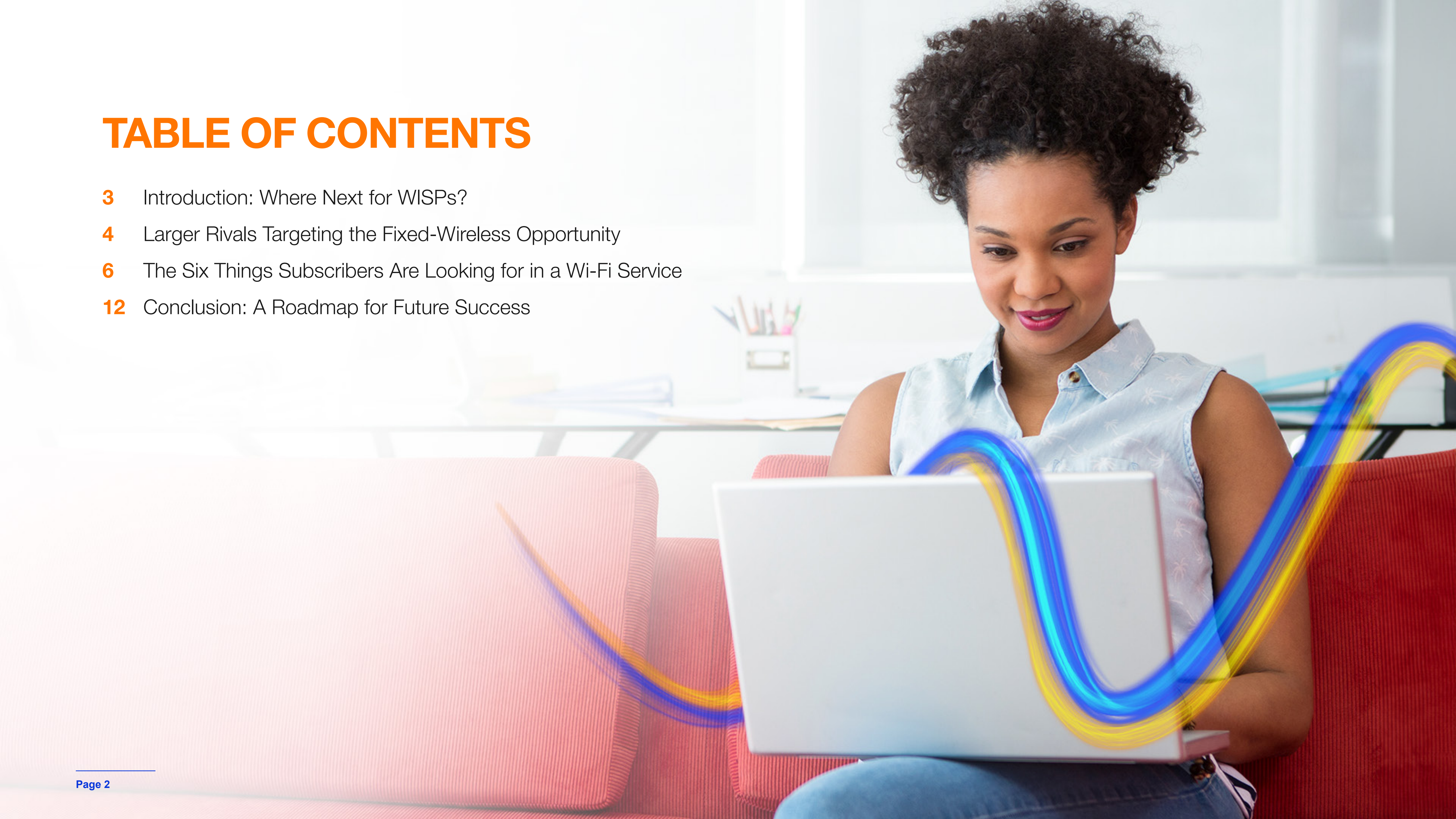# The Way Forward for WISPs: Strategies for Winning in the Wi-Fi Market
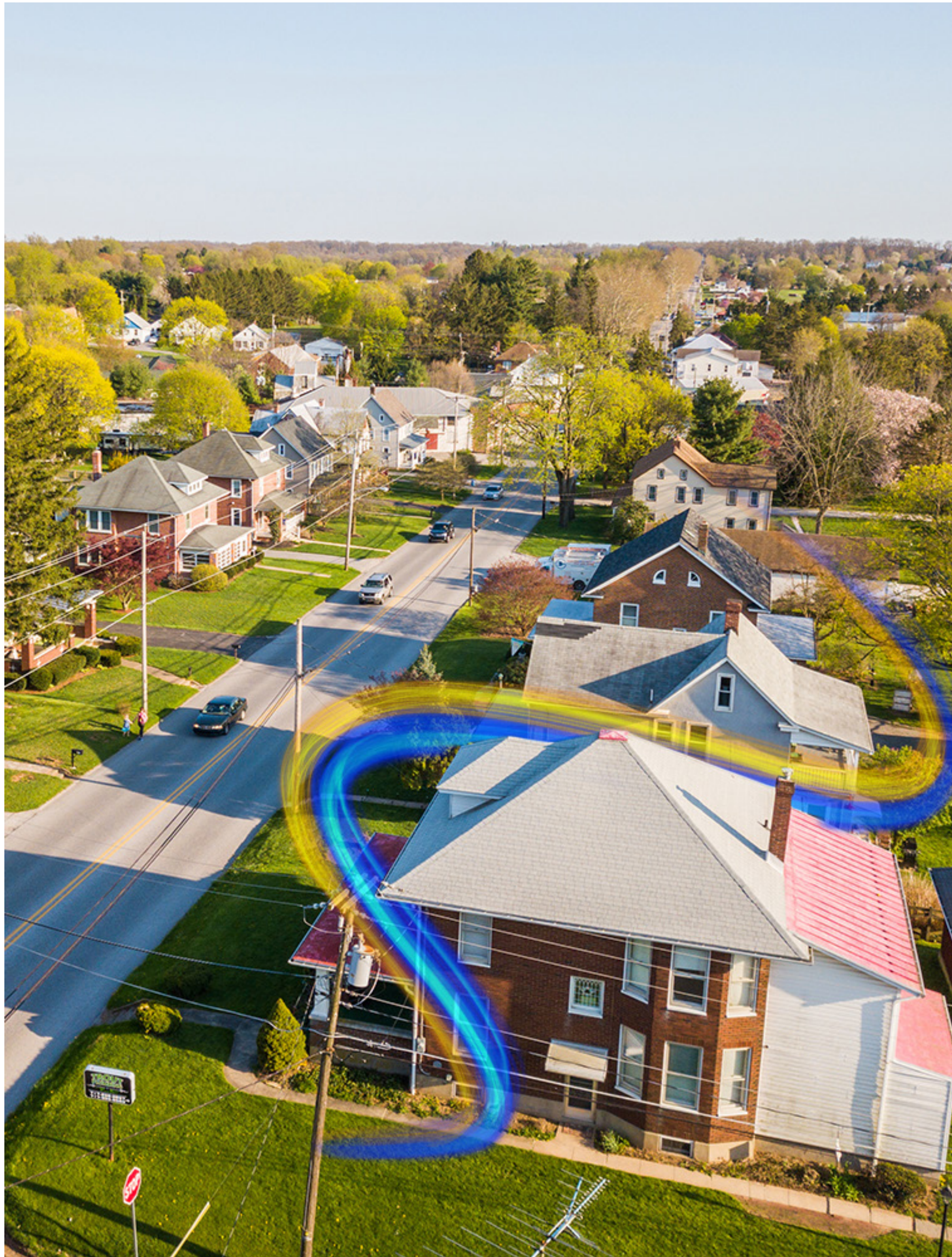
How Wireless Internet Service Providers Can Build Subscriber Trust and Loyalty by Delivering Exceptional Wi-Fi Experiences

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WHERE NEXT FOR WISPS?

