

The Growing Importance of Multi- Gigabit Access

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Introduction

This white paper discusses the growing need for operators to offer multi-gigabit access and the benefits of this strategy. The report covers the following:

- The importance of changing traffic trends in driving the need for multi-gigabit access. This section analyzes the potential for future total traffic growth, how traffic peaks are becoming more pronounced and more frequent, and how usage between subscribers is highly unequal.
- How changes in lifestyle and work-related habits open up opportunities for multi-gigabit access. It analyzes changes in home-working patterns as well as growth in the creator economy.
- Benefits operators can derive from offering multi-gigabit access, such as improved subscriber acquisition, reduced churn, and higher ARPU. It includes real-world examples from multiple global regions highlighting the benefits operators are already enjoying.

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Multi-gigabit access is now well established across the globe

Multi-gigabit access has become increasingly commonplace and is now a mainstream choice for many broadband operators around the world. Of the 579 operators surveyed by Omdia, 169, or 29%, offered maximum download speeds of more than 1Gbps in May 2025, which represented extremely strong growth from previous years. In February 2022, 82 (12%) of the same 579 operators around the world offered speeds of more than 1Gbps, for example. This growth reflects multi-gigabit access launches by both incumbents and challenger operators in all global regions.

A growing number of operators are moving to offer multi-gigabit access at affordable prices to their subscribers. More operators are also offering multi-gigabit access across multiple tiers in their retail portfolios. Orange in France is a good example of this, offering FTTP broadband download speeds of 1, 2, or 8Gbps. Operators in Singapore are now offering multi-gigabit access as standard; for example, Singtel offers broadband speeds of 2, 3, 5, and 10Gbps. These market trends are important because they indicate that operators see multi-gigabit access as playing a growing role in their retail tariff plans and as more than just a means to market having the highest speeds available. As this white paper discusses, there are multiple trends that will only increase the importance of multi-gigabit access over time, and there is already evidence of operators achieving direct financial benefits from this market evolution.

Broadband traffic trends show the growing relevance of multi-gigabit access

Total broadband traffic still has significant room for growth, and file sizes will continue to increase

While fixed broadband traffic growth has slowed, even with lower growth rates, compounding effects will ensure total traffic grows rapidly. With annual traffic growth rates of only 10%, total traffic will have grown by a factor of 2.6 in 10 years. There are several reasons to think that this level of growth is sustainable in the future:

- There is still substantial room for traditional broadcast TV viewing to move online. According to data from UK regulator Ofcom, across all age groups, traditional

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broadcast live TV still accounted for 40% of in-home video viewing minutes in the UK in 2023.

- The number of large files being downloaded and uploaded may continue to increase, for instance, due to growth in online gaming. Many games today already have a size of 100GB and above.
- As access network speeds increase, there is less need for file sizes to be optimized, so the size of files may continue to grow.

Users downloading and uploading such large files will see a discernible difference in their user experience if they have the fastest multi-gigabit connections.

Broadband traffic peaks are becoming more pronounced and more frequent

Traffic peaks are becoming both more pronounced and more commonplace, which drives a need for higher-capacity networks. Such traffic peaks can correspond with major sporting or entertainment events, increased e-commerce activity, or the release of new game titles and updates. One example of this is UK incumbent Openreach, which noted that in 2024, traffic was highest on December 1, which corresponded with Black Friday shopping and the release of a content update for online game *Fortnite*.

Operators and regulators are increasingly starting to measure and report this increase in traffic intensity:

- Average traffic during the busy hour has grown. Chorus in New Zealand notes that average traffic during the busy hour was 10% higher in the second half of 2024 compared to one year earlier.
- The size of the maximum peaks in traffic is also growing over time. According to data from Italian regulator AGCOM, compared to the pre-pandemic benchmark of week 7 2020, data intensity—defined as the peak inbound traffic volume registered in a timespan of 5 to 60 minutes within a particular week—was highest in week 38 of 2024, when it was 133% higher than the 2020 benchmark. For Openreach in the UK, traffic on the busiest day of the year increased by 18% in 2024, but total traffic increased by only 11% in the year. Similarly, for NBN Co in Australia, the peak network demand was 24% higher year-on-year in the year to end June 2024, but average traffic per broadband connection grew by only 8%.
- Even all of these figures do not capture the full extent to which broadband traffic is now seeing more peaks. Many more can occur when the sampling period is set at one second rather than over a period of minutes or hours.

