

5G Tech Talk; Q&A

Q: Are there any signal penetration issues due to smoke?

A: With the last situation, VZ did not have any issues with smoke.

The biggest problem VZ had, with the Cal Fire, was an incident where a unit got throttled, down at a fire. What they didn't tell you was what really happened. What really happened was that [an emergency response] unit went down there and gave everybody their password and they hit 25 gigs in a day which, with their old system—due to Net Neutrality—they had to stop people from gaming and videos, so 25 gigs was kind of the cutoff and they throttled people out of the system. The people who were inconvenienced called Customer Service on a Saturday and complained about being throttled and asked what Verizon could do, and the response was “you simply need to go to a different plan” because the State of California rejected the Unlimited Data Plan because they did not feel they needed the Unlimited Data Plan. So, because of that situation, VZ now has true unlimited data plans for public safety. And they're not set up to where there's a fire, so VZ is going to offer that all the time. VZ has priority service and other things like that so it's just a matter of letting them know. Fire, police, they're working with [ECSO](#); that does accede to other areas like City Council and things like that. Because when VZ has an incident, it's not just the Fire [Dept.] making decisions, sometimes, you have to ask somebody...a public official...to give the O.K. so VZ needs to make sure they're on those plans, too. As you go through this stuff, whenever you have emergency planning meetings, give VZ a call and they'll come and present their services; let VZ work with you on that plan and show you what Verizon can do for you because you need to know who to call and what's going on.

One example of how VZ's Research Team has stepped it up: A call came in 2-3 days ago when they had an earthquake off the coast, and the caller asked if we needed anything...we just had an earthquake. VZ Rep asked, “what are you talking about?” Caller: It was 150 miles off Gold Beach. VZ Rep pointed out that the location is way out there...nobody cares about that! VZ Rep called Coos County and they laughed at him. But, they're paying attention. They're trying to reach out to you and ask if you need anything. Service? Anything? Everything is out there, so VZ needs to keep that going.

VZ recognized they need to work with the counties to determine who else needs that priority service—including calling and data—and make sure that you are on these plans. All they need is an email that says *what can you do?* and let's get it going. There are more services than are ever being used. There are very few agencies that use that much data.

But the bandwidth starts to evaporate as cameras, body cams and data streams increase, and VZ wants to be aware and make sure that they are providing what customers ask for.

Q: What about Ruch?

A: Ruch is terrible! Applegate...always has been. Probably the biggest problem is that nobody wants to let a tower go in.
Geography.

C: Applegate Broadband's doing OK; they've got that tower up on Mt. Tallowbox.

C: It's ECSO's tower.

Q: That's your tower?!

C: It's the same way in Ashland. You go to a meeting and might get shouted-down because you suggest putting up a tower... NIMBY!

Q: Speaking of that, I have a question about these 5G millimeter towers. I don't see an announcement saying, Verizon Executives have put up 5G cell towers around their facilities and they are experiencing no health problems.

Here's the problem with all that. It's always going to happen. There's nothing proven that 5G does create anything but how do you know after so many years and the cell's been up for a while that something is so? There's always going to be that question.

C: I think it's a lot more than that, honestly. Some of the frequencies are very close to what microwave ovens use ... there's so much of it ... it's sheer madness, all of this electromagnetic energy being put out ... we're already seeing [one canton in Switzerland has pulled out of 5G](#). I think we're reaching a point where this actually is going to be a system which is going to fight the perception of health problems.

And, possibly the only advantage is going to be is what's coming out of it and the technology that's coming out of it; it's definitely going to be evolving. The good thing is: here in Southern Oregon, which we love, if we find out it's killing people, we'll know before it even gets here.

C: That's why I asked how long it was going to take you guys to implement 5G.

If you think about it, by the time it gets to us, it's going to be in L.A. County for five years.

C: The whole idea of approval...a friend of mine is CIO for the City of San Jose, CA and in these large metro areas, approval for small cell towers is a really big deal. The regulatory environment is all over the map; some cities are doing their own deals, some cities are interested in making a deal for the whole state, some are allowing the local agencies to do their own thing. What's happening in Oregon?

