

The transformation starts here

Congratulations! As a telco executive, you're here because you're ready to start your journey to the public cloud. You know that carrying on with business as usual is an unsustainable and uncompetitive business practice for CSPs. You're expected to invest in new generation technologies, to be the conduit for all the services your subscribers demand, yet also expected to deliver as good or better services without increasing prices.

You're here because you know it's time for a telco transformation, enabled by the public cloud. Leveraging the huge investments made by the hyperscalers (Amazon, Google and Microsoft), you can benefit from 'public cloud economics' – create massive efficiencies, spur innovation and deliver cost savings across your business.

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Cloud means public cloud

This is not about transition. It's about a complete transformation, and it's all about the public cloud. The public cloud is not just a place to park your applications. It's an opportunity to completely rethink your IT delivery model, top to bottom. To refactor it so that it's easier to manage, have leaner code bases, and better yet – be primed to take advantage of new technologies you haven't even begun to really leverage in your business. You can't use that tech until you move your applications, and so not only is it a question of what you can move to the public cloud, it's also about what you can't move to the public cloud.

This is not private cloud – which is just another version of on-premise services. This is not hybrid cloud – although you may use this strategy for a short period of time during the transformation, with some applications on-premise and some in the public cloud, but it's not the desired end result. And it's also not multi-cloud – moving the same workload to two different cloud providers, which is more difficult than you can imagine, cost-inefficient and at worst, illogical.

Unless you refactor 100% for the public cloud then you won't unleash the full potential.

I am talking about a comprehensive move to the public cloud and the associated benefits of scale to realise TCO savings. Gartner explored the TCO of migration to cloud over three years and found that by the end of year three total costs dropped by 55%. Unless you refactor 100% for the public cloud – including moving CRM, BSS/OSS and network processes – then you won't unleash the full potential.

It's time to go public with an all-in approach. It's time to be more like Elon Musk. Musk always had the vision that the future of cars was battery energy. Ten years ago, people said he was crazy, but he didn't listen. For

him, Tesla was ONLY about battery energy storage. This plan turned a century of car manufacturing on its head. Tesla is now the most valuable car manufacturer in the world. Musk didn't get there by starting where everyone else was – the gasoline or petrol fueled car – he started with where he wanted to go – the electric vehicle, and figured out what he needed to innovate in order to make that a reality.

The move to the public cloud must now be embraced in the same way. You are going to have to think really hard about how you rebuild your telco from the ground up – assuming everything, or as much as possible, resides in the public cloud. That is the mindset you need to have while you read this paper. There are no half measures to be taken – it's do it all, change the fundamentals of the way software has been approached in the telecom industry, or die. Do it first in your market and you'll win. Do it last, and you won't survive.



The benefits of public cloud economics

The public cloud will transform your traditional telco into the holy grail you have been seeking: a digital service provider (DSP). You can completely modernize your enterprise IT solutions and transform outdated manual approaches to workflow, creating massive efficiencies, catalyzing innovation and delivering huge cost savings across your business.

• Public cloud means
unmatched security – the
hyperscalers' investment in
security dwarfs yours. Check
out this Gartner report that
states in nearly all cases of cloud
security breaches, it's the user
at fault, not the cloud provider.
Gartner predicts that through
2025, 99 percent of cloud
security failures will be the
customer's fault.

Leverage all this expertise and you can truly focus on your profit center: growing and retaining your customer base.

Public cloud means
 scalability – automatically
 delivering service on demand,
 rather than having to provision
 your networks for the worst-case
 traffic scenario.

Moving as many software applications and processes to the public cloud means greater service automation and the ability to add new capabilities in days as opposed to months. The public cloud is a nimble environment for testing out the viability of new services and bringing them to market quickly.

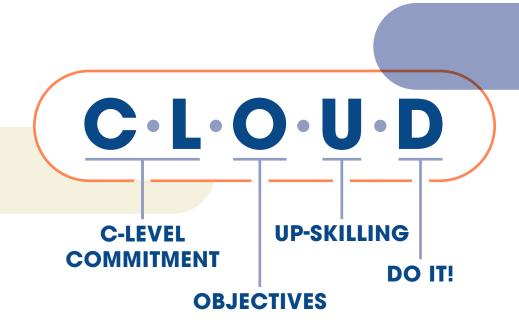
Public cloud software is
 developed by the best people
 in the business – from common
 functions such as database
 management, analytics, Al and
 machine learning to delivering
 subscriber insights, the teams
 behind these technologies are
 at the top of their game.

The time for action is now!

Moving to the public cloud will require the complete rethinking of your approach to IT, from man to machine and everything in between. Telcos have been operating in the same way, from safe silos, for decades. Now it's time for transformation. No one says this is going to be easy, but you can be sure your competitors are working on their transformation right now that will save them 50% of their IT costs. Imagine finding out they are saving \$millions, have limitless capacity, access to phenomenal resources, benefit from rapid time to market for new applications and services, all with world-class security – and realizing that you could have been there first. The sooner you start, the sooner you realize these benefits for yourself.