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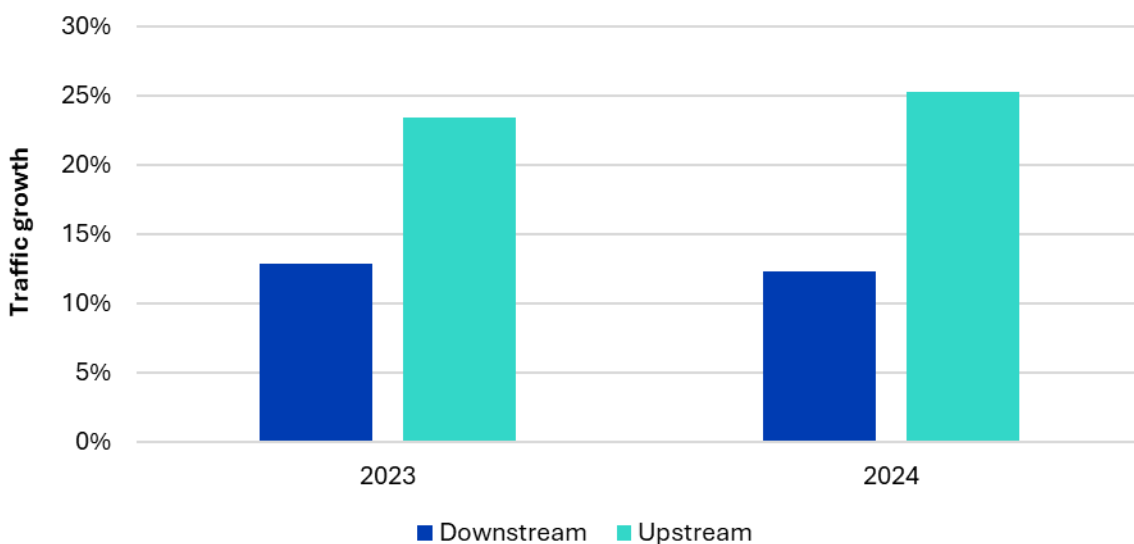
This demonstrates that only considering total traffic when planning for FTTP network upgrades fails to capture the importance of how traffic varies over time and the risk that without multi-gigabit access, the subscriber experience could be negatively impacted at crucial moments and during the ever busier and more frequent peaks.

The importance of being able to provide the fastest speeds even during these peaks is magnified by changes in human behavior. There is evidence that even with website loading times as low as three seconds, 10% of users will give up waiting. Being able to provide the fastest multi-gigabit speeds at all times will deliver a better, frustration-free experience for broadband subscribers.

Upstream traffic is growing and will become increasingly important to subscribers

Upstream traffic is also growing, which can be an important driver of the need for symmetrical multi-gigabit access. In some countries, such as Italy, there is evidence of upstream traffic taking a growing share of total broadband traffic. In Italy, upstream traffic grew by 25% year-on-year in 2024 compared to only 12% growth in downstream traffic (see Figure 1). While upstream does comprise a relatively modest proportion of total broadband traffic, with its share typically around 10%, it may be of high importance to end users—home workers on a video conferencing call, for example. Subscribers are therefore likely to increasingly value multi-gigabit upstream speeds.

Figure 1: Italy, fixed network downstream and upstream traffic year-on-year growth, 2023 and 2024



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Source: AGCOM

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Users are also increasingly likely to upload large volumes of content. It is easily possible for those taking many photographs to amass more than 1 terabyte of data. When uploading this content to the cloud, users are likely to perceive a discernable benefit from multi-gigabit upstream speeds.

Broadband traffic is unequally distributed between subscribers

Usage among broadband subscribers is also highly unequal, and simply looking at average figures misses the fact that there is a subset of subscribers with very high usage.

- One good example of this is Comcast in the US, which reported average traffic of 641GB per month in 4Q23 but also that 19% of subscribers consumed more than 1TB. In addition, in April 2025, Charter reported that in the US, over 30% of its non-video broadband subscribers were consuming more than 1TB per month.

This unequal traffic distribution among subscribers is important because the growing number of high-usage subscribers are likely to be prime targets for the highest speed multi-gigabit connections. It is also possible that as subscribers move to the fastest multi-gigabit speeds, this itself is a driver for traffic growth—for instance, because subscribers are able to download and upload very large files much more quickly. This in turn reinforces the value of multi-gigabit connections. The evidence shows that multi-gigabit subscribers can have very high usage: Chorus in New Zealand reported in 2024 that 36% of its multi-gigabit subscribers consume more than 2TB per month, compared to only 14% of gigabit subscribers and around 5% of 300Mbps subscribers.

