

Jon Bernstein:

Welcome to PNC C-Speak: The Language of Executives. I'm Jon Bernstein, regional president of PNC Bank in New England, alongside my co-host, Carolyn Jones, market president and publisher of the Boston Business Journal.

Carolyn Jones:

Thanks, Jon. It's great to be with you on PNC C-Speak. Each podcast features local executives talking about relevant and timely business topics.

This knowledge-sharing platform showcases leaders with forward-thinking approaches, that disrupt the status quo and cause us to think differently.

Jon Bernstein:

Our guest today is Dr. Tom Leighton, chief executive officer and co-founder of Akamai Technologies. Akamai's technology is a core part of how we navigate the internet on a daily basis.

The company has grown to provide a host of optimal technology solutions for businesses worldwide. Welcome, Tom, and thank you so much for joining us today.

Tom Leighton:

Thank you. It's a pleasure to be here.

Carolyn Jones:

Great to see you.

Jon Bernstein:

Tom, we look forward to learning more about you. First, let's start with a brief overview of Akamai and its incredible history. It'd be great to share that with our listeners.

Tom Leighton:

Well, sure. Akamai, our mission is to power and protect life online. We do that by delivering and securing most of the major websites that people go to every day. In fact, our purpose is to make life better for billions of people, billions of times a day.

Literally, billions of people go to the web every day, and we interact with them to make their experience be faster and to make it be secure, which as everybody knows, is an increasing problem.

Jon Bernstein:

It's amazing how integral you are to so much of life today. Thank you for what you've done and how you've facilitated that.

But I'd love to hear also about your own personal career path. I'd love if you could tell us a little bit more what led you to Akamai.

Tom Leighton:

Sort of a long story. I'll try to make it short. I was a professor of mathematics at MIT for a long time, and specialized in the area of algorithms. Particularly, algorithms to make things efficient for large scale

networks. Of course, the internet is about the largest network out there. The group that I managed, we were working on how do you route data efficiently in such a large and complicated network? That led to problems of well, how do you get information to people?

In particular, you go way back into the mid '90s, and this started to be a problem. In fact, Tim Berners-Lee, his office was down the hall from mine at MIT. One day he came by and said, "I think we're going to have a problem with the internet that with a lot of people go to a website that's popular, it's going to create a flash crowd and that's going to be really hard for people to get the content." Of course, Tim is the inventor of the web as we know it, very prescient fellow and he was bright.

Akamai was created to solve that problem initially. Is a different way of distributing content on the internet using mathematics and algorithms, all the stuff we developed in the early days at MIT. From there, we created a company and then moved from just delivering the content to make it be faster. Then tackled security to try to make your banking transactions not just be fast, but be safe and secure. To keep somebody else from stealing your credentials, taking over your bank account, and then stealing from you, which is still a security, a huge, huge challenge today. But that's a brief background of Akamai.

Carolyn Jones:

It really is incredible when you talk about both yourself, Tim Berners-Lee and the other founders of Akamai, just what a role you play in what we do all day, every day. Tom, share with us a little bit, how does Akamai work? What actually is happening behind the curtain?

Tom Leighton:

Yeah, a really good question. Basically, when anybody out there goes to most websites, what's happening is their device, their phone or their browser, really is coming to an Akamai server that's very close to them. We've got hundreds of thousands of servers in thousands and thousands of places around the world. So that wherever anybody goes, if they click on something, pretty good chance what'll happen is their browser or device will connect with an Akamai server.

Then we go get what they want, and we get it really fast and we get it at scale so that we can deliver to them really quickly. You get your bank balance really quickly. You get your commerce transaction done really fast. The big banks and commerce companies, and media companies pay us to do that because you're then a happier customer. You're getting that from our servers and we're trying to make it be a really great experience for you. We're also securing it.

When you log into your account, maybe somebody stole your credentials and they know your login ID and password. We're checking that it's really you and not some bot or other entity that has your stolen credentials that's logging in, so that we protect your bank account, your commerce account. Even your media and gaming accounts, they're big targets today. We keep it all secure and that's happening all under the covers. You don't see it.

A lot of people talk about Akamai being the biggest company you never heard of. But you use every day and everybody uses it hundreds of times a day and just doesn't know. We just make the web experience be a lot better and safer.

Carolyn Jones:

How do you feel about being the company that nobody knows about, but that does so much?

Tom Leighton:

Well, marketing's working on that.

Carolyn Jones:

Okay, good. I'd love to share and learn a little bit more about you personally and you as a leader because starting out, as you said, as a math professor and now leading a company that's worldwide.

Can you share with us a little bit, some of the experiences that have shaped who you are and your vision? Then perhaps maybe some real meaningful moments along the way?

