DR: [00:00] I am Danielle Royston, and this is Telco in 20. Are you afraid of cloud costs? Some telco leaders are so scared of the potential for runaway cloud bills that they design strategies to move back on-premise before they even move a single workload over to the public cloud. But I say don't take that approach. What you should do instead is build a top-notch FinOps practice so you're constantly optimizing your workloads, both technically and financially, from the get-go. There are lots of ways to do this and tons of consultants out there that are ready to help you.

[00:42] But one of the big problems with cloud cost optimization is while people in software can identify recommendations, 9 times out of 10, someone has to go manually make the change to realize the savings. Who has time to go do that? DevOps teams are busy supporting the business and have little time to research the fix, make sure it won't screw anything up and make the change. Most of the time it never gets done. But I know of a SaaS platform that can not only find big savings, it can automatically go fix them for you. I'm talking about CloudFix.

[01:13] CloudFix is a super cool tool that will scan your AWS account, identify changes that will save you money, and once you approve the changes, automatically implement them without you having to lift a finger. When I learned how it works, I thought it was so awesome that I signed an exclusive partnership agreement. I'm super excited to have Rahul Subramaniam, the founder of CloudFix, on the podcast. We're going to talk about how CloudFix can save telcos millions and millions of dollars on their AWS spend and the super sweet discount you'll get when you buy it through me, TelcoDR. So let's take 20. Rahul Subramaniam is the founder and CEO of CloudFix. Hi Rahul, welcome to Telco in 20.

Rahul: [01:56] Hey, DR. Thanks for having me over.

DR: [01:59] I'm so excited. We go back over 25 years when we both worked at Trilogy and that was a crazy time. Now you have this great startup called CloudFix that focuses on helping customers of AWS save big bucks. So TelcoDR

	and CloudFix recently signed an exclusive partnership, and we'll talk about that a little bit later. But I wanted to ask you, how'd you come up with the idea behind CloudFix?
Rahul:	[02:24] Back in my role as CTO at Trilogy, we actually found ourselves managing 40,000-plus AWS accounts. Can you believe that?
DR:	[02:32] I do.
Rahul:	[02:35] With that many accounts, the obvious next step was that we had our cloud bills that were completely out of control, and of course, a large part of it was things like really, really bad resource utilization. By the way, that's true across the industry today. Do you know what the average EC2 utilization across all AWS customers is today?
DR:	[02:54] I have no idea.
Rahul:	[02:55] Take a guess.
DR:	[02:56] I would think it's like 50%.
Rahul:	[02:58] It's 6%. Can you believe that? So 94% is just completely wasted across all AWS.
DR:	[03:06] Oh, my God.
Rahul:	[03:07] Do you know what it is for enterprise workloads especially?
DR:	[03:09] With a number at 6, I'll go with 1%.
Rahul:	[03:13] Okay, it's under 2%, but you were very close.
DR:	03:16] Yeah.
Rahul:	[03:16] But that's the kind of inefficiencies that exist. In my position, as I was trying to find a solution for these problems, I looked at every tool out there and there were three fundamental problems. Problem number one was while there were tons of visualization tools and visibility

tools, there was no tool that was actually fixing the problem for me. They would actually give us insights about, "Here's where you're spending so much money." "Why don't you fix it? But how do you fix it?" "Ah, I don't know. You'll figure it out."

DR: [03:42] Thanks for the graph.

Rahul: [03:45] The second was that most changes or tools that were asking us to make were very, very disruptive and literally no engineering team or business ever wanted to implement them.

DR: [03:55] Yeah.

Rahul: [03:55] Here's a simple example. "Hey, your EC2 utilization is 50% over what it should be, and we hope you're right, but go downsize." "But to what size do I downsize?" That's a really, really hard question to do because as you downsize your disc IO, disc throughput, network throughput, and memory all get impacted. So there are four dimensions that are changing at the same time. It's not a trivial step.

DR: [04:19] It's not an easy thing to do.

Rahul: [04:21] You could completely ruin your deployments if you don't really compute the downsizing metrics correctly, and none of these tools did. Lastly, we realized that the whole cost optimization process is not a one-and-done exercise. Any manual work that we did to gain any headway in our cost optimization were pretty much lost in a matter of a couple of weeks. You need automation that can run continuously, constantly keeping up with all the changes that are happening and the constant work that is involved in optimizing your resources constantly.

