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[00:00] I'm Danielle Royston, and this is Telco in 20. Last week I gave a keynote at the first ever MVNO Nation Live conference in Valencia, Spain. I was super pumped to have a chance to talk to leaders from this segment of Telco. They're a bunch of smart entrepreneurs. They totally get my passion for all things public cloud. In my talk, I make the point that most MVNOs compete on price, but I believe they need to differentiate themselves by delivering an amazing, personalized customer experience, just like all the great internet companies do, and they're in the perfect position to do that.

Unlike telcos, MVNOs are not bogged down with last century's technology and layers of bureaucracy. Instead, they can be like some of the world's greatest brands. I'm talking about Uber, Spotify, and Amazon, companies that excel in creating highly personalized experiences. It's easier than ever to do this thanks to new awesome telco tools being built with public cloud technology. I explain more in my keynote, which I've turned into this podcast episode. It runs about 17 minutes long and even includes two demos of Totogi services. Take a listen, and when you're done, look for a link to the Totogi demos in the show notes. In the words of Speedy Gonzales, "Arriba."

[1:26] Oh, let's take 20. Thanks, Eva. What a great, amazing event you've put together here for MVNO Nation Live. I'm going to try to ask you to keep your eyes on the stage and not on the ocean, which is absolutely amazing. So, thank you. I am super excited to be here. I am, as Eva said, Danielle Royston. I am the CEO and founder of TelcoDR and the acting CEO of Totogi. Everyone knows me as DR, my initials, Telco's public cloud evangelist. In case you don't know me, I'm relatively new to Telco. I graduated from Stanford University with a degree in computer science, and I've been in enterprise software my entire career.

In 2017, I became the CEO of Redknee, a charging company based in Canada. My first question there when I first started was, "What's charging? Is that like billing?" So,

yep, I pretty much freaked out the entire company. But, after a few MWCs, I figured it out, and I noticed something super interesting. Why isn't anyone in telco using the public cloud? That insight is what has created TelcoDR. I believe using the public cloud is a big idea for telco. Network operators, both big and small, are starting to make their move towards cloud native and using the public cloud.

[02:54] For example, Vodafone has a strategic partnership with Google to move all of their on premise analytical workloads to Google Cloud. US company Dish is building their entire new 5G network on AWS. But, smaller MNOs, like M1 in Singapore are using Azure and AWS to get huge benefits. The public cloud is coming to MNOs, both big and small, but it's coming to MVNOs too. In December 2020, one of the UK's largest MVNOs, Giffgaff, who's here today, announced it was going all in on the public cloud, becoming one of the first MVNOs to hand its technology infrastructure and application development to AWS. Yes.

But, some people, not me, suggested that Giffgaff had sold its soul to AWS. Ooh. But, did they? Giffgaff started out with traditional on premise infrastructure like many of you, but keeping up with the maintenance made it overwhelming for their IT team. Taking them up to two weeks to provision a new server. By adopting AWS, Giffgaff has been able to turbocharge their software development. They can focus on innovation rather than wasting time on hardware maintenance. They can quickly evolve their software, they can continue to deliver award-winning service to their subscribers, and it's worked. Giffgaff ranks number one in customer satisfaction, surpassing four MNOs on the list. Big MNOs have huge subscriber bases, but they also have terrible net promoter scores. They own networks but use antiquated client server software built on last century's technology. They're enterprises with loads of talent, but tons of red tape, that entrench the status quo.

[04:53] Why are you trying to be like them? Instead, you need to be like an internet company. Internet companies have small teams, can move fast, and turn on a dime. They have virtually zero infrastructure. They use the latest and greatest technology to their advantage, and beat established players who lumber along with old outdated systems. They use the public cloud. There are three reasons MVNOs should use the public cloud. They should use the public cloud because it's cheaper. With public cloud infrastructure and services, there's no upfront purchase cost and nothing to install. You should use the public cloud because it's easier. You don't need an IT team to manage it. With SaaS products, the platform is managed for you, and you should use the public cloud because it's faster. You can experiment and bring new ideas to market in less time and at a lower cost.