The four points of preparation

To lay the foundation for your successful transformation, you will need to execute:





1. C-LEVEL COMMITMENT

Transformation needs to be driven by those who make the strategic decisions of the organization and who can make big change happen. Unless the people with the power buy into the vision and are fully accountable, the project will not be successful. It is always safer not to be on the team driving the paradigm shift – no one can point the finger of blame at you if things go wrong. But the world doesn't change unless people are brave enough to stand in the spotlight and take the grief as well as the glory. The senior leadership team needs to have the guts to go for it.

There's a great story from AWS about a chat with a **customer's CIO**: AWS: "Well I think everything's going okay, but you're not really doing anything with us." Customer CIO: "That's not true. I've heard we're doing lots of experimenting." AWS: "Well, you're using two EC2 instances." And then the customer infrastructure guy came into the room and the CIO said, "Are we doing a lot with AWS?" "Oh yes, we're doing a lot in the cloud and with AWS." "How many EC2 instances are we using?" "I don't know, three or four." And the CIO said, "Well, that's not really what I mean by a lot." The CIO took ownership and the company is now one of the top AWS pharmaceutical customers.

The transformation needs to be top of the CEO's agenda, not just on the list of to-dos for the IT team.



Objectives, milestones, goals – whatever you want to call them – there needs to be a pace and a structure to the transformation. Your move to the cloud needs a firm project plan and a focused project team responsible for its delivery. There may be intentional roadblocks put in the way from self-interested protectionists looking out for their own jobs, but once the project is up and running, with elements successfully implemented, the momentum will build.



Take the example of Jamie Miller, who as CIO of GE decided the company needed to move to the cloud. She told her leadership team: "We're going to move 50 applications to the cloud in 30 days." She remembers that for 45 minutes they told her it couldn't be done and it was a really bad idea. Then she told them they were going to do it anyway, and they moved more than 40 applications within the 30 days.

Set goals and go for them – you won't meet all targets, but if your organization has a can-do culture that encourages innovation and the leaders create a feeling of inevitability, once the move to the public cloud begins, it will catalyze a flood of new ideas that can be incorporated into the project plan and energize your whole team. But hold them accountable, and make sure the job gets done.



Yes, change needs to be led from the top, but people are an organization's most important assets and without majority support the transformation may falter. Clear communications plans, consultations, structured training courses, an inclusive approach and a strong and supportive HR function are all vital. Most importantly, you have to actually change the way you work. People will need to STOP doing things the old way and recognize that the new way is the only way you work now. If you don't set that expectation, people will simply go back to their old habits.

There are many training resources available, some free of charge. Earlier this year Google joined Amazon and Microsoft in offering online exams for various levels of certification, as physical centers were closed due to the pandemic.



A good example of a structured approach to training for cloud transformation comes from programmatic advertising company OpenX. The CIO worked with Google to develop a four-week mandatory training program for all staff and paid for extra certifications for people looking for additional qualifications. For the complete avoidance of doubt about the move to the cloud, he made it clear that all on-premise servers were being sold off – and included 'cloud' in everyone's title.



Once you have strong leadership, a clear plan and full organizational support then get going! Start by moving the less complicated processes into the cloud and they will form the basis of the learning curve. The amount of legacy processes weighing your telco down means the transformation will not be an immediate one, but don't get lost in the planning – avoid analysis paralysis. You're already behind on the easy stuff so that's where to start.

Large Fortune 500 enterprises typically can get more than 90 percent of their applications to the public cloud in two years – and so can telcos. The harder, messier bits - leave those till last and come back to them when you have more experience in the cloud. This is a project that could take up to five years to fully complete, and once the industry realizes the benefits, it will be a competition as to who leads the transformation.

Historically, mistakes and missteps in IT were expensive to rectify – usually because things were purchased and installed. With the public cloud – everything is on loan! So experiment with it, correct your course as you go, and build up your expertise. Your approach should be to move fast and to break things, as opposed to slow and perfect. Perfection, in this case, is the enemy of progress.

Conclusion

All today's headline disruptive companies, such as Airbnb, Deliveroo, Netflix and Uber, exist because of the public cloud. Even some telcos are embracing real public cloud transformation.



Look at M1, a Singapore-based communications company, that is reducing its IT stack from 178 elements to 50, by simplifying its IT approach and interconnecting with Keppel. The success of their brands depends on it. These sectors and many others are achieving massive adoption and customer loyalty.

The public cloud is here to stay, and telcos with foresight are already beginning to move key processes across. Those who succeed first will have the agility, the resources and the revenue to experiment, innovate, differentiate and dominate their market. Be there first - commit to the public **CLOUD**.

C-Level commitment; Objectives; Upskilling; Do it!



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Telecom's Leading Public Cloud Evangelist



Danielle Royston has 25 years of enterprise software experience – the last 10+ as a CEO specializing in turnarounds. Previously she was CEO of Optiva Inc. (TSX: OPT), where she pivoted the company to become a leader in cloud-native BSS/OSS on the public cloud. And now, she's on a mission to help the telecom industry move all of its applications to the public cloud and fully embrace all the competitive advantages it has to offer.

Royston is widely recognized as an industry thought leader and has been featured in numerous publications, including Capacity Media, Fast Company, Fierce Wireless, Forbes, Light Reading, Mobile World Live, Pipeline, SiliconANGLE theCUBE, Telecoms.com, TelecomTV, The Fast Mode, The Harvard Business Review, TM Forum and VanillaPlus.

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