Well, honestly, the biggest problem VZ has with 5G is exactly that; getting on the same page with...trying to get the rights of passage for all the entities.

Here's the problem. The local providers are backhauling through Century Link. Hunter, Century Link...they're using all this. Your biggest problem occurs because they are not going to spend a bunch of money because they know, sooner or later, cellular or something else is going to replace them so they're not doing that.

C: I get better speed through my 3G cell phone...

So, why are they [backhaul providers] going to spend money to fix that issue when they know that they're going away. And that's VZ's problem.

Our biggest problem is: we're in rural America. VZ has laid the copper and VZ has fiber out to

all these places. Century Link came in and announced that they were not running fiber to all these places. There are places in Downtown Medford that don't have fiber! They blew it off. Now, they're trying to put all this stuff out there...because [the VZ Rep] works with the Farm Bureau and there's a big government grant to get these farms and kids associated with it. And everybody's asking how do we do that? Do you want fiber to every farm? That doesn't work. Hunter's not going to go out there and run fiber to all these farms. Where do we do that?

There are a lot of discussions on education saying the same thing. We want to make sure that kids are connected. Well, how do you do that? How do you connect the kids in rural areas? You can't give them all fiber. You can't give them all Internet. You can't give them all satellite. What are you going to do? The only way this is ever going to be solved is for us to get together and put a tower out there and install cellular because that's how you cover a huge area inexpensively. And these small companies that are doing what you guys are talking about [local rural ISPs], they'll never have the power. Prime example: First Net. First Net was designed ... their objective, after 9/11 was to say, let's give an entire band of the entire network to public safety. Somebody said, by the way, you can't afford that, because there's not enough public safety to pay for it. You need the 200 million Americans to help you pay for it; that's why it didn't work. That's why they went with AT&T. Same with Verizon. You can't just say, I'm going to give you a network for Jackson County. That's where we've got to look at those things and find ways to go, and get our Federal funding and grant money to partner with somebody. And, this is not to suggest partnering with Verizon. But the only way you're going to get that is to partner with a tower because a cell tower will give you 12-20 which you will never get with your local provider.

C: I live in Hugo. I built my house and called Charter the day I developed it and told them I've got a pipe open; put it in. They told me no! Later. Ten thousand dollars and nine years later, I do have Charter. I have the pipe that [has the capacity to] feed a whole community dedicated to my house. But I called them every week for nine years. And that's our problem. They don't want to mess with that. Nobody does. Until we get that reality of everybody needs to have cell coverage and we need to figure out a way to do it, we're never going to fix our problem. And, thinking we're going to run a copper line to fiber optic people is absolutely nuts. So here's another problem: Ten years ago, people had cable TV and now, everybody's running Internet TV, streaming, kids are playing games. People are asking why they are paying for this? So how do you take that kind of usage and put it in where they used to use ten? Some of us go to work and we're not using it all day. But there are people who are sitting at home playing games and they're burning 500 gigs in a month because that's all they do. Net Neutrality...they tried to come out and say we want to slow-down these things so they passed a law and that was probably the worst thing that happened because now you can't say I want to take all these people that deserve it ... I want to offer you good speed but after 100 gigs I'll slow you down because you would never notice. But the kid next to you is gaming after two days slows down and because you paid??? People just fought about net neutrality and they didn't even know what it was for; they didn't understand. It's like electricity; we all pay the same bill, no matter how much you use. That's the problem. So, if you say I'm using it wisely, you still pay the same as the guy who uses more.

Q: So getting rid of Net Neutrality is a good thing?

If Net Neutrality went away, it would be a huge thing. Because you take things like Netflix and YouTube videos and slow them down ... they passed a law saying you can't. When the Federal Government was pushing Net Neutrality, they promoted it by saying that the current open system was punishing some users. Because they didn't understand what it meant.