Wireless Internet Service Providers (WISPs) are nimble movers and shakers in the broadband industry. Thanks to increased funding opportunities and advances in fixed-wireless access (FWA) technology, WISPs have become key players in extending broadband to underserved areas. Many WISPs are small companies, rooted in the communities that they serve, that have built trusted relationships with their subscribers. They have taken advantage of favorable network economics and regulation to compete —and win—against much larger rivals.

But serious challenges loom on the horizon. Broadband providers that use the latest wired access technologies are rapidly expanding into rural areas, taking advantage of the same funding opportunities with some greater degrees of success—due to the underlying fiber technology. Meanwhile, large wireless carriers with far greater spectrum assets are deploying FWA across the country, recognizing it as a key use case for 5G technology. Smaller WISPs may not have the necessary spectrum nor the financial resources to compete head-to-head or network-to-network. WISPs must find a better angle to win in the marketplace.

Future success rests on delivering what subscribers really want from a residential Wi-Fi service, however they receive their broadband. WISPs are now able to offer speeds to match rival service providers, but this is no longer the key service differentiator it once was. Similarly, competing solely on price can trigger a "race to the bottom" that quickly becomes unsustainable.

So how should WISPs best respond to subscriber needs and win in their markets? In this eBook we reveal the strategies that WISPs must deploy to provide a fast, reliable, and secure Wi-Fi experience that builds loyalty among subscribers—and keeps the WISPs one step ahead of the competition.

LARGER RIVALS TARGETING THE FIXED-WIRELESS OPPORTUNITY

Wireless ISPs (WISPs) use FWA technology to wirelessly connect premises to a central base station, eliminating the need for traditional wired connections using fiber-optic cables or DSL lines. This access method is particularly suited to reaching subscribers in remote areas, where deploying traditional fixed infrastructure is difficult or economically unviable. Some WISPs are evolving to become hybrid network providers, incorporating fiber into their networks, where feasible.

WISPs have experienced strong growth in markets such as the U.S. in recent years. There were an estimated 2,800 WISPs active in the U.S. in 2021[1]. The number of FWA subscribers in the US reached 8.6 million in 2023, up from just 1.6 million in 2019, and is forecast to hit 18 million by 2027[2]. By 2030, about 15 percent of all U.S. households are forecast to connect to the internet using FWA[3].

This growth is driven by several factors, including:

Improving economics and technology. The rollout of FWA by major global carriers has established FWA as a viable—and significantly less capital-intensive—alternative to traditional fixed broadband.

A growing understanding of FWA as a viable technology in a regulatory environment. Efforts at a federal level to close broadband coverage gaps have spurred some favorable regulation in areas such as spectrum allocation, giving WISPs more flexibility and resources to build out their services.

Subscriber demand. Trends such as remote, at-home working have reinforced the need for fast and reliable broadband. At the same time, WISPs have evolved to offer competitive pricing and comparable speeds to traditional providers—especially in some of the hardest-to-reach service areas.

Increased funding opportunities. Government efforts such as the Broadband Equity, Access, and Deployment (BEAD) program have provided public funding, while funding has also flowed in from private sources, such as private equity groups.
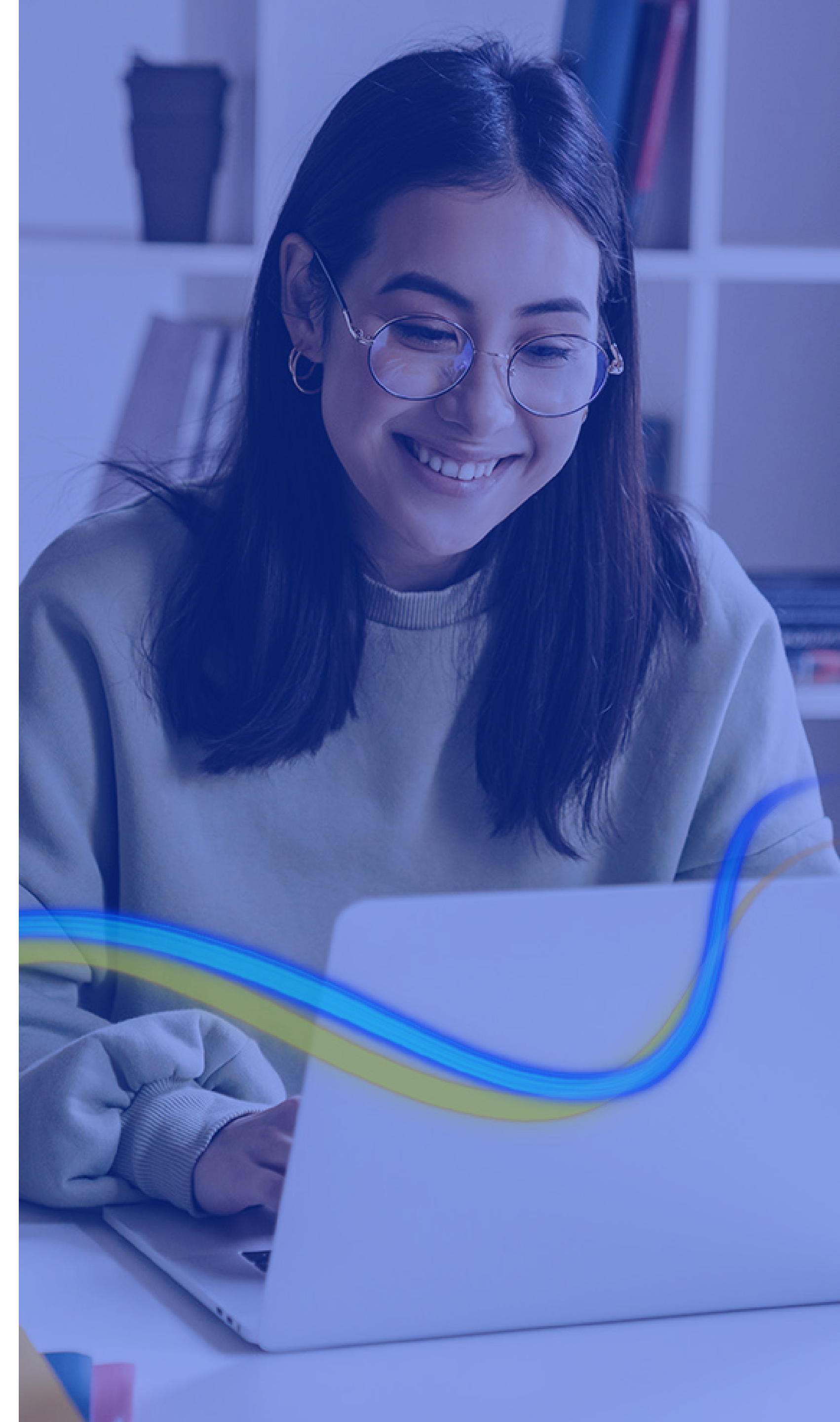
However, challenges remain as WISPs face stiff competition, particularly from Tier 1 service providers. Large national carriers and cable operators are also taking advantage of the emerging FWA opportunity and are encroaching on markets where many WISPs are present. T-Mobile U.S., for example, had 3.2 million subscribers using its FWA service at the end of Q1 2023.

