

Episode 25
Get ready to use the public cloud ... in Afghanistan
Released September 21, 2021

Danielle Royston 00:00:00

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

We have a lot of fun on Telco in 20, but today I want to get a little more serious. We see the headlines out of Afghanistan have been tough to read, and they got me thinking about the telco execs I know there. No one would ever describe running a telco as an easy job, but just imagine doing it in a country under tumultuous conditions like Afghanistan. The threats to your network, infrastructure, and even your team members is constant. For example, in 2017, the Kabul headquarters of Afghan telecom Roshan was destroyed by a vehicle bomb. The company lost 32 team members, with a hundred others injured. It found the strength to rebuild in a new location only to be hit again in another attack in 2019. This time, fortunately, without loss of life. It's an unbelievably tough environment to try to operate in. And yet the telco leaders I know have found ways to succeed. For today's episode, we invited one of them on the podcast. Imtiaz Esmail is a former CFO and Head of Operations at Afghan telco Roshan and serves as one of its strategic advisors. Today, we're talking about what it's like to run a business from the center of a conflict and how in these circumstances, the public cloud is still a really good idea. So let's take 20.

Imtiaz Esmail is CFO at Tcell in Tajikistan and serves as a strategic advisor at Roshan. Imtiaz, welcome to Telco in 20.

Imtiaz Esmail 00:01:46

Thank you, DR. Thanks for having me.

Danielle Royston 00:01:48

Yeah, it's going to be awesome. So I think what we have to start with is maybe the obvious – the chaos in Afghanistan is on the front page of international news right now. I have to ask, have you been in touch with your colleagues since the country fell to the Taliban?

Imtiaz Esmail 00:02:03

Absolutely. Our biggest concern at the moment is the safety and the security of our staff. We managed to get all the expats out in time, before the government fell. So we don't have any non-Afghans working for us on the ground right now. We employ about 110 women, and right now we've been told to keep them at home. So we're keeping a very close eye on them. We hope that the rules come out and that things can normalize there, but so far we've checked on everyone and everyone's safe and keeping well.

Danielle Royston 00:02:34

Yeah, that's good. What are some of the biggest challenges of running a telco in a country with that kind of complex political landscape that's constantly threatened by attacks?

Imtiaz Esmail 00:02:45

Yeah, well, I mean, our journey is about close to 19 years now and we were the first privately licensed MNO after the Taliban fell. My CEO who started the company came into a greenfield deployment with absolutely no infrastructure, no communication, very fragile, fixed line communication. I mean, there's complicated military and diplomatic challenges, which I'm sure you guys have read about over the last two decades. The government corruption made it very difficult to run an ethical and transparent business, which is a key focus for our shareholders and one of their values as a development organization. We were vulnerable to equipment and infrastructure damage, and we had a lot of uncontrollable network outages driven by insurgency. And then we had two really terrible devastating events of force majeure in 2017 and 2019. We lost lives in the first one, which was really sad. We were able to bring back services almost immediately, but it took us a while to reorganize and rebuild the operation. We had to relocate offices and focus on rebuilding staff again. Obviously that was a difficult time for the business, but post the second attack in 2019, we could turn our focus back into growth and catching up to the competition who had launched 4G. And we were able to restore profitability at the end of 2020. So it's been a journey and a half, and we've built a brilliant business from an industry perspective and proud to say we are the cornerstone of private sector investment in Afghanistan.

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Danielle Royston 00:04:25

Awesome. That's awesome. And so I think even though you're in this very tough part of the world, you've still managed as CFO to come up with double digit EBITDA growth, which is impressive. And so I think the top three areas where you've positively influenced the growth have been operations and maintenance, how you've managed your power, and how you've structured your workforce. And so to start, how did you change operations maintenance at Roshan and how much did that improve your EBITDA?