The public cloud is a gift. It democratizes technology, giving you access to world class software, with the ability to scale and pay as you grow. You see, you need to be nimble and responsive to win in your market, you need to be able to add all the greatness of the public cloud to your BSS, the compute, scale, and software, seamlessly. You need systems that give you the power to add a new database or AI capability to your BSS quickly. You need systems that are flexible. You can integrate to whatever you want and customize it easily. You need systems that are open so you can change them without needing expensive CRs or consultants. You need systems that are affordable so you can pay as you grow, without expensive long-term commitments.

[06:46] Your current systems don't do any of that, but my company Totogi does. We are building a BSS enhancement platform to help you do everything I've been talking about. Today, I'm going to give you a demo of our software because you know seeing is believing. Totogi has developed a revolutionary charging as a service platform that consists of plan design and a charging engine. Let's start with plan design. Totogi's plan design is different. Most, if not all, charging systems out in the market today,

that are used by network operators, are rules based. Meaning, code is written to define the plan. Like if, then, else.

Totogi is template based. Plan designers start from a base template and build their plan from there. Plans are really just a configuration of voice minutes, number of texts, and data. With Totogi plan design, the users don't need any IT people to implement the plan. It's so simple that a marketing or business professional can create the plan all by themselves. Maybe want to add unlimited Netflix during weekday commutes to really excite new subscribers. Simply add Netflix with the specified time slots where the data will be zero rated, and you're good to go. Once you're done, just add the price, and with a touch of a button, we've created a new plan. That's it. That's pretty great, but that's not all.

[08:27] We went in and talked to real telco marketers and asked them, "How do you design plans?" A big part of their job is to keep up with what other service providers are putting out in the market. So, we decided to add this data into the tool. Want to know what's going on with your competitors, or even another telco in another country? It's right in the tool. Because Totogi is a SaaS system, this state is continuously updated with competitive information from around the world and it's at your fingertips. So easy. But, wait, it gets even better. Other systems require a technical team to code and test, not Totogi. Right here in the tool, we can check the plan for common errors. Did you forget to put in overages? Plan design helps the user avoid common plan errors before they're deployed to market. You can easily work through all of your errors one at a time on your own without assistance from IT.

[09:34] Finally, for MVNOs, we know how important it is to protect commercial margin. Right here in the Totogi system, we can ensure that the plan being designed and deployed meets your profitability threshold. Once you've cleared all your errors and checked your margin, you're ready to launch the plan. It's as easy as that, and it only

took a few minutes. Your marketing team can quickly get plans to market and attract new subscribers without any assistance from IT. So, that's our plan design system, and when we show it to people, they fall in love with it. They want to start using it right away. But, let me spend a few minutes telling you about the real-time charging engine, the system that processes rateable events. Charging engines are expensive and require an IT team to set up. With Totogi, charging as a service, we've built a carrier grade engine that's available at a price MVNOs will love, because Totogi is born and built with public cloud technology, we can do two things that have never been done in charging before. Offer a truly multi-tenant product, and offer charging as a service.

First, let's talk about multi-tenancy. For the first time, MVNOs and MVNEs can integrate to a real-time charging engine that supports multi-tenancy. Instead of every single MVNO or even telco managing their own charging installation, there's a charging platform right now running in the public cloud, available for you to use. It can scale to handle 1 billion subscribers on a single instance. Because we use the public cloud, we can scale and fail over instantly. Customers benefit by avoiding capacity hardware and disaster recovery costs. There's no hardware to buy ever. Tenants still have plan design autonomy with no coding or CR's required. It's more like Salesforce for CRM or Zendesk for support tickets. You just connect your network, add your plans and subscribers, and start charging.

[11:46] Next, it is truly a SaaS product. We know you guys need super awesome technology at a price you can afford. How about a free tier? Just like most SaaS companies in the world, we wanted to change the way software is bought in telco. Free pilots, free tiers, no long-term contracts, just pay by the use. So, we put Totogi's charging as a service on the AWS marketplace for 1 cent. Our free tier is available up to 250,000 subscribers, and after that, you pay by the transaction and pay as you grow. Totogi is a SaaS product, it's multi-tenant, there's nothing to install,

there's no hardware to buy, we do it all for you. So, we're giving you the power of the public cloud, the power of Totogi Tech available like you would buy Salesforce. It is so, so awesome.

