

Episode 26

Avoid Vendor Lock-in by using TM Forum's Open APIs

Danielle Royston 00:00:00

I'm Danielle Royston and this is Telco In 20.

Danielle Royston 00:00:14

Last week, the TM Forum Digital Transformation World Series kicked off. And TelcoDR and Totogi are both participating in a big way – to tell telco execs about how they can level up their business by using the public cloud. TM Forum has been working to drive change in our industry, like all their work with an open digital architecture framework. The idea here is to have telcos and vendors come together to define an industry standard that everyone agrees with, that will enable IT solutions that are easier and cheaper to deploy, integrate, and upgrade. TM Forum has defined more than 60 rest APIs for the industry to use. And adoption is rising with both CSPs and vendors starting to use them.

What's great about the TM Forum Open APIs is that they give your organization freedom from vendor lock-in and freedom from cloud lock-in. This freedom means dramatically lower costs and massively increased flexibility, which enables disruptive startups that can provide 10 times the functionality at one tenth the price.

Danielle Royston 00:01:18

I love everything about the open APIs. Totogi has been diligently working to support these open APIs in our product: the Totogi Webscale BSS and in four months has gotten 31 certifications done. Woohoo! But movement on supporting the open APIs by the legacy vendors has been slow. For example, Amdocs only has one open API certified – Boo! Why don't the big legacy vendor dinosaurs like Amdocs support the open APIs? That's because they have no interest in seeing their BSS revenue fall by 90%. They want to milk the install base, while giving lip service to their support of open APIs. It would be a disservice to the legions of Amdocs programmers to pretend it's their capability that keeps them from implementing more. It is their top-down corporate directive, not to destroy their business model, but startups move faster than legacy dinosaurs, like Totogi.

Danielle Royston 00:02:18

Episode 26

Avoid Vendor Lock-in by using TM Forum's Open APIs

We're psyched to open up our system, support operators to mix and match vendors and even create their own applications without needing expensive consultants or even the Totogi team to assist. Operators can do it all on their own. And so, I did a talk about it. I called it Ride the Public Cloud Dragon and Avoid Vendor Lock-in by Using the TM Forum Open APIs. It's so good that we decided to turn it into a podcast, which you'll hear in a moment. This talk is actually a two-part series. The second part is our live coding workshop. If you like my message and want to learn more, then you should come to my workshop on October 7th, to get firsthand experience with the system. Bring your development team and learn how to build applications in minutes with the TM Forum Open APIs, Totogi and AWS. To attend the workshop, sign up at totogi.com/dtws or just send me a DM on Twitter @TelcoDR. Or message me on LinkedIn and I'll get you on the list. So here it is. It's about thirteen minutes long. So, grab your cup of coffee and put down your phone and you can find a link to the video in our show notes. Are you ready?

Let's take 20.

Danielle Royston 00:03:32

Hi, I'm Danielle Royston, CEO and founder of TelcoDR and acting CEO of Totogi. But everyone knows me as DR. I'm here to tell you something you already know, and that is: Your current BSS sucks. It sucks for a long list of reasons. Like you have to keep upgrading the hardware. It's running on an expensive Oracle database. It's impossible to upgrade because of all of your customizations and integrations. You aren't on an actual product roadmap. And most importantly, it's not at all responsive to your business needs. I know, I know, you feel trapped by your current vendor. And I know you're dying to move to the public cloud, to get all the great benefits. I'm always talking about: massively lower cost, scalability and feature velocity. But even thinking about swapping out your BSS system is a total nightmare.

Danielle Royston 00:04:31

So, how are you going to get out of this mess? If you're going to go through the huge hassle of swapping out your BSS, you need to have a really, really good reason. And that is, the technology stack that's available at the public cloud vendors, like AWS, Azure and Google Cloud has completely obsoleted the on-premise stuff that your current BSS sits on. So, it's time to go get yourself a new BSS that uses the public cloud tech stack. I've got one for you: Totogi's Webscale BSS. Totogi's system combines two great things. It's a hundred percent API-based and it's a hundred percent built on the AWS public cloud tech stack. These are the two things that give CSPs the foundation

Episode 26

Avoid Vendor Lock-in by using TM Forum's Open APIs

they need to evolve their business for the next decade. So to start, why do you need a system that's built on APIs? The idea of application programming interfaces isn't new.

