

- DR: [00:00] I'm Danielle Royston and this is 'Telco in 20.' I'm Danielle Royston and this is Telco in 20, guess what guys, it's time for another What's Up with Totogi?
- Music: [00:19] What's up with that? What's up with that? What's Up with Totogi?
- DR: [00:26] What's up? Today, we are talking about enterprise software deployments. Anyone who works with enterprise software knows that what really matters is getting the system up and running. So it's providing real business value. Enterprise software is notorious for being expensive, under scoped, and over promised. To make customers successful, software companies must get these systems deployed. It is hard work and sales slinging, whatever they can sell, oftentimes it falls in the lap of the delivery team to put it all together. You can understand why that might make them a bunch of grumpy bears, but the way Totogi delivers its software is different. And today on the podcast, I'm joined by our global head of delivery, Damon, to talk about why. So let's say 20, Damon is the global head of delivery for Totogi. Hi, Damon. Welcome to Telco in 20, What's up?
- Damon: [01:25] Thanks DR. I love it. I'm mean glad to be here.
- DR: [01:27] Oh, I love that song so much. It's dorky, but whatever. Okay. So today we're going to talk about deploying enterprise software to Telcos. And I got Damon here, who's working with us at Totogi. And when you think about enterprise software companies, obviously the product is super important, but everyone knows that really it comes down to, are you able to deploy it and get it to work? And we don't realize how hard that is. It's a really hard job. And sales gets all the glory, the ticker-tape parade when they bring in a new deal, bells ringing, big celebrations, and the delivery side of the house is left to figure out how to make it all work. And so to start, talk to me, Damon, how long have you been deploying charging systems in Telco?
- Damon: [02:14] You wouldn't believe it, but this is now my 29th year. So I started in '94.
- DR: [02:19] Wow.

Damon: [02:19] So I started off in Deloitte and I was a data migration specialist working on large Telco projects so that was wireline wireless BSS/OSS. So I implemented Amdoc. I implemented the Oracle stack and then over time I then went and worked for Motorola of all people. Did a role in BT. And then for the last 10 years I've been working in the charging domain. So I headed up the professional services team at Converse, and then spent about five years with Matrix running their professional teams globally. And then 18 months ago, I get the apocryphal call of would you want to do this again? And by the way, I've got a completely great idea about doing this on the public cloud. And we're going to build a charging system and I want you to start and do it completely differently to everybody else. And we didn't even have a name for it at that point. So we now lovingly call it Totogi. So yeah, that was the start of the journey.

DR: [03:03] Yeah. I mean, obviously you've seen some real charging deployments around the world, 10 years deploying specifically charging systems. So tell me why is it so hard to deploy a charging system?

Damon: [03:15] I mean, it's expensive stuff to do. You are literally managing every single piece of revenue coming through that operator, the hardware that goes with them. You're looking at trying to get things across borders, to get data centers filled up with the right kit. You've got third party software components, the whole supply chain you need around that charger. So the infrastructure, the data base licenses, the capacity that you need to build in the failover, the cabling between data centers, for redundancy and resilience, it's not just the software. And then on top of that, you've got 8,000 different price plans, which are in 84,000 lever arch files. And you fundamentally have to redesign that, but can we make it look like it used to look because we are like our old system and that's how we do it. And if we change anything, everything breaks. So the complexity as well, it's just huge. It's a disaster.

DR: [03:59] Well, yeah, I'm relatively new to Telco. I've been Telco coming up on six years, became CEO of Redknee and it was a charging business. And one of the largest customers was located in India, a huge population. So the operators, our customer was about 250 million subscribers and we were doing prepaid data charging. And so the way that we deployed was like you said, on-premise getting hardware across borders, what we did was we

had six sites across India and then another six sites for failover. And so what it really was, was 12 deployments under the hood of one customer. It's really hard. And I sat back and I was like, "Oh my God, there's got to be a better way to do all of this stuff." I feel like I'm in the dark ages, deploying software this way.

Damon: [04:48] Yeah. I think just by the very nature, six centers, six failovers, alone, just the networking that has to go between them, just to make sure that everything is flowing this insanity. And that's one operator in a country of what, 1.4 billion people with 1.15 billion subscribers.

