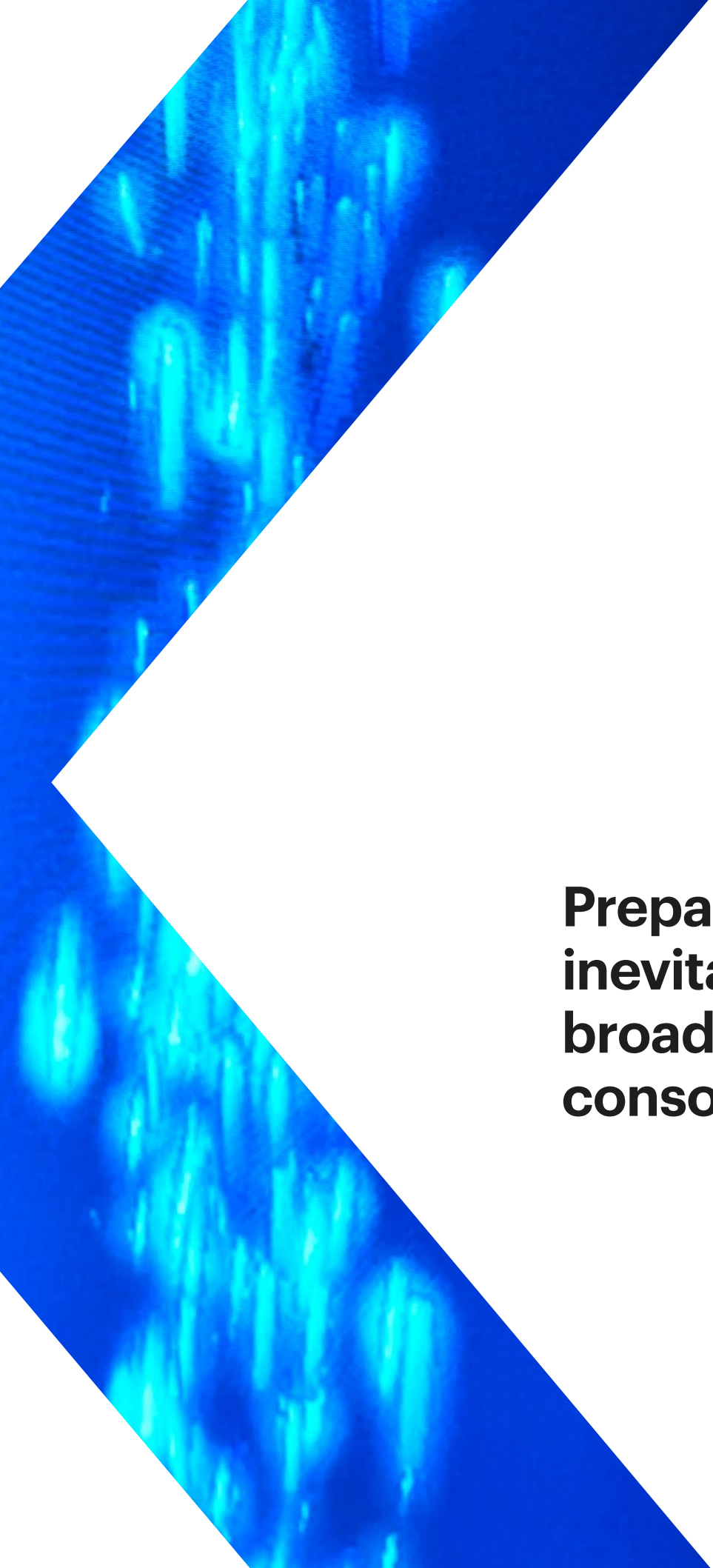


Photo by Margo Stahl
Kearney, New York

Preparing for the inevitable fixed broadband consolidation

KEARNEY

Once the fiber optic gold rush in rural and suburban regions peaks, Economics 101 will take over.

Over the next several years, we're likely to see consolidation among rural and suburban fixed broadband operators that will create a relative handful of national and superregional operators in the US. Government subsidies have fueled the growth of these operators, but the long-term economics will not support profitability for such a highly fragmented collection of companies.

For operators, growth comes from pricing power and the ability to add subscribers; with multiple players vying for the same customers, competitive pricing is unlikely to support significant expansion. At the same time, the slow rate of population growth and low rate of household formations combined are likely to reduce the number of potential customers. This leads to a market where the upside is limited beyond the point of market saturation. Consequently, scale will matter.

Annual growth rates for fixed broadband operators have averaged about 3.6 percent for nearly a decade, spiking during the pandemic to about 4.5 percent and then moving back to around 3.5 percent. But we're now entering a period of perhaps the largest rural infrastructure investment since the Rural Electrification Act (REA) was passed in 1936 and provided federal loans for the installation of electrical distribution systems in isolated rural areas of the US for 58 years. While there isn't a singular broadband act to match the REA, massive public and private investments are being made, such as the $65 billion allocation for broadband in the 2021 Infrastructure Investment and Jobs Act.