Danielle Royston 00:05:26

Even with my Stanford computer science degree from way back in the day, I've programmed against APIs. But not all APIs are created equal. There are shitty APIs, sloppy APIs, proprietary APIs that are locked behind a vendor's walled garden. APIs are best when they are well-documented, consistently designed and usable by a wide community of developers. What's great for telco is that our industry has already recognized that building applications with APIs is a better way to do it. And when you think about it, an API based BSS is easier to evolve, easier to upgrade, provides more flexibility and allows CSPs the opportunity to mix and match the best components, which will help to get them out of their current terrible situation--the fact that they are locked into a single vendor. Thankfully, TM Forum is leading the way by publishing a growing set of over 75 BSS APIs. And adoption is growing in our industry. To date, nearly 20 CSPs have said that they will position the open APIs as a preferred requirement in their IT RFPs.

Danielle Royston 00:06:37

But even though more than 70 vendors have signed the open API manifesto, saying they will commit to using the open APIs in their products, most have only certified a handful of open APIs. For example, Amdocs, the industry's largest BSS vendor has exactly one open API certified. Dóh! That's because their system isn't built for this way of design. So, why is TM Forum open API compatibility so important? There are two reasons for this. First CSPs feel locked in to their BSS supplier. Using a vendor who is compatible with the TM Forum Open APIs allows a CSP to swap out any BSS component with any other vendor. The second reason is because CSPs feel cloud uncertain right now. Should they move to the cloud? If they move to the cloud, which one? AWS, Azure, GCP or fake cloud IBM? Compatibility with the TM Forum Open APIs is important because it makes it safe for a CSP to start building on a system, like Totogi's Webscale BSS, immediately.

Danielle Royston 00:07:46

This allows a CSP that flexibility to switch to any other TM Forum compatible solution on any public cloud, private cloud, or even back to your on-premise data center. It's a great hedge if you're uncertain who's going to win the cloud wars. So that's why building with the APIs and especially the TM Forum Open APIs is great. Remember, I said there were two things you need to evolve your business for the future. The second one is, using a system that leverages the tech stack of the public cloud. What's so great about

Episode 26

Avoid Vendor Lock-in by using TM Forum's Open APIs

AWS or any public cloud is that it abstracts away all the hard parts of managing a complicated tech stack for you. If you leverage the components of the public cloud, you will never buy hardware again, you'll get access to the latest chips and machines instantly. You'll never have to worry about capacity. With the scalability of the public cloud, it's built right in. You'll get access to great technology like databases, analytics, and other new services available, only an API call away.

Danielle Royston 00:08:51

You use whatever you want whenever you want. As always, there are no long-term contracts or commitments. You can leave whenever you want, just take your data and go. And they offer usage-based pricing. You pay by the transaction API call or row of storage. Remember you should expect 80% lower TCO when you use the components of the public cloud. I hear how people are afraid of being held hostage by a hyperscaler. But remember, people also think building a private cloud is the safer choice because it's under their own roof and under their control, but understand what's really going on. When you construct your own private cloud, what you're really doing is locking yourself into the 1000 tiny decisions your team has made in building that private cloud, like the databases you're using, the runtime environment you've selected, orchestration and management vendors. And don't forget, you need to train your people on how to use all of this stuff and keep it running.

Danielle Royston 00:09:57

Your team will be making lots of decisions that will lock you in to some medley of vendors and services in the cloud-native zoo. You think you're staying free of lock-in, but you are just trading a lock-in with the hyperscalers for a lock-in to random decisions made by your team. With this approach, your team is forcing you to play at a super low level that doesn't drive value, but is interesting for technical people to work on. The hyperscalers are building their environments to shield your teams from all this complexity. It lets you focus on solving the business problems, not building custom infrastructure. Hyperscalers aren't just providing hardware. They're providing an environment, services and APIs that allow telcos to focus on delivering business value. Not building a globally distributed, fully functional Kubernetes stack. Don't retreat back into the old way of building applications. It's time to pivot to the cloud way of thinking.