Growing cloud usage and lifestyle- and work-related changes increase the value of multi-gigabit access

Greater home working drives the need for multi-gigabit access

Post-pandemic, home working continues to be an important feature of the employment landscape. In the US, 35% of those in employment did some or all of their work at home in 2023; in the UK, as of October 2024, 28% of workers had hybrid working arrangements and 13% worked only from home. Moreover, in the UK one year earlier, in October 2023, 43% of workers had either hybrid working arrangements or worked only from home. These figures suggest that home working is here to stay for a very sizable percentage of the workforce.

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Given that having the best available broadband connection is important for the livelihood of home workers, this substantial segment of the population is a prime target for multi-gigabit access offers. Multi-gigabit plans can help bring peace of mind to those working from home. No employee wants to see their work interrupted at a critical moment due to a lack of bandwidth. Multi-gigabit access can bring particular reassurance to families where there are multiple home workers and/or the connection is likely to be shared with children during school holidays.

Cloud usage is growing strongly, and this trend, combined with work-related changes, is increasing the importance of multi-gigabit access. A key requirement for workers, whether at home or in the office, is that their broadband connection is capable of offering the same experience when connecting to the cloud as when information is on their devices. To meet this requirement, multi-gigabit connectivity is important. Today's solid-state drives (SSDs) and non-volatile memory express (NVMe) drives can handle data transfers of 6–7Gbps and beyond, and therefore, to keep the same level of user experience when working in the cloud, broadband speeds need to shift to multi-gigabit levels.

Multi-gigabit access is an important enabler for the creator economy

Another segment of society for whom the best quality broadband connection is likely to be particularly important is those involved in the creator economy. This refers to the digital marketplace ecosystem where creators such as influencers, podcasters, and independent publishers generate value through the creation, distribution, and monetization of digital content across various platforms. Creators could also be working on behalf of businesses such as small and medium-sized enterprises.

The size of the creator segment is growing. In 2024, TikTok passed 1.9 billion monthly active users globally, and online sources put the number of active creators on the platform at over 1 million. The creator economy can also be lucrative; in 2024, Stormi Steele, founder of haircare brand Canvas Beauty, became the first seller to surpass \$2 million in sales via a single TikTok Shop livestream. Creators are therefore a potentially lucrative opportunity for broadband operators, because they are likely to be interested in high-quality multi-gigabit broadband connections since internet access is an important part of their working lives.

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Multi-gigabit access plans are already benefiting operators' core KPIs

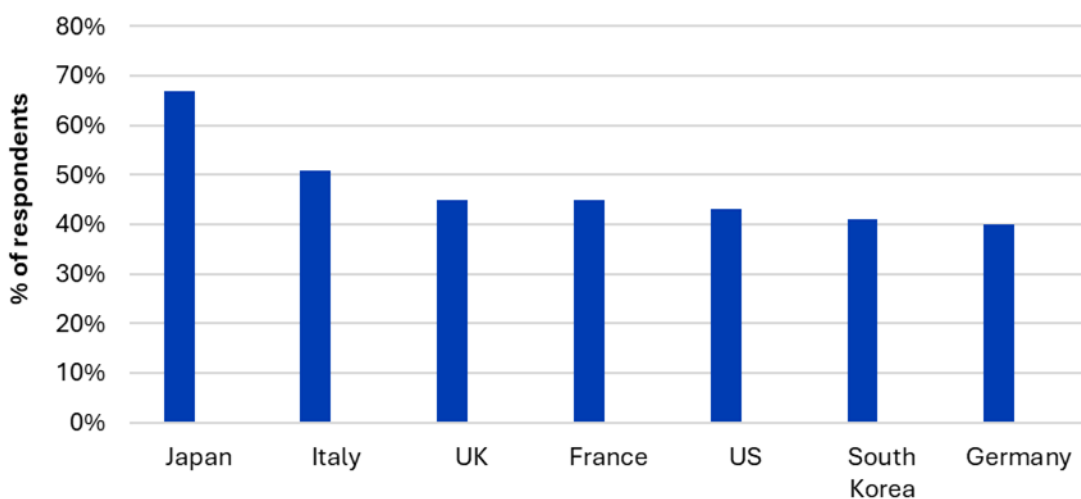
Operators have opportunities to benefit from improved subscriber acquisition, higher ARPU, and lower churn with multi-gigabit access. Some operators, such as new entrants, may choose to offer multi-gigabit access at lower prices to drive subscriber market share growth. Operators with established subscriber bases may look to use multi-gigabit access to retain these customers.

