

## **FACT SHEET ON THE TECHNOLOGY TRANSITIONS**

There are two important transitions that are taking place that are being discussed in the Tech Transitions proceeding. One involves a change in the transmission technology and the technology supporting voice service, from TDM to IP, irrespective of whether the facility is copper or fiber. Unless addressed by the Commission, this could impact the availability of certain services, such as wholesale last-mile access and voice services, used by competitors to provide innovative and affordable service, such as Ethernet services, to businesses and non-profits of all size. Another concerns the replacement of copper facilities with fiber facilities. This can impact the availability of last-mile copper facilities with which competitors have also been using to create and provide affordable Ethernet services to non-profits and businesses of all sizes.

The technology transitions offer significant benefits to consumers, business customers and non-profits of all sizes. New technology enhances their ability to simplify their networks; transport critical business data securely and reliably among multiple office, branch, store, or campus locations; support high-bandwidth applications at a lower cost; and scale bandwidth as their businesses grow.

The need of competitors to reach their end-user customers through incumbent wholesale last mile access services is not altered by either the transition in technology or the facilities changing from copper to fiber. This access is especially critical in offering service to multi-location customers. Thus, by requiring reasonably comparable wholesale access provisions in a technology neutral tech transitions, the FCC will take an important step to ensure competition continues across all technology networks and platforms.

### **The Change in Transmission Technology and the Technology Supporting Voice Services.**

The change to IP technology is becoming more widespread. Specifically, for over a decade, competitive carriers have been transitioning their networks to IP technology, which is more cost-efficient and enables them to offer their customers more innovative services. In response, the incumbent carriers began transitioning the technology used in their networks. The technology transitions are an evolution in the networks not unlike other changes to the network that that have taken place in the past century. As discussed above, the transition in technology offers significant consumer benefits.

Competitive carriers have led, and continue to lead, the transition with new investments and service offerings.

### **What wholesale services are impacted by the change in technology to IP?**

Wholesale transmission (e.g., special access DSn services) and voice services (e.g., Wholesale Advantage and Wholesale Complete).

**Who is impacted and why?** Business end-users and non-profits, of all size, such as education centers, health care providers, school districts, fire fighters, financial institutions, chain restaurants, major retail chains and “mom & pop” companies. This is because, in order to reach their customers, competitive providers often rely on the incumbent telephone company’s “last mile” transmission and voice services. The “last mile” is the portion of the network that is most expensive to build. The ability to purchase incumbent telco wholesale services where it is uneconomical to build their own network facilities is essential to competitors’ ability to offer their end-users, particularly small businesses, the innovative and tailored services on which they have come to rely. If those last mile access and voice services are not made available on a wholesale basis at reasonable rates, terms and conditions, then competitive choice in the retail market will be limited. This is why a reasonably comparable replacement wholesale service is essential for consumers to receive innovative and affordable competitive services.

The importance of competitive choice in broadband providers to businesses and non-profits is demonstrated by the hundreds of letters from these entities to the Chairman of the FCC. The Office of Advocacy for the U.S. Small Business Administration aptly sums up the issue with the following:

“Competitive carriers have made a strong case that their ability to purchase wholesale access to incumbent networks is necessary to provide small business consumers with meaningful choices among various service providers for their broadband and voice needs. Competitive carriers offer services and products to small businesses that incumbent providers do not offer, and may lack the incentive to offer without any competitive pressure to do so. Current data shows that competitive carriers provide nearly one-third of the wireline services consumed by small businesses. Incumbent carriers should not be allowed to remove these choices from small business consumers by charging competitive carriers higher wholesale rates or demanding more onerous contract terms when modernizing their network technology. Competitive carriers and small business consumers have supported the continued investments of incumbents in our nation’s telecommunications infrastructure, and they should not be left behind as that infrastructure evolves. The FCC should ensure that small businesses will not lose access to affordable, tailored products that meet their unique needs.”

**What is needed?** As a start, a clear articulation of the law that an incumbent carrier is required to offer a reasonably comparable wholesale service when it discontinues a legacy wholesale service. In other words, that the status quo for wholesale access is preserved as the Commission analyzes relevant markets for these services.

**Change in Facilities.** The incumbents also have begun replacing some of their copper facilities with fiber facilities.

**What service is impacted?** Ethernet-over-copper

**Who is impacted and why?**

Again, business end-users and non-profits, particularly small and medium sized businesses. Access to the transmission medium has enabled competitive carriers to offer more affordable Ethernet to small and medium-sized businesses over copper facilities. Specifically, the home run bare copper loop provides a basic transmission platform that can, with electronic modification, become broadband facilities. Competitive providers have, through innovation, developed technologies to use the copper loop infrastructure to support broadband deployment at ever-increasing transmission speeds. This has facilitated a degree of competition and more affordable offerings in the Ethernet market, particularly for smaller businesses—often providing 100 Mbps offerings.

**What is needed?** Changes to the Commission’s copper retirement rules are necessary to ensure that competitors utilizing copper loops have sufficient time and notification to transition their own retail customers to replacement facilities or give their customers time to switch to a different service provider that will be able to continue to provide them service when copper is no longer available from the incumbent telco.