

Wholesale Disruption - Our Q&A With LightSquared

Pipeline's Interview with Frank Boulben, CMO at LightSquared

This issue of Pipeline is all about the impact that end-user demand places on the network. However, is it possible for a network to have just as drastic effect on the end-user? That is to say, can an entirely new way of looking at networks and service providers fundamentally change the face of wireless service in one of the highest-ARPU markets in the world?

LightSquared is betting that it can. The wholesale network operator is in the process of rolling out its network in the United States, and we spoke with Frank Boulben, LightSquared's CMO, about the state of the company and his hopes for its future. With a background that includes time at Vodafone and Orange, Boulben knows a thing or two about traditional wireless carriers, and he seems assured that LightSquared is a whole new ball of wax.

Pipeline: LightSquared positions itself as the first truly open, wholesale-only network: What does that mean, and what is the significance of that business model?

LightSquared's Frank Boulben: Unlike all wireless carriers in the world, we won't be investing in creating a brand, maintaining retail stores, building call centers, subsidizing devices, etc. What represents,



traditionally, half of the value chain of a wireless carrier, we are not going to do. We are going to concentrate on doing one thing well, which is operating a 4G LTE network. The capacity from that network will be sold on a wholesale-only basis to a variety of customers. Those customers will be existing wireless carriers, and we've already signed several of them, which either haven't got 4G spectrum at all, or haven't got it nationwide, or haven't got enough of it. So that's our first category of customers. We'll also be selling to a wide variety of companies interested in offering wireless services to the end user. These could be wireline companies, they could be cable operators, and they could be retailers. We just announced a deal with Best Buy a few months ago. They could even be device manufacturers, web players, or consumer electronics players. So any company wanting to sell connectivity to an end user, or any company looking to embed connectivity into a device, like Amazon does with its Kindle, can buy wireless capacity from us. They can do so at single-digit-dollar-per-gigabyte rates with volume discounts. Its commodity pricing.

Pipeline: And that's something that isn't available currently?

Boulben: Unlike what exists on the market today, which is typically a retail-minus type of pricing, wherein a carrier will say "Okay, I'm selling this plan for \$55/month, so I'll sell it to you for \$55/month minus 25%". We are not doing any of that. We are taking a very simple, commodity-like approach. This means that for the first time, there is a wireless carrier selling connectivity on the wholesale market without competing directly with its customers. When you're a traditional wireless carrier with your own brand and your own customer base, you don't want



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your wholesale customer to be too successful or else they begin to threaten your customer base. In our case, we are successful only if our customers, like Best Buy, are successful. Our fate is aligned with that of our customers.

In addition, our network is completely open. If our customers want to offer VoIP, P2P, video streaming..., we still charge them only for the amount of data they used on the network. netTALK, for example, wanted to replicate in wireless what they are doing in wireline, and we were the only carrier they found that offered such a wholesale proposition.

Pipeline: It sounds like a compelling business proposition for your customers, but what was the motivation for creating LightSquared as a company that operates in a purely wholesale capacity, and are you concerned in any way that there could be a lower earning potential than a comparable retail carrier might possess?

Boulben: We saw a situation in the United States in which the demand for mobile data was growing exponentially. In the next 5-7 years, wireless data traffic in the US will increase fifty-fold. That growth in data traffic is generated by the penetration of smartphones and tablets, and by the increased usage enabled by 4G (greater speed and reduced latency). What is of particular concern in the US is that there isn't enough spectrum to satisfy this exponentially growing demand. The FCC is talking about a shortage of 500 MHz spectrum. All of the carriers say that, in the midterm, they don't have enough spectrum to satisfy such growing demand. We are going to implement additional capacity with our 59 MHz of spectrum. But why sell wholesale? First of all, the wholesale market in the US is underdeveloped. When you look at the wholesale market around the world, you see many more successful MVNOs than in the US. You see companies like Tesco in the UK or ALDI in Germany, who are very successful retailers which have become MVNOs. The cable operators in the UK or the Netherlands are also successful MVNOs. Dell is an MVNO in Japan. So we realized the US wholesale market was underdeveloped. On the revenue side, prices and levels of profitability are extremely high. If you combine the two—no wholesale market and a price umbrella—there is real opportunity in the US wholesale market. There are plenty of players looking to get into the wireless market who could serve the

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end user in a much more efficient manner than existing wireless carriers. If you go to an Apple store, you can get everything: the device, the training, and you can pay for services using your iTunes account. The only thing you can't get is connectivity. Device manufacturers like Apple would like to be able to offer an end-to-end customer experience. We could enable them to provide that.

