TAG Infrastructure Talks: S02 Ep02, Top-Tier Data Centers in Underserved Markets

Alan Poole: Welcome to another episode of TAG Infrastructure Talks podcast. I'm your host, Alan Poole. I'm a partner at Troutman Pepper, and I'm a vice president of the TAG Infrastructure Society. My guest today is Jeff Uphues. He's a fellow board member of the Infrastructure Society and CEO of DC BLOX. Jeff, welcome and thank you for joining us.

Jeff Uphues: Yeah, thank you for having me.

Alan Poole: Well, to start off, tell us a little bit about your company, what sets it apart from other data center companies, and maybe a little bit about how you got where you are today.

Jeff Uphues: Yeah, sure. So DC BLOX have been involved for about six and a half years. I originally came in as a board member and then transitioned into the office of the CEO early in 2017.

The company was really set up with one vision in mind, and that was to go input data center infrastructure within underserved growing markets across the Southeast United States. Which means what we do is we design, develop, own, and operate a fabric of these data centers and link them all together with network. And today, we're having six that we have in place today with a really robust roadmap to go put another half a dozen of them in over the course of the next two to three years.

Alan Poole: So the markets you're in, you said they're underserved. Tell us what those markets are and how you chose them.

Jeff Uphues: Yeah, sure. So anytime you look at data center infrastructure, if you understand what's happening across the United States, there's really about six markets where that's where a vast majority of computing infrastructure lives. That's your Ashburn, Virginia, that's your Dallas, Texas, it's Chicago, it's Santa Clara, it's Seattle or Hillsboro, Oregon. And you have these really large deployments of all the big hyper-scalers, Amazon, Microsoft, Meta, Google, Oracle, and maybe most of all the web apps that you find that are out there.

But all the secondary markets, and some people used to keep Atlanta into that, but now Atlanta's kind of grown to one of those really growing, emerging markets. All the infrastructure, if you're a company based in Chattanooga, Tennessee or one in Birmingham, Alabama where we have a facility, or Huntsville, Alabama or Greenville, South Carolina, any of these markets, you had a choice to make. There was not really dedicated,

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modern data centers within those markets. So you either had to drive to go place your equipment in one of those previous markets I mentioned, or you had to build your own data centers.

So markets like Charleston and Myrtle Beach, South Carolina, continually growing really, really fast. Markets like Greenville, South Carolina, there's 1.4 million people in the MSA with Greenville, Anderson, and Spartanburg. Birmingham's got 1.2 million people. Huntsville is now almost a million people in the market. Chattanooga's about 700,000 when you take the MSAs. All these markets didn't have digital infrastructure assets like hardened data centers that are purpose-built. So we saw an opportunity and said, "Those markets need this too, as do most markets." So when you think of the markets that I mentioned, Atlanta, we're here. Chattanooga, Huntsville, Alabama, Birmingham, Alabama, Greenville, South Carolina, now Myrtle Beach, soon to be a few other markets including Charleston and a couple of other markets throughout the Southeast. So it's a good time for us as we've been executing.

Alan Poole: There's a lot of exciting news about what you're doing in Myrtle Beach. Can you tell us a little bit about that?

Jeff Uphues: Yeah, absolutely. It's a really important project for the Southeast. It's a really important project for us. DC BLOX is actually building a international cable landing station on the Eastern Seaboard in Myrtle Beach, South Carolina. What this means for the Southeast and what it means for DC BLOX and all of our partners that come into that facility is from Myrtle Beach, it will land international cables that come from other continents, and those cables will then have an express route from Myrtle Beach directly into Atlanta to feed this growing hyperscale and connectivity exchanges that are around Atlanta, and this whole region will just continually grow with more and more data center capacity.

So it's exciting for us. We're building about an 80,000 square foot facility with phase one and phase two. Those two phases house what will house roughly around 14 megawatts of capacity in that facility.

Alan Poole: How'd you choose Myrtle Beach?

