

Unlocking growth through tailored FWA offerings

Fixed Wireless Access handbook 2026



15 years

Insight

3 of 9 AI

Various service providers succeeding with 5G FWA

5G FWA growth has been increasing across all continents, with service providers pursuing a variety of market opportunities.














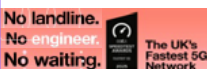




5G FWA success started in advanced economies such as US and Japan that initiated 5G spectrum allocations. 5G FWA started to grow in these markets, driven by distinct opportunities. US service providers started as challengers (in particular T-Mobile), addressing the residential segment in locations dominated by cable broadband. Later US service providers expanded their services to address business customers (primarily Verizon) and DSL replacement (key focus for AT&T to shut down its copper network)

Japan has been a market with high fiber penetration, and local service providers such as DoCoMo utilized FWA to serve specific market segments such as users renting homes and households with few people. Service providers in other markets with high fibre penetration also target niche segments, addressing underserved households or homes seeking more affordable FWA services.

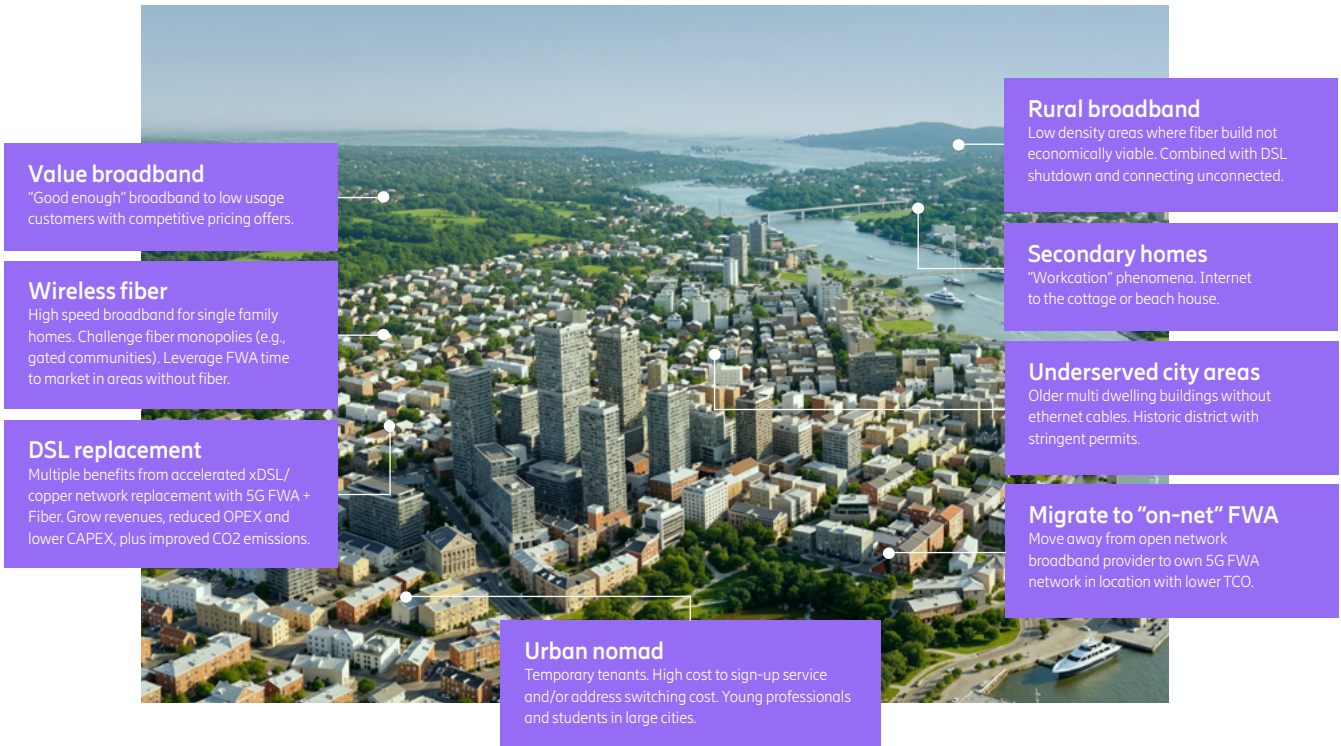
Differentiated Connectivity FWA, enabled by 5G Standalone and network slicing, is being used by converged service

providers to deliver a fiber-like experience - for example, Jio (India), Elisa (Finland), and Cosmote (Greece). Differentiated connectivity is also leveraged for B2B offerings, as done by Telstra Australia and more recently by Verizon in the USA.

With broader 5G spectrum allocation and more affordable 5G FWA CPEs, FWA adoption is growing in markets such as parts of Africa, Southeast Asia, and India.