Imtiaz Esmail 00:04:57

We are a business that is a service provider, and we are unfortunate in that we don't have what the other operators in emerging markets and the developed markets have, which are tower companies that host your radio equipment and maintain and manage the towers and provide you power. We have to build the towers, run them, maintain them. And we constantly looked for a model that was efficient. We employed 150 engineers to go around very difficult terrain in Afghanistan to run our operations and maintenance of our towers and ensure uptime. This also involved inventory of consumables that the diesel generator takes. We changed that in 2016 and I was successful in being able to outsource this function and between 2016 and 2021 tweaking the model and going through a couple of partners and getting the right one, eventually, we were able to cut 65% of the cost of O and M. Obviously letting go of the field engineers that we were managing, getting the headache of inventory and consumable management outside of our hands, and handing it over to the specialist on the outsource side. And we set strict KPIs, which then only lead to a lot of savings, as I said, 65%, but also a huge improvement on uptime. So that had an upside on revenue and, in total business led to an improvement of 5% on EBITDA alone.

Danielle Royston 00:06:23

That's awesome. And Afghanistan has limited power sources. I mean, every picture I've ever seen of Afghanistan, it looks like very rough terrain, very rural landscape. How were you able to cut power costs? And again, how did that influence that EBITDA needle?

Imtiaz Esmail 00:06:41

Yes, I think we're amongst the lowest in terms of electrification rates in the world. And hence, our main source and only source of power has always been diesel fuel, which is expensive and volatile in price, but also very difficult to transport. I mean, in Afghanistan, they used to refer to diesel as black gold and protecting leakages from the sites was another challenge that we had to face. So I was able to overcome this by moving from diesel generators to smart hybrid systems that had solar and lithium battery packs attached to a small generator. And we were able to cut power costs in half over that period that we started the investment and this was huge and adding to our bottom line and that gave us another 4 to 5% points on EBITDA.

Danielle Royston 00:07:31

And then I think the last big area that you were influencing was your approach to staffing. And so how did your approach on people and manpower, how did that influence your EBITDA number with the changes that you made?

Imtiaz Esmail 00:07:45

So when we came into Afghanistan in 2003, we had to import skill because there was no skill that knew how to run a complicated telecom service. So we brought in skill and one of our main remits was to ensure that we upskill and we train local talent. So at the peak, we were spending around 13% of revenue on manpower, which was really high. And then as we were able to transfer skill to the local Afghan staff, we promoted a lot of young men and women into middle and senior management. Actually our general manager up until the end of 2019 was a young, very bright Afghan lady who started off at inception in 2003 as a secretary and climbed all the way to the top. Unfortunately we lost her at the beginning of 2020 due to some personal family tragedy, and some threats to her family in Afghanistan, and she had to leave the country. But with this change in structure and being able to upskill staff, we were able to cut manpower costs down to around 8% of revenue. At the same time, at the peak, our FTE full-time employees were around 1,250. And today they're down to 650 operating a bigger size network and customers. This led to a 2% improvement on EBITDA in total.

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Danielle Royston 00:09:11

So, I mean, that's down almost 50% on people. The productivity and the efficiencies you get from that is totally awesome. So adding all of that up, you said five points on operations and maintenance, four to five on power and two on staffing. And so that's more than 10, maybe 12 points for a telco in Afghanistan. So that's awesome. That is totally great.

Imtiaz Esmail 00:09:33

Yep. We're proud of them, yeah.

Danielle Royston 00:09:35

You should be. And so I guess shifting a little bit, obviously Telco in 20, I talk about the public cloud a lot, and I think the public cloud is a great place for places like Afghanistan or even — I've worked with customers in Yemen, which is a war torn area. And so what do you think about using the public cloud in places like Afghanistan? Is that a crazy idea?

Imtiaz Esmail 00:09:58

Absolutely not. And I think more so now with the current uncertainty on the political environment and the takeover of the Taliban. As I mentioned, we're losing skill, we'll lose more skill. Major companies were never willing to come into Afghanistan to install complicated hardware on-premise in our data centers. It will be less so now. I mean, we have huge security risks. You mentioned Yemen, and I'm sure you face that there. I mean, you need to have redundant data centers, ensure they are very well protected so your content and software are safe from insurgency. And with broadband growing as quickly as it is, the amount of data that you have to store is growing significantly. So I think keeping that in a secure place that is ready and available out there is something that I think frontier markets like Afghanistan definitely need to look at.

