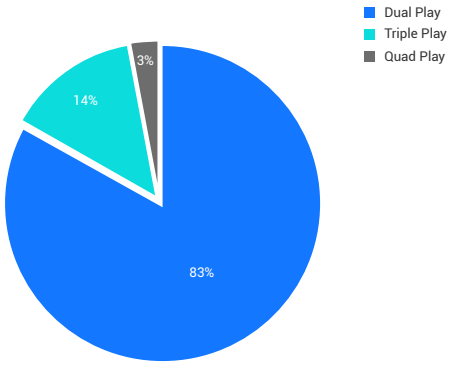
Moreover, fixed-line broadband plans (Cable/DSL/Fiber Internet) and FWA plans with the same speed often have similar prices. This shows that 5G FWA is a complementary service to fixed-line options, particularly in areas where laying fiber-optic networks is expensive or in remote and rural locations where it can solve the "last mile" problem. Meanwhile, emerging operators without established fixed broadband services can use 5G FWA to compete with larger, monopolistic providers.

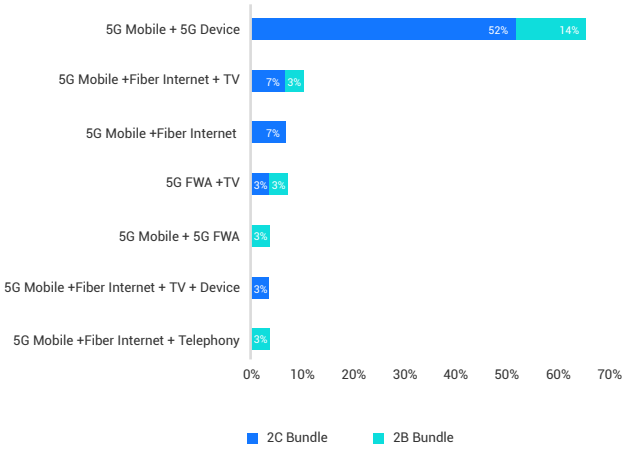
In terms of promoting 5G FWA plans, operators can adopt a strategy similar to 5G Unlimited and launch uncapped-speed 5G FWA plans. These tactics blur the difference between 5G FWA fees and traditional fixed-line fees, effectively preventing users from comparing them with fixed-line plans and giving up using 5G FWA plans.

In addition, operators generally set a contract period to encourage longer user engagement. 80% of FWA plans include a contract period, typically ranging from 24 or 36 months. 70% of FWA plans include a free 5G Customer Premises Equipment (CPE), but a longer contract duration (more than 24 months) is set to offset the high equipment costs through instalment payments. Some operators will offer a 1 Euro down payment with monthly equipment rental fees. At the same time, operators will provide digital services such as free video subscriptions to enhance the attractiveness of 5G FWA plans in use scenarios. Discounts, such as the first month being free or discounts for the first six months, may also be offered.

Contract Phones Remain Popular Among Operators Despite Early Development of 5G Bundles

Currently, Dual Play Bundles are the most popular type, accounting for 83%. Triple Play Bundles follow at 14% while Quad Play Bundles account for 3%. This data suggests that the development of 5G Bundles is still in its early stages, and products in 5G Bundles are relatively straightforward, involving fewer members.