Growing Markets	FWA Consumer	DSL Replacement	FWA Business	Fiber Challenger	Diff Connectivity
Airtel India Delivering seamless internet experience with 5G FWA  HD and 4K video ~3 million subs	T-Mobile Fastest growing FBB challenger in the US  8.5 million customers in 4 years	Telenor Norway 1 st to decommissioning the copper network in Europe  DSL migration Large energy and CO2 savings FWA: 17% of connections	Telstra AUS Differentiated connectivity FWA for Businesses  5G Get Business Ready	DOCOMO Japan 5G Home based on 5G SA, reaching ~1.5m in ~4 years 	Jio India World's largest FWA base—FWA on par with fiber  11.5 million customers
Unitel Angola Speed based FWA using flexible self install CPEs  DL/UL Mbps 10/3 200/20	SmarTone HK Margin accretive growth and service excellence  Revenues: +12% YoY EBITDA: +36% YoY	AT&T USA Leveraging 5G FWA to close down DSL ahead of fiber  DSL legacy costs USD 6bi/year Over 1.5 million 5G FWA customers	Verizon USA Largest 5G Business Internet user base globally  5G Business Internet 40% of FWA users: 2.3 million	Telia Norway 5G FWA with TV—FWA funding TDD coverage  80% Self install	Elisa FI Uncongested internet with "Own lane FWA" 
Smart Philippines Complementing fiber with high quality connectivity and coverage  FWA Revenues 28% YoY (FY25) FREE 15 DAYS UNLTD DATA	VodafoneThree-UK Award winning network at convenience and fast TTM  No landline. No engineer. No waiting. The UK's Fastest 5G Network	Omantel Successful migration of 4G and DSL users to 5G FWA  FWA: 90% on 5G	nbn AUS Closing the digital divide with wholesale FWA  mmWave extended: 1 Gbps DL over 14 km Migrating satellite to 5G FWA	Du UAE Enhanced 5G FWA for Gaming leveraging 5G SA 	Cosmote Greece Internet & TV that reaches everywhere  Fastest and largest 5G coverage

Consumer needs drive tailored FWA offerings



Location, location, and location

In addition to quantifying the FWA opportunities across market segments, it is critical to pinpoint where these opportunities are available as well as understanding the specifics of consumers groups to be addressed.

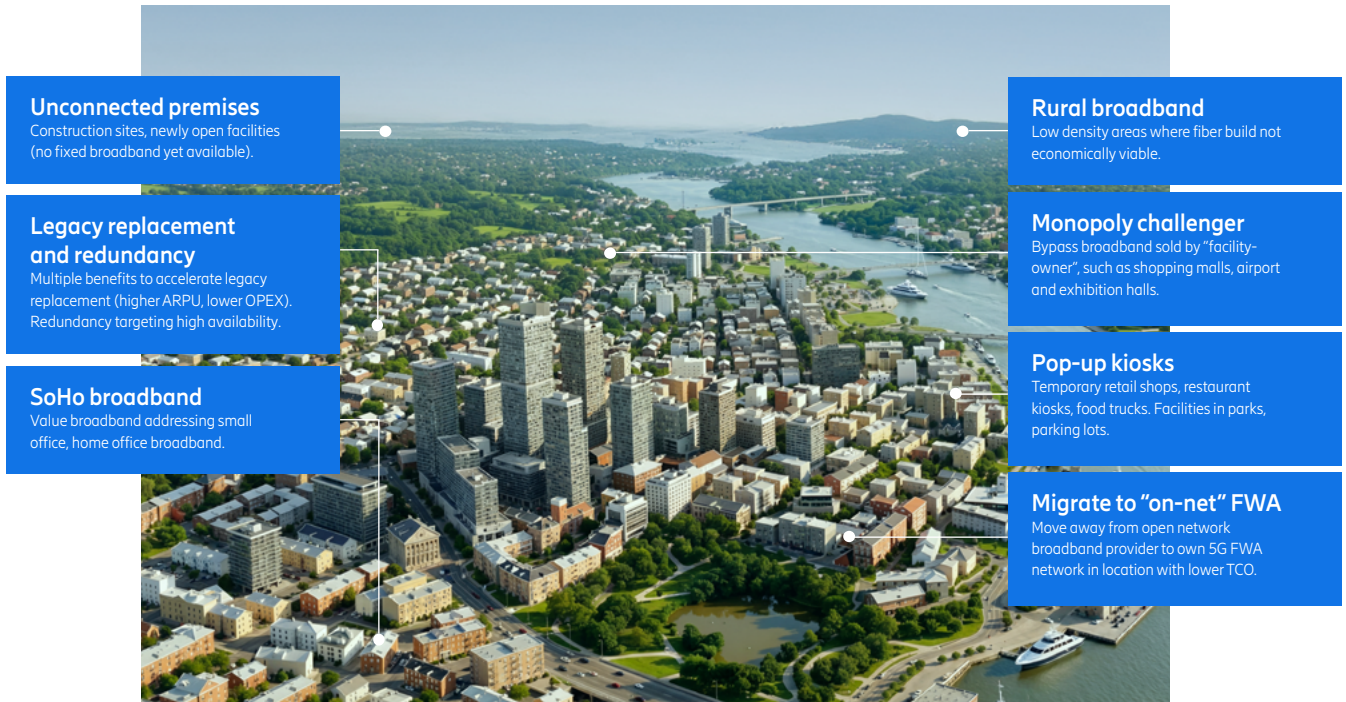
Needs and buying behavior

FWA can benefit from leveraging consumer needs and buying behavior. For instance, some customers value the speed of FWA's decision-to-service, as ordering to service can take days. Customers renting homes without high-speed internet often don't want (or can't) make (potentially costly) construction changes in the property, so ease of installation for FWA becomes an advantage. Last, many households want an economic, low-cost solution for home broadband, and FWA can be a way to address that segment, in particular for small households (less than 2 persons), which is a large segment in many countries.

