

Episode 13

CSG - Jon Fagan, Senior Principal Cloud Architect

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Speaker 0 00:00:00 I'm Danielle Royston and this is Telco in 20. We had so much fun with Mark Price and MATRIX that I wanted to do a podcast with another telco software vendor. And so today we're talking to CSG. CSG is a \$1 billion in revenue, publicly traded American company based in Colorado. CSG put out a press release last spring that caught my eye. They announced a serverless cloud-native SaaS offering architected for AWS. Did you catch those keywords – cloud native SaaS on AWS? Now you got my attention. CSG operates in a space that's near and dear to my heart, BSS and charging, but serverless and SaaS are words we don't hear too often in telco. So I wanted to have CSG on the podcast to talk, shop, talk cloud, and figure out what their story is. So let's take 20 .

Speaker 0 00:01:07 to Telco in 20.

Speaker 2 00:01:14

John Fagan is senior principal systems architect at CSG. John, welcome

Thanks, DR, so much for having me. It's great to be here.

Speaker 0 00:01:16
about CSG and what you do for them.

This is going to be super fun. So I guess to start off, tell us a little bit

Speaker 2 00:01:23 Sure. My role at CSG is, I assist in the strategy for public cloud and a lot of the new innovation work that goes on there. I have a few teams that help set the strategy, work with teams on migrations of products, and am essentially, quote unquote, the cloud guy at CSG. It's a great position and really fun to be in. I'm very fortunate. CSG has been the SaaS provider for many, many years, and we offer on-prem public cloud and data center-based products to our customers, uh, specifically focused in the telecom industry and telco entertainment. And we offer a wide variety of solutions that cover everything from payments to customer care, to digital monetization and revenue management. So it's a very, very exciting and forward looking company.

Speaker 0 00:02:18 dollars in revenues.

Speaker 2 00:02:22 even more.

Yeah. And you guys are pretty big. I think you guys are about a billion Yeah. About that. Yeah. We're excited about that and excited to grow That is awesome. I met you, I guess it was back in the fall of 2020. We

Speaker 0 00:02:27

were on a TMForum panel about CSPs migrating to the public cloud. And I think you and I were pretty aligned on what's happening.

Speaker 2 00:02:44 Absolutely. Gosh, you know, I would say four to five years ago, I was starting to say things like, when are we going to change our strategy from, we should go to public cloud to, we should justify why we're not going to public cloud. Thankfully, uh, where I work at CSG is very progressive and that caught on, that got legs. And I one hundred percent agree with you. Uh, if companies aren't proving why they shouldn't go to public cloud, then they absolutely should be running at it. That's where we're going. That's where customers need us. And it just makes the most sense. Yeah.

Speaker 0 00:03:18 Awesome. So you guys put out a press release. I think it was in April of 2020, where CSG announced a new serverless cloud-native charging SaaS module that you call Ascendon rating and charging that's architected on AWS. And so I guess my first question is, when you guys say cloud native, what does that mean? Like what about your software makes it cloud native?

Speaker 2 00:03:41 Yeah, that's such a great question because cloud native is kind of the new term and cloud native to CSG as a huge technical component, but we don't view it purely as a technical step. We're a very big dev-ops company. We strongly believe in that. And part of that is not just getting sales in front of customers, but it's also aligning the product teams and the sales teams and the technical teams. So you have a much closer collaborative work environment. And with Ascendon rating and charging, this foundation is already there. We believe it scales way better. We believe you can answer your customer needs faster. And then of course on the architecture side, you're starting to take advantage of the hyperscalers. In this case, AWS' native technologies. So you can get the elasticity and the resiliency and the fluidity of public cloud. It's an all-encompassing thing. Cloud is a company changing event.

Speaker 0 00:04:41 I totally agree. I mean, it's everything from the culture of how you work. And the whole point of moving to the public cloud is not just to run it in that place, but to really leverage the services that they offer to get the full back.

Speaker 2 00:04:54 Gosh, you say that so well, you know, the cultural side is a huge part. You have to constantly invest back in your people. And at CSG we're a really big, diverse and value driven culture and people are at the center of everything we do. And I can't state like how big that is and important.

