Extracted version

Fixed Wireless Access handbook

Insights

2024

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Insight 2 of 6

Capturing value with speed-tiered plans for 5G FWA

Key levers for value creation

There are multiple levers for value creation with FWA, with service providers ability to capture these depending on their market position and assets.

Revenue growth: the most common

With new FWA connections, service providers can grow revenues. There are other variants to be quantified, related to higher ARPU when migrating existing customers on slow-speed offerings (e.g., xDSL) to high-speed 5G FWA offerings. Moreover, a fast time for deployment for FWA means service providers can have weeks (or months) of additional revenues compared to other technologies that take longer time for deployment. Last, in addition to typical FWA connectivity revenues, service providers can add value-added services such as video streaming, TV, and gaming.

Opex reduction: operational benefits

Converged operators with legacy copper-based fixed broadband networks can achieve operational savings from xDSL decommissioning related to energy consumption and operation and maintenance costs. Additional operational benefits from bundling FWA with MBB include lower go-to-market costs from reduced subscriber acquisition cost (SAC), reduced churn, and improved MBB experience in areas with high capacity deployed for FWA. Last, service providers can also achieve savings from migrating 4G FWA traffic to 5G FWA with a lower production cost.

Smart capex: agnostic capital allocation

For converged operators, FWA represents an alternative to optimize capex, deploying lower upfront cost and cost per home passed compared to fiber. In addition, capex invested can also be shared with MBB, lowering risk. Mobile-only service providers have an additional revenue source to finance high-capacity deployments outside large cities, resulting in improved MBB experience and lower production costs.

Speed-based – the opportunity for large scale offerings

There is more than one way to do FWA. Let's distinguish between different ways of delivering wireless service to households.

Tethering – mobile broadband

One or more mobile phones are used to communicate to and from the household, including tethering to Wi-Fi devices. Mobile broadband implies standard mobile service provider pricing schemes and standard ways of handling retail, provisioning, fault handling, and so on.

Best effort – Fixed Wireless Access

The household uses an indoor wireless router with wide-area wireless (such as 3GPP) capabilities to and from the household and Wi-Fi (or LAN cabling) between the router and other local devices.

The device and subscription are generally nomadic, meaning the family can take the router elsewhere, and as long as the subscription is valid, the device will continue to work. Typically, the subscription reuses MBB paradigms, possibly with higher data allowances, to cater to the needs of the whole household.

Device handling is inherited from MBB when it comes to retail setup, provisioning, and fault management. It is more or less a mobile phone without a screen.

Despite the nomadic character, we include this scenario in the definition of FWA since, from the household perspective, it resembles fixed broadband. We label it "best effort" since it is a challenge to provide very high-grade guaranteed offerings when customer premises equipment (CPE) is nomadic, and the subscription terms need to be valid everywhere.

Speed-based – opportunity for large scale offering

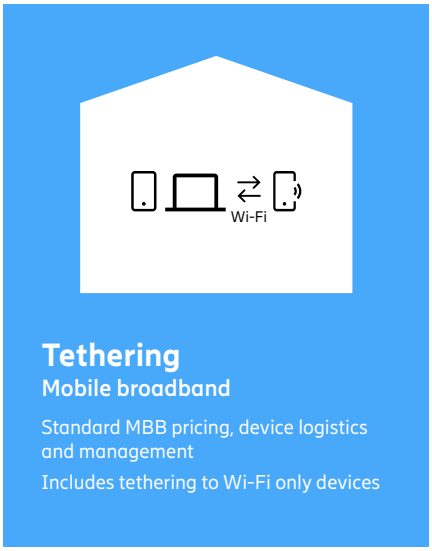
This case is where the industry needs to focus more, and this is also one of the reasons for writing this handbook.

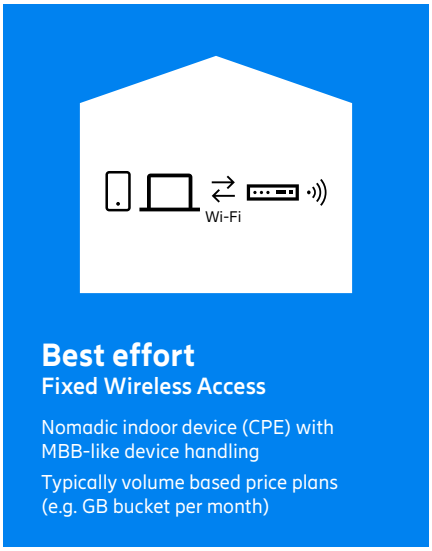
Here, the household is equipped with a wide-area wireless-capable (such as 3GPP) device. The device could be outdoor mounted on a roof or wall or an indoor unit, fully integrated like a standard router, or with a more advanced antenna arrangement to improve performance. It is generally managed according to the fixed broadband paradigm, enabling remote configuration and fault management from a customer service center using standard protocols.