No limits with wireless

Broad, wide wireless coverage is a clear advantage to leverage for FWA. Some locations may only have one broadband provider (e.g., gated residential communities or apartment buildings), and FWA can be a way to bypass these limitations. Similarly, historical towns may face permitting issues for construction and wired solutions, making FWA a clear alternative. That also applies to rural and remote areas, where wireless coverage is often available, and the lack of wired solutions for high-speed internet is often a pain point to be leveraged.

Business needs drive tailored FWA offerings



Location, location, and location

Similar to residential, it is critical to pinpoint where the FWA opportunities are for businesses, as well as to understand the segment specifics.

Needs and buying behavior

Business customers have specific FWA needs. For instance, some have high-availability requirements, often with redundancy solutions. Others want to modernize legacy technologies, including leased lines and point-to-point microwave solutions.

No limits with wireless

Broad, wide wireless coverage is a clear advantage to leverage for FWA. Some locations may only have one broadband provider (e.g., shopping malls, airports, exhibition halls), and FWA can be a way to bypass these limitations. Similarly, historical towns may face permitting issues for construction and wired solutions, making FWA a clear alternative. That also applies to rural and remote areas, where wireless coverage is often available and the lack of wired high-speed internet is often a pain point to leverage. This also applies to construction sites and to temporary locations such as summer shops and kiosks.

Key aspects when tailoring FWA offerings towards specific needs

Creating differentiated FWA offerings

Sellable objects		Commercial model	
Speed based plans	<ul style="list-style-type: none"> • Best effort: GB/month • Typical speeds: avg ~150Mbps • Tiered speeds: 100, 200, 500Mbps • Premium FWA: guaranteed speeds 	Market segments	<ul style="list-style-type: none"> • Consumer and business • Postpaid and Prepaid • Wholesale and resellers (e.g., SI, ISPs)
Thematic plans	<ul style="list-style-type: none"> • Secondary/vacation homes • Entry level ("lite"): low usage, specific area • Back-up: 130GB/month or 7 days/month • Away: nomadic for RVs, trucks and boats 	Business model	<ul style="list-style-type: none"> • Contract period: 12-months, 24-months • Trial period: 15-days, 30-days • Bundles: Content, MBB, family plans • Discounts: autopay, age (youth, senior)
Add-on services	<ul style="list-style-type: none"> • Entertainment: TV, streaming and gaming • Security services • WiFi Mesh and repeaters • Support services (SLAs) 	Go-to-Market	<ul style="list-style-type: none"> • Stores, own shops and retail stores • Online channel and telemarketing • Door-to-door
CPEs	<ul style="list-style-type: none"> • CSP owned: subsidized, rented • User owned: one-time fee, installments • CPE differentiation: Indoor and Outdoor 	Terms and Conditions	<ul style="list-style-type: none"> • Fair Usage Policy: buckets or unlimited with fair usage (e.g., 1 TB and then throttling 5Mbps) • Geo-locking (or add-on for 2nd address) • Speed claims: up to speed, average/typical speed

FWA offerings are set by a variety of parameters, which can be simply divided into sellable objects (i.e., what is being sold) and commercial model (i.e., how it is being sold). The offerings combine these targeted market segments (e.g., affordability, commercial risk, end user need) as well as the comparative offerings for broadband connectivity in the market.

Sellable Objects: connectivity, CPE and Add-on services

Connectivity is the major sellable object for FWA. It is primarily based on speeds, similar to residential and business broadband services. More recently, there is a set of Thematic FWA plans, addressing

specific connectivity needs that are fulfilled by FWA unique aspects.

In addition to connectivity, service providers offer different alternatives to commercialise the FWA CPEs, including CSP-owned, end-user-owned, and CPE types. On top of that, Service providers can sell add-on services, where entertainment is the most common, in particular TV and video streaming.

Commercial model: segments, go-to-market, business model and T&Cs






The commercial model for FWA offerings is determined in particular by the market segment being addressed and the local

broadband market situation. FWA is sold in particular to residential customers on similar terms as fixed broadband services (i.e., postpaid, 12/24-month contract). Given the ease of installation, FWA services have primarily been sold through online go-to-market channels with a trial period (i.e., a satisfaction guarantee).

FWA offerings have specific terms and conditions, in particular, fair usage policy (e.g., reduced speed after reaching a limit, such as 1 or 2TB/month).

