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AT&T's Randall Stephenson: aggressive ramp of LTE to challenge Verizon's early lead

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In an exclusive interview, AT&T's CEO Randall Stephenson admits that Verizon Wireless has an early lead on LTE but says it will catch up, and its HSPA+ back-up makes more sense. Interview by Alan Burkitt-Gray

AT&T plans 'aggressive ramp' of LTE to challenge Verizon's early 4G lead

Stephenson: HSPA+ gives broadband coverage at 2-3 megabits across the US, with LTE available to 70 million by the end of 2011

AT&T chief Randall Stephenson has responded to Verizon Wireless's plans to launch LTE by starting a 4G speed war in an interview with Global Telecoms Business.

In an exclusive interview with GTB, Stephenson says AT&T will cover 70 million people across the US by the end of 2011 — and has a significant advantage over Verizon Wireless, because AT&T already has a fast 3G network that will provide a broadband wireless service outside the 4G LTE coverage area.

"The one thing you have to avoid is for customers on a six to seven meg [LTE] experience to fall back to something sub-meg," says Stephenson. "It's very important to have a 3G layer with the 4G on top. The beauty of this is the handsets are forwards and backwards compatible."

AT&T has already upgraded its 3G network to HSPA running at 7.2 megabits a second, says Stephenson, "and we're now on path to have HSPA+ largely deployed throughout the country by the end of this year". This will run at up to 20 megabits. But Verizon Wireless's 3G network, which runs on the Qualcomm EV-DO standard, is slower than HSPA, he says.

Stephenson was talking to Global Telecoms Business within days of Verizon Wireless's long expected announcement that it would launch in 38 metropolitan areas in the US, with services available to one third of the population.

Stephenson admitted that Verizon Wireless "has been very aggressive" with its LTE plans. "But we have a very elegant path, just working the [HSPA] speed up and up while you're working to get the LTE ramped, and then you step off to LTE."

So at 70 million by the end of 2011, 22% of the population, AT&T is more than a year behind Verizon Wireless, but he promises "a very aggressive ramp" in 2012 and 2013. "When you think of a three to five year horizon, between us and Verizon I don't think there will be a whole lot of difference," says Stephenson. "They will obviously take a lead as you move into 2011, but they are a little more incentivised to move faster, because their architecture, CDMA, does not have this upgrade path that we're talking about."

That's because it's the compatibility between HSPA and LTE that is key, he suggests: both are members of the same GSM family of technologies, and the GSM industry has ensured that new terminals will work on previous generation networks.

"The one thing you have to avoid — we've learned this with 3G — is the whiplash," he says. By this he means the reaction of a customer who drives out of the 4G coverage area and confronts the reality of an older, slower network.

Ethernet to cellsites

That's why, he says, AT&T has been focusing on deploying HSPA+ "broadly and ubiquitously throughout the US" a the same time as "investing very, very heavily in fibre to the cellsites, [using] native ethernet to the cellsites".

This means that there is "a broad layer" of good broadband coverage, with two to three megabits a second "across the US", with "the LTE capability on top of that". Most of the US has been covered with

HSPA+ in 2010, but "there are a few places left to take care of next year", he adds.

How fast will LTE be? Stephenson is candid: "When you get these networks fully loaded they're never going to go as advertised," he says. But, then, he adds, neither is HSPA.

"If you take HSPA+ and you go out to west Texas and put two people in a cellsite you can get 20 meg. Take HSPA+ and put it in downtown Manhattan and you load a cellsite, even with fibre backhaul, probable the best you're going to get is two to three meg. LTE will be the same thing. Take LTE out to west Texas and you can get 50 meg. You load these things up and you're not going to get that kind of performance."

But "even on a loaded basis", the new network should produce "a fairly broad LTE experience at six to eight [megs] and then a backstop with HSPA+", says Stephenson. "We think that is a very, very compelling proposition for a lots of the new services we're going to be rolling out, that the industry will be bringing forward."