Danielle Royston 00:10:54

So now that I've convinced you, you need a TM Forum Open API-based BSS, and you need one that uses the public cloud tech stack. I've got the perfect vendor for you to check out. Totogi's Webscale BSS is making it super easy for you to start building applications today that are back to the public cloud. Every quarter, we are adding to the

Episode 26

Avoid Vendor Lock-in by using TM Forum's Open APIs

list of TM Forum Open APIs we support. Today, we are currently certified for over 25 and we plan to support all of them by the end of this year. What's so great about Totogi's Webscale BSS is that there's nothing to install or set up. You simply create an account, start coding with the open APIs and decide what public cloud technology you want to use. For example, let's talk about the flexibility of using the databases of the public cloud. Most BSS systems use an Oracle database as a foundation for their application.

Danielle Royston 00:11:51

Oracle was a good solution... 30 years ago. When Amdocs was written. A single central database was a better decision than to try to run lots of different databases for one application. And while it was a good decision back then, those decisions had limitations. Using one database caused you to have suboptimal hacks, to map different data structures to Oracle's format. Anyone who wonders, why charging engines have such limitations? Just look at the hacks to put hierarchical rate plans into the SQL format, instead of using a graph database. You should use the right tool for the job. Databases are no longer one size fits all. BSS needs the following types of databases, one for a massive transactional performance for charging, another for a huge ad hoc queries, one for in-memory transient data, and one that's best fit for a massive low cost long-term storage with infrequent queries.

Danielle Royston 00:12:52

If you try to use an Oracle database for all of those, you get the mediocre performance you're experiencing today. But contrast that with the options you get in the public cloud. You can use a No SQL database like DynamoDB for your charger, a data warehouse, such as Redshift, Redis for an in-memory database and S3 Athena for infrequently accessed data. And because they are all cloud services, you get to use them as a managed service. They're just an API call away. You don't need teams of people to keep them up and running or tuning them. If you want a great BSS, you have to lose the handcuffs that the Oracle model has imposed on these systems for 30 years. To get the flexibility, simplicity, upgradability, and cost effectiveness that you want, you need to dump Oracle. You know who dumped Oracle? Amazon! Many people think it was to save on those onerous license fees, but that wasn't the main reason. Amazon systems that were based on Oracle had the same problem that BSS systems have: expensive, rigid, and impossible to adapt to the new business requirements.

Danielle Royston 00:14:04

Amazon moved most of it's Oracle based systems to a totally new tech stack. The Graph QL, No SQL stack. Contrast that with the other telco software vendors. They're

Episode 26

Avoid Vendor Lock-in by using TM Forum's Open APIs

putting their legacy applications into a Kubernetes container, lifting and shifting the relational database to the public cloud and slapping a cloud native sticker on it. This will not change your terrible BSS situation at all. You will still be stuck in your current mess and will have just moved the problem from on-premise to the public cloud. Not with Totogi Webscale BSS. But don't just listen to me talk about it. Check it out for yourself! Want to learn how to create amazing applications with Totogi, AWS and TM Forum Open APIs? Then come to my Digital Transformation World Series Workshop next week, October 7th. We're going to build applications using these three technologies, on the fly, to show you how easy it is to do.

Danielle Royston 00:15:03

You will throw out the current mental model of how you've been building business applications for the last 30 years. Instead of using a relational database as a foundation, we will take AWS DynamoDB and with GraphQL and the TM Forum Open APIs, show you how to build this super scalable, super customizable application. We will show you how you can pull in data from an on-premise system with drag and drop connectors and quickly add some sweet AWS services, coupled with Totogi products. My goal is to have you leave the workshop with the mindset that you can build anything. You'll have to abandon the way you're used to thinking and you'll need to adopt the cloud way of building applications. The Totogi BSS workshop is invite-only and space is limited. If you want to join me, visit the Agenda Page at dtw.tmforum.org. You can also DM me on Twitter @TelcoDR. Or send me a message on LinkedIn, and I'll get you on the list while you're hanging out around online. Don't forget to visit TelcoDR.com and subscribe to my newsletter. You can also text me at 925-TelcoDR. It's going to be awesome. And I can't wait to see you there. Later, nerds!