Jeff Uphues: Well, Myrtle Beach wasn't chosen for us. I like to think that Myrtle Beach kind of won the geography jackpot. Myrtle Beach has got some really unique characteristics versus other areas where cables land. So in the world of undersea cables, they've been around for almost a hundred years. During that time, there's really been five points up and down the Eastern Seaboard where a lot of these have collected. They collect in Miami, they collect in the Jacksonville area, they collect, obviously, in New York, in New Jersey. But there was a gap between where Miami meets New York. Myrtle Beach is almost halfway in between.

But Myrtle Beach has something that's really unique. Number one, there's no barrier islands to Myrtle Beach. Number two, it has a relatively low shelf that goes out for a long period of time, which is really conducive to laying a cable in. Number three, it doesn't have commercial wind farms or lots of commercial fishermen that can potentially drag up cables. So Myrtle Beach ended up being an ideal place for a cable to be landed. DC BLOX worked with some of the really large hyperscalers that are laying a lot of these cables to connect their cloud regions back to Myrtle Beach and into the Southeast, because it's growing here.

So the first cable that's coming in is called Firmina. Firmina is connecting Argentina, Brazil, Uruguay, and then branching into places like the Caribbean. That'll take traffic from cloud apps and others from those continents directly into the Southeast, pass up through Moncks Corner and Charleston, in through Augusta, and then all the way into Atlanta to all the cloud centers with our fiber network that we're building in conjunction with this cable landing station. So when you add those things together, Atlanta is going to benefit from having multiple cables coming into Myrtle Beach that then drive capacity from continents directly into the Southeast. So it's a great time and exciting project for DC BLOX to work on.

Alan Poole: Now, that's going to be really exciting to see how that bears fruit. When I saw that your company was doing the dark fiber construction, I was interested because I had thought that some other players in the industry were moving away from getting outside of their... I don't know if comfort zone is the right word, but I'm thinking of how Zayo sold off a lot of its coloaction assets and wanted to focus on fiber. What drove the decision to decide, "Forget all the other fiber providers out there. We're going to do this ourselves and control it"?

Jeff Uphues: Yeah, it's not something you jump into lightly. For us, we have a lot of customers that use us for network already. Part of our deployment when we chose our first market outside of Atlanta was Chattanooga, and we deployed fiber. But we leased that fiber, we didn't build that fiber between Chattanooga and Atlanta. And, over the course of the last five years, we've really been able to provide great services for cable companies, for other communication carriers, for enterprises, for governments and others that I want to say got our toe wet, but I've been in the network business for more than 30 years and the full circle of network and data centers and others. So it was very familiar to us and we were operating in this exact environment as an operator, but not an owner.

Taking the responsibility to then say, "We know how to build systems. It's what me and many people on our team have done for decades." Taking that responsibility, building that, maintaining that, operating it and owning it is something that was really in our wheelhouse.

So for us, it was an easy step internally. We partnered with another organization that had a lot of expertise in doing this, so we added members of the team that this is all that they have done, where we've been not only in the fiber business and network business, but the data center business. So we've got a specialty group that all they do is they just go out and build these, engineer these, ensure that we're getting the right permits, working with state and local governments, and working with cities. So for us, it was a natural progression versus some of the competition.

A lot have divested, because they said it's a competing asset. It takes a lot of capital to build these routes. It also takes a lot of capital to build data centers. But when you listen to your customers and you do what they're telling you, or asking you for, I think you can find a really, really great way to not only deliver a great service, but also provide some monetary value both for them and for your company in doing so. So we made the choice, and it's not going to be our last route that we're going to build.

Alan Poole: Let's talk a little bit about your perspective of how the data center market has changed. I think the types of customers have changed over the past five or 10 years. Hyperscalers have become the norm rather than the exception. What implications do you see that having on the internet and data services as a whole?

Jeff Uphues: Well, when you look at the background or the history of data centers, data centers have been around a long time. We've always had them, but people always thought, “I need to go build this to house my computers,” because they’re moving into digital services on everything, whether you’re a law firm or whether you’re a content company. More and more services were creating demand within the data centers. That’s how the data center industry got started.

