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Reader Forum: Five rural operator strategies for seizing LTE opportunities

Posted on 28 January 2013 by by Brett Calder, Director of North American wireless operations, Globecomm Systems. Tags: [backhaul](#), [Globecomm](#), [LTE](#), [mobile operators](#), [OSS/BSS](#), [wireless carriers](#)

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***Editor’s Note:** Welcome to our weekly Reader Forum section. In an attempt to broaden our interaction with our readers we have created this forum for those with something meaningful to say to the wireless industry. We want to keep this as open as possible, but we maintain some editorial control to keep it free of commercials or attacks. Please send along submissions for this section to our editors at: dmeyer@rcrwireless.com.*

LTE brings a variety of new opportunities, but also sophisticated requirements and issues for which operators should plan. Operators’ challenges range from 700 MHz B-Block “use it or lose it” requirements, more policy- and quality of service-intelligence in network services, backhaul capacity demand and device procurement issues. The opportunities, however, range from fulfilling pent-up rural demand for broadband services to providing enterprises with access to their cloud-applications in remote areas. Here are five strategic inputs rural operators can consider as they prepare to enter the LTE marketplace.

1. Protect and maximize spectrum licenses

The FCC’s June 2013 deadline for operators to serve 35% their 700 MHz territory is looming. Though the Competitive Carrier Association fights for an extension, rural operators can lose two years off of their licenses if they can’t overcome equipment procurement barriers. That said, covering 35% of one’s territory doesn’t always mean serving subscribers; lighting up towers and completing test calls is enough.

Hosted network providers can offer a path to meet the Federal Communications Commission’s deadline. Rural operators can investigate

pre-launch services to meet the basic coverage requirements. A hosted operator can help to implement base stations rapidly, cover 35% of an operators' territory, power it and complete test calls. In turn operators have more time to acquire gear and execute launches while protecting their spectrum licenses from the deadline.

Because 700 MHz spectrum is a finite resource, it must also be protected in terms of how it is utilized. Wireless broadband demand has proven to consume spectrum rapidly. As rural operators build out LTE networks, capabilities like QoS management, real-time policy enforcement, and analytics attuned to managing spectrum demand should be part of any operational plan. Once again, hosted providers can offer rural operators these back office capabilities while bolstering their network and backhaul resources in anticipation of aggressive growth.

2. Utilize a roaming-quality core

As 3G and "4G" have entered the mobile environment, a dampening effect for rural roll outs has been the reluctance among national operators to qualify smaller roaming partners. This can cut rural operators out of traditional roaming revenue, particularly because meeting large operators' backhaul and core network access requirements carries prohibitive costs. But there's no reason for rural operators to take on the expense of replicating roaming-qualified core networks. Access to "foreign" networks that are roaming-approved can be leveraged at a low cost. Using these leased services not only positions rural operators to capture LTE roaming revenue, but also allows it to defer backhaul expansion costs as broadband traffic, particularly that bound for the Internet, increases.

3. Offload Internet traffic and reduce transport costs

Moving Internet traffic on and off of interstate backbones creates one of the most cumbersome costs a rural operator faces with LTE. The broadband-based applications common to LTE environments, such as over-the-top video and gaming apps, generate significantly more of this kind of traffic. Having an effective offload strategy is critical.

First, in cases where microwave or fiber backhaul isn't available or feasible rural operators can consider using LTE for short-range backhaul and restrain some cost. More importantly, rural operators can lease access to local gateways that provide proximate access to the public Internet. Rather than backhauling all traffic to a central point, operators can diffuse it, protect their backhaul networks and reduce the build out expenditure by offloading Internet traffic locally. Rural operators should consider on-net transport partners who can provide local gateway access as well as a reduced cost to move traffic on and off interstate backbones.

4. Infuse network services with greater OSS/BSS-based intelligence

Over-the-top applications require greater capacity and quality management to protect customer experiences and to manage capacity. An important part of LTE operations will be to identify traffic content and handle it proactively to identify where demand is heaviest and provide quality where it's needed. Real-time policy management, deep packet inspection and analytical applications are all necessary OSS/BSS capabilities for rural operators to deploy along with LTE services.

The upside is that the OSS/BSS intelligence needed can create opportunities with large enterprises. Enterprises require more data, visibility and control over their traffic. They are willing to pay a premium for it because their core business processes rely more on mobility as they need unfettered access to cloud-based applications. While complex OSS/BSS capabilities can be expensive and challenging for rural operators to implement, they are now easily accessible through hosting partners. Because these necessary OSS/BSS capabilities are re-sellable as value added services to enterprises, they're not just an additional expense. They provide a basis for additional revenue as QoS, proactive monitoring, on-demand capacity management, big data, and other related services that are relevant to enterprises and cloud-application providers.

5. Leverage collective device purchasing and certification

LTE introduces a range of new devices that can be expensive to procure for small operators who don't generate enough volume to take advantage of optimal pricing. LTE devices also can be costly to certify because of more stringent LTE interoperability requirements.

Rural operators have an opportunity to access collective purchasing and certification resources through hosting partners. In turn, they can gain necessary advantages such as greater margins and pricing flexibility on devices; lower ongoing cost and effort to certify and support new devices; and an improved ability to focus on selling and marketing devices rather than struggling with procurement and certification.

Focus on LTE's upside

LTE creates new business opportunities for rural operators because it converges mobile and broadband. Rural operators can meet pent up demand in consumer markets and profit from enterprise trends in cloud, mobility and big data. These five strategic considerations should come into play as rural operators work to overcome LTE's requirements, optimize costs and economies of scale and maximize revenue opportunities. With the help of an appropriate hosting partner, rural operators can access many resources they may not have the capital or scale to own in-house and focus on seizing the revenue opportunities those expanded resources create.