Many WISPs are established in their local communities and have built strong reputations based on network quality and reliability. A recent study shows that WISPs enjoy higher Net Promoter Scores[SM] (NPS[®]) compared to their fiber, cable, and DSL counterparts.

The question is: how can WISPs harness this subscriber satisfaction and loyalty advantage to ensure long-term success in the face of increasingly fierce competition?

US SUBSCRIPTIONS TRENDS BY TECHNOLOGY

Subscriptions

Year	Value
2019	1.6M
2020	1.8M
2021	2.9M
2022	6.2M
2023	8.6M
2024	11.3M
2025	13.9M
2026	16.2M
2027	18.0M

US SERVICE REVENUES TRENDS BY TECHNOLOGY

Service revenues USD

Year	Value
2019	945.6M
2020	1.2B
2021	1.7B
2022	3.5B
2023	5.8B
2024	8.0B
2025	10.2B
2026	12.4B
2027	14.2B
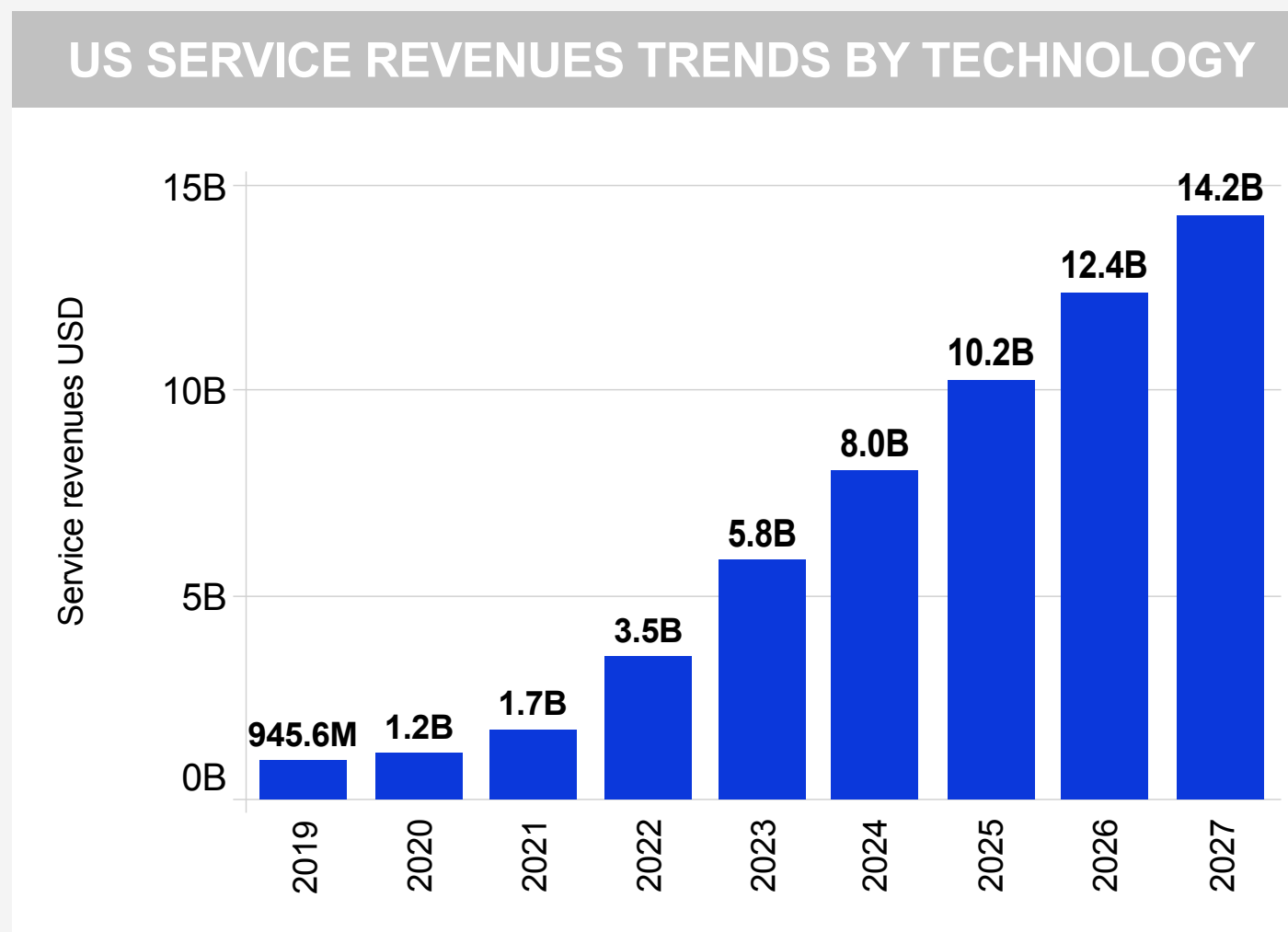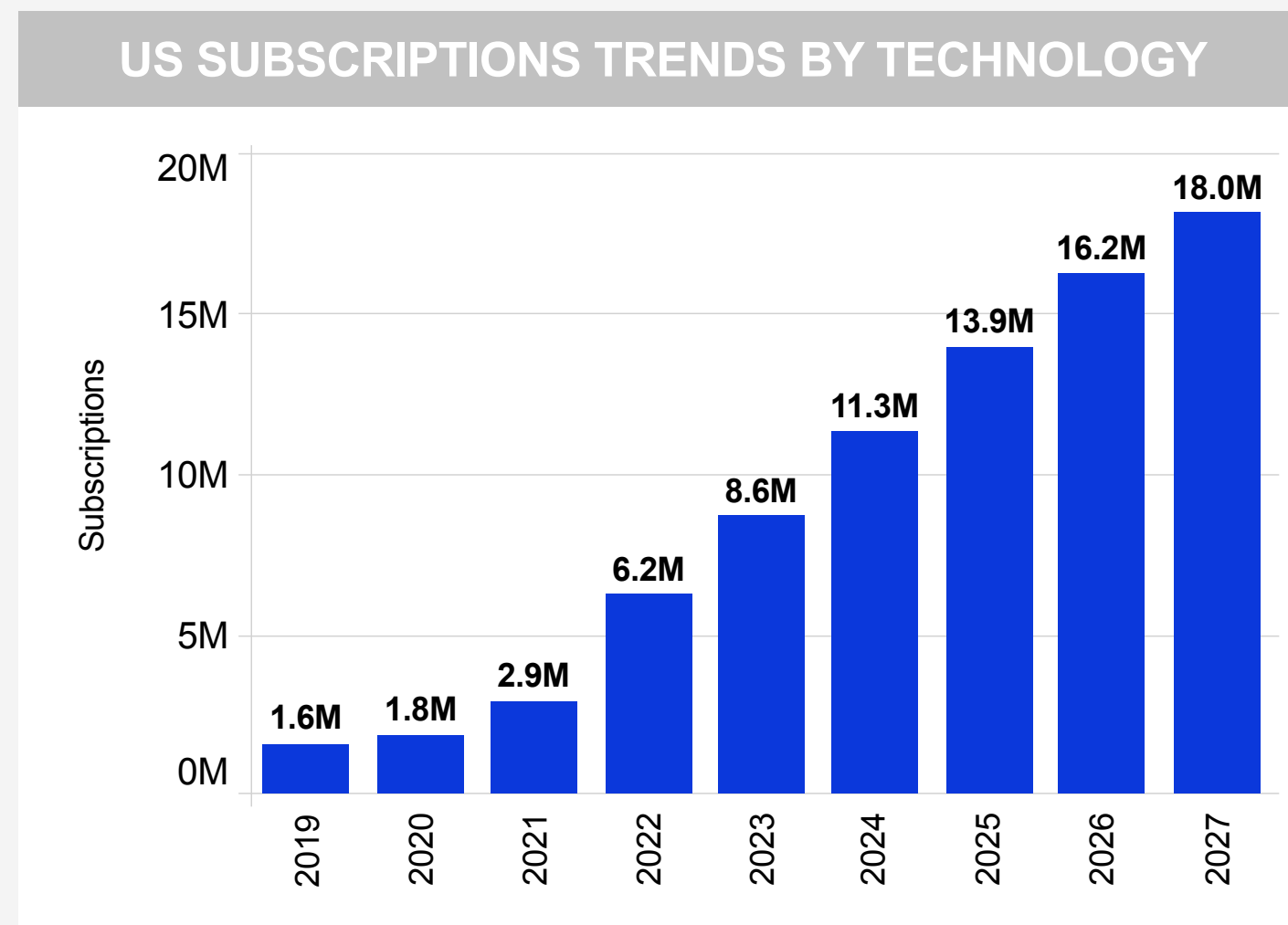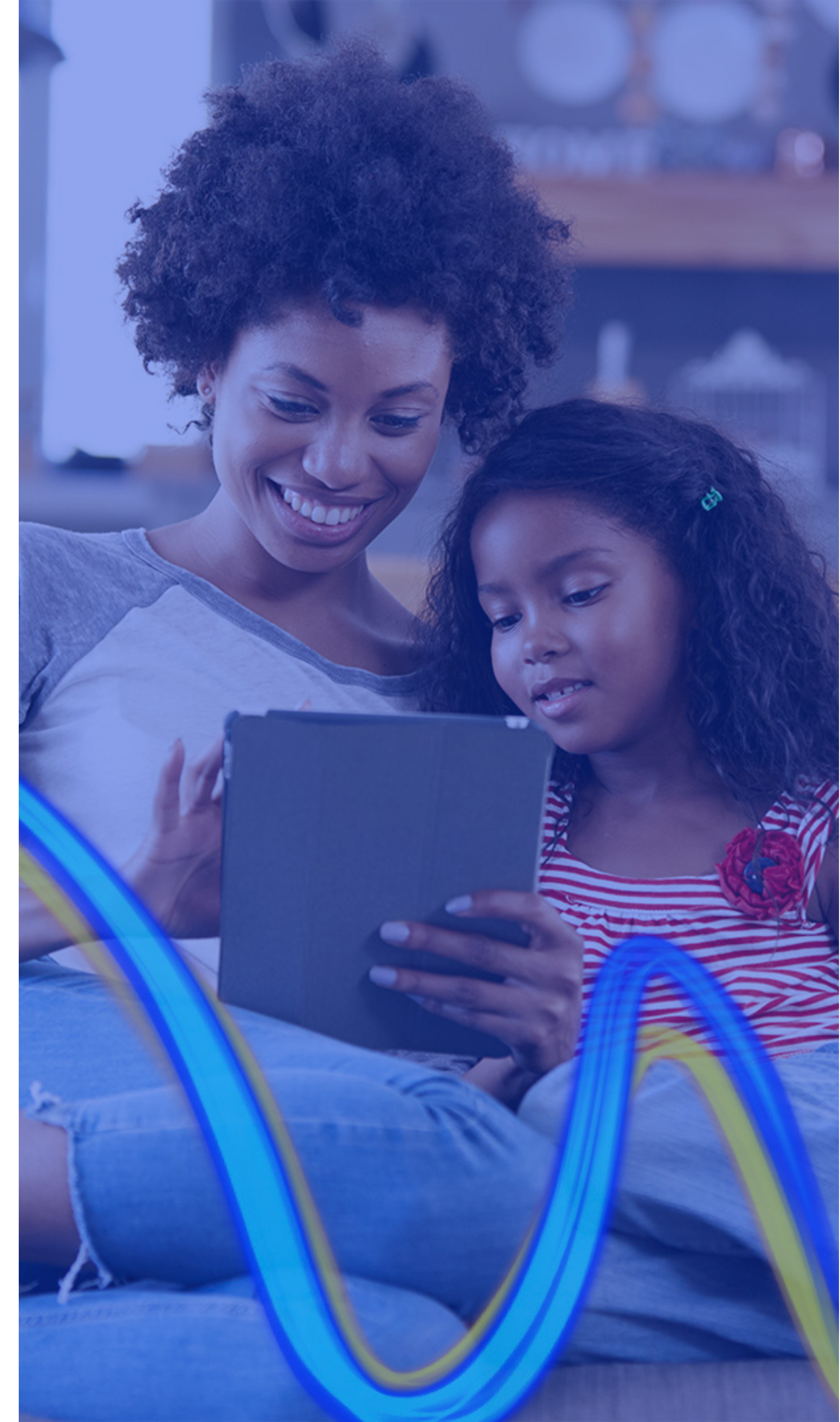
Source: OMDIA 2023

THE SIX THINGS SUBSCRIBERS ARE LOOKING FOR IN A WI-FI SERVICE

The advancements in FWA technologies are expanding the ways subscribers can obtain a high-speed internet connection into their homes. Efforts in recent years to extend broadband service to previously underserved areas mean even subscribers in rural and hard-to-reach communities are likely to have a choice of providers.

Most subscribers pay little attention to the technology underlying their broadband service, which means WISPs compete directly with other types of broadband providers for market share. In this increasingly competitive marketplace, it is crucial to understand what subscribers are looking for when choosing a broadband service. There are six key areas for WISPs to consider.

1) SPEED

Do Subscribers Have All the Speed They Need?

Next-generation fixed wireless access (ngFWA) is an entirely new way of designing and operating fixed wireless access networks to deliver fiber-class, reliable internet services. Unlike previous wireless technologies, ngFWA is designed to offer unprecedented coverage, speed, capacity, non-line-of-sight operation, interference reduction in the unlicensed spectrum and reliability in the challenging environments common to outdoor FWA implementations. Like most providers, WISPs offer a range of pricing tiers, usually based on speed. Advertised speeds typically range from 25 Mbps to 1 Gbps. Actual speeds can vary depending on factors such as network infrastructure, signal strength, distance from the base station, and network congestion.