Primary research evidence demonstrates the value of multi-gigabit access

Evidence from Omdia's 2024 Digital Consumer Insights Survey shows that there are still opportunities for operators to benefit from offering higher speeds. Survey respondents were asked if they considered the speed of their broadband service to be enough for their current needs. Even in markets where FTTP is widely available and consumer broadband speeds are high, a sizable share of respondents expressed some level of reservation about their current broadband speed.

Figure 2: Satisfaction with broadband speed

Proportion of those responding either "No, I need a higher-speed service" or "Yes, but will need more speed in the near future" to the question, "Do you consider the speed of your broadband service enough for your current needs?"



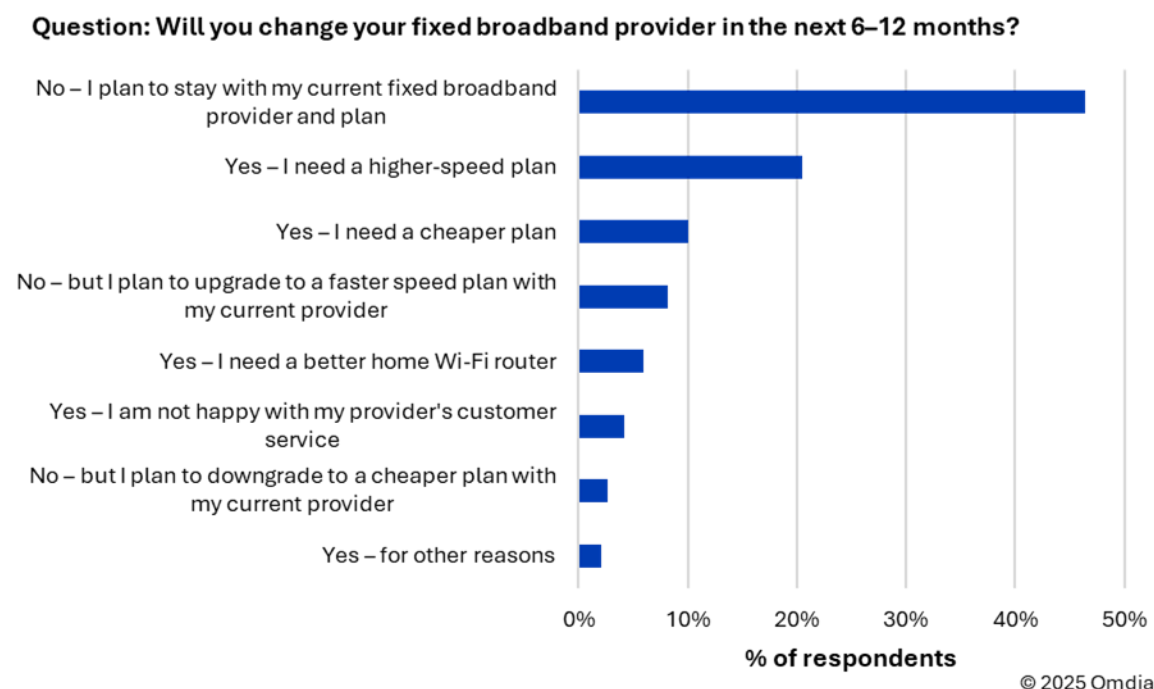
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Source: Omdia Digital Consumer Insights Survey 2024

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As many broadband markets have increasingly high penetration rates, attracting subscribers from competitors becomes more important. Consumer surveys indicate that potential churners are often looking for higher-speed plans, and in this context, multi-gigabit access offers have an important role to play in improving subscriber acquisition. The results of Omdia's Digital Consumer Insights survey also demonstrate the importance of making sure speeds are high to stop one of the main drivers for churn. 21% of survey respondents noted that they were planning to change their fixed broadband provider in the next 6–12 months because they needed a higher-speed plan. Multi-gigabit access therefore has the potential to contribute to operators' churn reduction strategies.

Figure 3: Intentions to change broadband provider or plan



Source: Omdia's Digital Consumer Insights survey

Leading Asian markets are seeing strong growth in multi-gigabit speed take-up

In Asia, multi-gigabit access plans are becoming more commonplace and are seeing growing take-up, which is translating into ARPU benefits.