DR: [05:07] Well. It's actually where I got the idea for doing the public cloud. I was like, "Guys, have you heard about AWS? It's pretty amazing." Everyone knows this story about how everyone tells me I'm totally wrong. This will never work. And I'm so excited to go do this again. I think this is a really big idea. And that's when I met you and I was like, "Okay, Damon, if you're going to be head of delivery, this is what we're going to do. We're going to go build this in the public cloud, but I want you to be able to deploy charging in a week.

Damon: [05:33] Yeah.

DR: [05:34] And what was your reaction when I said that?

Damon: [05:36] Yeah, yeah. I mean, this is where I think memories differ. And ultimately I remember it that you were talking about weeks. I thought it was plural. Obviously my hearing wasn't great that day.

DR: [05:48] Well, now I say days, how about that?

Damon: [05:51] Hey, at least I got the plural. I got days. So I'm happy.

DR: [05:54] All right. But now I'm pushing you two hours.

Damon: [05:57] Yeah. I knew that was coming, but again, at least I've got a plural. So I've got something to work with.

DR: [06:01] Well, I think the difference in our conversation when I was recruiting was, I knew it'd be running as a SAS product, literally a platform. And I'm like, "There will be no hardware to buy. There'll be no hardware to set up. There'll be no networking. There'll be no

data centers. There's no failover to set up. The capacity is built in. And so all of that just is gone.

Damon: [06:20] Absolutely. And it's a great challenge because ultimately I had to pick my own preconceptions about how we could do this, but also what then that gave me was the springboard to say, "Okay," having done it in such a prehistoric way over the last 10 or so years, what would I want to do differently? And we have absolutely changed the way we implement. We are doing it in ways now that I would not even imagine we're possible.

DR: [06:43] Yeah, and so we're joking, but we're also a little bit serious. Obviously, I said weeks, and we're getting that down to week. How fast can we do it now?

Damon: [06:53] We are to a point where days is the target. And actually I've got an example now where it was a pilot implementation, but we actually had a live connection to a network. So we started on the Tuesday morning at 8:30 and by 5:00 PM, we had provisioned most of the sea level devices. We actually connected the live network to our live engine. And within eight hours we had calls being made.

DR: [07:19] I love these stories. I love it. When I hear from the delivery team, because it all comes down to your team. That's making this all really happen. And our customers are like, "You need to be charging within 72 hours, right?" And I turned to you and I said, "Damon, you need to do it in one day." I don't know how you do it, but freaking figure it out. And you guys are like mic drop eight hours later. Charging records going through where our customers say to us on the regular, it was so unbelievable. I had to go look at the call records to make sure it was true. Because they don't believe it.

Damon: [07:54] Even to the point where we've built the management tool sets to show them the records because they don't believe that they are processing through the system.

DR: [07:59] It's unbelievable. So tell me, Damon, what is so different about Totogi that we are able to do this. And again, everyone's perspective is the old school on-premise, unpacking servers, and cabling and all this crap. Why is Totogi so different?

Damon: [08:13] I'm going to go back to first principle. The first thing is actually a public cloud-based platform. Everybody misses this fact, but it's deployable anywhere across that AWS architecture. So there's that, it's running now. We've got nothing to set up in terms of infrastructure, the gateways are available. We are running multiple tenants. They've got one code base, one engine every few weeks. Well, our really smart CI/CD processes. We drop new function IT into the system. And if we find a problem, we can solve it there. And then everybody gets the benefit of that. We've got open APIs. So integration to our engine, we've got customers already doing their own integration work. My team is literally sitting there advising them. We're not writing the code. My team don't maintain a code base for each individual customer and it's SAS. So we run it. We can deploy a tenant within minutes through an API.

DR: [09:01] Well, I think that's one of the things that people don't really get about to Totogi, which is people think about chargers being deployed customer by customer, one implementation at a time. And I'm going to make the analogy. I've done this before to Siebel that's how Siebel used to deploy CRMs. You would customize it. It would be yours. You were in control of those upgrades. You were control of the customizations. It became very bloated and very expensive and very difficult to maintain. Whereas, Totogi is a lot more like Salesforce. You want a new instance of Salesforce. You just go to salesforce.com to say starting a trial, give a credit card. And you're up and running, anybody by Totogi charging engine for one penny, we send you an email and a couple hours later you're using it. No one does that. It's crazy. And I think that's the multi-tenant piece. The fact that it's like a platform that it's already running right now, there's no work for us to do, literally just plug in your network and you're off to the races. That's usually the longest part is just doing that work.