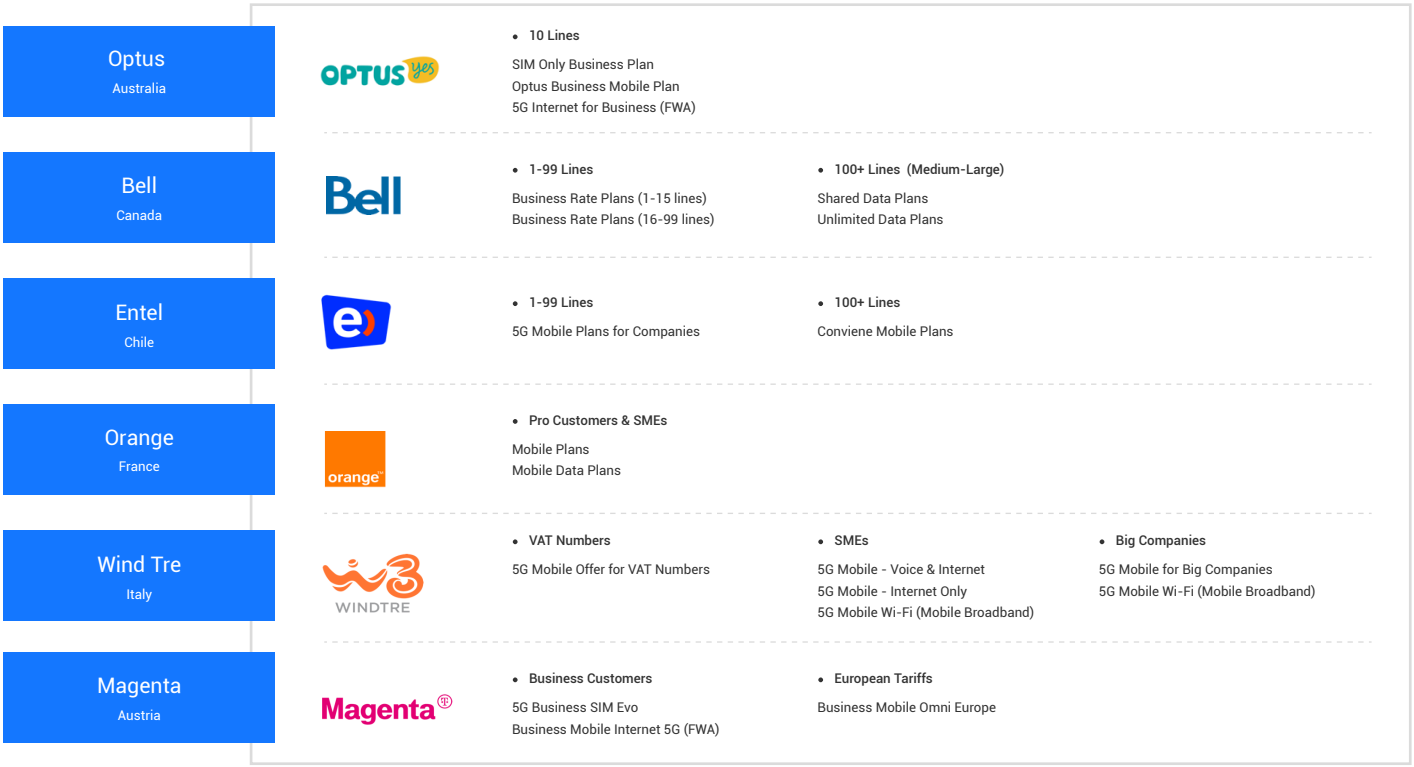


Among operators, the most popular Bundle is the "5G Mobile + 5G Device" combination, also known as the Contract Phone Bundle. This Bundle promotes the sales of 5G plans by offering physical bundling. Operators often include offering such as zero-dollar purchases, interest-free instalments, and discounts to reduce the barrier to entry for 5G and increase users' willingness to make a purchase.

Additionally, operators use the agreement period to make users stay longer, with 73.08% of Bundles requiring a 24-month agreement period and 38.46% requiring a 12-month agreement period.

Driving B2B 5G Plan Sales: Effective Market Segmentation Strategies for Enhanced Outcomes