Variety of FWA offerings to address multiple segments

FWA Tariffs plans (as of Oct 2025) USD/month, DL speeds

	Best Effort 	Typical Speeds 	Tiered Speeds 	Premium Experience 	Thematic 
T-Mobile (11 plans)		Rely, Amplified, All-In \$50, \$60, \$70 DL Mbps: 130-415 Business: w or w/o voice (\$70, \$50)			Back-up 130GB: \$20 Away 200GB: \$110 Away Unlimited: \$160
Verizon (8 plans)		Home, Plus, Ultimate \$35, \$45, \$60 DL mid-band ranges Mbps 25-85, 50-100, 85-250	Business (up to) \$69, \$99, \$199 Up to DL Mbps 100, 200, 400	New plan with Network Slicing for Business launched (Dec 2025)	Back-up: \$20 for 7 days per month unlimited Lite: \$25/m
AT&T US (3 plans)		Internet Air \$47 DL Mbps: 90-300 Internet Air Business \$30 DL Mbps: 57-337 Internet Air Premium \$70 250GB Priority DL Mbps: 90-300			
Telia Norway (14 plans)	GB/month: 10, 25, 50, 100, 250, 500 \$25, \$37, \$49, \$54, \$79, \$98		\$58, \$64, \$68, \$78, \$99 Up to DL Mbps 25, 50, 100, 250, 500		Secondary home \$44, \$47, \$49 Up to DL Mbps 25, 50, 100
Vodafone Germany (4 plans)		100GB, 200GB, 200GB (prepaid), Unlimited \$43, \$54, \$60, \$77 DL mid-band Mbps: up to 300Mbps			
Jio India (6 plans)				\$7, \$10, \$14, \$17, \$28, \$45 Up to DL Mbps 30, 100, 100, 300, 500, 1000	

As service providers launched 5G FWA offerings right after 5G networks were deployed, many focused on simplicity as they launched a new product category. As a result of that, many service providers had only one FWA offering for Consumers and another for Businesses.

Fast forward to 2025, and it is evident that many service providers now offer a variety of FWA pricing plans. It can also enable converged offerings, which in turn result in additional revenues with cross-selling as in churn reduction.

For example, a comparison of the FWA tariff plans of leading FWA providers globally shows that many offer more than 5 tariff plans. Most of these tariff plans are based on speed, which is the major broadband differentiation parameter.

Verizon and Telia Norway have more than one speed-based model for FWA. Verizon offers typical-speed plans for its Residential FWA offerings and tiered speed plans for 5G FWA for Business. Late in 2025, Verizon announced a new Premium Experience FWA for Business plan with

SLAs leveraging network slicing. Telia Norway offers tiered speed plans for FWA, as well as best-effort entry-level plans.

In addition to speed-based tariff plans, there is an emerging segment of Thematic FWA plans, addressing niche markets such as Back-up, Secondary homes and "Away" services.

Capturing niche segments with Thematic FWA plans

Service providers leverage the uniqueness of FWA to develop new innovative plans to capture niche segments in the market.

As fast and reliable internet becomes an essential service to residential customers, a new set of “Internet Back-up” plans emerges to address their needs, similar to existing plans for the business segment. This offering is targeted to consumers requiring high availability of internet services and could be targeted to regions exposed to natural events such as storms and/or unreliable electricity.

Service providers developed “Away” FWA plans to monetize reliable broadband internet in multiple locations. These plans are specifically designed for users such as recreational vehicles, travellers, or nomadic users who require internet in multiple locations. Some service providers are able to add a significant premium for this nomadic offering.

There is a significant market for vacation and secondary homes, representing an additional 5-15% of the total permanent residential premises.

Many users want permanent connectivity to secondary homes for monitoring energy systems and surveillance. However, not all users are willing to pay for a full residential broadband plan. Some service providers address this market with tariff plans that provide permanent connectivity with some usage limitations. They also include “usage boost” for high-demand usage periods, such as summer vacations.

	Internet Back-up	Away/“Beyond-the-home”	Secondary/Vacation Home
Proposition	<ul style="list-style-type: none"> Complement to broadband users that require high availability even in event of disruption of existing solution and/or extended service interruptions 	<ul style="list-style-type: none"> Broadband connectivity for users requiring multiple locations, including recreational vehicles, boats and travelers, including connectivity in motion 	<ul style="list-style-type: none"> Permanent connectivity for secondary home such as mountain cabin and beach cottage for monitoring (e.g., alarm, energy, surveillance) and internet usage
Offering	<ul style="list-style-type: none"> Pricing plan: monthly fee Allowance: limited usage (e.g., 100 GB/month) and/or up to 7 days in a month Device: indoor FWA CPE and/or battery pocket router 	<ul style="list-style-type: none"> Pricing plan: monthly fee Allowance: limited usage (e.g., 100 GB/month) and/or limited speed (e.g., up to 50Mbps or unlimited) Device: indoor CPE 	<ul style="list-style-type: none"> Pricing plan: monthly fee Allowance: limited usage (e.g., 200 GB/month) and/or limited speed (e.g., up to 10Mbps)—may include “boost” for selected period (e.g., summer vacations) Device: indoor CPE or outdoor CPE
Segments	<ul style="list-style-type: none"> Regions vulnerable to natural events (e.g., storms, floods, earthquakes) and/or unreliable infrastructure (e.g., power) 	<ul style="list-style-type: none"> Residential customers that require multiple locations for connectivity 	<ul style="list-style-type: none"> Target secondary or vacation homes in the countryside, not requiring complete permanent broadband services
Examples	<ul style="list-style-type: none"> T-Mobile USA Verizon USA 	<ul style="list-style-type: none"> T-Mobile USA Verizon USA 	<ul style="list-style-type: none"> Telia Norway and Sweden Telenor Norway TIM Italy