AT&T will spend an estimated $18-$19 billion on capital expenditure in the current financial year, about 15% of revenue that was $123 billion in the last financial year, but Stephenson is unwilling to say how much of that sum is going on LTE.

"You would expect our capital spending as a percent of revenues to continue to run for the long haul in the mid-teens range," he says. "What you're seeing is our fibre infrastructure investment decrease, our 3G investment decrease. That will be replaced over the next couple of years by 4G investment as well as spectrum acquisition — and we're going to be acquiring spectrum for a long time."

Spectrum is key, and US government decisions on how it is allocated will probably affect the structure of the industry there, he suggests.

"The resource that is most instrumental in making mobile broadband a reality at high levels is spectrum. It is a limited resource. The government is doing everything they can — they're moving fast. The government recognises that this is an issue that will serve as a governor or limiter of where this industry can go. They're working hard to get more spectrum."

But Stephenson worries that this spectrum is divided up between a number of large players and so is "probably not the most efficient way to deploy that spectrum. When you carve it up among multiple providers it is probably the least efficient means for allocating spectrum."

Operators need continuous spectrum to deliver broadband wireless effectively. "Four and five, even, large scale national providers and a couple of lower-end providers is probably not a rational structure in an industry with this kind of capital intensity. So I envision that over time you will see structural changes in the industry," says Stephenson. "It's economic gravity."

Following the icon

Stephenson has been chairman and CEO of AT&T since 2007. He took over from Ed Whitacre, the man who was largely responsible for rebuilding the company from the original break-up of the Bell System back in 1984, when AT&T was hived off from seven newly independent regional operators as a long-distance and international company. Whitacre "was like the icon of the industry", says Stephenson.

"What you're seeing is our fibre infrastructure investment decrease, our 3G investment decrease. That will be replaced over the next couple of years by 4G investment as well as spectrum acquisition — and we're going to be acquiring spectrum for a long time."

His predecessor became CEO of one of those regional operators, Southwestern Bell, in 1990, renamed it SBC and took it through an energetic series of acquisitions, including AT&T itself in 2005, taking over the name as well as the company, and then finishing off by buying neighbouring regional operator BellSouth in 2006.

Stephenson also goes back to Southwestern Bell. Born in 1960, he joined in 1982 in the company's IT organisation in Oklahoma. He spent time in Mexico City looking after SBC's interest in Telmex, and later became the company's CFO. He was COO for three years, responsible for all wireless and wired operations, before becoming CEO.

So despite his consuming enthusiasm for wireless broadband his background gives him considerable understanding of the fixed world — another area where AT&T is competing vigorously with Verizon, though in a different way.

While both giants offer mobile coverage across most of the main US markets, because of the way the industry was broken up in 1984 AT&T runs the local fixed network in some parts of the country, Verizon in most of the others, with Qwest — now becoming part of CenturyTel — in some other states.

Industry-changing U-verse

Both AT&T and Verizon have their own characteristically different strategy for fixed broadband. Verizon believes in fibre to the home, a project called FiOS; AT&T is rolling out U-verse, which installs fibre to a neighbourhood node and then uses high-speed DSL over copper into customers' homes.

"We launched it five years ago and it was industry-changing," says Stephenson. For many years the industry was wondering "how do you build a pipe to a large number of homes with enough speed to accommodate multi-channel multi-streaming video?" he says. "In 2001 I asked our chief technology officer if we would ever be able to multi-stream video over copper — and he said 'never, because the physics won't allow it'."

But the CTO was wrong, says Stephenson nine years later. "Today, over copper cables, we are streaming four simultaneous high-definition video streams into homes, plus 15-20 meg of broadband speed, plus voice service."

By the end of 2011 AT&T plans that U-verse will be available to 30 million homes, compared with 15 ▶

"Tomorrow's game is the tablet environment… The capabilities of those tablets are causing everybody to pause and say what does this mean as it relates to media, as it relates to video, as it relates to any number of things — healthcare and so forth."

million or so now for Verizon's FiOS and a maximum, according to current investment plans, of 18 million.