When you look at where the data center is now, based upon hyperscalers, as an operator, you really had a choice to make. There’s always going to be a need for somebody to co-locate your equipment with. Every market in the country, there will always be a need, whether it’s cities, counties, states that are bound by laws and regulations that they need to keep data in the state. Maybe it’s by hospital systems or banks that say, “Hey, I really need to watch over this closer and I need to have it in my home market.”

But start thinking of all the apps that were born on the web to then where do they live. They live in the cloud companies. So whether it’s Amazon, Google, Microsoft, Oracle, Apple, a number of different ones you can go out there. Data center operators either gravitated towards, “I want to try to help them and help them house their equipment,” or “I'm going to try to carve out a niche that I can compete against them." So that's really where the data center industry went.

So you have a lot of operators, data center operators, some of the largest that are on the planet. We know some of the ones that have just exited in the last few years. QTS, CyrusOne, CoreSite, those are three. Switch, to add another one. Those were really, really large companies that were publicly held. They chose to do not only enterprise, but also to help serve some of the hyperscales and the growth.

Hyperscalers are driving 80 plus percent of the growth of where things are. So you can carve out to go after the 20%, or you can solely go after the 80%. We, in our markets, since we have some unique positions of being the only purpose-built data center that is owned from the ground up and just designed both to handle the enterprise and the hyperscaler, we find ourselves in a unique position being able to service both.

So for us, data centers continue to keep evolving. There'll always be needs for them. Atlanta. Atlanta's going to see a lot of square footage coming into Atlanta over the course of the next 5 to 10 years. It's not slowing down, it's just speeding up, and it's because of some of the hyperscale growth. Just look at what Microsoft or others are doing here.

Alan Poole: Another thing that interests me is the idea of edge computing, the edge. That was a really hot topic for a while. It seems to have taken a backseat to some other things, but you're taking a close look at it and it's figuring into your plans. What does edge computing mean to you and how important is it to your customers?

Jeff Uphues: Well, it's all about defining what the edge means. For us, the edge means is where the application meets the network. And when you're in markets like what we are, we first start with, "How do you have a data center that is hardened, that is good for all applications, whether it's hyperscale or enterprise?" The second thing we do is we create connectivity exchanges within each market, where those connectivity exchanges are the centralized place where all content, all cloud, all carriers, all wireless, all enterprise and governments can connect through. That really creates that opportunity to exchange traffic. And then you have the applications from the hyperscalers that when do they come into these markets or do they come into these markets.

I have to admit to you, Alan, when we first started, we had a hunch. We knew that the hyperscalers would come into markets like what I mentioned where we are, but we really didn't know when and we didn't know how. We thought maybe it would come in from IoT devices. We thought maybe it would come in from small deployments that would come out of a hyperscaler putting maybe an availability zone within the market. That hasn't been the case of what we've seen from some content companies that said, "I love your connectivity exchange. I want to serve those 1.4 million people or 1.2 million people in the markets." It's been more dominated by that. But now we're starting to see a shift.

So this shift is all about the remaking of Internet capacity across our nation. And the remaking of internet capacity across our nation, I'm old enough that I was able to see the birth of the first internet. Where did that first internet live? It lives in places like 56 Marietta Street here in Atlanta. Everybody knows it by the address. It's owned by Digital Realty and Telx. Well, why that building? That building became a communications or connectivity exchange. It became that because all of the carriers, the UUNETs of the world, the XO Communications of the world, the WorldComs, the MCIs, the Verizons, the Qwest that was now called Lumen, all of these companies built the first Internet and they had to have a place to terminate it, so they terminated it where their main points of presence were.

As these hyperscalers have grown more and more and more traffic, they're looking at those addresses like 56 Marietta Street or 350 Cermak in Chicago, or One Wilshire in LA, you can name all these addresses, knowing where the market is. Those are starting to become sites that they tether to, not sites that they go primary to. And when you build network and you connect availability zones from different cloud companies, when you build these availability zones, they're in the markets I mentioned. They're in Chicago, they're in Dallas, they're in Atlanta, they're in Ashburn, they're in Columbus, Ohio, they're in Santa Clara.