Tom Leighton:

Well, sure. I'd go back to my parents and family, incredibly supportive. Worked really hard in their jobs in part, to let me be able to afford to go to a good school. Very supportive in the sense of helping us. My brother and I learned everything we could. It's a very positive start and I think that makes a huge difference in life. Had really inspiring professors and teachers along the way. People that would reach out and go the extra mile to help with whatever it may be and to learn.

That's, I think, really important. I think you get to graduate school, there were some pretty important professors there that were inspiring. You want to be like them. I remember one in particular, who really helped teach me that you can't just trust everything you're told in mathematics or in general, I suppose. In fact, we had an entire class where what we would do is take famous papers written by famous mathematicians and scientists and we'd find the bugs.

That was eye-opening because you just believe if a famous person says it's true, it must be true. Probably that kind of lesson's even more important today with what we see going on sometimes. But that was, I think, important. Of course, being in mathematics you learn rigor, and it helps you understand and to think through what's true, helps you question. In business, that could be important that you don't have to make too many bad decisions before you're really in trouble and you put a company at risk.

Having the rigorous background, I think, was helpful. I also learned a ton from our former CEOs, I got to call that out. I had no experience in business before Akamai, zip. I couldn't have been more clueless probably. Over the years, I just learned a ton from George Conrades and Paul Sagan, just outstanding executives. Of course, they really led Akamai through some tough times to help us grow into a big company.

Carolyn Jones:

Any other meaningful moments along the way that really stand out as benchmarks for where you are today?

Tom Leighton:

Well, Akamai had been through a lot. We sometimes joke that we've had 100 years of experience in our 20 some odd years as a company, and not all of it was good obviously. Creating the company was a pretty interesting experience. We were very fortunate that we did it during the dot-com era. It was relatively easy for naive professors and students to get funded and that was great. Of course, then we had the downside of that, where we had the dot-com meltdown. It was nearly a company ending experience for Akamai.

We went from unbelievable highs, one of the biggest IPOs ever. It was nuts. We were worth \$35 billion. I think we had a couple 100 million in revenue and we were losing a fortune. All the students that joined us, we were liberal with the stock that we gave them. They all became zillionaires on paper anyway. Suddenly, we had this problem, how do you help a 19 year old, who's now a zillionaire deal with that? How do you make sure they finish their degree at MIT?

One of the things we were proud of is we did set up a plan. They could work for us for a year, but then they had to go back and finish their degree. We'd let them keep vesting, they could work a day a week, but it was really important that they finished their degree. That was good because then the dot-com bust happened, and now we had the reverse problem is that they're all broke because the stock [inaudible 00:09:56] like half about 700. It was just within a year, you go from \$35 billion to \$50 million. It's insane.

We were left for dead and that was a tough experience. We had to learn now the flip side of how do you survive that? That's where you learn a lesson that the people and the character of the people, and the culture just make all the difference in the world. We are very fortunate that we had a great culture and great people.

Jon Bernstein:

To see where you are today, incredible to see the growth in the building in that culture you built to sustain the business.

Tom, your background is as a scientist and a professor, and you now lead a company of over 9,000 worldwide. What key leadership skills did you focus on developing as the company grew?

Tom Leighton:

Well, I think it's really the team and that's a big part of Akamai culture. It is a team. It has been from day one. I'm fortunate that I have a great team that works for me, just outstanding. They know a ton, a lot of experience. They're great people and they work well with their teams, and I think that's just so important. Culture is so important to us. We're a tech company and the tech matters obviously, but it's really about the people.

Innovation obviously critical for a tech company and that's something oddly enough that as you get bigger and we're reasonably I'd say medium sized today. We're not as big as a Google obviously, but we're not a small company anymore. We got a lot of people with a lot of great ideas and that's fabulous. But as you're bigger, it gets harder. The bureaucracy, you have to fight it. There's more people that can say no. You got to go out of your way to really have more oxygen out there to fan the sparks of innovative ideas, so they can turn into flames.

We do all sorts of programs at Akamai that we work hard at doing. That some person say, not even in the US but any of our offices anywhere in the world, an individual contributor can have an idea. That idea can be encouraged and turned into a major product for us. That has happened, but you got to work at that. That's really important, I think.

Carolyn Jones:

Oxygen, I like that. I think we can all use that sometimes as we think about leadership, for sure. As talent, you talk about the team and the importance of that. As talent recruitment and retention is the subject of the day and to many.

Any insights that you can share then about that culture, about creating a great employee experience? What are some of the things that you do to make that happen?