Danielle Royston 00:10:49

Yeah, I've worked with customers both in Afghanistan and in Yemen and from a vendor perspective, getting people that can travel there that are willing to travel, they're finding talents in that part of the world and being able to leverage the public cloud where your operations can be supported by anyone — alleviate some of those challenges. I think going into our next question, one of the challenges with Afghanistan in particular is you need some fiber out of the country, so you can connect to the public cloud. And so that's not done yet. I think it's coming. People are working on that in different telcos. How would you advise telco execs in places like this? Where maybe the public cloud, you can't use it right this second, but it's coming. What could you do to proactively get ready for that?

Imtiaz Esmail 00:11:34

Yeah, sure. I mean, obviously it's a highly complicated process and migrating services and software to the cloud and you need the skillset to be able to do that, train the right people and train them for the right skills. I guess the good thing about migrating services to the cloud and your software to the cloud is it replaces expensive and highly complicated hardware that is stored on your data center and one that needs external support. So that cost is reduced from a TCO perspective. And then the other advantage is you don't really need cloud engineers on the ground so they can be remote and they can manage to still provide the training for the few staff that do remain on ground. And for markets like Afghanistan, we can still capture that skill while modernizing our IT infrastructure and network.

Danielle Royston 00:12:27

It's a different way of thinking with the public cloud, because you're paying for your usage, there's kind of this economic-technical combination you need to have now. In terms of, what's the right tool for the job, but then what are the economics behind that and does that make sense? So yeah, you got to get started. It's muscle that all telcos need to build. And in places like Afghanistan, I think it's probably gonna be a little bit longer in developing that capability, just because of the challenges of the political environment, where people are today on their knowledge. And so you got to get started. Everywhere.

Imtiaz Esmail 00:13:00

Yep. Absolutely.

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And I think next, and you brought it up in your last answer there, but transitioning from an on-prem world and your data centers that you've put on the ground to a public health world. So what would you advise maybe CFOs and leaders around kind of like transitioning from that CapEx intensive world to now very OPEX situation?

Imtiaz Esmail 00:13:24

Yeah. Look, I mean, we've invested in our data centers because obviously we needed to store our servers somewhere and have the software running on-network on there. So I mean the investments, that's sunk, I wouldn't go as far as saying replace the investments that's already paid for and move to the cloud. But I would say stop investing in the data center on prem, and start moving applications onto the public cloud. We are always chasing capacity from a hardware perspective. So don't buy new capacity as your metal hits its cap, or it reaches obsolescence. And DR, you know this well – hardware manufacturers ensure that obsolescence happens so that you buy new all the time, they bank on it. So I'll start moving stuff there. And eventually that journey will take you away from the on-prem data center into the public cloud. And then scalability from there, as you know, which is one of the huge advantages comes easily, comes quickly. You don't have to plan for it. And the logistics that come with bringing stuff into Afghanistan goes away completely. So I'd say stop investing in growth of your data center on-prem and start moving stuff as they become obsolete, or, you know, require larger capacity away. And yeah, start moving it onto the cloud.

Danielle Royston 00:14:46

This is something where I talked to telco execs a lot because they're like, "oh, we just did a refresh or we have two more years on this, come back later, DR." And I'm always trying to influence them. I'm like, "this is harder than you think. And it's going to take longer than you think." There's problems and you don't even know where they are. And people try to optimize and maximize the investment. And I'm always telling people, you know what, it's done, it's sunk. Yes, try to optimize it, but get moving now. It's better to be up into the cloud, building that talent in your organization that knows how to manage this new – it's a new, totally new operational model. And you want to have a little bit of breathing room in case there are delays or problems and not sort of squeeze every last drop out of that piece of hardware.

Danielle Royston 00:15:36

And so I'm always telling people, get moving and start the journey. It's always going to be a battle for me. Cause they're like, "oh, I spent all this money, I want to maximize it." I'm like – it's done. Right. And so I think part of that difficulty is getting applications ready and able to move. Some of the applications inside telcos are decades old. They were built in a time that didn't consider cloud, right? It just didn't even exist. And so, some cases you have to refactor, we write applications to get them ready. I think a lot of people take a lift and shift approach where they're just like, "let's just move it up and move it over there as quickly as possible". And that's fine, except for over the long-term, it's very expensive. And so you want to maximize the benefits of the public cloud, which is a lot of cost savings and then being able to do that. So the last area I wanted to cover here was refactoring applications. I think you need to get your IT teams starting to do that. So what do you think about that?