Damon: [10:03] But I also think that we've actually looked at how you automate that process. Everybody else will sit there and you'll get design documents and they'll wheeling their expert. You don't need that with us because we have literally from the very foundation of what we built thought about, how would you want to deploy this as a SAS product, as a public cloud product? It's a very different way of thinking. And I'll be honest. It took me some time to get my head around the fact that we could do it differently, right? I mean, let's be honest, right? I mean, I was-

DR: [10:31] Right. And that's been my biggest problem is getting everyone's head wrapped around what we're trying to do right? Because it's so mind blowing different and people are so used to, this hard sloggy work of integrating the network and it's custom every time, and we're just doing this whole different way. It's awesome.

Damon: [10:49] Great.

DR: [10:49] Yeah. I wanted to talk a little bit about, you've seen charging being deployed in many different ways, including Totogi. So you're this unique individual that has a really great perspective. And so how long does it take to deploy those other charging systems from ink drying on the signed contract to first charging transactions, starting to go to the system?

Damon: [11:09] I think the quickest one I ever did in what I would call the prehistoric way, I was four and a half months was the quickest I ever did one.

DR: [11:15] Record time, four months.

Damon: [11:17] Yeah.

DR: [11:17] Right.

Damon: [11:18] Four and a half months. Yeah.

DR: [11:19] And then now it's a Totogi, how long does is that take realistically? I know, I always say days and hours, but-

Damon: [11:25] From the point at which you sign, I mean, we should be up and running on the network, talking to the charging platform in one to three days because the gateways are there. They're already running.

DR: [11:34] And it just freeze up 11, fill in the number, how many weeks? But almost a quarter's worth of time to now focus on the other parts of the deployment like plan migration.

Damon: [11:44] Yeah.

DR: [11:44] When we start to show that you don't have the code your tariffs, and your plans, and people's minds just literally explode,

because I'm done. I'm not saying migration is easy or fast, but with the Totogi system, it is much easier and much faster than typical charging systems.

Damon: [12:03] And it's done through APIs. You can see those APIs they're published. We don't hide any of that stuff. It's all open to anybody who wants to use it. We've got massive scale. We've got massive flexibility. We can scale horizontally, vertically, whatever.

DR: [12:13] Yeah.

Damon: [12:13] You talk about India. 1.1 billion subscribers. I used to sit there and worry about moving a hundred thousand subscribers are looking at the scale of what we got now and thinking a billion. Okay. Could I do it in a night? Is that craziness? Yeah. That's how much performance we've got on our fingertips.

DR: [12:27] Well, I think your point is that it's already running in production, right?

Damon: [12:30] Yeah.

DR: [12:31] Usually there's a go live date where you switch off the old and you go on the new, the difference with the Totogi is it's running in production from the beginning. When you buy that for a penny on AWS, it's already in production. So put on one sub, a hundred subs, a hundred thousand, a million, a hundred million. It's the same code it's ready now can put on a billion subs.

Damon: [12:55] Now was just saying we can run it to a billion. No mean it's-

DR: [12:57] It's the same code. It's not like different code. That's what we love about it. And so here's another thing I think is really different about Totogi just in terms of the number of people required to deploy it. Oh my God, how many people do we need to give to this project and carve out their busy days to help you guys deploy the new charging system. Talk to me about the difference between the old way and the Totogi way in terms of the customer requirements of the people that we need to get involved in our projects.

Damon: [13:23] The last implementation we did, I had a massive team of three. I think it was something like four weeks of work, but that

was 20% for each person. So effectively we are looking at just over one person full time for that. And it was pretty much mirrored by the customer. They had their product expert in there. Occasionally, they had their network security people in there. Occasionally, they had their network experts who were helping us create the connectivity and the IP addressing. But again, for them it was probably 30%, 40% of their time. So they had the equivalent of two people. That was it.

DR: [13:57] So you're asking for a handful of people, maybe half of their time. And we have a small team on our side, three, four people working through the process and that's it. And you're done

Damon: [14:09] But different roles. I mean, that's the other thing, right? They're different roles and they bring you unique skillset, but they're not there full time. They're not sitting on site. They're not charging you for being there. It's literally advising you, helping you. But my team work on multiple projects and 20% of their time is all you need to actually get this up and running.