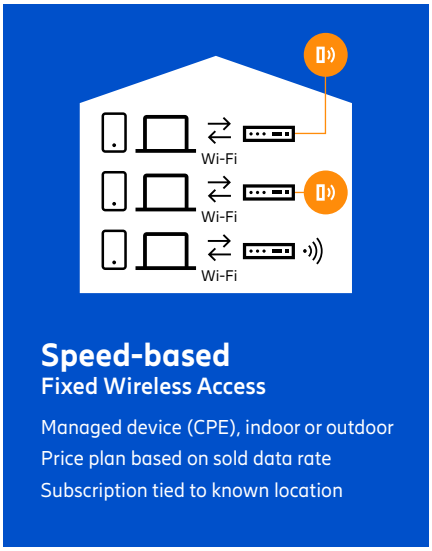
The price plan is specially designed for the service, typically inheriting the focus on sold data rate from fixed broadband offerings. Regarding pricing positioning, speed-based offerings can have higher ARPU than Best-effort offerings, given the superior performance, with pricing levels similar to fixed broadband offerings available in the market.

Finally, the subscription agreements are typically only valid in the subscribed location, either inherently through the fixed-mounted CPEs or logically so that if the CPE is moved, the unit does not work, or the subscription is modified.

We will focus on this case in this handbook since this is what requires extra insights and actions to capture its opportunities while being aware that FWA best-effort offerings do exist in many mobile service provider networks today.







Growing adoption of speed-based FWA

A study from Ericsson covering 310 service providers in over 100 countries shows that it is increasingly more popular to use speed-tiered pricing models for FWA. Currently, there are two speed-tiered FWA pricing plan models: typical and tiered speed.

Typical speed

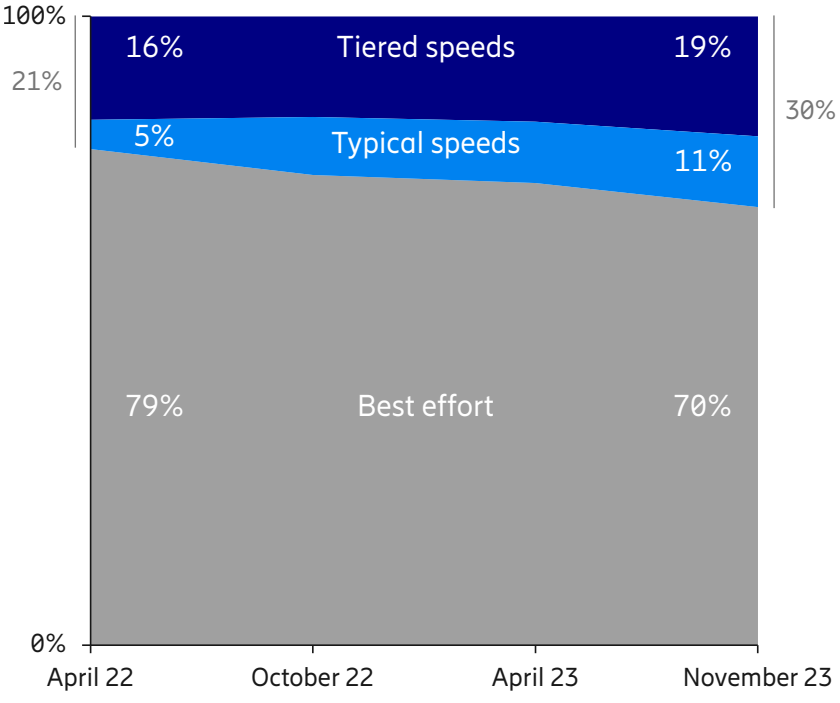
We see typical speed plans where service providers have a single plan for FWA, advertising an average/typical speed plan. It is a model based on simplicity, often with a range of marketed speeds (e.g., typical downlink speeds 100-150 Mbps). In most cases, service providers use indoor CPEs for such pricing plans.