The speeds available via FWA today can meet and exceed an average household's internet usage requirements. In fact, in a Calix-commissioned survey of service providers[4], many respondents noted their subscribers were not asking for faster speeds— and that most subscribers (60 percent) opted for a "mid-tier" speed package. This was reinforced by a recent Credit Suisse study that found 82 percent of subscribers said they either don't need more speed or were indifferent about it. The true measure of speed is being able to do what the subscriber wants. Not all users are "bandwidth hungry". They simply want to accomplish online tasks with ease and without interruption.

Subscribers will still compare speeds when assessing options, but it is no longer the case that a provider can succeed on speed alone. And if speed isn't the differentiator—then what is?

2) PRICE

Pricing Strategies To Avoid a Race to the Bottom

If subscribers have sufficient speed from their broadband service, they will assess value in other ways, notably via retail pricing. However, as noted earlier, competing on price alone can quickly become a race to the bottom (e.g., no margin) in highly competitive markets where rivals are seeking to capture market share.

Although FWA networks may be less expensive to install initially, when compared to other access technologies, WISPs are often much smaller than the traditional tier 1 provider. But they are also likely to be smaller companies that will still struggle to compete with a larger competitor with deep marketing pockets in a price war. There are several ways that WISPs can deploy appealing pricing strategies without eroding revenue. These include:

- Develop a range of pricing options based on speed tiers, data caps, and contract lengths
- Bundle broadband with other products such as phone or TV services or other value-added services like home security
- Leverage promotions, discounts, and referral programs to attract new customers and reward loyalty
- Offer equipment rentals to reduce the cost of subscribers purchasing customer premises equipment (CPE)
- Reduce upfront costs with low-cost or free installations
- Collaborate with local organizations to bundle broadband with other community services
- Use funding grants to subsidize retail pricing
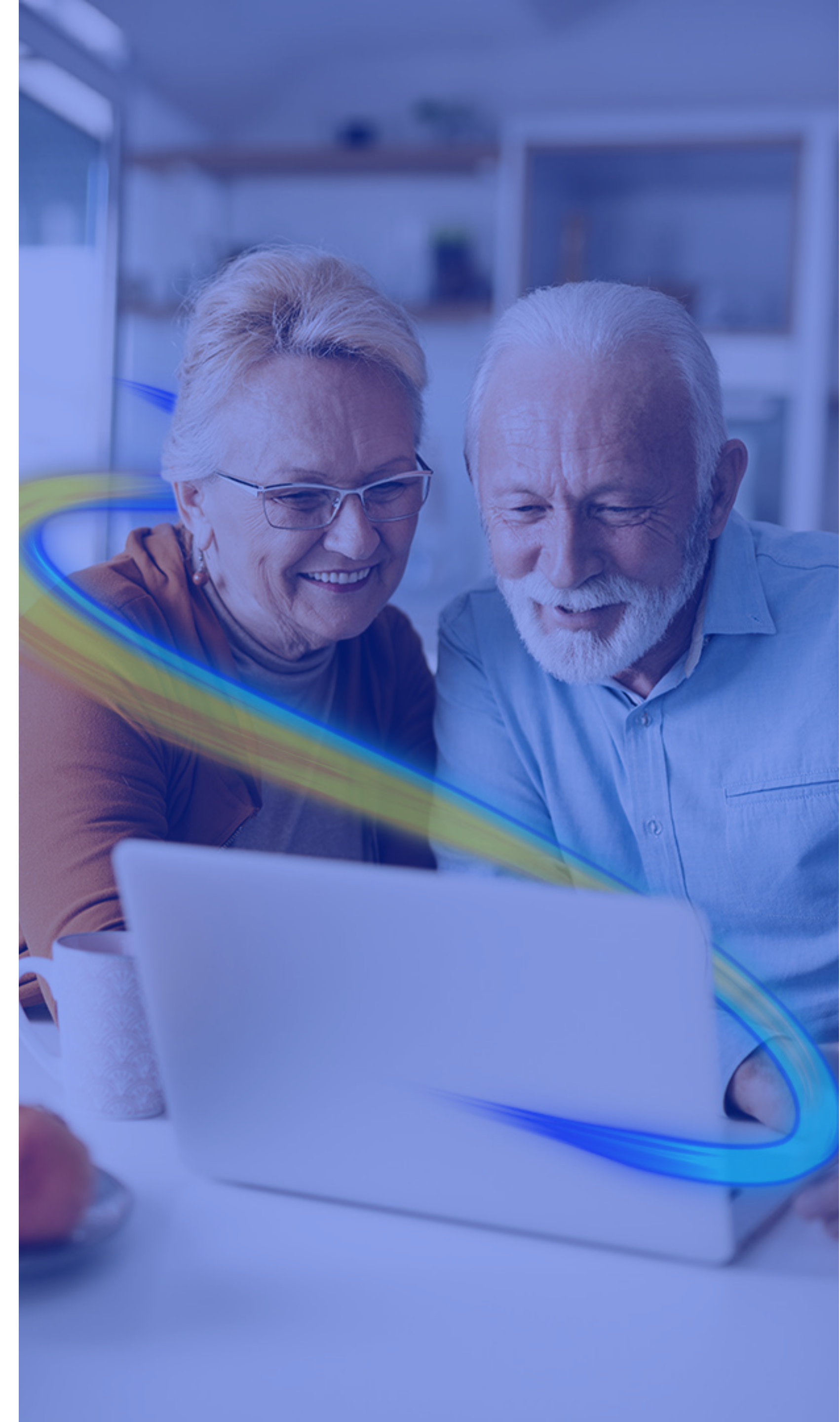
3) RELIABILITY

Subscribers Need a Network They Can Rely On

Service cost may be the initial consideration for a subscriber when choosing a provider, but—once they are connected and up and running—reliability becomes more important. Is the service delivering what was advertised? Can it support all the connectivity services subscribers need? According to a recent study[5], 55 percent of households agree that the reliability of their connection is more important than speed.

A reliable network leads to increased satisfaction and trust, while an unreliable network can result in frustration and a negative perception of the service—and the provider. Disruption in service can have a significant negative impact on the provider's NPS and could lead to a subscriber switching to a rival provider at the end of the contract period. WISPs must therefore prioritize projects that enhance network reliability and reduce downtime and disruption, including the ability to:

Optimize Wi-Fi infrastructure: Implement additional access points, antennas, and signal boosters to improve coverage and signal strength.

Implement redundancy measures: Ensure backup systems and failover mechanisms are in place to minimize downtime in the event of network failure.

Monitor Quality of Service (QoS): Leverage new QoS techniques to prioritize critical applications and allocate bandwidth efficiently.

Deploy network management: Take advantage of smart network monitoring and management tools to proactively identify and resolve issues and manage capacity before subscribers even know there is a problem.