Tom Leighton:

Yeah. Especially now as you know, you have the great resignation out there, and our attrition rates are higher this year than they've been in the past. I guess there's not no real good news in that, but at least we seem to be doing better than a lot of our peers out there. I think that is because of the culture and

that we really care about each other. The growth mindset has been very important for us and that's been great training for everybody in the company.

The executives for sure, in addition to the employees. Thinking about the art of the possible, not just saying no out of hand but thinking, "Well, how could you do it?" I get that we haven't been able to do it so far, but what could we do there? Really important. Inclusiveness is so important for us. Again, with a team getting everybody's input, sometimes you could argue that, "Hey, consensus is too hard to do, slows you down." There are certain cultures where maybe you don't do that.

You think of a military culture and that's a very top-down, command-driven, and accepted culture and maybe that's good in that environment. Our culture is not that way. People like to be engaged. I find that at the end of the day, you get where you want to go faster if you got everybody has contributed their best ideas. You make a better decision and then people are engaged in moving forward to go get the goal, to take the hill. That's important. I think the flexibility where you work, that's a big topic these days.

We've been pretty clear from the start at Akamai, is that we're going to enable at least 95% maybe 97% of our employees to work where they want, so they can come in or not. We're going to try to make it as nice an environment as we can, try to make it as safe as we can, although that's not perfect still. Employees want to come in, great. If they don't, we're going to make that work too. I think that's really important and that's been very popular with our employee base.

It's amazing to see what's happened. We have just for an example, in India, we have an office there that 2,000 people in Bangalore. The majority now no longer live in Bangalore. They've moved to their home towns and living with family. San Francisco is a ghost town and that was so popular. They've left the city, they live in other states or a different part of California. I'd say in the Boston area, there's less of that but certainly some, where people have moved farther away. Now, we're looking at how do you run certain events or bring people together on occasion?

Because the human contact is so important and that is an important part of culture. It's where we're finding our way, but we're going to err on the side of letting the employees decide for themselves and enabling them to be productive wherever they decide to be.

Carolyn Jones:

We'll have to connect with you in a few months or in a year and see how that's working with those connections, because that's pretty amazing.

Jon Bernstein:

Taking advantage of where the world is moving and some of Akamai technology along the way, I would imagine is part of that.

Carolyn Jones:

Yeah.

Jon Bernstein:

Tom, if you're speaking to your employees or future employees, what's your best advice?

Tom Leighton:

Geez. Well, don't be afraid to get out of your comfort zone. Took me about 50 years and I'm still working on that one. But it is important because that's how you do something different and you have a chance to make a different contribution. I remember there was advice given to me a long, long time ago, which I thought was pretty good. Which as you go through life, keep your eyes and ears open and your brain turned on, because you never know when an incredible challenge or opportunity will present itself.

If you're not paying attention, you're not going to help solve the challenge or seize the opportunity. I thought that was pretty good advice. Learn all you can. I think that's really, really important to do. Well, I'm still learning how to be a CEO, and it's great and I learn from my team. I learn things about their areas of expertise. I think constantly learning and growing is really important, but I think a lot of folks already know this.

Jon Bernstein:

Tom, what advice would you give your CEO peers?

Tom Leighton:

Oh, boy. I don't know any advice I could give them, they don't already know. Probably I could learn from them. Maybe just as a data point with Akamai, I know they're wrestling with remote work. They're wrestling with attrition and recruiting. At Akamai, I think the program is called Flex, allows people to work where they want, has been I think very good for us so far. We're more productive. Employees are happier than they were before.

Oddly enough, they're more engaged now than ever before, even though we're not in the office with each other every day. The growth mindset training, I think it's been great for us. We've done a lot of the modules there. I recommend that. I think Boston's a great place to headquarter a company. They probably already know that. Sometimes I go out to the West Coast and the tech folks out there look at me like I'm a bit of a martian.

They'll even ask me sometimes in forums, "Why did you decide to stay in the Boston area?" Like it's some weird thing. No, it's a great place to grow a company. The talent here's incredible, it's a great environment. I don't know, maybe those things would be helpful.

Carolyn Jones:

Yeah.

Jon Bernstein:

Good pieces of advice.

Carolyn Jones:

Absolutely.

Jon Bernstein:

I like the locate in Boston piece as well.

Carolyn Jones:

That's right. We all do. Tom, the platform of Akamai informs, as we said, what we all do as we navigate the web hundreds of times a day. At one point, that was unimaginable.

Who even thought? If you look to the future, what seems maybe unimaginable now, but might one day be as familiar as the internet? What comes to mind?

Tom Leighton:

Well, if we're speaking in internet related things, maybe it's some flavor of the metaverse, which it's a buzzword now, but not impossible that you get the right interface, human interface is there. Takes a big leap forward in your engagement with people in the world around you through the internet. If we're speaking more broadly, I think my guess is genetic engineering to cure disease and aging.