Alan Poole: Super Bowl markets.

Jeff Uphues: Yeah, they are. They're really massive markets. Phoenix. Well, what do they want to do? They want to tie those markets to where the other large markets are. In order to get through those, they have to pass a lot of these secondary markets. And when they do, those become network availability zones that they have to regenerate that traffic and allow that to pass through.

So the core of the Internet, how we see it being made, how it was made in the first 30 years is now being made and built into the eyes of how the hyperscalers want to route their own traffic. Because if you're generating 80% of the traffic across the United States, that 80% of the traffic across the United States has to get to some of the major markets: which means you need high count fiber, you need conduit systems, you need the digital infrastructure that then enables everybody along the route to have access to these broadband services because you're building through those markets, and you're enabling them to really start driving the applications that we've come to use and love every day.

Alan Poole: You mentioned the tie-ins. Earlier, you mentioned that that's not just at the data center, but also at the ILA (In-Line Amplification) huts. Has that always been the case, or is that a new and developing trend?

Jeff Uphues: Well, ILA huts...everybody's seen one.

Alan Poole: Sure.

Jeff Uphues: They're at the base of a cell tower. You find them along a route in a cornfield and you say, "Well, what the heck is that over there?" And they've typically been these places where they're not staffed, they're not manned, they're self-sufficient, and it's closed up and covered by a fence and cameras and everything else. Those ILA huts now are mini data centers that are enabling rural broadband in communities.

So think about the infrastructure funds that are out there today. Much of the infrastructure funds are going into I need to build past homes and I need to enable every home to have the access of broadband internet at high speed. It's become a utility that everybody should have a right to have it. So when you're enabling that and you're enabling communities that don't have access to really high-quality internet services and really high-quality bandwidth and applications, how are they going to get them? They're not, unless they have access to tap into where those networks are.

So the ILAs need to be a little bit more robust than what they were in the past. Because before, just the carriers owned them and they just passed traffic back and forth. Now it's become an on-ramp. It's an on-ramp to the cloud. It's an on-ramp to the applications that you love and see. It's an on-ramp to streaming services and OTTs, or over-the-top services, that people are using with Netflix or streaming of any type. So they become more important. When you're doing that, we call that enabling the hyperscale edge.

Alan Poole: Well, let's talk about the types of assets you're building now. It seems to me that it's a good time to be building new, because my perception in the market is the hyperscalers want some seriously high quality stuff, and sometimes tuning up the old assets isn't all that easy.

Jeff Uphues: Well, there's a lot of data centers out there, and the requirements of what some of the larger hyperscalers have, I won't go into all of them specifically, what customers have. But the traditional data center that was built 15 years ago or 20 years ago, what was the basics of what that looked like? Many of those were put into shared office buildings where you have floors above them and floors below them.

Many of them went into strip centers or single story office parks where they would go in, there's no way to really fence these off and secure them in ways that today's modern customer wants to have, because there's lots of sensitive data that is in these centers. A lot of them had shared walls with a tenant that was directly next to them. A lot of them said, "I've got capacity issues that I don't have the capacity to put enough cooling, because I can't put large enough condensers on the roof," or, "Where am I going to put the generators?" and the generators and the size of power

that a lot of these have to need just to power their facilities. There's weight issues in multi-tenant buildings that you have that you can't put. You have ceiling height of how are you going to extract the heat.

What all this called for is it called for a purpose-built facility that allows you to scale and grow based upon the application demand for what customers are using. In the past, it was always: you got away with giving somebody power to a cabinet for data center that was between two and four kW (kilowatts) of power draw from any one cabinet. Today, I can tell you that almost every major client that we deal with, it's 19 kW, it's 10 kW, it's 15 kW. It's up to 34 kW, and some even higher depending upon the application. Also, the densities of what you're seeing on weight, because these servers and storage units are getting heavier and heavier, it required a purpose-built building. It also required that you have a really stringent SLA for uptime.