Help subscribers help themselves. Educate subscribers on factors that can impact Wi-Fi performance, such as router placement, sources of interference, and troubleshooting techniques. Utilize self-service apps to improve customer satisfaction, where they can reset their own passwords, set parental controls, and more.
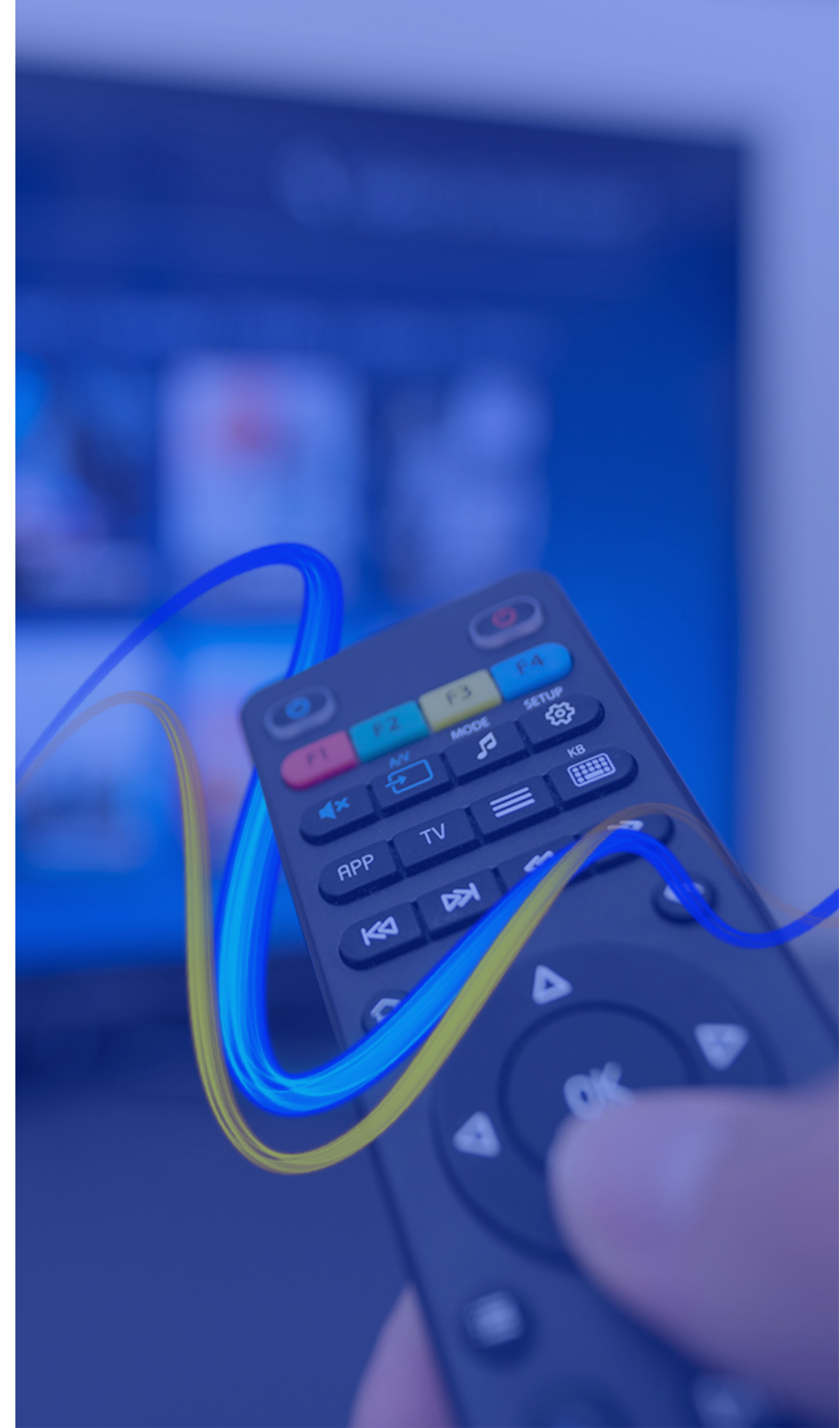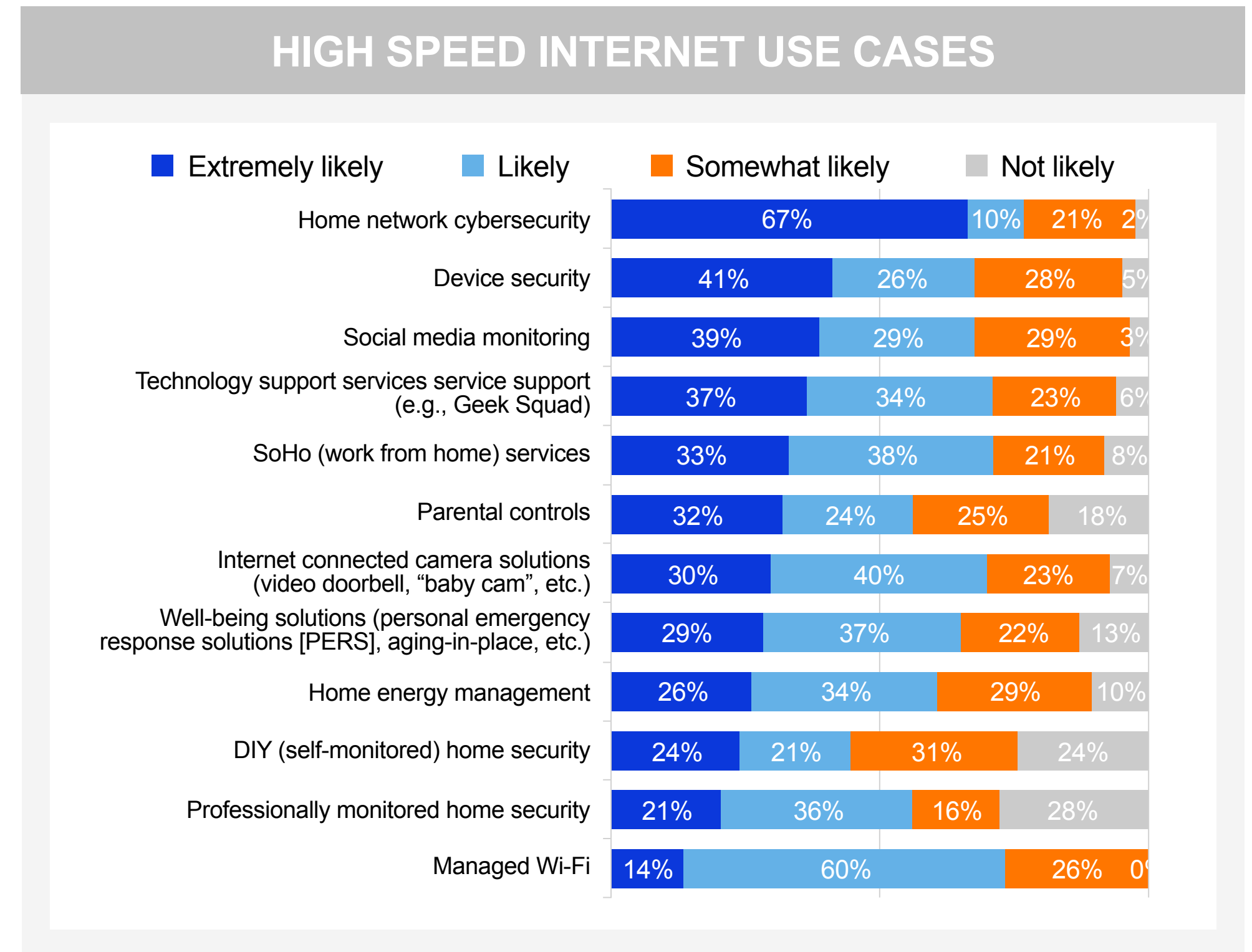
4) SECURITY

Reassuring Subscribers in an Era of Cybercrime

The rise in cybercrime in recent years has made security a key consideration for subscribers. They increasingly look to their provider to protect them from threats such as ransomware attacks and internet scams. An unsecured broadband connection can lead to personal data being intercepted and exploited by criminals or serve as an entry point for malware or viruses. Parents also worry about the online safety of their children: what content they're consuming and who they're interacting with.