So it's a great opportunity for us in terms of return on investment. Being a retail operator is much more expensive. You have to establish a brand, build stores, and subsidize devices. You have to look at your acquisition cost and your churn rates. We don't have to worry about these things. If you look at our business model, it's much more similar to a tower company than to a traditional wireless carrier.

Pipeline: How large is LightSquared's network?

Boulben: Well, our network is not deployed yet [laughs]. We are in the early phases of deployment, but our network will eventually cover 260 million POPs, minimum, by 2015 to meet our FCC requirements, though we intend to go beyond that. We are crafting our network so it will have the best quality of service in urban areas, with excellent indoor penetration. We are building more towers than we need to deliver that. Our network will also integrate satellite coverage. We launched our first satellite last November. That means we'll be able to offer coverage in 100% of the US territory, coast to coast. If you're in the middle of Yellowstone, and have no access to network coverage, you can switch to satellite mode and make a phone call or send a text or an e-mail. And you'll be able to do that with a device that is no different from a regular cell phone. That's due to our partnership with Qualcomm, which integrated the satellite protocol onto its 4G chipset, and also because the satellite we launched has the largest reflector of any commercial satellite, so you don't need a special antenna on your device to

communicate with the satellite.

Pipeline: What is the rollout timeline?

Boulben: Our FCC milestones are: 100 million POPs by the end of 2012, 145 million by the end of 2013, and 260 million by the end of 2015.

Pipeline: Network complexity can stymie even the most seasoned wireless carrier: How is LightSquared preparing to handle increasingly complex end-user demands, given its unique business model?

Boulben: I've been in the industry for 20 years, and our network is the simplest I've ever seen, from an architectural standpoint. Our network is a flat IP architecture. We will not invest in service platforms. Our customers will be able to run whatever they want on our network. Skype. Mobile VoIP. Netflix. Any type of application. Our network provides only the transport layer. It's really a high quality pipe, but it's just a pipe. We are not investing in services. We will leave that to our customers and our ecosystem partners.

Pipeline: So operations and business support systems like provisioning, activation, billings, charging, etc., are not built in to your network?

Boulben: All of these things will be much simpler in our network architecture, but it will be our customers who are investing in the aspects of OSS and BSS that touch the end-user, not us.

Pipeline: How about network monitoring and fault management? How does LightSquared manage those?

Boulben: We have announced an outsourcing deal for our network operations with Nokia- Siemens Networks.

Pipeline: They'll handle all network operations for LightSquared?

Boulben: Yes.

Pipeline: How disruptive do you think LightSquared will be to the business models of traditional wireless service providers?

Boulben: We will be disruptive on the wholesale market because we are going to enable a number of newcomers to enter the wireless market with 4G. That's one disruption. Another is that we're going to

If you're in the middle of Yellowstone, and have no access to network coverage, you can switch to satellite mode and make a phone call or send a text or an email.

enable our customers to take full advantage of VoIP. Finally, we'll be the first to facilitate integrated service between terrestrial and satellite. Those three things will no doubt be disruptive on the market.

Frank Boulben Bio:

Frank Boulben is the chief marketing officer of LightSquared. In this role, he oversees strategy, marketing, and partner development for the first-ever wholesale-only open broadband network that uses an integration of terrestrial and satellite technology. Prior to joining LightSquared, Frank was global director of commercial strategy for Vodafone Group, where he was responsible for the company's wholesale roaming business as well as its pricing, customer investment policies, and strategic management. He joined Vodafone in 2007 as the new business development director. Previously, Frank was the executive vice president of brand and consumer marketing for the Orange Group.