Most common value propositions for 5G FWA

There are five typical value propositions utilized to market 5G FWA offerings.

The most common is network performance, which is a key requirement for consumers as well as key selling point to capture customers wanting to migrate to high-speed broadband. The second most common is ease of installation, in particular highlighting the self-installation of 5G FWA service. Combined with that, fast delivery is another key benefit of FWA, as users can order the service online and get it delivered for self-installation within a few days,

compared to long delivery times for wired broadband alternatives that take a long time to deliver and install.

Many service providers also include a "trial period", where users can test the FWA connection at their location. Often advertised as guaranteed satisfaction, this enables consumers to try out the service at their location before canceling the existing broadband provider.

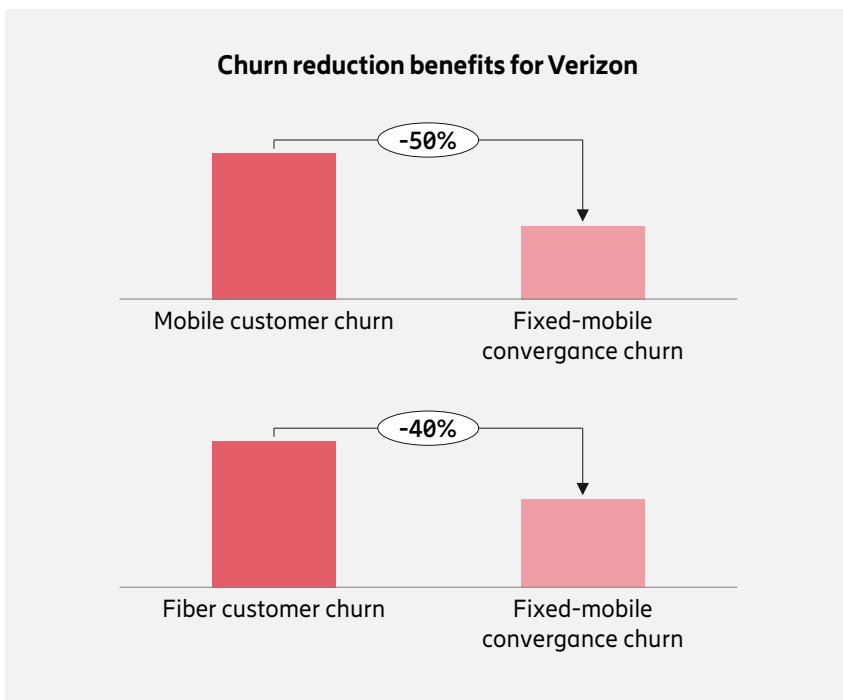
Lastly, simplicity is another factor highlighted by many service providers, some related to the buying process (no installation) or commercials (e.g., no lock-in, contract period, price guaranteed), particularly in markets where consumer satisfaction with existing broadband providers is low.

Most common value propositions for 5G FWA

Value proposition	T-Mobile (USA)	Optus (Australia)	Three (UK)	Rogers (Canada)	Telia (Norway)
Network performance	WINNER The Best Mobile Network	Super-fast speeds	The UK's fastest 5G network	Canada's largest and most reliable 5G+ network	Stable, strong net
Ease of installation	Simple 15-minute self-install.	Plug and play	No engineer	Plug and play	Easy assembly
Fast delivery	Free 2-day shipping.	Free delivery	No waiting		
Trial period	Worry-free 15-day test drive.		30-day money-back guarantee	Satisfaction guarantee	
Simplicity	No monthly equipment fees or annual contracts.			No commitment	Package price with TV