DR: [04:55] Got it.

Rahul: [04:56] So we unfortunately had to create a product, which is now CloudFix, that solved these very fundamental and real problems for ourselves.

DR: [05:05] Well, I guess we're going to talk about CLoudFix now. So CloudFix is software. I assume you've solved some of these problems. You have it running continuously, so you're doing it automatically. Tell me a little bit more. Is it really easy to get started? Is this super intrusive? Tell me how it works.

Rahul: [05:21] So, CloudFix is a fully automated software solution that runs in AWS in the customer's accounts, and it is really, really simple to get started. It literally just takes 10 minutes to onboard onto CloudFix, and what it does is it just sets up some basic cloud formation scripts that allow access to something called the CUR or the Cost and Usage Report and AWS config, and that allows us to scan and understand where we can save money. Then after that, CloudFix users change manager to actually deploy change requests, and this is AWS' recommended way of actually making changes.

DR: [05:56] That's an AWS product?

Rahul: [05:57] Exactly.

DR: [05:57] Yeah.

Rahul: [05:58] That is an AWS recommended mechanism of actually doing the cost savings. Now, most tools that do any kind of automation unfortunately require you to give it admin credentials because they're like, "Hey, I need to make changes to the resources, so give me admin keys." That is the number one do-not-do item in any security checklist handbook that AWS has ever published. So we worked very closely with the AWS team and they came up with AWS Change Manager, which is the recommended mechanism of doing it.

[06:26] It puts the customer in control of deciding what is approved or not approved and the changes that happen, and there's an audit trail for every change that takes place in the customer's account. So the tool actually has no permissions. All we have permission to do is post a change request. The customers are in full control of deciding what

change requests are enabled or not. The amazing thing is that within the first week, you can start reporting real realized savings.

DR: [06:54] Yeah, you're actually getting them.

Rahul: [06:56] Exactly.

DR: [06:56] I imagine this is a point of concern of, "How do I trust that it's not going to screw up my workloads. Can I roll it back easily if I approve it?" So now by going through AWS' recommended way of making changes. It sounds like all those concerns go away for your customer.

Rahul: [07:13] Correct, and this adds on two parts. Number one is all the finders and fixes that we have are all AWS recommended finders and fixers, and we actually work closely with the AWS teams to vet them and make sure that the changes being made are all correct and won't harm or hurt any deployment. The second is the mechanism by which they're deployed are secure, safe, and again, the AWS recommended way of doing it.

DR: [07:34] That's awesome. So I'm sure as you've been working on this, you've found a sweet spot of customers, and so what's the profile of the AWS customer that benefits the most from CloudFix?

Rahul: [07:46] Yeah, so CloudFix basically works for anyone that's spending any money on AWS, and in fact, our initial scans that you can just sign up and get the scan. That is free for absolutely everyone. However, the sweet spot of getting maximized savings happens with customers who are spending anywhere between 20 million and a billion dollars with AWS.

DR: [08:06] A billion dollars. Oh, my God.

Rahul: [08:08] You'd be surprised. There are multiple billion customers at AWS.

DR: [08:13] Yeah, I guess, I imagine at a billion dollars, you probably have enough negotiating power to negotiate some built-in discounts with AWS. You're not just buying the list price.

Rahul: [08:21] That is right.

DR: [08:21] Yeah. Yeah.

Rahul: [08:22] That is absolutely correct.

DR: [08:23] That is amazing. So tell me about those awesome customer success stories. How much money have you saved? I understand there's probably confidential issues and publicly traded companies probably don't want you sharing how much they were wasting on AWS. But yeah, can you just, like, wow us with some of your really great stories of some of the savings we've been able to uncover for some of your customers?

Rahul: [08:45] Great. So without naming names, I'm going to describe a situation with one of the customers who has been very successful on the platform. There's this customer who spends roughly about $150 million with AWS annually, and they've just had a ton of waste all over the place, and we've actually been able to, once they onboarded on cloud, they are on a path to save roughly $66 million over the next three years and with literally zero effort on part of their teams. This is just completely automated. It just works around the clock, and they're on track to save about $66 million by doing nothing else over the next three years.

DR: [09:25] It just drops to the bottom line.

Rahul: [09:27] Correct.