Net Neutrality law was like one of those ballot measures that's written in the negative and, if you vote for it, they implement the opposite of what you think you're voting for. You don't know which one to do. What it's done is crippled our government because the government can't get special priority anymore because Net Neutrality says you can't. We had a priority service dedicated to public safety; if a firefighter shows up to your house, he will be connected. It took 8 months to get through our congress in the state of Oregon. We were the last state in the Union to pass it. Eight months behind the rest of the country!

There are a lot of issues with this stuff. But things are going to change in the next 2-3 years.

Q: Why? How so?

The problem is: all these things are coming to a head. You've got a fire department that got throttled, you've got a police department is struggling with everything on cameras, so, pretty soon, they want to say, let's take all these department issues and they want their body cams live, so make them run on cellular; that's a hundred gigs. Well, you can't throttle them at 25. Things are going to start changing there. The other thing is: if the fire or police show up at your house running live-stream high-definition body cams, that will put a bit of pressure on the network. Does that mean that we reduce the bandwidth of Facebook or live-streaming Netflix users? Because those users want their feeds going live, not yours. There's going to be a point where that's all going to break. Somebody's going to say, we can't do this...it's coming. It's only going to take one major incident. Our biggest congestion points are high schools. Those kids are live-streaming all day long.

What we do now is have Priority Service. The entire Sheriff's Department, Police Department, and Fire Department gets priority. So, what happens is all the kids jump on the network but the Fire Department gets another band that's faster. If there's no congestion, everybody gets the same speed, but once it gets congested, they re-route the emergency services entities to a separate band that's faster.

Q: So, you guys are in control, huh?

Yes.

With *Business Service*, you get (guaranteed) 60MBps all the time. My neighbors and my kids have regular service and you can watch the feed quickly slow when it throttles. We have a drone now that can fly over and create a flying cell tower.

C: The information presented during this brief talk has triggered a simplistic comparison of the entities who are pushing 5G, to a candyman under contract to a dentist. The message seems to be: don't worry about cavities; there's no *study* that shows candy leads to cavities. And, besides, if that happens, a dentist is available to drill out those cavities and fill the holes with porcelain; if this happens to benefit the bottom lines of dentists and porcelain providers, and if government entities can track individuals who haven't been properly-brushing their teeth in order to impose behavioral penalties upon them, then it's worth the investment! Besides, who doesn't love candy? Don't worry!

In a coordinated effort to meet demand for faster speeds so more people can access more content (on-demand video, gaming apps, streaming video content from shoulder-mounted BodyCams, [IoT \[Internet of Things\]](#) including everything from automated crop watering systems to monitoring patients) available via the Internet, the 5G promoters (cellular companies, multiple levels of government entities who are lobbied by those who seek to gain permissions, and device manufacturers) are deploying a transmission protocol that has unknown consequences for ambient individuals who happen to be living, working, or shopping in highly-populated areas where 5G cells will be concentrated. In order to achieve the higher speeds, bigger pipes (in the form of aggregated frequency bands) will be created and the information will be transmitted on higher frequencies with shorter ranges that have difficulty penetrating physical barriers, which necessitates more cell towers (containing antennas) positioned closer together to relay the signals across longer distances. *Think about this...*

~ LINKS ~

You don't have to look very far or do many searches containing "5G" to find stories. Below are a few links to some articles of interest.

[Watch the CEOs of Verizon, IBM and Qualcomm discuss the 5G Rollout.](#)

[China's Great Leap Ahead of U.S. on 5G Poses Grave National Security Worries.](#)

[5G Whiz](#)

[5G Technology and Weather Forecasting](#)

[Mystery Towers Going Up All Over Cincinnati Area](#)

[Woman with 'FiFi' Allergy Sleeps in Copper Sleeping Bag...Fears 5G May Kill Her.](#)

[Electromagnetic Readings Facebook Page](#)

[International Appeal: Stop 5G on Earth and in Space](#)

[SpaceX says 12,000 satellites isn't enough, so it might launch another 30,000](#)