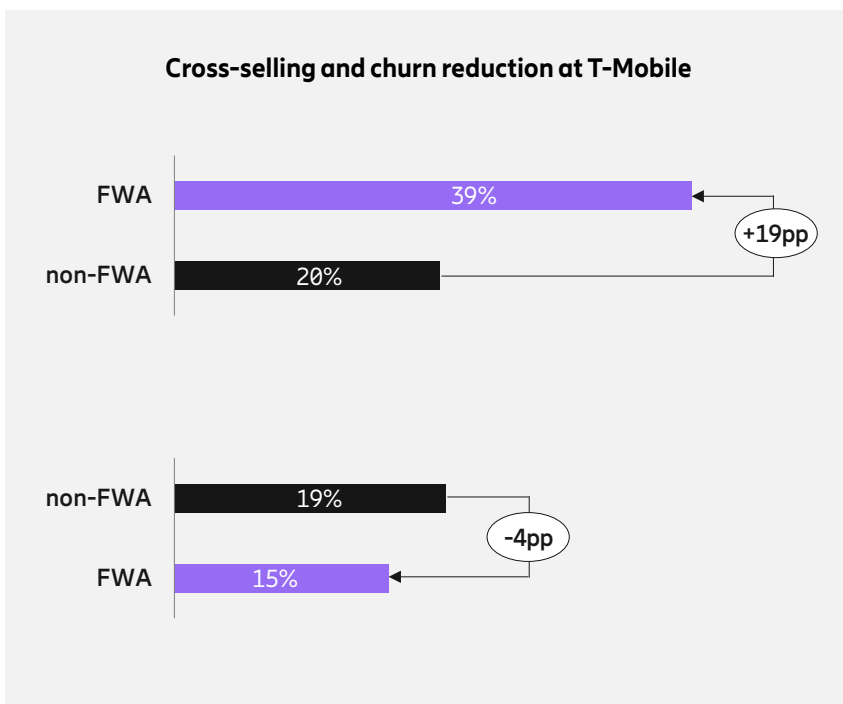
FWA benefits for cross-selling and churn reduction

Fixed Mobile Convergence benefits in the USA



FWA can also enable converged offerings, which in turn result in additional revenues with cross-selling as well as in churn reduction.

Service providers in the US have been active in convergence opportunities, including cross-selling opportunities with FWA. For example, Verizon quantified that churn for convergent customers (i.e., mobile + broadband) is 40-50% lower compared to churn of customers with only one service. A survey of T-Mobile customers shows that FWA customers are more likely to sign up for mobile services than non-FWA customers. At the same time, FWA customers are less likely to switch from T-Mobile wireless voice than non-FWA customers.



Cross-selling: mobile postpaid

Q: "Are you considering switching to T-Mobile for wireless voice?"

A: % of yes responses

Churn reduction: mobile postpaid

Q: "Are you considering switching from T-Mobile for wireless voice?"

A: % of yes responses

Entry-level mass market 5G FWA price plans

As 5G FWA adoption and scale increase globally, overall ecosystem affordability improves, enabling 5G FWA price plans to reach the entry level for growing markets. Analysis of the cheapest entry-level 5G FWA offering shows that many plans charge a monthly fee ranging from USD 14

to USD 36. Even if some of these require a contract period or an initial sign-up fee, these levels are affordable for users wanting high-speed internet plans. Some of these service providers advertise these services with typical average speeds of 100-150Mbps.

Lowest 5G FWA price plans, including subsidized Indoor CPE



5G FWA price plans at USD 13-36/month range, affordable and competitive in growing markets

Home broadband usage remains video-centric

Household broadband usage is dominated by video and entertainment. The main applications are video streaming, music streaming, gaming, social media and internet browsing and downloads. The COVID-19 pandemic changed user behavior with an increase in work and study from home, which includes voice, screen sharing, cloud storage and video conferencing. The illustration shows some examples of the required data rate for different applications.

Video traffic profile: downlink-centric

The data rate requirement depends on the distribution and mix of applications throughout the daily usage. Video streaming has been, and remains, the major driver of network traffic at home. For video data rate consumption depends on the resolution, frame rate and encoding quality. Modern video servers have content coded in multiple qualities, and end-to-end protocols switch between these, depending on the data rate experienced by the receiving client.

Video streaming providers use relatively large device buffers to avoid quality degradation when network conditions vary. For example, Netflix typically strives to build up a 90-second buffer, while YouTube can have even longer buffers.

The absolute delay when starting the play-out is not very strict: one or a few seconds is acceptable. However, to quickly get up to speed (e.g., 10 Mbps) with TCP after possible link interruptions, a quite low delay is still desirable.