U-verse "continues to have an upgrade path, because we use IP to deliver video streams", says Stephenson. "Everything we do is on an IP layer — our video service, our broadband service is an IP product, even our wireless service is an IP product and our enterprise business." It is all using a standard architecture.

"It gives us a wonderful opportunity to scale and create new services that cross all of these platforms. That's what you're going to see — we have an award-winning video product, but with IP there is the opportunity to integrate other services."

For example, U-verse customers can now buy U-verse Mobile: "You can receive the same capability on your mobile handset. In fact your mobile handset while you're sitting at your TV can serve as your remote control," says Stephenson.

And if the 20 megabits fixed link to your home is not enough, "we have pair bonding to take your speeds up," he says. "There's a long way to go — we're very excited about it."

AT&T is not saying no to fibre to the home. "It will be selective. That's the beauty of IP. I don't care what the transport mechanism is. I don't care if it's copper, I don't care if it's fibre, I don't care if it's wireless. IP is IP. You use whatever transport mechanism you need. You just change the transport medium. You don't have to change the operating system, you can be very targeted and selective."

Competing with cable companies

Stephenson is clearly proud of the results of the investment. AT&T says that U-verse "is the fastest growing TV provider in the country, with more TV subscribers added than any of the major TV providers reported in 2010". The company says it has added more TV subscribers than any of the major TV providers reported for the past five consecutive quarters.

In its territory, it is gaining at the expense of the cable operators — the companies that are challenging AT&T with local phone services in many regions. The service gained nearly three-quarters of a million subscribers during the first three quarters of 2010, says the company, while the major cable providers combined lost just over a million subscribers.

Since Stephenson took over three years ago "the change I have witnessed has been radical", he says. But, "as radical as the growth has been, as radical as the adoption curve has been, I believe we are at the very beginning, the nascent stages of where this will go."

For the past three years the industry has ridden the the smartphone curve. "We're at about 60% penetration — and that probably goes to 80. But smartphones are probably yesterday's game," he says.

"Tomorrow's game is the tablet environment. These tablets are really beginning to move very quickly. The capabilities of those tablets are causing everybody to pause and say what does this mean as it relates to media, as it relates to video, as it relates to any number of things — healthcare and so forth."

We are at the very beginning, he notes. "To all intents and purposes there has been only one broad-scale launch of a tablet" — the Apple iPad — "and there are several coming out this holiday season", he says. "This is going to explode, the whole tablet environment."

And he's particularly enthusiastic about medical applications. "When you think of a 10-year time horizon, I think the way your body is diagnosed and your body is treated, wireless connectivity will be a dramatic part of how that is done."

Not just tablet devices and smartphones for monitoring health, but, he adds, "there are scientists who are working with the idea of cells we inject into your body that have wireless interconnectivity that allow not just diagnosis within your body but treatment within your body. Think about where this goes."

Back to the present, given what he's said about the attractions consolidation has in the US market, what does Stephenson think about the worldwide structure of the industry?

Global providers

"I do believe you will begin to see global consolidation," he says. "It will make sense to have a handful of global providers that can offer wireless connectivity to key mature and emerging markets."

When? "I can't give you a timeframe," he says.

Will AT&T have a role? "Obviously AT&T would have to look at it because we are a premium player in the largest economy in the world and it would only make sense to leverage that in other parts of the world." But: "We don't comment on M&A."

And how does Stephenson see his future at AT&T? Will he last as long as Whitacre? "I'm very early in my tenure here, I hope," he says. "I think I would be bored out of my mind in any industry other than this one. There is not another industry that has the technological challenges, that has the global scale advantages, the labour issues. It's a very, very stimulating industry. And I just love it dearly."

What haven't we covered? "Did we talk about mobile broadband?" he says. ■