So, when you're dealing with a more discerning client that is making millions and billions of dollars, whether it's coming across a minute of downtime may cost them a hundred million dollars. You need to have a hardened, tier three rated, concurrently maintainable facility that can be protected and secured with the reliability that they know can operate just as if they're operating it themselves.

So that's what DC BLOX builds. These are 10-inch thick, insulated concrete, sustainable to handle either Cat 5 storms or F5 tornadoes that are hardened with setbacks that we really build to what is a TS SCI (Top Secret-Secret Compartmented Information) standard of top secret or SC (Security Clearance), which is controlled information from building from a government standard.

Alan Poole: Another topic I wanted to discuss with you is financing. The markets you're in, they're secondary. Has that been difficult for investors or financiers to swallow or understand the upside?

Jeff Uphues: No, they're understanding that, when you have an owned real estate portfolio and you have really good, A-rated tenants that are within these, whether they be large enterprises, whether they're governments, whether they're universities, whether they're communication carriers or whether they're the hyperscalers, it creates a financeable structure for what you need. We all know that when you're owning the dirt, you're owning more of your destiny rather than having 3% escalators year-over-year that are in an office building or something that you don't own.

So financing these is always... I wouldn't say it's difficult, but there's an art to financing these and understanding how do you maintain and operate a good fiscal approach in your company, yet also a good financial proforma in a financial return for these banks to lend you money. We're pretty blessed in our financial sponsors and supporters we have. Bain Capital

and Post Road Group have been with the company for the last few years. Post Road since inception. So our ability to finance these, you have to have really sound equity base in your company. You have to have a really sound base of investors. You have to have really, really good tenants that have got the ability to pay long-term and securing long-term contracts with you is really important.

It's a capital-intensive business, whether it's a fiber business or whether it's the data center business. And when you marry them both together, one can't live without the other. So how you finance both is still a little tricky, but DC BLOX is managing to do so in ways that have some great lenders and great financial partners to help us along the way.

Alan Poole: Have you found that the banks and other lenders have gained a better understanding of the upside of digital infrastructure over the years?

Jeff Uphues: Well, the digital infrastructure market versus, let's say, the office market today. In COVID, how many people came into the offices. Digital infrastructure, what did they do? They stayed at their house and not being in the office, generated more content more digitally that where did it have to go? Had to go to data centers.

So when you have long-term contracts of customers and data centers that are housing digital assets, it made it for a very, very robust investment opportunity for many firms to say, "let's move from more office environments real estate into more data centers." It also created when you're owning the digital real estate and owning the land and others, it became somewhat of a downside risk protection of what you have for lenders, knowing that you had a long-term tenant and knowing that you had owned assets that help you grow.

Alan Poole: Before we run out of time, I wanted to talk about your experience working with the state of South Carolina and its various local governments. What were your positive experiences from that, and is there anything that the state of Georgia can learn to help facilitate further digital infrastructure development?

Jeff Uphues: Well, first and foremost, we're headquartered here in Atlanta, so it's always good to call Georgia home. I think that Georgia has led the way in some of the tax incentive bills that they've helped bring forward that abate certain portions of sales tax and/or abate property tax. And by doing that over a period of time, it encourages infrastructure assets to deploy within your markets.

So when you look at markets like South Carolina that didn't have nearly the amount of infrastructure, South Carolina was equally aggressive in doing it. Although, they treated it a little differently. They didn't have that abatement around sales tax and property tax. They have some different

tax structures that are more friendly in how they operate as a state, but they have been absolutely wonderful to deal with. South Carolina is an opportunity for DC BLOX to help invest into the infrastructure that is needed across the state, not only with our fiber, but our data centers. And from the governor's office all the way through Secretary of Commerce and everybody there, they have been wonderful to engage with and have been very, very helpful because they're looking at this as improvements in infrastructure across the state benefits everybody for which it's in. And here in Georgia, they've done much of the same thing.

Alan Poole: Perhaps explaining the significant investment in data centers in Atlanta, and Atlanta being considered a competitor, with the top data center market in the country, I suppose.