So, there you have it. A plan design system that business people can use on their own and a charging engine that's virtually free. But, there's one more thing I want to tell you about, which brings me back to my buddies at Giffgaff. I left something out when I told you about their move to the public cloud. One of the reasons they went all in is because they want to put data at the heart of their business, and that's a sign that Giffgaff really, really gets the public cloud and everything I'm talking about. Before the public cloud chargers and especially plan design systems had no ability to target and segment a customer base with the precision marketing groups required.

[13:28] In the sad old days before Totogi, they were stuck using systems that forced them to design one size fits all plans and tariffs. So, as an industry, we've resorted to two approaches, plans that erode our [inaudible 00:13:44] to match competitor plans, or unlimited packages that overcharge customers with nothing in the middle. There's no ability to create plans that excite and engage subscribers. What you need to do is personalize your offers. Yes, personalization. I don't just think this, the world's best strategy consultants agree. McKinsey put together a paper on how 71% of consumers expect personalization from the brands they select. The results, one size does not fit all. MVNOs need to stand out from the crowd and follow what Giffgaff is doing. Use their data to deliver excellent personalized subscriber experiences. When I think about the most successful internet companies, what sets them apart and brings customers in droves is the highly personalized experience they offer.

For example, Uber knows exactly where I am and can summon the nearest car to come pick me up. Spotify finds new artists for me that I may like based on other people who enjoy the same music I do. When I walk into an Apple

store, their app knows I'm there to pick up my order, and someone brings it out to me. Customers love it and it brings them back to buy again and again. These companies have customer loyalty numbers that are through the roof. This is a kind of experience MVNOs need to offer their subscribers. With all the data we have, about the network, about how subscribers use their devices, and how often, there's no reason we can't do it too, and we can do it better. We know if subscribers are streamers, gamers or TikTokers. We know if they're golfers, scuba divers or soccer moms. We know when they travel, we know where they go. This is the kind of data, when used right, can be used to deliver tailored offers that increase satisfaction and drive up our [inaudible 00:15:50].

[15:51] Telco marketing departments can now create micro-targeted plans that are hyper personalized down to the individual subscriber. I call it hyper-personalization, and Totogi is building this for MVNOs, too. This is Totogi Auto Plan. Totogi Auto Plan does what it sounds like, it automatically creates plans. It helps you create demand and promotes your products, by combining your data with advanced predictive technology to serve our personalized offers and plans to individual subscribers. Start by integrating your data with our machine learning engine. Obviously, we can ingest data from Totogi, but we can also ingest data from other systems. Like CRM, trouble ticketing, network data, or other vendors' BSS systems.

Next, you can constrain the machine learning model to consider a total budget. How much are you willing to spend on this campaign? Next, perhaps you want to target a specific cohort of subscribers. You can even select what products the machine learning engine considers when it designs new plans and offers. Totogi's proprietary machine learning algorithm generates self-serve campaigns. Totogi Auto Plan is designed to scale and self-improve with your data. All of these offers were dynamically created by the software. As offers are accepted, the machine learning model is trained on what works with what types of subscribers. This is a marketer's dream to be able to

dynamically create plans for individual subscribers. When you're ready, simply hit the deploy button.

[17:36] How cool is this? Dynamically created plans and offers are sent to every person in each cohort. Subscribers will receive them via pre-configured communication channels and templates, like email or SMS. Once accepted, the Totogi APIs dynamically create and assign the plans to the subscriber. You don't have to pre-configure each scenario in advance, we just use the Totogi APIs to dynamically create plans. Back in Auto Plan, marketers can review the take rates of offers over time, even drilling down into the specific campaigns to review results.

Subscribers get personalized experiences, increasing lifetime value, and you turn your data into revenue. It's time to ask yourself, why are you trying to be like a telco? You either use your smaller size, your wealth of customer data, and your freedom from outdated technology, to create better, more personalized experiences for your subscribers. Be like an internet company. The public cloud is the enabling technology you need to use and now is the time to use it. We love what we're building for MVNOs, and we'd be happy to give you a hands-on demonstration of all of these components. Let's do it, MVNO Nation. Thank you so much.