Tiered speed

Tiered speed plans are when service providers have two or more speed tiers for FWA, similar to fixed broadband offerings. The speed tiers are eligible for a selected location/address. To deliver such speed levels, service providers utilize a combination of factors, including site capacity planning and network features, and it is also common to use outdoor CPEs, which enable better reception and antenna gains.

Emerging

It is expected to see FWA pricing plans evolving further, with emerging gigabit speeds and enhanced experience features such as uplink and latency. Such price plans would focus on specific needs for residential services such as gaming and enterprise services.



Emerging

- Faster gigabit speed tiers
- Experience enhancements, e.g., UL and latency
- Specific plans (e.g., gaming, business)

Tiered speeds

- 2 or more speed tiers (e.g., 100, 200, 500 Mbps)
- Fiber-like speed model for selected location
- Most with outdoor CPEs, some with self-install

Typical speeds

- One speed tier with average/ typical speeds advertised across eligible areas in the network
- Primarily indoor gateways

Best effort

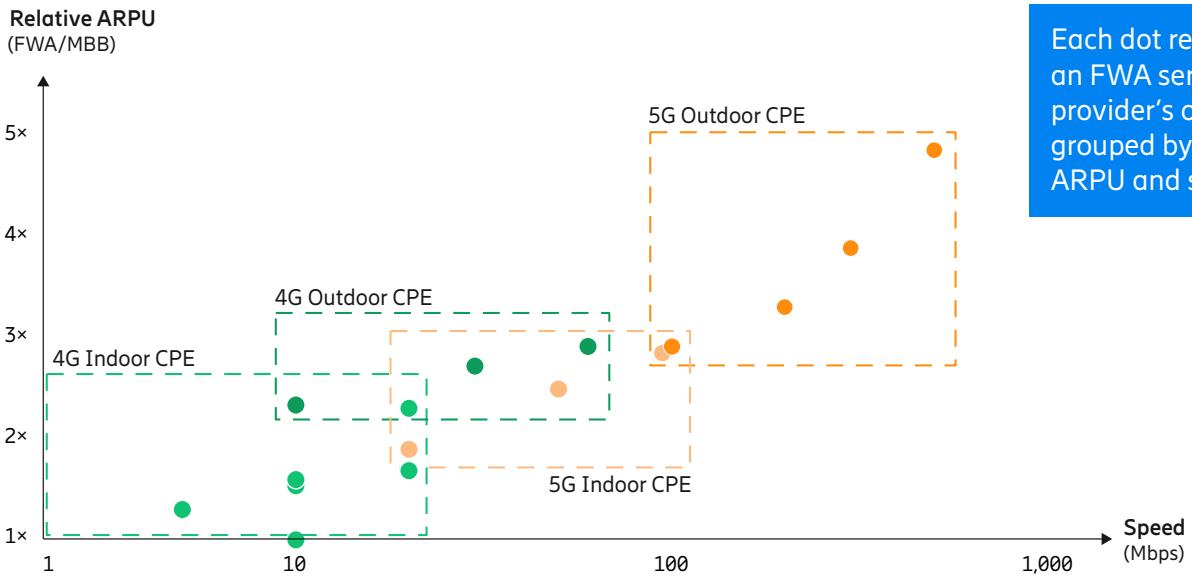
- Primarily volume-based plans (e.g., GB/month)
- Lower prioritization compared to MBB traffic
- Primarily indoor gateways

Source: Ericsson analysis based on public service providers information

Solutions for multiple speed and price tiers

As with fixed broadband, segmentation of the FWA market is critical to targeting various market segments. As a result, service providers use a mix of FWA offerings to serve different price and speed tiers. Such speed-price tiers are achieved primarily by combining technology (including 4G/LTE and 5G) and CPE alternatives (including indoor and outdoor).

The chart depicts offerings from four service providers categorized by relative ARPU and speed. Relative ARPU is based on the ratio of FWA tariffs to the equivalent mobile broadband ARPU to adjust for local market conditions. Entry-level offers are based on 4G using indoor CPEs, where speeds in these examples are between 5 and 20 Mbps, and prices range from 1 to 2.3 times MBB ARPU levels. High-end FWA offerings are based on 5G using outdoor CPEs, with speed tiers from 100 to 500 Mbps and tariffs ranging from 3 to 5 times the MBB ARPU levels.



Each dot represents an FWA service provider's offering grouped by relative ARPU and speed.

Source: Ericsson analysis based on public service providers information

Boosting revenue and retention through value-adding services

As with fixed broadband, segmentation of the FWA market is critical to targeting a broad variety of market segments. As a result, service providers use a mix of FWA offerings to serve different price and speed tiers.