Speaker 0 00:05:15 Yeah. I think HR is a big, huge component of moving to the public cloud. I don't think enough people talk about it. Yeah. Yeah. So why did you guys pick AWS? The reason I ask is a lot of times in our industry, telcos like to really throw their weight around with the vendors. "I don't want to run it there. I don't like Amazon. I want to run it on a different hyperscaler or in my own private cloud." And so how do you guys address that kind of pressure that the telcos kind of apply to us all the time?

Speaker 2 00:05:42 Yeah. Like one of the core philosophies of our business is that we have always gone to where the customer needs us. It's a consistent, ongoing journey. We've got a traditional SaaS running out of some data centers. That's still very viable and still providing great benefit. And parts of that have been moved out to AWS for certain customers. We've looked at moving some of those products out to Azure and we've got some on-prem as well. And so for us, we have more experience in AWS, but that's just because that's where our customers have been. I would say that we are truly cloud agnostic in the sense it kind of brings up, uh, it could be a rabbit hole conversation, but the concept of multicloud is another very ambiguous term, you know, as well as I do, the industry is not there in thinking that you could just shift workloads and products around from hyperscaler to hyperscaler seamlessly for your customers. You know, there's an investment that has to be made there. I mean, it's a huge investment. Oh, it's huge. Huge. Yeah. And so early on we picked a horse and that horse was an industry leader and still is. And so instead of saying, yes, we're now going to take on a new hyperscaler and work to be that full multicloud environment. What we do is we're very purposeful about this. We'll go on this hyperscaler. It has a limited scope, limited footprint, but it's valuable for this customer and we can make the investment to do that.

Speaker 0 00:07:14 So it sounds like you guys have a preference for AWS. If they don't have an opinion, that's definitely number one. But if they push you and they're like, I really needed an Azure, it sounds like your tools are able to at least run from Azure and you guys will do that.

Speaker 2 00:07:30 Yeah. I mean, at the end of the day, if you're going to be cloud agnostic, you have to choose the manner in which you're going to do that. And for CSG, there's big investment and there's some risks there. So we certainly have a lot of experience in AWS and we're growing in the Azure space and we've done a little bit in Google as well. Uh, but we also have on-prem solutions. In certain countries, there's contractual and compliance reasons where we have to have it in their data centers. And so we offer that. We also have in North America some products that run out of our data centers as SaaS. So I would say that our future, where we want to go is to be a hundred percent public cloud, but that's a ways away, but we're certainly cloud agnostic in the sense that we always want to go where our customers need us, but very deliberately and where it makes a lot of business sense.

Speaker 0 00:08:22 But I think you have that issue in terms of like just now talking architecture and software development in terms of, you know, designing something that's cloud agnostic. So you can move it when necessary versus deeply integrating and using the services of the public cloud. And so that becomes this tug of war of like, I'm flexible enough that I can run it wherever our customers want us to be. As you say, versus I'm very experienced in AWS and deeply leveraging the services of AWS. So have you guys like designed it to be pretty cloud agnostic, so you are able to move it where your need it?

Speaker 2 00:08:56 It really depends on the product. So for instance, for Ascendon rating and charging specifically, that has been built to take on the full AWS spectrum of products and functions very well there. We do have some other products that we offer, like single view,

where they don't take advantage of some of those cloud native items or very little bit. And that allows us to deploy in different environments in different hyperscalers. For instance, we have some customers that will ask us, can we host this in our Azure environment? And so we have to have an answer for that. And we want to have an answer for that. We would just say, here are

the capabilities of that product and here's what it can do, but this idea that you could kind of be able to take a product and architecturally design it so it's completely agnostic, I would say is very difficult and tricky. What we do is we look and say, what of our products can run on multiple cloud vendors?

Speaker 0 00:09:56 It sounds like the reading and charging module probably couldn't right. You're like we've made some decisions that it we're leveraging more services from AWS. So it's always going to run in AWS and then there's other ones that have a little bit more flexibility and you can move them around.

Speaker 2 00:10:10 Yes, exactly. Exactly. It's very like what I would say. It's very purposeful for sure.

Speaker 0 00:10:16 Yeah, no, I got it. So how many deployments do you guys have running on the public cloud today? Like across your customer base? Roughly?

Speaker 2 00:10:23 Yeah. So I would say across multiple products in different verticals, there's 50 plus deployments, for sure. Yeah. Just a rough estimate.