DR: [14:23] Yeah. Well just going back to my customer in India a couple years ago, we needed a lot of people because we were deploying in six different places. And so we needed hands and feet, setting up computers and servers and cabling, and all of this complication because I'm running in the cloud. I don't need people in six different places. I don't even need them to be in India. And from our side, our team sites just doesn't need to be super big. But then from the customer side, we don't need them to go escort us into their data centers and double check our work. So the requirements on the customer side is just so much lower. And so I think about the 5G spectrum auctions that just happen in India. These guys are starting to look at new tools. 5G is written to the cloud native standards, those operators, which have some of the largest number of subscribers, 200, 300, 400 million subs with some of the lowest ARPU in the world are looking for tools like to Totogi. And so I think Totogi is perfect for India.

Damon: [15:29] Like you said, "Six centers, six failovers."

DR: [15:32] Yeah. 12 sites.

Damon: [15:33] All The networking, all the electricity. I mean the network operations team alone would be about 84 times bigger than our



company. Just to keep that thing running because you have to have that in-house capability.

DR: [15:43] We don't need hundreds of people to deploy our systems to the world's largest Telcos.

Damon: [15:48] Exactly.

DR: [15:48] It's fantastic. And so speaking of India, I'm going to be there on September 13th, giving a keynote at voice and data's 5G and the future of mobile data conference in Dehli. And I can't wait to tell him about Totogi.

Damon: [16:01] That will be awesome. As long as you don't come back and go, by the way, you've got days to get it implemented for a billion people. I'll be Frank at least give you a couple of days warning, right?

DR: [16:08] I'll give you month.

Damon: [16:11] Is that months? Oh, no kidding. I got you.

DR: [16:13] I'm kidding.

Damon: [16:13] I hear you.

DR: [16:13] I'm kidding. I know Damon, you love fast cars. You love fast things and now you have fast Totogi. And so how fast does Totogi change your perspective on delivering systems this way? Have I turned that frown upside down?

Damon: [16:27] No, I'm always going to be grumpy, but it's made it better. I mean, seriously, it's just because I'm passionate about what I do. And my thing about fast cars, classic cars are wonderful. I've got a couple of classic cars in the garage. They look beautiful, but they just don't work. We got to start driving in the 21st century. We've got to move to where we should be going, which is not worrying about the infrastructure, not worrying about the network, not worrying about building this thing in a way where you need a hundred people in the team to do it. I'm glad to see that Telco's getting there, but there's a long way to go.

DR: [16:53] Oh, there's so much more to do. And I can't wait to go do it. And Damon, first of all, thank you for shoveling all the ship from

sales to make all of this work. I appreciate, but thank you for coming on the podcast and helping me make my crazy charging vision of reality. You're amazing.

Damon: [17:09] Oh, well you're very kind.

DR: [17:10] 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. Damon and Danielle just talked about something super interesting. India is the perfect place for Telcos to use the public cloud. It's home to almost one and a half billion people with some of the lowest ARPU on the planet. Telcos and India need world class carrier great software that can handle India's scale at a low price software companies like Totogi. That use the public cloud natively help solve the seemingly unsolvable equation. For example, Totogi can handle India's scale. With the public cloud, Totogi can handle the charging traffic of 1 billion subscribers on one instance. Also, Totogi is 80% cheaper than any other vendor out there. Totogi prices by the transaction starting at one penny. And you can pay as you grow with five and growing hyperscaler data centers in India, wave your data sovereignty issues. Goodbye. You can control where your data stored ensuring it never leaves India. Totogi is custom built for the public cloud and it delivers the speed and scalability India needs at an unbelievably low price. You can check my math and you'll see this adds up to make Totogi a perfect fit for the country and frankly, for everywhere else too. And good news Totogi is setting up a lab with AWS so Telco execs can see it for themselves. Plus, it's easy to do a pilot without any hardware to buy, just connect your network and test the system with a few friendly subscribers to see if it's right for you. Want to get started. DM me on LinkedIn or Twitter at telco.dr. I am jumping on a plane and heading to India next week. So let's get in touch and make a plan to meet up. You can also give me a call or WhatsApp me at 925- TelcoDR.

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Later, nerds.