Enterprises Cutting the Cord with 5G

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Until recently, "cutting the cord" was code for removing TV channel subscriptions from your cable, satellite, or broadband provider bundle. These operators were the only option if one wanted to watch premium channels like HBO or special events like the NBA finals. The advent of streaming services like Netflix, Hulu, Disney+, and others allowed folks to get their favorite shows at much lower costs. Over time, the streaming services started adding live events and special channels to their subscriptions, making it more attractive than staying with the traditional TV channel provider. They also added exclusive shows like *Stranger Things* and events like Chris Rock: Selective Outrage. Providing more content enticed TV viewers to move to the streaming app. A similar phenomenon now extends to the Internet service itself, making "cutting the cord" a euphemism for ditching the wired service provider.

Since home and enterprise Internet connections became a staple, wired connections were the norm for connections. Wireless connections from satellite and WiMAX were only used in pockets. Many towns had only one wired connection provider, giving the operator a monopoly in the region. It was analogous to the scenario in which the only option to watch TV was the broadband or cable provider. Limited wireless Internet was available from some providers in unique conditions over 4G/LTE. Operators were concerned about how the performance of cell phones would be affected if they overloaded the wireless network with home or enterprise Internet connections. They avoided using the 4G/LTE network for fixed wireless access (FWA). This changed with 5G.

Operators now have ample throughputs available over the 5G network. Many homes and enterprises have moved to 5G FWA for Internet connection. Over [one-third of operators](#) now have a 5G FWA offering. There were more than [100 million FWA connections](#) by the end of 2022, which accounted fornearly 21 percent of global mobile network data traffic. In the US, FWA services accounted for [90 percent of the net broadband additions](#) in 2022. This phenomenon is similar to the rise of streaming apps and consumers cutting the cord. 5G FWA brings many benefits identical to new channels, shows, and consumable options that streaming apps brought. Let us examine some examples to understand why enterprises in different verticals choose 5G FWA as their Internet connection.

Education

[Nearly a quarter of Americans](#) do not have access to a broadband connection. Almost [40 percent of schools](#) outside metropolitan areas lack broadband connections. The problem is worse in developing and underdeveloped countries, as [over one-third of the world's population](#) is offline. Many rural areas have been waiting for Internet service providers (ISPs) to deploy wired infrastructure. However, ISPs are reluctant to invest in laying cables, building towers, powering equipment, and supporting technicians as it is expensive. In many cases, even when wired broadband is available, households choose not to subscribe to it due to [high costs](#).

5G FWA has proved to be a cost-effective solution to address the digital divide. In Texas, the Harris County Public Library system formulated a new solution utilizing funds from the Emergency Connectivity Fund ([ECF](#)) grant. They delivered 40,000 5G mobile hotspots with data plans from a leading carrier. Library patrons and students can rent these devices from one of the 26 library branches and 20 community centers. These devices have found their way into the hands of students who are using them for online learning, families who are using these to pay their bills and access telehealth, small companies who are using these to run their business, interfaith ministries who are using these devices to teach refugees, and many other use cases. A forward-looking school district in Utah, Murray City School District, used the Citizens Broadband Radio Service (CBRS) spectrum to create a private LTE network for its schools.

These deployments are examples of the impact 5G FWA has in bringing digital equity into the education sector. These solutions cannot be accomplished with a wired network. Going cordless has allowed these schools to provide essential services to communities.

Live events

Everyone who has attended an event, such as a football game or concert, knows the pains of getting good Internet access in a packed venue. Reliable connectivity is required for box office operations from food and beverage point-of-sale (POS) to live streaming. As the event is compressed into a short window, wireline services from traditional operators are often not affordable or available. [Festifi](#) works with event producers to provide Internet solutions for events. At a beer festival in downtown Denver, Festifi learned that a wireline connection would require construction and would take 90 days to initiate service. They utilized 5G capable routers to build a WiFi network around the event. The solution provided them with an immediate ability to support numerous PoS terminals around the event and connect users even when the crowds grew. Since then, they have been using the 5G network to deliver connectivity to events nationwide.