Speaker 0 00:10:32 That's a ton. I mean, I think a lot of people are single digit still. I mean, maybe not Amdocs, I think, you know, that just their size, but that's certainly the most that I've heard. So that's really awesome. Yeah. And so I guess my next question, which is like this famous telco question, right? Which is, Telcos love to customize their software, they're famous for it. As the CEO of Optiva. And we certainly ran into this, which is they lean on you pretty heavily to customize it, customize it now, customize it my way. Here's all this money. And a lot of vendors in our space are happy to take that money and make the product do whatever they want to do. So how do you guys, especially with the public cloud, allowing the telcos to continue to customize and modify your product, how do you guys manage that?

Speaker 2 00:11:20 Yeah. I mean, I think that, gosh, I could answer that question in a lot of different ways. Number one, I think that's where we're at. It is a habit, right? And you do have the power as a customer to ask for that, or sometimes even demand that we have multiple approaches to that. But there are core aspects of our product that we offer to every customer that we work with. And then if there are customizations, we treat them separately. So for instance, think of it as there would be a main trunk that has the main aspects of your application code. And then there are customizations that customers will ask us to do. As you know, it's like a sidecar to the main trunk.

Speaker 0 00:12:01 I think the problem that happens with a lot of customizations, right. Using your analogy, the sidecar starts to kind of like weigh on the motorcycle, right? Slows you down, or it's a little bit heavy, it's a little bit wobbly and it starts to add time to your upgrade processes, right? You're not as nimble as you were. It's not just a simple, like update the product you're now having to like end-to-end test with all the customers.

Speaker 2 00:12:26 I think the way that you get around that is we practice decoupled architectures and continuous delivery, continuous integration. So you're not having these big watershed moments of "now the patch goes in," right? It can happen in a nimble way.

Speaker 0 00:12:40 Typically people do it via an API and we make sure you're holding up to your API standards and not deprecating old ones so that you're having to test a lot. Sure. So another question I had just reading through that press release was that you guys described it as being software as a service or SaaS. And so is that because that's how you paid for it, it's a subscription it's rented and you guys are managing the underlying infrastructure or is the system multitenant? Or are those, I think you said you had like 50 ish customers, running as different instances in the public cloud?

Speaker 2 00:13:13 So part of being cloud native is taking advantage of things like containers and very flexible technologies like that. And so it is a multitenant environment. Yes. And, we offer it as a SaaS, right? So where CSG is really going is to not necessarily just offer products anymore or offer straight solutions, but to offer platforms that are very consumable. So this arc is part of the SaaS solution. That's part of a platform that customers can consume and we manage it with Amazon and it is multitenant, but there is some segmentation practices in place so that we can ensure that customer's data and all of those kinds of things don't interact. And that allows us to provide a wonderful level of compliancy, but also their segmentation is there just for better operational performance.

Speaker 0 00:14:06 Yeah. And so when you guys decided to do an update to this platform, does it work a little bit like Salesforce where customers can't really stop it from happening? You're pushing it out midnight on Saturday or whatever, and out it goes? Or are customers still in control of like, "wait, I don't want the upgrade now," or "let's schedule this at a different time of the year"?

Speaker 2 00:14:28 There is a tremendous amount of coordination that goes back and forth. There's some things that we're going to put in that if we see the environment acting in a specific way, we want to be able to put things in that won't negatively impact our customer base and be able to continue functioning. And then if there's larger quarterly releases, then we have specific release times that we always do that on a set times and on set and in coordination with the customers. So you have to react in the entertainment industry as, you know, if there's a big event, right. If there's a big fight or something like that, you've lived through this, you have to say, okay, we can push this a day. Right. Or we can push this a few days. That's fine.

Speaker 0 00:15:07 Yeah. I think the decision to allow customizations, right, kind of flies in the face of getting this nimbleness around faster and faster software delivery. And so I think for truly SaaS and multitenant, you know, it's not so much that you're not a partner, but you're just like, we're delivering at the speed of light, you know, relative to the way, the way that they operate right now. But it's certainly not the attitude in the industry today. Telcos are, "I'm in charge, not you." And so I don't know if that will ever work in our industry.