Service providers have a duty to provide safe, secure online experiences for their subscribers, which makes network security a key priority. According to a Calix survey of service provider executives[6], security infrastructure was cited as the top investment focus for 38 percent of providers, second only to network expansion.

However, network security is not solely about delivering peace of mind to subscribers. Provision of broadband security services is also a source of revenue and a way to develop "stickiness" with subscribers. Two-thirds of respondents to the survey cited home network security as their top use case over the next five years, followed by services focused on protecting devices (41 percent). Other security-based sticky services include home-monitored security (24 percent) and professional-monitored security (21 percent).

Service providers can build on their trusted relationship with subscribers to deliver network security as a managed service. This provides subscribers with peace of mind on security and privacy from a single, trust source: their WISP. These managed services can include home network cybersecurity, parental controls and online safety tools, and connected cameras that protect subscribers' homes. Such managed services are proven to increase subscriber satisfaction and loyalty, reflected in higher NPS.

HIGH SPEED INTERNET USE CASES

Legend: ■ Extremely likely ■ Likely ■ Somewhat likely ■ Not likely

Use Case	Extremely likely	Likely	Somewhat likely	Not likely
Home network cybersecurity	67%	10%	21%	2%
Device security	41%	26%	28%	5%
Social media monitoring	39%	29%	29%	3%
Technology support services service support (e.g., Geek Squad)	37%	34%	23%	6%
SoHo (work from home) services	33%	38%	21%	8%
Parental controls	32%	24%	25%	18%
Internet connected camera solutions (video doorbell, "baby cam", etc.)	30%	40%	23%	7%
Well-being solutions (personal emergency response solutions [PERS], aging-in-place, etc.)	29%	37%	22%	13%
Home energy management	26%	34%	29%	10%
DIY (self-monitored) home security	24%	21%	31%	24%
Professionally monitored home security	21%	36%	16%	28%
Managed Wi-Fi	14%	60%	26%	0%

Source: OMDIA 2023

5) INTEGRATION

Connecting the Connected Home

A broadband connection supports an increasing array of devices inside the home. US households have, on average, 22 devices connected to their home Wi-Fi—everything from TVs and gaming platforms to smart speakers and connected refrigerators[7]. But a connected "smart home" presents several challenges, including:

Device compatibility: Products from different manufacturers may not be designed to work together and based on different standards, leading to compatibility issues.

Privacy and security concerns: The growing number of connected devices within the home means more personal data is being shared and a greater number of devices are vulnerable to cyberattack.

Increasing complexity: Integrating different types of devices on a home network can be difficult and time consuming to set up, requiring technical knowledge.

Coverage and connectivity issues: A smart home requires a reliable Wi-Fi signal to extend throughout the home without interruption or dead spots.

Service providers can play a crucial role in alleviating these challenges by offering managed services that cater to the needs of the smart home. For example, a managed Wi-Fi service can optimize network performance and ensure whole home coverage. Such services can also offer proactive network monitoring and troubleshooting to quickly address connectivity issues that may arise.
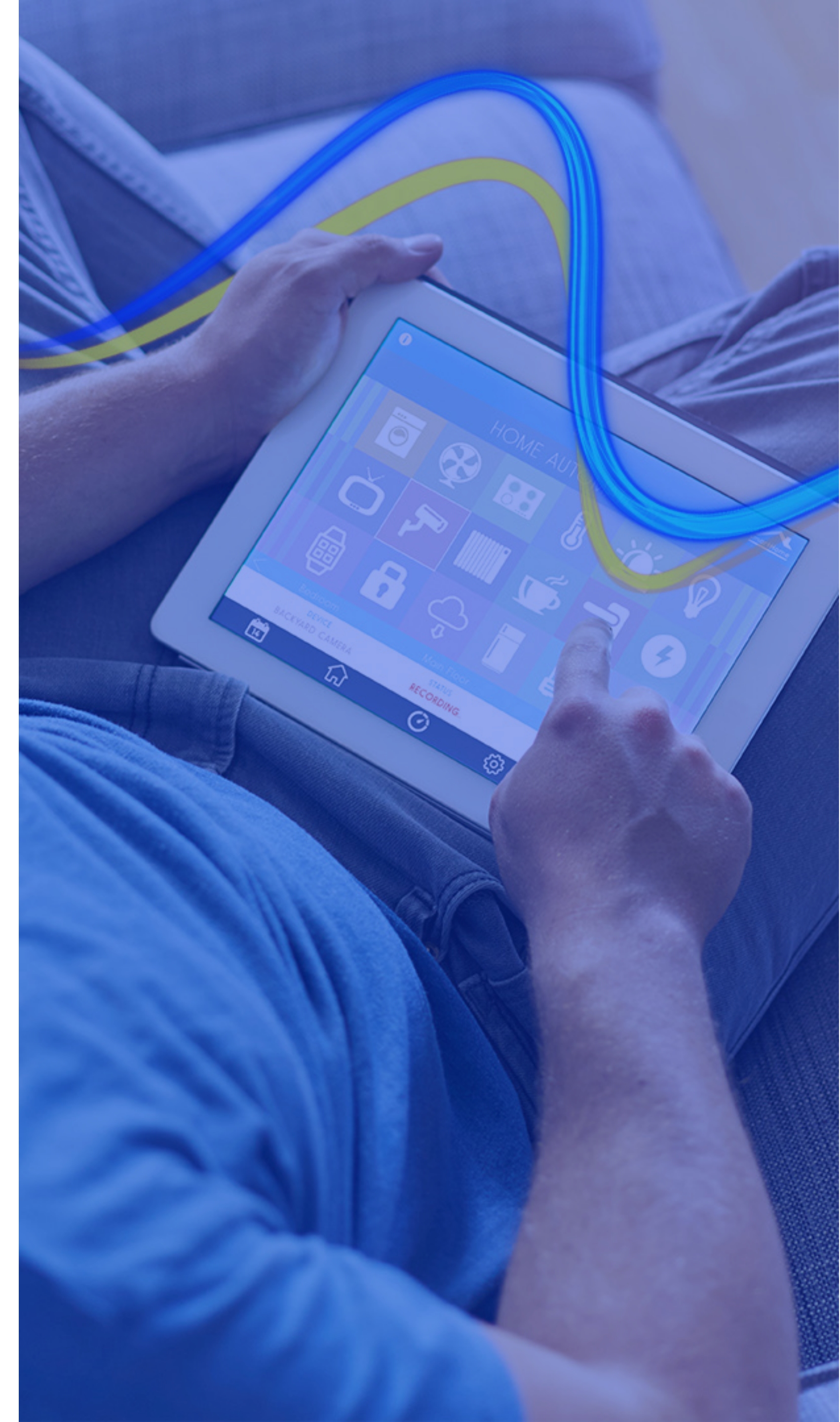
6) FLEXIBILITY

Taking Wi-Fi Beyond the Four Walls of the Home

As we have seen, the era of Wi-Fi being accessed from just a few personal computing devices within the home is over. Subscribers need to connect from various locations throughout the home, and—increasingly—beyond the home too, into outdoor areas as well as their wider communities. This requires a Wi-Fi service that has the flexibility to support a wider coverage area while still delivering a safe and secure managed Wi-Fi experience.