This focus and the accompanying subsidies to deliver broadband to unserved and underserved Americans are creating a gold rush for hundreds of operators ranging from municipal broadband authorities to hybrid cable companies. But what will the world look like on the other side of the gold rush? Given the economics, it's highly likely that we'll see consolidation around three to five national or superregional operators outside of the major metropolitan areas.

Market saturation hampers revenue growth

The growth model for fixed broadband operators is simple: average revenue per user (ARPU) times the number of subscribers equals revenue. ARPU is perhaps a tale of two cities. First, there is competitive pressure in markets where fiber is being offered as an alternative to cable. This will likely keep ARPU flat or even cause a slight decline. Second, in markets seeing new fiber overbuilds, ARPU is likely to increase as operators introduce new offerings.

The question of ARPU growth comes when a market reaches saturation. Can an operator look to ARPU as a continued source of revenue growth? At the same time, video revenue-generating units (RGUs) are on the decline as people decide against paying for linear TV services. ARPU represents the total price paid by the customer and RGUs are the individual offerings that add up to that figure. Bundling helped cable providers grow by offering data, voice, and video together. But increasingly customers are choosing to buy only data services because they already have mobile phones and can stream video on their devices and TVs. Additionally, we're seeing aggressive pricing for data plans by new market entrants and defensive incumbents, which is also keeping pressure on ARPU. Thus, revenue growth must come primarily from new subscribers.

The total number of subscribers for any operator is driven by the number of homes passed (having the option of access to service) and the subsequent terminal penetration rates (the number of subscribers added to a defined market two to three years after market entry). The impact of the 2021 Infrastructure Investment and Jobs Act, the CARES Act (COVID relief), and the Rural Development Opportunity Fund, coupled with state programs, will significantly increase the buildout and total number of planned homes passed to unprecedented numbers.

Household formations (HHF) measure the number of new households formed annually and are an indicator of subscriber growth. However, both American population growth and household formations are at their lowest points in decades. Another measure of subscriber growth comes from people moving, so we should include move-in and move-out as part of our household formations. Population growth, household formations, and moves are likely to remain low during the current period of sustained elevated inflation. Consequently, there are a finite number of homes to pass. Revisiting our simple formula of ARPU times subscribers, and considering the pressures on ARPU, leaves subscriber additions as the primary path to growth. For operators, this means protecting and/or capturing subscriber share in their markets.

The economics of reaching the underserved

Operators need to reach unserved or underserved customers, which is where subsidies and private investments come into play. The central reason these customers are in such a position is largely because the economics to deliver broadband haven't worked in the past. The roughly $100 billion in new government funding has altered that math. But while it may now be economically feasible to reach those markets, increasing economic returns over time will require new household formations, an increase in ARPU, and terminal penetration rates of around 40 percent.

Given what we know about household formations and ARPU, penetration rates are key to success. The cost to pass homes with the population density of the targeted customers is about $50,000 per mile, plus the amount to connect individual homes. Inflation, labor shortages, and supply chain challenges are likely to push that number even higher over the next two years. The average cost to pass a home may range from around $600 to $1,500 per home depending on density.

The net present value (NPV) and breakeven of the cost to pass are directly related to the terminal penetration rate. For their models to work, most operators assume a 40–50 percent penetration rate. As the cost to pass increases, achieving a higher penetration rate is crucial to obtaining the target NPV for the investment. The higher the cost to build, the higher the required penetration rate. The difference in NPV between a 50 percent and a 30 percent penetration rate may well be the difference between a positive NPV and a loss.

Another challenge in achieving terminal penetration rates is the role that fixed wireless access (FWA) will play in siphoning off fixed broadband customers in these markets. FWA subscriber additions for T-Mobile and Verizon grew nearly eightfold from 2020 to 2021. Some regional fixed broadband operators have considered a dual fiber/FWA play that would use FWA to deliver broadband to customers where the economics for fiber don't work. That strategy is being tested as state and local governments seem willing to either subsidize or even create their own fiber broadband authorities to reach many of those same customers. Operators such as T-Mobile appear to be focused on adding FWA subscribers in markets where their network is underutilized. It also appears that their subscriber additions are more rural and suburban, which would match the demand and the capacity of T-Mobile to meet the demand. While the picture isn't yet clear on the longer term FWA play in these markets, it may create near-term penetration challenges for some fixed broadband operators.