Imtiaz Esmail 00:16:35

Yeah, I think refactoring is definitely important for the migration to the cloud. I'd encourage every CEO to push their CTIOs or CIOs to have a plan to start modifying these applications currently hosted on-prem in their data centers. I think this planning will allow for quicker migration when we hit these capacity constraints that we were talking about on the data centers or when they become obsolete. Obviously testing this in advance is important because migration is meant to enhance efficiency rather than ruin customer experience. Yeah. So I think that planning is important and I think the push should be from now so that every CIO has this in their roadmap. I mean, obviously the benefits lie in the cost reduction in the long-term. Scaling is a lot easier. We're not wasting money on spare capacity. Why pay for more when you can just pay for what you need on-demand?

Imtiaz Esmail 00:17:29

I mean, this obviously improves shareholder return on investment, which for every CFO, that's a huge KPI for them. So that's something to bear in mind. It brings a lot of improved resilience and we're able to cater for this fast changing

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technology and business environment that we're in in this digitalization train that's moving so fast. I mean, as we refactor to the cloud, it allows the mobile operator to leverage what the auto scaling features of the cloud gives us. So I think refactoring is important. I think these benefits speak for themselves and I think every CEO should focus their CTIOs to this particular refactoring exercise.

Danielle Royston 00:18:09

Yeah. And I think, I mean, it's a whole new technology that people are not used to using. I call them Lego modules, Lego building blocks that you can add whole new functionality to even a super old legacy application – so much more quickly than you ever did before when it was on-premise. And so I think you're right, you're going to do it for the cost savings. You're going to do it for the elasticity. People are going to start to realize the feature velocity, the ability to add new capabilities that improve customer experience in minutes rather than months, or maybe even years. I think even in a place like Afghanistan, I think it's a great idea. It sort of lifts things off of the ground. And so it's not a physical risk. Not everyone has those problems in other countries, but that certainly in places like Afghanistan and Yemen, there's physical threat to the data center. And so I think the public cloud is a great idea, but I think everyone else can move to, right? For all these great reasons. And so Imtiaz, I think this was a great conversation. Your team has been, talk about resilient, right? Your team has been very resilient and I hope they're safe, and I wish them the best of luck.

Imtiaz Esmail 00:19:17

Thank you, DR. Thank you for giving me this opportunity and the time. It's been great speaking to you.

Danielle Royston 00:19:22

Yeah, it was totally great. Thanks so much.

Danielle Royston 00:19:24

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.

Imtiaz has succeeded in one of the most difficult parts of the world to run a telco. If he's thinking about the public cloud, then you should be thinking about it too. It's arrived. If you're not in a war-torn region, you can use it today. So follow Imtiaz's advice – train your people and hire talent, break down and start to reduce your data center footprint. Refactor applications, and just go do it. When you start to achieve the kind of results Imtiaz has, or better – you'll be glad you did. And if you're not sure how to get started, TelcoDR can help. You can learn how to build public cloud-native applications. By listening to my talk during TM Forum's Digital Transformation World Series event, which is airing on September 28th, and joining my TM Forum coding workshop to learn how to build applications with the TM Forum Open APIs and AWS, delivered live on October 7th.

I'm also throwing an awesome virtual cocktail party on October 14th as part of the event, toasting not one but two F1 races that are happening in Austin, Texas in October. To sign up, go to telcodr.com/dtws or DM me on Twitter @telcoDR. You can also send me a message on LinkedIn and I'll hook you up. And while you're online, don't forget to hit that subscribe button, share our podcast with your colleagues. And if you liked what you heard, leave us a review. You can also call or text me at 925-TelcoDR. That phone number really works. We have so much going on, get in touch. I'd love to tell you all about it. Later, nerds!