This can be achieved by deploying:

• Multiple access points and mesh networking for reliable coverage in high-density or obstructed areas

• Optimal frequency and bandwidth management to reduce interference and improve network performance

• Provision of public Wi-Fi networks for subscribers on the move

• Cloud-based management systems for remote monitoring, updates, and troubleshooting

• Remote network access (e.g. via a mobile app)

These capabilities unlock a range of new, largely untapped opportunities for WISPs. For example, a managed community Wi-Fi offering allows WISPs to extend the existing residential managed Wi-Fi experience beyond the four walls of the home, connecting subscribers to secure Wi-Fi on the go, across town, in parks, at outdoor events, and more.
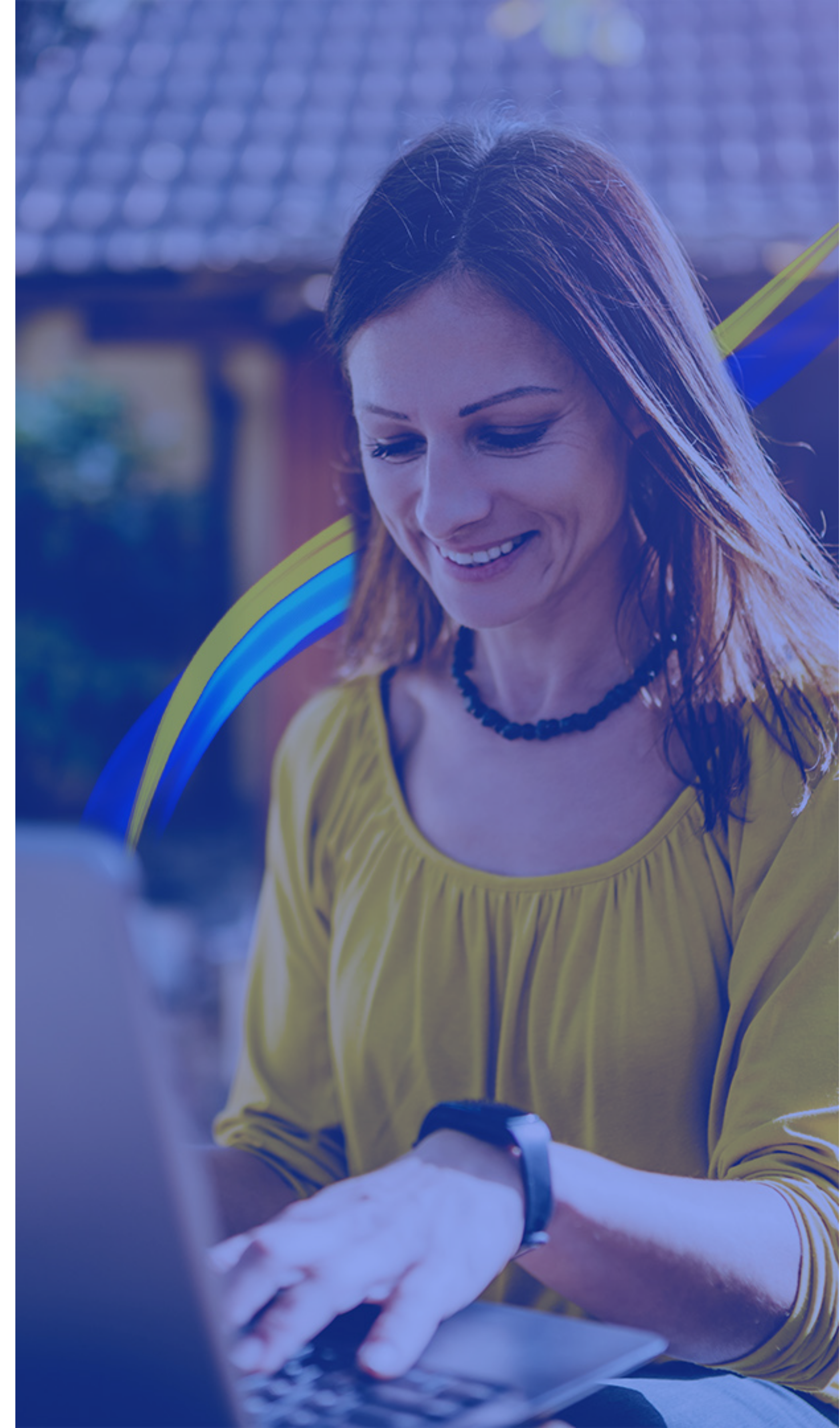
A ROADMAP FOR FUTURE SUCCESS

WISPs have played a key role in extending high-speed connectivity to underserved areas but as the FWA market is expanding, so is the competition. Broadband competitors of all types will be even more marketing-driven in the coming years, so WISPs will need to battle for the hearts and minds of their subscribers.

To compete with the larger players moving into their markets, WISPs need to focus on meeting and exceeding subscriber needs—and differentiating their services and local presence. Speed and pricing alone are no longer sufficient to attract and retain customers.

Instead, WISPs should prioritize delivering a fast, reliable, and secure Wi-Fi experience that builds trust and loyalty with subscribers. And with managed services, WISPs can provide an exceptional experience that increases subscriber satisfaction while generating new sources of revenue.

By implementing these strategies, WISPs can position themselves as giants in their markets that are responding to subscriber needs, and providing a safe and secure broadband experience that adds real value to their communities.

To learn more about how WISPs are partnering with Calix to compete against larger players and win in their markets, visit our <u>Wireless ISP page</u>.

RESOURCES

1) http://www.carmelgroup.com/wp-content/uploads/2021/04/The-Carmel-Group-2021-Fixed-Wireless-Report-4-23-2021.pdf

2) Omdia

3) GSMA Intelligence

4) https://www.calix.com/content/dam/calix/marketing-documents/public/reports/report_state-of-pervice-provider.pdf

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6) https://www.calix.com/content/dam/calix/marketing-documents/public/reports/report_state-of-pervice-provider.pdf

7) Deloitte, "2022 Connectivity and Mobile Trends Survey",
https://www2.deloitte.com/us/en/insights/industry/telecommunications/connectivity-mobile-trends-survey.html