Best practices for fixed broadband operators

Over the next several years, we're likely to see three types of fixed broadband operators: smallish "stranded" operators, large incumbent cable operators that will offer broadband and wireless services, and a handful of national or superregional rural/suburban operators. **Stranded operators** will mostly include the rural municipal broadband authorities in small markets that are not geographically adjacent (in terms of cost to connect) to larger markets. The **large incumbent cable operators** have a growth advantage in that they're successfully increasing their ARPU (and consequently revenue) through the bundling of wireless services with broadband offerings. These large cable operators will add broadband customers by upgrading their cable plant and selectively entering new markets. Over the next three to five years we'll likely see the emergence of **national and superregional operators** that will grow through a continued focus on buildouts, acquisitions of failed or underperforming regional operators, and mergers with other regional operators. These operators will achieve the necessary operating scale and have a large enough customer base to deliver attractive economic returns and provide additional growth bundling services, such as wireless and other services.

Today, operators need to prepare for the coming consolidation by focusing on best practices in costs, customers, scale, services, and partnerships to maximize long-term stakeholder returns.

To **transform costs**, operators need to improve the economics of cable upgrades, overbuilds, and greenfield deployments. Inflation, supply chain, labor, and geography are pushing costs higher, which in turn requires an operator to achieve higher penetration rates. Competitive pressures will challenge assumptions of 40–50 percent penetration rates and in turn put pressure on achieving positive NPV for the investments. The cost to acquire and serve subscribers is also increasing, putting pressure on net margins. Operators need to rethink their cost structure by applying a target cost mindset and then aligning operations to the target.

Going back to our simple revenue model of ARPU times subscribers, and the need to achieve a 40 percent penetration rate, acquiring and retaining customers takes more than just a rate card and good customer satisfaction scores. **Investing in customers** requires operators to elevate marketing, customer insights, and customer service to a leading position. Customers expect a truly seamless experience tailored to their specific needs, wants, and desires. An end-to-end customer segmentation model and treatment strategy will enable all functional areas to meet and exceed specific and evolving customer expectations. Success requires understanding customer archetypes (for example, gamers, surfers, streamers, workers) and then presenting hyperpersonalized offers to each. Marketing needs to tailor propositions aligned to each of them. Operations needs to understand where these groups live and adjust deployment plans to maximize subscriber uptake and create influencers within each market. Customer service needs to deliver an exceptional experience in a segment that has notoriously had low customer satisfaction.

Because merger and acquisition (M&A) activity is inevitable for the hundreds of regional operators, it's important to **prepare for scale** as operators acquire or become acquired. In both cases, understanding the actions necessary to maximize the probability of a successful transaction is essential. This involves having the right enterprise architecture, operating model, IT platforms, and culture. Operators that are prepared for M&As will be able to move more quickly and realize higher synergies; operational agility matters in this market.

Customers expect a truly seamless experience tailored to their specific needs, wants, and desires.

Once market saturation is reached, attention turns to organic growth beyond M&A, which will require operators to **deliver complementary services**. Already we're seeing companies such as Charter, Comcast, Cox, and Altice offer wireless services (in fact Comcast's wireless subscriber growth in Q4 2021 was higher than AT&T and Verizon's). Wireless is a logical extension of fixed broadband and allows operators to offer broadband bundles. Operators need to continue their efforts around value-added small and medium-sized business (SMB) services beyond distribution. As the digital needs of SMBs evolve and accelerate, communications providers are well positioned to meet the disparate needs of these organizations with tailored solutions. There are also opportunities to offer additional services to consumers, such as smart home and security. The key is to consider these complementary services in parallel to current activities to increase capital efficiency while also instilling the agility to move when necessary.

Operators should consider how selected partners could help with the four previous points and then **build partnerships**. This extends well beyond vendor management; joint solution development can unlock tremendous new value. For example, many operators use Amazon Eero products for their customers' on-premise equipment; what if an operator were to partner with Amazon on a fully integrated and managed smart home solution? Are there opportunities to partner with DIRECTV Stream or other streaming aggregators or services? Can operators partner with regional health providers on telemedicine? Or work with Alarm.com or Ring on security? In an example of how partnerships can create value, Charter and Comcast recently created a joint venture around Comcast's Flex streaming box to position themselves as a streaming aggregator. Another example is Verizon and Microsoft building a joint IoT platform leveraging each other's strengths. Creating an ecosystem of partners that works collaboratively to develop, deliver, and service customers not only creates new sources of revenue but also customer stickiness.

Preparing for consolidation

The fixed broadband market is one in which revenue growth is largely dependent on adding new customers. The total number of available customers in the US is constrained given the relatively anemic growth rate of the population and household formations. Since the potential customer pool is limited, fixed broadband operators are forced to go head-to-head in some markets. At the same time, wireless operators are offering bundled wireless plans that include fixed wireless access in many of these same markets. The competitive landscape may mean that achieving a 40 percent terminal penetration rate is a challenge. This is likely to adversely affect the smaller regional operators (who have relatively limited access to capital) more than the larger ones.