There's just tremendous advances there. It's a very computational problem. My guess is that at some point, that gets figured out. I don't know how long it'll take to do, but it's amazing that the capabilities that we already have. That I think could be a pretty cool thing.

Carolyn Jones:

That's pretty cool. That's interesting to hear you say and of course, because you're much more well versed in this than I don't even come close, but genetic engineering as a computational problem. That's fascinating. Wow.

Tom Leighton:

Well, our cells are little computers at some level. And as cells replicate, there's certain changes that happen, errors get introduced and that can result in bad outcomes. I think that gets figured out as you can manipulate that, probably do some very interesting things.

Age probably is a computational process that's happening at the cellular level, which it does suggest it could be possible. Now you said something we can't imagine, but I think that's a possibility someday.

Jon Bernstein:

Tom, as a leader in the Boston community, what are some of the issues you see as critical to our future?

Tom Leighton:

Well, I think today or these days, we're all feeling the commuting challenge. I don't know about you all, but boy, the commutes are long because I think more people are coming in. Probably some still aren't using public transportation, but that's a challenge when you have big commute times. I think public transportation probably is improvable and I get that people are worried about it with COVID still.

Cost of living's pretty high in this area and of course, you have to keep an eye on taxes and so forth. Those would be some, I think, challenges to work through but I think it's worth it. It's a fabulous place. The talent here is just unrivaled. Of course, some of that talent migrates elsewhere, but with the university's just an incredible resource in the area and it's a very nice place to be.

Jon Bernstein:

What other items are you optimistic about for our region?

Tom Leighton:

I think it's a great environment with a lot of potential. You think about the future is often in the people that are graduating from college and graduate programs. There's nowhere that rivals the Boston area for that.

The talent that's happening here and the education is just amazing. That's where a lot of the future thought comes from and leadership comes from.

Jon Bernstein:

We like to close with some rapid fire questions, and so are you ready?

Tom Leighton:

We'll see.

Jon Bernstein:

All right.

Carolyn Jones:

These are the fun ones.

Jon Bernstein:

What are you currently reading, watching, or listening to?

Tom Leighton:

All right. Well, I'll confess, I'm watching House of the Dragon, along with everybody else and we do a lot of the delivery for that.

You don't have a flash crowd associated with that. I also like For All Mankind, the NASA story with a twist on history and going to Mars is fun.

Jon Bernstein:

What's a cause you care about?

Tom Leighton:

That's easy. Well, there's several, but I would say math education in K-12, especially for girls and underrepresented groups. I think it's probably one of the most neglected things out there and probably one of the most important. In general, but also especially for girls, I got a chance to see what happens, at least anecdotally firsthand.

I have a son and a daughter, both are talented at mathematics and interested in mathematics, and just the social pressures on the girls. You get to about seventh or eighth grade, brutal. My daughter was the only girl on the math team, and she was the best member of the team. But ultimately, the pressures got so large that she stopped doing it when she got to high school.

Jon Bernstein:

That's too bad.

Tom Leighton:

You can imagine how I felt about that. But I think investing more because math is so important, but math education, STEM at large in K-12.

Jon Bernstein:

What's a favorite spot in our city?

Tom Leighton:

I'm pretty partial to MIT and our headquarters, which is next door. That's a great campus, a lot going on at MIT. Our headquarters is just a beautiful place.

I like our local restaurant, Sol Azteca at Newton Center, probably favorite restaurant, nice courtyard there. Go there a fair amount.

Jon Bernstein:

What makes you laugh?

Tom Leighton:

I think you can find humor in a lot of things. Maybe if we think about novels or reading, Christopher Buckley or Carl Hiaasen I find humorous. They're out there, but I think pretty amusing.

Jon Bernstein:

Finally, what's a wish you have for Boston?

Tom Leighton:

Yeah, good question. I think Boston's great to tackle some of the challenges, as we talked about with commuting somehow. That probably is hard. I think Boston, it's a great place to be.

If you like sports, great sports teams, great culture, it's not too large. You can get around and really enjoy the city. Great talent, so just keep on being a great place to be.

Jon Bernstein:

Tom, thank you so much for joining us.

Tom Leighton:

Thanks. It was very nice to be able to speak to you today.

Carolyn Jones:

Tom, thank you as well. We just really appreciate it. It was great to learn so much about you and your insights, and Akamai as the company, so we really appreciate it.

Tom Leighton:

Thanks.

Carolyn Jones:

I'm Carolyn Jones and this is PNC C-Speak: The Language of Executives. Our guest today was Dr. Tom Leighton, CEO and co-founder of Akamai Technologies.

Jon Bernstein:

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