FWA providers can maximize the value of customer relationships by adding value-added services on top of connectivity offers. These could include cross-selling existing products, such as adding MBB to a FWA-only customer. Alternatively, service providers can add adjacent services, which for consumers generally could be TV, streaming services, and online gaming. For business, it could be SD-WAN, security, and enterprise services (UCaaS).

As a result, service providers' benefits include higher ARPUs, lower operating costs (i.e., lower subscriber acquisition cost and billing/customer care), and reduced churn.

- Increase ARPU: add additional services/selling objects to increase share of pocket (from ARPU to ARPA)
- Reduce opex: lower subscriber acquisition cost and synergies in business operations (e.g., billing)
- Reduce churn: leverage multiple services to increase retention and lifecycle time of customers

Broadband market dynamics as price drivers

As with fixed broadband, segmentation of the FWA market is critical to targeting a broad variety of market segments. As a result, service providers use a mix of FWA offerings to serve different price and speed tiers.

FWA price positioning is driven primarily by the local broadband market dynamics.

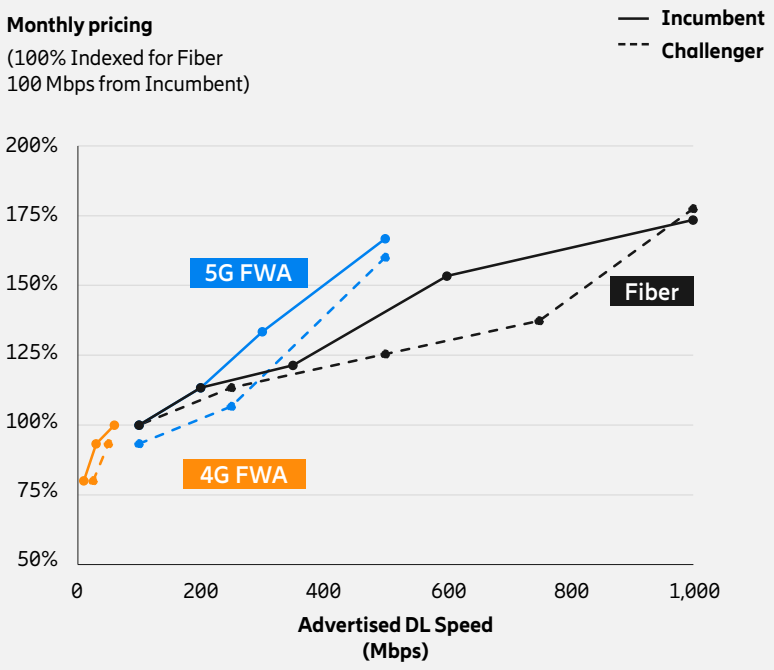
Home broadband pricing is mainly related to advertised download speeds. Higher speeds command higher prices across all available technologies, whether fiber, cable, xDSL, or FWA. The variety of speed-tiered tariff plans enables service providers to address different customer needs and segments at various price points. Service providers generally use xDSL and 4G FWA to target download speeds below 100 Mbps, while fiber and 5G FWA target speed tiers of 100 Mbps and above.

Service providers' market positioning also influences home broadband prices. Service providers that are market leaders or hold a strong incumbent position generally command a price premium over new entrants and challengers – driven by brand perception and market performance. As a result, challengers tend to pitch pricing at a lower level (for example, with a lower tariff or more data for the same price), which applies across technologies and speed tiers.

Home broadband pricing is also affected by competition at the local level, in contrast to MBB, where prices are set at a regional or national level. Home broadband competition is set at the address level, which defines the availability of speed tiers and alternatives. As a result, national list prices can be adjusted to the local competitive environment through discounts (such as tariff reductions) and incentives (such as free installation or a period of free service).

Broadband price positioning example

The chart illustrates these competitive dynamics in a European market, comparing 4G FWA, 5G FWA, and fiber tariff plans across various speed levels. The incumbent and the challenger are converged operators, and the incumbent holds the price premium position. This chart clearly shows that the challenger's services are priced lower than the incumbent's. It also shows how 4G FWA and 5G FWA complement each other to address multiple segments. 5G FWA pricing follows fiber pricing between 100 and 200 Mbps, with 5G FWA priced above fiber in higher-speed tiers to monetize high-speed tariff plans in locations that do not have fiber available, such as suburbs or rural areas.



Source: Ericsson analysis based on public service providers information

Learn more in six actionable insights on capturing the value of 5G FWA

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