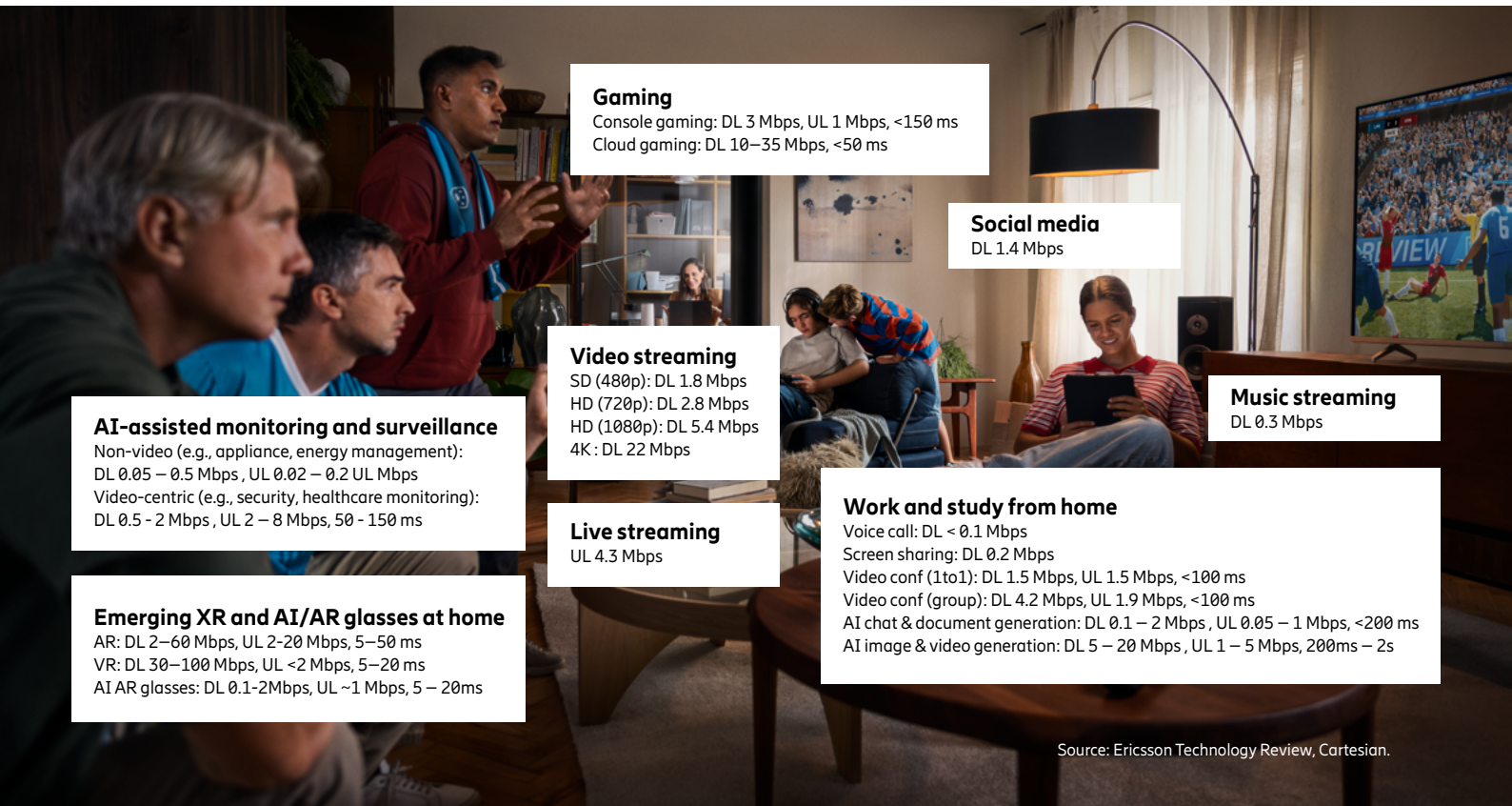
Emerging AI-assisted use cases at home

Artificial Intelligence (AI) has been gaining traction and momentum globally in a variety of fields. AI impact on home broadband usage is still nascent, with a variety of in-home usage likely to be enhanced with AI. A clear area to be enhanced and influenced with AI is work and study from home. AI-assisted use cases for Chat and Document generation, as well as Image and Video generation, are widely adopted, with traffic profiles oriented toward downlink. AI AR glasses

are another area of promising application, in this case with a more uplink-oriented usage profile. Other emerging areas for AI include monitoring and surveillance, which will have different usage profile depending on video intensity. Video-centric monitoring and surveillance applications (e.g., security and healthcare monitoring) are set to have an uplink usage profile.

Home broadband traffic likely to remain downlink-heavy

Currently, household broadband traffic is highly downlink-centric, with video streaming the dominant service. Future emerging XR applications for augmented-, virtual- and mixed-reality for gaming, and volumetric video are likely to remain downlink-centric. Future emerging AI applications, in particular video-centric applications, will increase the home broadband traffic, with a potential for a higher share of uplink traffic for AI-assisted monitoring cases. Overall, there are no major use cases with requirements exceeding 100Mbps downlink.



Gaming

Console gaming: DL 3 Mbps, UL 1 Mbps, <150 ms
Cloud gaming: DL 10–35 Mbps, <50 ms

Social media

DL 1.4 Mbps

Video streaming

SD (480p): DL 1.8 Mbps
HD (720p): DL 2.8 Mbps
HD (1080p): DL 5.4 Mbps
4K: DL 22 Mbps

Music streaming

DL 0.3 Mbps

AI-assisted monitoring and surveillance

Non-video (e.g., appliance, energy management):
DL 0.05 – 0.5 Mbps, UL 0.02 – 0.2 UL Mbps
Video-centric (e.g., security, healthcare monitoring):
DL 0.5 - 2 Mbps, UL 2 – 8 Mbps, 50 - 150 ms