- In Singapore, StarHub reported 19% take-up of its UltraSpeed multi-gigabit plans at the end of 2024. The operator saw year-on-year broadband revenue growth of 4.9% in 1Q25, driven by migration to higher-speed FTTP plans, and ARPUs were SGD3 higher, at SGD36, in 1Q25 compared to 1Q24. Importantly, StarHub's largest competitor, Singtel,

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also saw increased year-on-year revenue from its internet and data segment in the six months to end March 2025, again partly driven by the adoption of higher-speed FTTP plans.

- In Hong Kong, fiber operator HKBN saw 80% growth in the take-up of multi-gigabit access plans from August 2023 to February 2025. Multi-gigabit subscribers represented 9% of the operator's total subscriber base at end February 2025. This growth in multi-gigabit subscribers will have played a role in the 3% year-on-year growth in HKBN's residential ARPU in the six months to end February 2025. HKBN has also focused on driving multi-gigabit take-up among its enterprise subscriber base: 6.1% of enterprise subscribers took speeds of 2Gbps and above as of February 2025, which represented 660% growth from the 0.8% as of August 2024. HKBN has also launched 25Gbps plans thanks to its use of 25G PON technology.

Multi-gigabit access is an important area of competition in the US market

In North America, multi-gigabit access is a key battleground, and FTTP operators have the opportunity to use such high-speed plans to attract and retain subscribers when faced with competition from fixed wireless and cable operators. Multi-gigabit access plans are also making an important contribution to growing FTTP operators' ARPUs in the region.

- UTOPIA Fiber has noted that among the new subscribers it acquired in 2024, 1Gbps speeds were the most popular and were chosen by 88% of customers. The operator introduced 2.5Gbps speeds in 2024, and 10% of new subscribers over the year subscribed to this speed tier, while 10Gbps speeds accounted for 2% of new subscribers in 2024.
- In 2Q24, Frontier Communications reported that over 60% of new customers subscribed to speeds of 1Gbps and above. This played an important role in the company's year-on-year ARPU growth of 3.5% in 2Q24.

Multi-gigabit offers have helped new broadband entrants in Europe differentiate themselves

In Europe and other regions, many new entrants are making their mark by promoting multi-gigabit access offers. While there is a growing emphasis on the broader customer experience, higher broadband speeds remain a well-recognized and important feature of broadband tariffs. Multi-gigabit access speeds can also serve as the basis for other ways in which new entrants can differentiate themselves, such as the prioritization of different types of content such as gaming traffic over the home network.

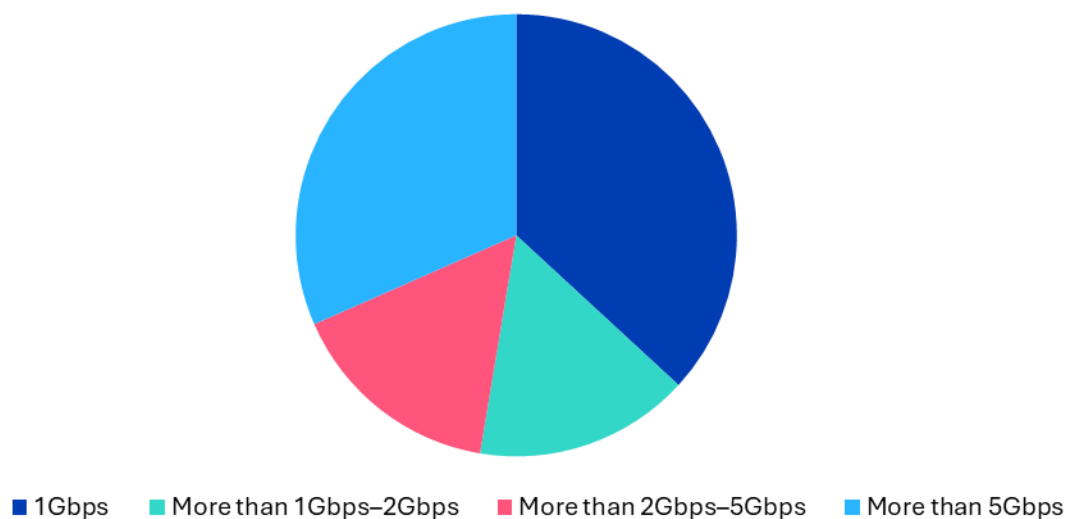
Many new entrants in Europe have heavily marketed multi-gigabit access and have had success in driving subscriber acquisition. One example of this is Salt in Switzerland, which

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has a single retail broadband tariff with 10Gbps speeds. This disruptive approach has driven strong growth in the operator's subscriber base and market share. After launching in 2018, Salt has achieved a subscriber market share of 7% despite not offering nationwide coverage.