Jeff Uphues: Atlanta is on a really fast pace. One of the reasons... I mean, there's many areas across the country that are running into power challenges. So if you look at Dominion Power that is up in Ashburn, some of the wait time now, and it depends in certain pieces of property and depends in areas, you have operators that could be waiting up to five years before they could get the committed power into there, just because they've consumed so much and the power companies need to accelerate their build process.

But when all the markets across the country are accelerating, it puts a constraint on supply chain for things that you build future substations with or transformers of what you need or the UPS systems that live within a data center or the generators. So that's putting a strain on all the different areas.

But Atlanta is going to see an enormous amount of capacity that is both going to be built and consumed over the course of what I think is the next two to five years because of some of the challenges that they're having in markets like Ashburn. They'll get it corrected, but it's an opportunity for Atlanta to continue to grow.

The South in general is growing. Look at how many people started migrating and leaving some of the northern states and coming down into markets like South Carolina, North Carolina, Georgia, Alabama, Florida, it bodes well for the Southeast. Add in Tennessee and add in other markets, and there's a lot of opportunity for continued investment in the data center. But Atlanta is looking really, really good for the foreseeable future.

Alan Poole: Exciting. I hesitate to ask this, but I can't help it. Is digital infrastructure recession-proof?

Jeff Uphues: I don't think anything is recession-proof. I do think that the digital infrastructure business goes through different phases. Right now, we're in a build phase to handle all the demand of what is being asked to place

digital infrastructure in the Southeast. Adding that infrastructure in the Southeast puts a problem on supply chain.

So when you think of the mode we're in right now, it is build, build, build. Eventually that will catch up. When it catches up, that inventory needs to be consumed. A lot of it's being pre-built now because everybody's had to look at it with supply chain being two years out before you do anything. You're needing to forecast capacity in saying, "I need to buy two years out," or, "I need to buy three years out," or, "I need to be committing four years out," because they understand it's going to be two years to build. When you do that, what's going to happen two years from now or three years from now or four years from now?

Is it recession-proof? I don't think it's recession-proof, but it's a pretty good bet that for the foreseeable future, three, four, five years, the amount of demand that is coming will not have enough supply to handle it, which makes it operators like us, put us in a good position to continue to keep building.

Alan Poole: To close, what do you see as the next big challenge in your business or your industry?

Jeff Uphues: It's really about bringing talent in and continuing to build this. We're really young in the data center business. I'm just not talking about DC BLOX, but think about it. The Internet was born 30 years ago. Now we're in the second phase of data center development where it's cloud providers and just growing and growing and growing.

Many of the people who are leading the companies, including myself, it's not our first rodeo. So the challenge that I see that we have as an industry is to continually develop the talent that can be more or less a succession plan for how do you continue to grow this. So the people who are coming into this space, we need to train them. We need to empower them with knowledge. We need to empower them to say, "Come up with new, fresh ideas," whether it's green energy technologies or whether it's better ways to engineer and design these data centers or operate them.

That's the biggest challenge that I see is: how do you promote and how do you develop the next phase of leaders that are going to be needed to take this industry of data centers and networks to that next place, the next decade, the next two decades, the next three decades? That's what I look at. I look at we've got a great team, but we also need to develop the people that go along with us, because this is not going to be something that's going to go away in two or three or four, 10 years. It's going to continue to grow.

Alan Poole: Jeff, this has been a really enlightening and enjoyable experience talking with you. Thank you on behalf of Troutman and TAG, and we wish you the best of luck with your endeavors.

Jeff Uphues: Well, thank you very much. TAG is really important to our whole community here, and it's important that people understand all the great things that are going on in the infrastructure business throughout the Southeast and Atlanta. And thank you to you and thanks to TAG for allowing us to be a part of this session.

Alan Poole: Wonderful. Thanks for joining us out there for another episode. We hope you enjoyed it. Please subscribe to both TAG and Troutman Pepper on LinkedIn and on your podcast viewing application of choice to stay up to date on all of our newest episodes.