Live streaming

UL 4.3 Mbps

Work and study from home

Voice call: DL < 0.1 Mbps
Screen sharing: DL 0.2 Mbps
Video conf (1to1): DL 1.5 Mbps, UL 1.5 Mbps, <100 ms
Video conf (group): DL 4.2 Mbps, UL 1.9 Mbps, <100 ms
AI chat & document generation: DL 0.1 – 2 Mbps, UL 0.05 – 1 Mbps, <200 ms
AI image & video generation: DL 5 – 20 Mbps, UL 1 – 5 Mbps, 200ms – 2s

Emerging XR and AI/AR glasses at home

AR: DL 2–60 Mbps, UL 2-20 Mbps, 5–50 ms
VR: DL 30–100 Mbps, UL <2 Mbps, 5–20 ms
AI AR glasses: DL 0.1-2Mbps, UL ~1 Mbps, 5 – 20ms

Broadband usage growth trends stabilize

Broadband usage behavior and trends vary per country following some common major drivers such as household size (number of people), number of connected video devices (e.g., TV, tablets, computers, smartphones), high speed broadband penetration (e.g., fiber, 5G FWA), media and entertainment consumptions (e.g., direct to air/satellite TV or streaming services over broadband). Analysis of data for major countries shows that usage and consumption levels vary per country, with markets such as the US and UK having high usage and consumption levels of around 600GB per month. Other markets have lower consumption levels at 300GB/month (e.g., Brazil, Italy, Germany). Latest growth trends show that these countries are growing fixed broadband traffic at an average of 10% per year, with some variation of +/- 5%. These growth rates

contrast with the very high-growth rates (above 20% annually) during the COVID-19 pandemic in 2020/2021.

Regarding the share of downlink and uplink traffic, most measures show a clear downlink usage behavior. Aggregate traffic data from Italy also shows that most home broadband traffic remains downlink-oriented, and the uplink/downlink ratio has remained stable throughout the six-year period, with uplink currently representing 12% of total traffic. In the USA, residential users consume almost twice as much as commercial users. However, commercial users have more uplink traffic (~20% of total traffic) compared to residential users (~7.5% of total traffic). This is driven by residential users consuming video streaming and commercial users using file transfer, cloud applications, and video conferencing.

Complementary broadband usage profile for residential and commercial users

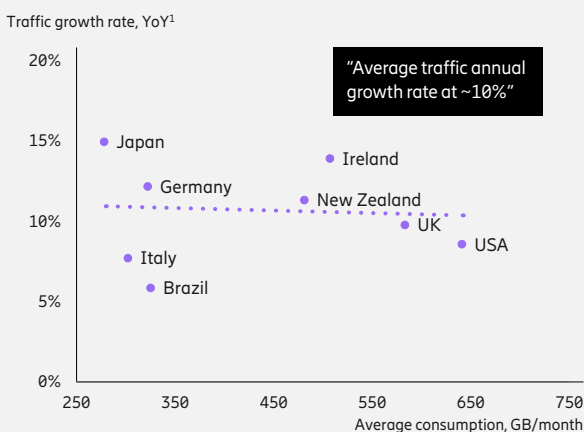
As explained earlier, the residential and commercial broadband businesses are complementary, as commercial busy-hour usage occurs during daytime (i.e., working hours) and residential broadband usage occurs in the evenings. This insight is illustrated in the OpenVault Broadband Insight report for 2024, where US residential customers have a concentrated busy hour at 9 pm, while commercial users have a flatter busy hour at noon.

Considering 1.6GB usage during busy hour for residential users, approximately 7% of the daily traffic is consumed at the busy hour. For commercial users, the busy-hour consumption is 0.8GB, resulting in 7% of daily traffic during the busy hour.

Broadband usage trends stable around 10% annual growth rate

Broadband traffic growth rate trends

Average fixed broadband traffic per connection and annual growth

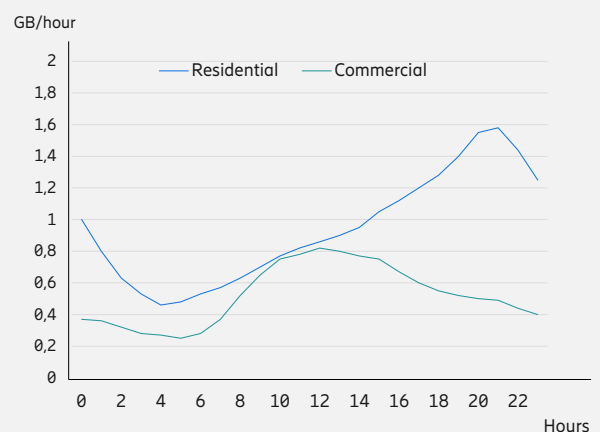


1) Data for 2025 for Japan, Italy, UK, USA.

Source: National Regulator agencies, OpenVault, Ericsson analysis.

Complementary profiles for business and residential

Average hourly data usage on weekdays



Source: OpenVault 2024

Read all nine insights
on capturing the value
of 5G FWA

ericsson.com/fwa-insights