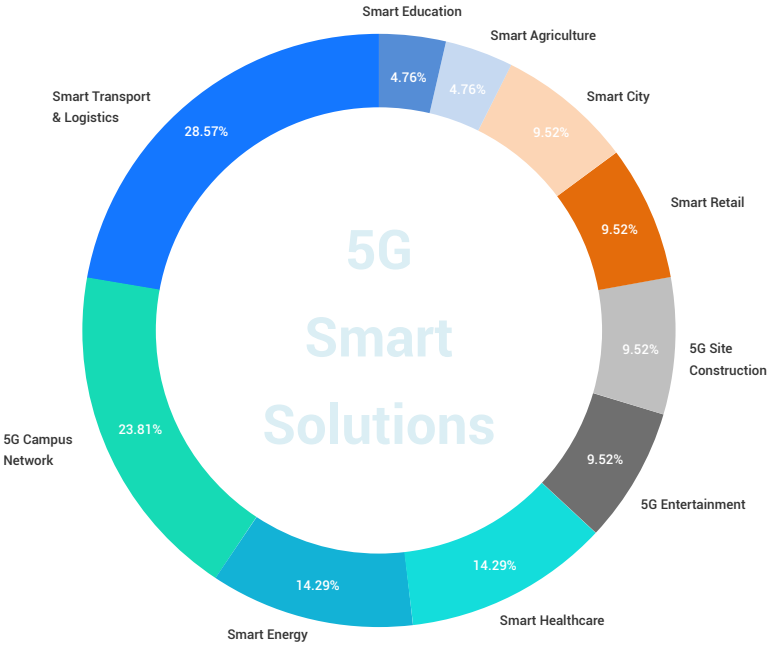
During the survey, we discovered that there is minimal distinction between business plans and individual plans. Some operators offer individual plans directly to enterprise users while applying appropriate discounts. Take Optus in Australia as an example, where enterprise users are offered the same 5G mobile plan (SIM Only Business Plan) as individual users (SIM Only Plan).



However, business plans are more targeted and tailored to specific market segments of enterprise customers. By segmenting the enterprise customer market, different 5G plans can be launched for small and medium-sized enterprises (SMEs) with less than 10 employees, those with 10-99 employees, and large enterprises with over 100 employees. This allows for accurate control of market demand, identification of untapped market opportunities, implementation of cost control measures, and the provision of reasonable group purchase discounts based on the size of enterprise customers.

Lead the 5G B2B Investment

According to our survey, we discovered that 42.86% of operators are investing heavily in 5G smart solutions for their B2B customers, in addition to business mobile plans. These solutions are applied in various fields such as smart transport and logistics, smart retail, smart healthcare, smart education, 5G site construction, smart energy, 5G entertainment, 5G campus networks, and smart agriculture.



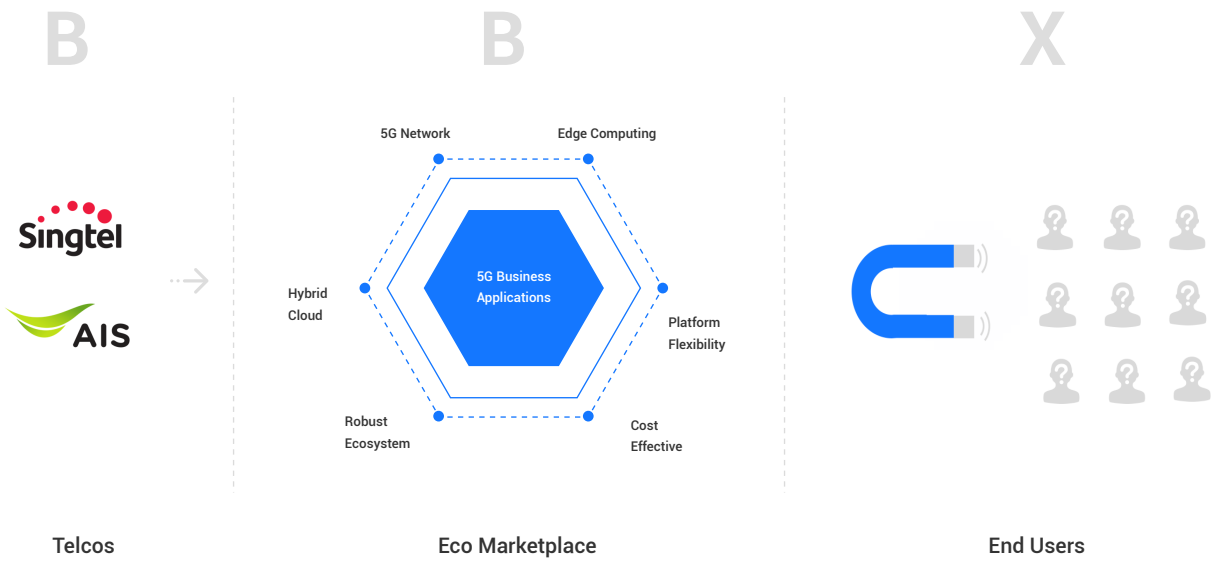
Our research shows that the two primary areas of investment for operators are smart transport & logistics and 5G campus network solutions, which account for 28.57% and 23.81% respectively.