Speaker 2 00:15:41 I always play the middle somewhat. Because where we want to be is being able to be a part of our customer's business and help them with what they need and to be able to do that, it might slow down some of those releases like you're talking about, but the longer term is more valuable to us.

Speaker 0 00:16:00 And there's one thing about telco, it's all about relationships, right? So before we go, I got to ask you one last question. One thing that I do when I have a guest come on, is kinda like cyber-stalking a little bit. And so I don't know how many people know this about me, but I'm an internationally ranked competitive tennis player. I'm just turned 50. I still compete. I love it. I have my goals for tennis. But, um, I found out that you used to be a professional ballet dancer at the American Ballet Theater in New York City. And that's one of the best ballet companies in the world. I mean, I mean, insane. So now you're like the cloud guy, how did that happen?

Speaker 2 00:17:10 Um, I was very fortunate to grow up in a very artistic family. My father was a conductor, my mother as a concert pianist and my whole family is in the arts. And, you know, I was lucky enough to get into dance and find that love at an early age. And it was at the time, one of the great dancers of our generation, Mikhail Baryshnikov, defected to the United States and started dancing with American Ballet Theater. You're like, "Hey, I want to do what that guy is doing." And I was fortunate enough to grow up in an environment that fostered that and was very open about let's let John do these things. And then I was lucky enough to go to a professional school in Winnipeg, Manitoba, Canada, and then met my wife there. And then kind of unheard of, get these jobs at American Ballet Theater, you know, as you said, one of the top three to five companies in the world. So, so many benefits that I've taken and learn from that and applied to, you know, the next chapter of my life and the discipline, um, fostering innovation and thinking outside the box and looking at things in different ways,

Speaker 0 00:18:22 The combination of athleticism and artistic newness. Right? Yeah. It's just incredible.

Speaker 2 00:18:29 Yeah. I appreciate that. I was very lucky to accomplish a life's dream at a young age and then everything else has been great. Yeah.

Speaker 0 00:18:35 Well, I'm going to brag on you. We're going to put this in the show notes, but there was this great review in The New York Times that you portrayed Paris, one of

Juliet's suitors in Romeo and Juliet, and they remarked that you were nicely stolid. So we will link that in the show notes because that is super awesome and very impressive. Okay.

Speaker 2 00:18:53 Well, thank you. Thank you. Now it was an awesome experience. There's a lot of brilliant people and so there's a lot of luck involved as well. And I was certainly very lucky to be able to get those opportunities.

Speaker 0 00:19:04 Well, I really appreciate you coming on the podcast today, talking about what CSG is doing with the public cloud. And, uh, just want to say thanks so much.

Speaker 2 00:19:20 Thanks Dr. It's always great to chat with you.

Speaker 0 00:19:27 Fantastic 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.

So the other day I got into a little Twitter fight. I noticed a press release sent out by Netcracker claiming they had deployed an on-premise SaaS system. And I sent out a tweet asking, um, what the fuck is on-premise SaaS?

And while technically this can be done. For example, with a centralized Kubernetes management system, sending out upgrades to a variety of installations in a variety of locations, it is misleading. In fact, it's intentionally misleading to a specific set of readers of that press release – to investors. See SaaS is not just a technical term. It's a big investor buzzword. It implies more than just how it's licensed. It implies how the company is run and how the product is managed. While telco software companies usually trade between one to three times revenue, SaaS companies can trade for five, 10, or even higher multiples of revenue, which translates into a big stock price and big money for investors.

So what is SaaS? What makes SaaS company so valuable is the economies of scale you get from running a product based, not very customized, centralized multi-tenant system. A good example would be Salesforce or Workday or Zendesk in telco.

Most existing software companies got their start as traditional software companies, where they had to support multiple versions, mostly hosted on-premise with lots of customizations and you know, how much telcos love to customize their software, which makes it really hard to pivot into a truly SaaS telco software company.

So do some digging and ask, software CEO, tough questions like is the system centralized and is it multitenant? Ask if the product is highly customized and make sure that SaaS company you're backing really is truly SaaS.

But what do you think the definition of SaaS is? I could do a whole podcast on SaaS. Maybe I will. And my tweet about all of this got a lot of responses, including one from my snarky pal, Corey Quinn. So let's keep talking about it. DM me on Twitter, @TelcoDR. Send me a message

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