DR: [09:28] For them, this was a matter of weeks or months. You install the tool, run it, and you're like, "Boom, you can save $66 million, just push this button."

Rahul: [09:35] I believe the onboarding was about 10 minutes, and then they did get on a daily 10 minute check-in to just see how much they saved each day, and that was it. That was how they cut their savings.

DR: [09:48] That's amazing.

Rahul: [09:49] It was that simple. It was really that simple.

DR: [09:51] Yeah. That sounds awesome. So I guess, one obvious question, this tool is geared, I think, only towards AWS, so doesn't work on Azure or Google Cloud. So my question here is doesn't AWS feel targeted? Do they hate that you're helping their customers cut their spend and save a ton of money?

Rahul: [10:12] Okay. So number one, we are AWS only for a simple reason that we have 15 plus years of experience working with the product teams at AWS and a deep expertise in truly understanding how things work. The complexity of the cloud, I don't feel confident about doing that with Azure or GCP moving variables. So we are AWS only and we intend to be AWS only.

DR: [10:33] Okay, got it.

Rahul: [10:34] The second part of alignment with AWS. Well, I asked Jeff Barr, the chief evangelist of AWS, that very question, just a few days ago. So check out the livestream called AWS Made Easy where we just posted the clip, and I asked him this very straight question and his answer was, what we are doing at CloudFix is extremely aligned with everything that AWS believes in and does. It aligns with the number one leadership principle of AWS, which is customer obsession.

                 [11:07] AWS in fact, has four different teams that are dedicated to FinOps and cost optimization. There's the cloud economics team. There's the optics team and a bunch of other groups that are just working really hard to make sure that customers are optimizing their resource usage at AWS. So it's a very big priority within the

organization and they're extremely aligned. In fact, if you look at all of the CloudFix material, you'll find that there are guests from AWS service teams that are coming in and saying, "Please do this the right way," and they work with us to get that message out so that customers are making all the right decisions with the way they're deploying their applications.

DR: [11:47] Well, for any cloud, I know you guys don't work with Google Cloud and Azure. But the big case for moving, and especially for us when we talk to telcos, the big case for moving to the public cloud is saving money. So when that business case doesn't come through or it's not as strong customers start to think about repatriation, it's cheaper on-premise. So I can totally see the case where AWS is like, "We want to help you make that business case, save tons of money." But then I think the other thing that it does, the flip side of that is you start to open up and create budget for other new products that they're coming out with, for example, generative AI workloads that have come onto the scene.

[12:28] So, instead of having to ask their customers, find new budget for these new experiments, I'm like, "Hey, use this tool, save a bajillion dollars and then take some of that money, and you can either drop it to the bottom line or you can use it to start investing in generative AI stuff, and you didn't spend any more money." That, to me, makes a ton of sense for AWS to be totally behind and psyched that CloudFix is creating budget for some of these new things that they want their customers to try.

Rahul: [12:56] Correct. I think there's one other aspect. You're absolutely right in the reallocation of the savings into all of these new services like generative AI and so on. But there is also an internal frustration within AWS where a lot of these customers moved to AWS parking themselves on EC2 instances and Kubernetes, and they think that they're in the cloud.

DR: [13:16] Correct.

Rahul: [13:17] But that's not the end state that AWS ever imagined that these customers would be.

DR: [13:22] Yeah, that's a lift and shift.

Rahul: [13:23] Yeah, the lift and shift and staying with EC2 and Kubernetes is not the end state. In fact, you're missing the point of the cloud if you're stuck over there.

DR: [13:31] Totally.

Rahul: [13:32] AWS wants customers to use the higher order services, the Lambdas, the serverless services.

DR: [13:38] The software.

Rahul: [13:39] Exactly. The managed databases like Aurora. All of these services are basically where all the true value.

DR: [13:45] The machine learning, all of that cool stuff.

Rahul: [13:47] SageMaker, all of those things, and that's where all the value of the cloud is. I think AWS realizes that they have to get their customers using that so that they truly leverage the value of the cloud. Right now they're not doing that, and AWS sees that as a big mission to help their customers get out of there.

DR: [14:05] Well, I think it's a risk because people are like, "Okay, I'm here in the public cloud, big whoop, nothing really changed."

Rahul: [14:10] Correct.