- Smart transportation and logistics solutions enhance the efficiency of urban traffic and logistics, while reducing congestion and pressure. Examples include automated driving, 5G railways, smart travel, remote cranes for seaports, smart airports, and 5G AGV guided vehicle management system solutions.
- 5G campus network solutions are designed for specific areas such as universities, hotels, industrial parks, and hospitals. They provide high-speed connections for smart devices, intelligent diagnosis, and security monitoring, promoting industrial upgrading.
- Operators are also investing in the smart energy industry to improve productivity and safety through automation, real-time monitoring, data collection and analysis, and collaboration between workers.
- Smart healthcare solutions are being developed to monitor patients' health, prevent diseases, provide remote treatment, and offer postoperative care.

Overall, the 5G B2B smart industry demonstrates a diverse landscape with promising growth opportunities. As 5G technology continues to advance, operators are likely to increase their investment in the B2B smart industry, assisting traditional enterprises in realizing digital transformation, enhancing automated deployment, and reducing manual intervention. Ultimately, these initiatives will contribute to greater social and economic benefits.

Maximizing Digital Revenue in the 5G B2B2X Marketplace Amidst Dim Prospects for 5G Slicing

Our research findings show that two operators, AIS's 5G NextGen Platform in Thailand and Singtel Paragon in Singapore, have established 5G B2B Marketplaces. These platforms integrate 5G, edge technology, cloud, and application management solutions from cloud providers like Microsoft and AWS. Additionally, they incorporate eco-applications from SaaS providers. The marketplaces make it easier for enterprises to enter the 5G space, enabling them to rapidly deploy innovative 5G applications such as real-time fleet management, mixed reality, metaverse simulation, smart warehouse management, and other smart applications. This, in turn, helps shorten time-to-market and reduce costs. Moreover, these marketplaces support operators to achieve business diversification in the 5G era, promote B2B2X ecological development, and generate new digital innovation revenue.



However, we found that among the operators surveyed, only Singtel in Singapore has recently launched a slicing solution for popular 5G slicing applications. Most operators are still in the early stages of 5G construction, concentrating on building 5G base stations and launching 5G services that cater to the masses. Slicing divides the physical network into virtual networks, utilizing public physical resources and requiring independent management. For operators, the operating costs are too high, and the actual benefits generated are not significant.

Key Takeaways:

- Operators are showcasing the potential of 5G through immersive video scenes and futuristic applications like VR/AR/Metaverse, telemedicine, cloud gaming, and autonomous driving. These demonstrations aim to highlight the value and possibilities that 5G technology can offer.
- Emphasizing the faster download speeds of 5G encourages users to perceive its higher value and increases their willingness to invest in 5G services.
- The advantages of 5G plans require users to have compatible 5G devices, leading to the establishment of device marketplaces and promoting smartphone upgrades.
- The pricing of 5G mobile plans is primarily determined by the differentiation of data plans, with higher data allowances often leading to higher prices.
- "Unlimited 5G" plans attract high-value users who are willing to invest significantly, resulting in higher Average Revenue Per User (ARPU) for operators.
- Additional benefits such as international calls and roaming attract international travelers to 5G plans, further driving their adoption.
- Operators incentivize customer acquisition through offerings such as additional SIM cards, multiple plan purchases, and data sharing options with friends and family.
- Operators prefer to integrate digital services into their plans to enhance their appeal and provide additional value to customers.
- 5G FWA plans serve as complements to traditional fixed-line services and are priced based on speed, with uncapped options distinguishing them from fixed-line plans.
- The development of 5G bundle offerings is in its early stages, but contracted devices are still the preferred choice.
- Enterprise and personal plans share similarities, but segmenting the enterprise market and offering group discounts maximize benefits.
- Increased investment in the B2B intelligent industry supports traditional businesses in their digital transformation.
- The 5G B2B Marketplace diversifies operator businesses, drives the growth of the B2B2X ecosystem, and generates new revenue from digital innovation.
- Implementing 5G network slicing faces challenges due to the focus on base stations and high operational costs.