Incumbent operators in Europe are also increasingly moving to offer multi-gigabit access (see Figure 4), as this approach can deliver benefits such as reduced churn when faced with intense competition. In this context, Swiss incumbent Swisscom has been able to use multi-gigabit access to help defend its subscriber base. In recent years, Swisscom has typically had annualized broadband churn rates of 10% or below, which is an impressive figure by international standards. The company has also been successful in defending its broadband ARPUs, as shown by the fact that as of end-2023, 90% of FTTP connections had speeds of 1Gbps and more. This reflects Swisscom's three speed tiers of 100Mbps, 1Gbps, and 10Gbps, with a retail price premium for the higher-speed offers.

Figure 4: Maximum FTTP download speeds offered by 19 Western European incumbents, May 2025



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Source: Omdia

Home Wi-Fi quality is important to end subscribers, and new Wi-Fi technologies increase the value of multi-gigabit connections

There is clear evidence that consumers increasingly value the quality of their home Wi-Fi connection and are interested in the latest home Wi-Fi technologies. In Omdia's 2024 Digital Consumer Insights Survey, 42% of respondents stated they would be prepared to pay 6% or more on top of their monthly broadband bill to include a service that guarantees

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that they always have the latest home gateway/Wi-Fi technology. This indicates that there will be opportunities for operators to monetize the launch of Wi-Fi 7.

Wi-Fi 7 offers multi-gigabit capacities, and vendors are launching routers and gateways that offer maximum capacities that range from a few Gbps with dual-band Wi-Fi 7 using frequencies in the 2.4 and 5GHz bands to more than 20Gbps with the use of quad-band Wi-Fi 7. In this way, Wi-Fi 7 has the capability to simultaneously provide gigabit or even multi-gigabit connectivity to multiple devices within the home. This is important because consumer interest in gigabit plans is already clear, as evidenced by the fact that many operators are reporting that 20%+ of FTTP subscribers take such speeds. Wi-Fi 7-based multi-gigabit access tariffs could allow the value of gigabit access to be enhanced by providing gigabit to the room or device across multiple rooms or devices within a property.

The link between offering the latest Wi-Fi technologies, hardware, and associated services and multi-gigabit access speeds is demonstrated by AT&T in the US. In April 2025, the operator launched its All-Fi Pro offering, which includes the latest Wi-Fi 7 gateway, gateway upgrades when new hardware becomes available, Wi-Fi extenders, and an internet security service. All-Fi Pro is available for free to AT&T's multi-gigabit fiber subscribers. Another example is HKBN in Hong Kong, which offers a home Wi-Fi service that includes professional installation, 24/7 hotline support, remote diagnostics, on-site maintenance, and the latest Wi-Fi hardware alongside its multi-gigabit FTTP access offers. In this way, it is clear that operators can use the launch of Wi-Fi 7 as a means to drive growth in the uptake of multi-gigabit access plans.

Conclusions

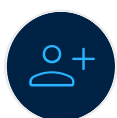
- There has been strong growth in the number of operators offering multi-gigabit access over the last 3 years. This trend extends to multiple regions and to both incumbent and challenger operators. Multi-gigabit access is increasingly becoming a mainstream option for broadband operators.
- Prevailing traffic trends increase the value of higher capacity networks and multi-gigabit connections. This goes beyond continuing increases in total traffic and extends to how traffic peaks are becoming both more frequent and larger. Subsets of subscribers also have very high usage which makes them attractive targets for multi-gigabit access plans.
- Lifestyle and work-related trends are increasing the value of multi-gigabit access. Cloud usage is growing amongst home workers and to match on-device performance multi-gigabit speeds will be required. A growing number of people, such as those

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involved in the creator economy, require high quality broadband for their livelihoods and these subscribers are likely to value the best quality multi-gigabit connections.

- There is room for operators to use multi-gigabit access to benefit their traditional core KPIs such as subscriber acquisition, churn and ARPUs. Evidence from around the world shows that operators are already seeing improvements in their core KPIs as a result of the launch of multi-gigabit access plans.

Appendix



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