The tremendous inflows of capital created by both private and public investment have created a land grab. Every operator must think about protecting their incumbent customers in their existing markets from competitors while at the same time building out greenfield fiber to underserved adjacent or new markets. At the same time, the economic assumptions around average revenue per user, cost to pass, and penetration rates are changing. The likely outcome is that we'll see a smaller set of players in just a few years. Those that will survive need to prepare for this impending consolidation now.

The economic assumptions around average revenue per user, cost to pass, and penetration rates are changing.

Authors

Ken Quaglio
Partner, Washington, D.C
ken.quaglio@kearney.com

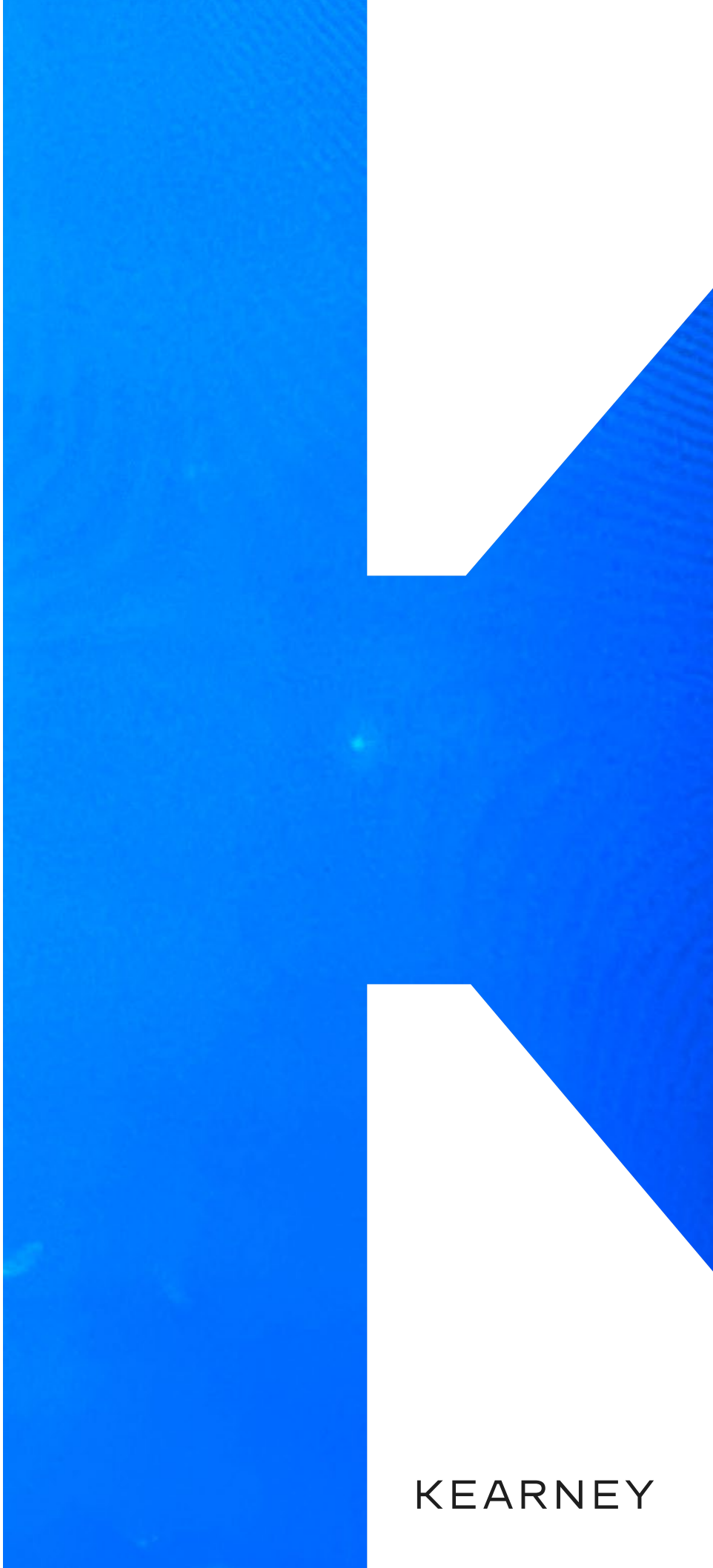
Owen Tracey
Partner, Dallas
owen.tracey@kearney.com

Anna Kraft
Partner, Chicago
anna.kraft@kearney.com

Chris Cortellini
Associate Partner, Atlanta
chris.cortellini@kearney.com

As a global consulting partnership in more than 40 countries, our people make us who we are. We're individuals who take as much joy from those we work with as the work itself. Driven to be the difference between a big idea and making it happen, we help our clients break through.

kearney.com



KEARNEY