The Role of the Local Transport Provider

Focusing on network operators as local transport providers makes the open-access business model easier to understand – and highlights some of its advantages.

By Andrew Cohill / *WideOpen Networks*

Open access has to be one of the most misunderstood concepts in the telecommunications industry. Open access is a business model just as triple-play is a business model. However, many explanations of open access are just plain wrong, and some border on being hysterical.

The most common misconception is that open access is synonymous with local government's directly competing with private sector providers at the retail services level. Nothing about the open-access business model requires government involvement or government ownership of the network. Some private networks operate on an open-access model.

It is a very simple business model that has network neutrality built in: Buyers of services can pick and choose from a wide variety of service providers and services rather than being chained to the offerings of a single, de facto monopoly provider. No regulation is needed because the model creates a competitive marketplace inherently.

A second misconception is that an open-access network is unfair because it competes with existing incumbent and competitive providers. The fast-food equivalent of this argument would be that it is unfair for a Chipotle to come to a town that already has a Wendy's and a Burger King.

Another frequent criticism is that open access "does not work" or "is unproven." With some open-access networks in the U.S. in business for eight years or more, and after many open-access successes in Europe, that myth is getting a bit old.

The open-access business model is straightforward: A network owner/operator provides local transport to several independent, private-sector service providers. Each provider offers multiple competitively priced services to its own customers. Network revenue is derived from fees collected for transporting service provider traffic locally across the network from the service-provider entry point on the network to retail customers.

I believe much of the confusion arises from the fact that, in most networks, the network owner, the network operator and the service provider have all been the same company. As an example, Comcast owns its network, operates its network and is the sole service provider on its network – this is called vertical integration.

Open access has no such requirement. An open-access network unbundles the

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physical network from the services carried over that network. People have become so used to having the network and service provided by the same company that it is sometimes a struggle to remember that that approach is only an artifact of very old technology. The copper twisted pair deployed for phone service was capable of delivering only one thing: voice phone calls. Copper coaxial cable was capable of delivering only TV content.

The development of high-performance fiber and wireless network technology and the concurrent development of Internet (TCP/IP) protocols made building a separate network for each service unnecessary. Voice, Internet and video – along with many other kinds of services – can be carried over a single, high-performance network.

In fact, building a separate network for each service *provider* is no longer necessary. A modern fiber or wireless network can easily transport the services many different providers offer; buyers can pick and choose the services they want based on the cost and quality of each service.

Open-access networks unbundle transport of the services from the services themselves. The network owner/operator is *not* a service provider. Instead, the network owner/operator function needs a new term: "local transport provider." Note that although the term "local transport provider" functionally includes both the owner role and the operator role, the owner could outsource operations – but from the customer and service provider perspective, the local transport provider includes both the owner and the operator.

Why a new term? It eliminates the confusion between what a service provider does in an open-access network and what the owner/operator does.

I have made lengthy presentations to service providers about how an open-access network represents an opportunity for them, and at the end of each presentation, the very first comment is frequently, "So the network is going to compete with me." Again, this arises from the entrenched, vertically integrated business model in which the network owner is a service provider.

DEFINING THE LOCAL TRANSPORT PROVIDER ROLE

Identifying the owner/operator role formally as the local transport provider solves two problems. The first problem it solves is that it differentiates between the open-access business model and the role of the owner/operator. "Local transport provider" accurately describes what the owner/operator does and clearly differentiates the owner/operator from the service provider.

An LTP delivers the data traffic of service providers from a common provider meet point on the network to a customer purchasing the service.

Second, defining the role of the local transport provider helps clarify the five parts of a modern open-access network:

- Network infrastructure
- Local transport provider
- Service providers
- Services
- Customers.

The **network infrastructure** is required to deliver services from service providers to customers.

The **local transport provider**

Local transport providers help lower Internet backhaul prices for service providers by aggregating demand, thus improving the business case for long-haul transport providers.

manages the network infrastructure and ensures that each service provider has adequate bandwidth and network quality of service (QoS) to deliver each service consistently to each customer.

Service providers contract to use the network infrastructure to sell a variety of **services** at various price points to their own customers.

Customers buy the service or services of their choice from one or more service providers that use the network infrastructure.

The local transport provider has several important roles and responsibilities in providing a high-quality experience for both providers and their customers. The LTP provides professional day-to-day management of the network, offloading that work from the service providers. Typical work activities include

- Monitoring and supporting the network
- Managing and repairing the outside plant
- Managing switches and routers
- Tracking and managing assets
- Adding, changing and removing circuits
- Setting up new customers
- Supporting trouble and service tickets
- Provisioning new services
- Installing and configuring equipment
- Tracking customers and providing billing information to service providers
- Attracting and managing service providers
- Producing reports on customers, revenues and network performance.

When an LTP provides professional management of a modern broadband network, service providers can focus on delivering high-quality services and more kinds of services at a low cost because the LTP costs are now shared among many providers and services rather than being borne by just one provider with two or three services.

NO BACKHAUL NEEDED

As my company designs and builds local transport networks, we are frequently asked, "Where will the LTP get backhaul?" LTPs haul bits from point A to point B. An LTP does not have to have Internet backhaul.

LTPs do not need backhaul because they are not Internet service providers. Put another way, an LTP is a bandwidth (broadband) provider, not an Internet provider. Unfortunately, many people use the terms "Internet" and "broadband" interchangeably even though they are two different things. In the roads analogy, broadband is the single, high-performance road network, and the Internet is one of the trucks that use that road.

That is not to say backhaul is not an issue, as the service providers that use the LTP network still need backhaul. Many small and rural communities still lack competitive pricing on backhaul, though consolidation in the long-haul business has really helped – more and better backhaul options have become available recently in rural areas of the U.S.

Why this happens is very simple: a single, high-performance, open-access network aggregates demand in a way that having several providers, each with its own private network, disaggregates demand. With a large local market of users available, it is easier for long-haul providers to make the business case to provide local access to their networks.

Introducing an open-access network to a community usually drives backhaul prices down or creates an opportunity for a long-haul provider to open its fiber cable in that community. LTPs aggregate demand and help improve the business case for long-haul providers. My company is building new, modern, LTP networks in two rural communities right now, and in each community, the existence of the LTP has brought about dramatic improvements in backhaul.

OPPORTUNITIES FOR NONTRADITIONAL PROVIDERS

The existence of a local transport provider and the accompanying network infrastructure creates other new opportunities as well. When a network is unbundled from services and service providers, smaller local and regional service providers can compete very effectively against larger providers.

The existence of an LTP-managed network also enables new business and service opportunities for nontraditional providers. A service provider could even sell services locally that don't need IP backhaul. As an example, a local entrepreneur could set up a business and residential data backup service. With the data storage locally attached to the LTP network, the business requires no IP backhaul at all. The LTP provisions circuits that directly connect the local data storage with local customers and can transfer the data at the maximum data rate of the physical connection if needed. On new fiber networks, in which gigabit physical connections are standard, most of the network capacity could be turned over to services such as this at off-peak times (for example, midnight to 6 a.m.).

The local transport provider concept simplifies and clarifies just what open access offers to both service providers and customers. ❖

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