Another example of using 5G around events is for law enforcement and first responders to have connectivity during significant events. One of the biggest athletic events, the Super Bowl draws hundreds of thousands of visitors to the host city and anywhere from 60,000 to 100,000 spectators to the host stadium. During last year's Super Bowl at SoFi Stadium, the Inglewood Police Department and the Los Angeles County Fire Department [used 5G](#) to communicate and coordinate safetyoperations.

5G FWA allows administrators to support high throughputs and dedicated feeds for video links to provide situational awareness and surveillance capabilities during significant events. Providing users with the ability to share their experiences with friends and family over the 5G network is a bonus. Cutting the cord for live event connectivity allows superior user experiences.

Critical infrastructure

A growing number of oil and gas, construction, utility, and energy companies are utilizing IoT devices to modernize their operations. These vital infrastructures must meet stringent security requirements. There is a need for high-performance and reliable connections in difficult-to-reach areas. The solutions should be able to monitor physical intrusion and environmental damage, provide the ability to upgrade software, allow privileged access management, and enable anomaly detection.

Spike Reply focuses on digital transformation projects' cybersecurity and data protection aspects. When a gas supplier in Germany required secure and reliable connectivity, Spike Reply provided a 5G solution. The solution allowed 24x7 infrastructure monitoring, ruggedized operation, redundant wireless connections, and uninterrupted connectivity. Definitive Computer Solutions LLC, an IT company in Pennsylvania, utilized 5G solutions to connect TuringAI's artificial intelligence (AI) people, vehicle, and object recognition offerings. The AI solution can analyze feeds from hundreds of CCTV cameras to automate and solve everyday security challenges. Most connectivity solutions could not meet the throughput requirements. 5G was the best viable option to provide high-throughput reliable connections.

Wireline solutions cannot meet the demands of critical infrastructure companies as the costs of pulling cables and fiber are very costly. Going wireless provides a viable option for these companies.

Retail

Rivian, Dick's Sporting Goods, Tractor Supply, and others understand the customer journey and are adopting innovative strategies to turn their brick-and-mortar stores into experience centers. Connectivity is critical to driving in-store traffic, providing a seamless shopping experience, fostering a robust brand connection, and creating lasting memories. Most stores today have wired connectivity. Any disruption to the wired network due to a fiber cut, network error, or human lapse will result in the store going offline. 5G provides an alternate method to keep the store always connected. Tractor Supply, Circle K, and AutoZone are using 5G to connect their stores. 5G can provide retailers with uninterrupted connectivity, elevated in-store experiences, access to real-time data, streamlined operations, and improved employee morale.

The deployments in these enterprise verticals demonstrate the superiority of 5G FWA compared to wired networks. Enterprises have a plethora of options to choose from when connecting their sites. Cutting the cord by selecting 5G to connect their sites provides instant connectivity, savings, and connectivity to all devices in the area without pulling cables or fibers to every device. The mobility, reach, and scale for connecting devices that enterprises gain from utilizing 5G far outweigh the benefits of wired networks.

Streaming content on the Internet was available much before streaming services were popular. However, two reasons made everyday folks begin cutting the cord in 2007-2008. One was the availability of Roku and Apple TV, which took streaming content from the computer to the television.Streaming services released apps on these platforms, putting content at people's fingertips. The other reason was the recession in 2007-2008, which forced people to find ways to save money. The same conditions are now leading enterprises to 5G. The availability, high throughput, and low latency of 5G make it easy for enterprises to switch. The current economic conditions are forcing enterprises to look into how to get cheaper connections everywhere. The enterprise 5G market is predicted to grow. An enterprise has to choose whether to stay with traditional wired connections or cut the cord and embrace 5G.