DR: [14:11] Price is maybe even more expensive. So you get them there and that's like a Herculean effort, especially in telco, and you get them there, and they're like, "Wait, what's the big deal?" So you really got to take them to that second phase or the third phase of using the databases like we talked about, and then obviously those higher order bits around AI and machine learning, and so creating budget. "I'm already spending a hundred million dollars

with you or $200 million with you, what more do you want?"

Rahul: [14:37] Correct.

DR: [14:37] So it's so important for AWS' long-term success is that telcos really see those savings and then really start to get the big deal about the public cloud.

Rahul: [14:48] Exactly, and the best part is actually getting these savings is really easy. The underutilization of resources and some of the super easy fixes can get you anywhere from 10 to 30% savings very, very easily. So it's really easy to take that and deploy it in something else.

DR: [15:06] Yeah. Well, I think of CloudFix as you haven't worn an old jacket in a while and you reach in and you find a $5 bill and you're like, "Oh, free money." But CloudFix instead of $5, it's like finding $66 million.

Rahul: [15:17] A lot of a hundred dollars notes.

DR: [15:20] A shit ton of money. So I went to my first re:Invent last year. Re:Invent is AWS' big cloud conference, and you were launching CloudFix and throwing this big party at the Nobu Hotel in Las Vegas, and I went to it, and I've been following your progress, and over the last couple months you've been sharing with me what you've been doing for large enterprise customers and your customers and customers of AWS, and I was like, "I need to get telcos using this."

Rahul: [15:47] Absolutely.

DR: [15:48] It's no brainer. I mean, telcos are spending big money and I think they absolutely need to know about this tool, at least the ones, obviously that are using AWS, they need to use it. So a few weeks ago we formed an exclusive partnership; we announced it, where we've negotiated a special pricing discount for telcos that use and buy CloudFix. So I'm super pumped about that. I think the catch is you have to DM me to get it. So you can DM

me on Twitter or connect to me on LinkedIn. So I think this is a huge opportunity for telcos spending big, big money. We're starting to reach out to telcos to talk about it.

Rahul: [16:23] No, we couldn't be more excited about this partnership. I think there's tons of savings to be achieved. There's huge value for the telcos, especially when they're spending so much money on AWS. This is a no-brainer decision for anyone who tries it out.

DR: [16:36] I know your customers have been maybe primarily in the United States, but I'm going to take you to Africa. I'm going to take you to Japan. I'm going to take you all over the world and spread the news about CloudFix. So Rahul, so great to catch up with you and have you on the podcast. Thank you so much for coming on and telling the world about CloudFix.

Rahul: [16:55] Thank you for having me, DR. Always a pleasure.

DR: [16:58] Awesome. Stick around because we're ending each podcast with a Telco in 20 takeaway. I have 20 seconds to tell you something you need to know. Did you hear what Rahul just said? Only 6% of EC2 is fully utilized, and when you look at EC2 utilization across enterprises, it drops down to 2%. Talk about massive waste. Enterprises and especially Telcos way overestimate their compute needs. They over dimension and over commit on their EC2 spend because they're coming to the public cloud with an on-premise, old school data center mentality.

[17:36] There's a huge opportunity to lower costs out there, and just having recommendations for savings is not enough. Your team still has the burden and time suck of implementing the changes to realize cloud cost savings. What's so great about CloudFix is that it automatically finds easy ways to cut your costs and it looks for them continuously. You just sit back and watch your spend run rate drop. It's like finding money in an old winter coat, but instead of a $5 bill, it's millions and millions of dollars. Who doesn't want that? Super awesome.

[18:10] TelcoDR negotiated a special CloudFix discount exclusively for telcos because I know it's something every telco using AWS needs. I can't wait to set up a scam for you, 10 minutes tops, to show you why it'll totally work and how you can save beaucoup bucks automatically. So let's do it. Shoot me a DM on Twitter at TelcoDR, or connect with me on LinkedIn and I'll give you all the deeds. Want to learn more about cloud cost optimization? Then go check out Telco in 20 episode four with Cloud Economist Corey Quinn, or episode 39 with Virtasant CEO Michael Kearns.

[18:44] Remember to follow us on Apple Podcasts and Spotify and leave us a five-star review, and also check out our killer YouTube channel and be sure to sign up for my super awesome email newsletter on telcodr.com. Seriously, they're amazing, if I do say so myself. Later, nerds.