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The Telco-To-Techco Evolution

Paving the Way for Digital Transformation

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Introduction

Adapt or Die.

Telcos today know what will happen if they don't digitally transform, they'll go extinct.

But telcos can't get too hasty. Going from a traditional telco to a cutting-edge techco needs a carefully planned inside out transformation. Cutting corners during telco-to-techco transformation and thinking it's a quick fix loses you time and money.

See, your telco's mindset, culture and tech all need to change together. Your entire organization needs to align with a clear vision of who they are serving, what kind of customer experiences they should offer and how to build the capabilities to achieve all this.
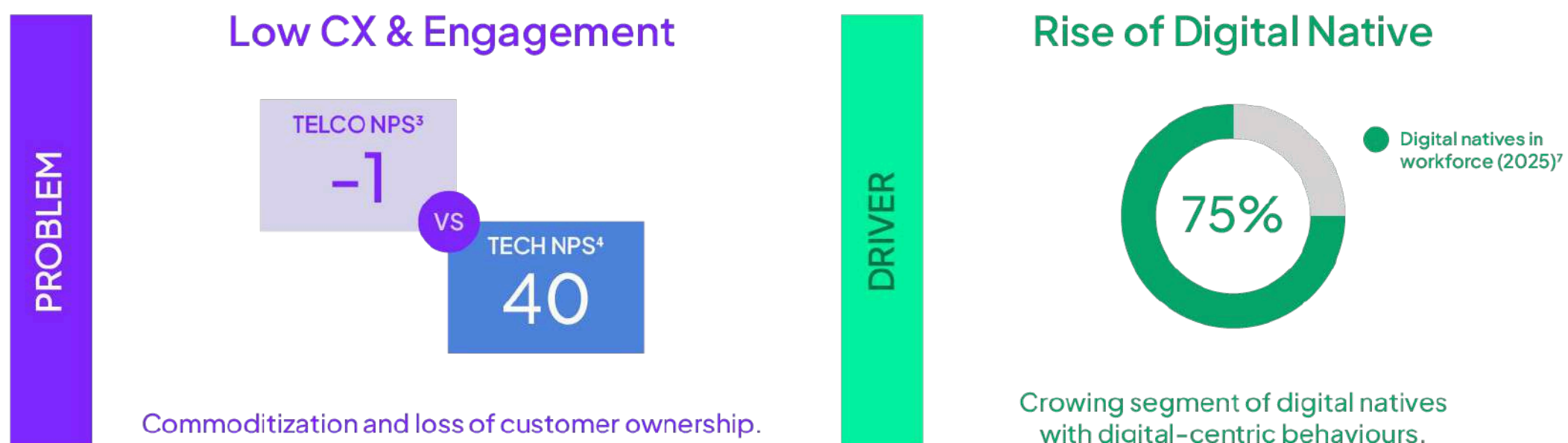
Getting this vision right is just the first of many steps on your way to becoming a techco. You need to consider where you are, where you need to go and what you need to get there.

Now let's get started.

What's Driving Telco Digital Innovation

Telcos are facing tons of pressure to digitalize, let's go over a few of them.

Rise of Digital Natives and Low CX & engagement

Low CX & Engagement

PROBLEM

TELCO NPS[3]

−1

VS

TECH NPS[4]

40

Commoditization and loss of customer ownership.

Rise of Digital Native

DRIVER

75%

● Digital natives in workforce (2025)[7]

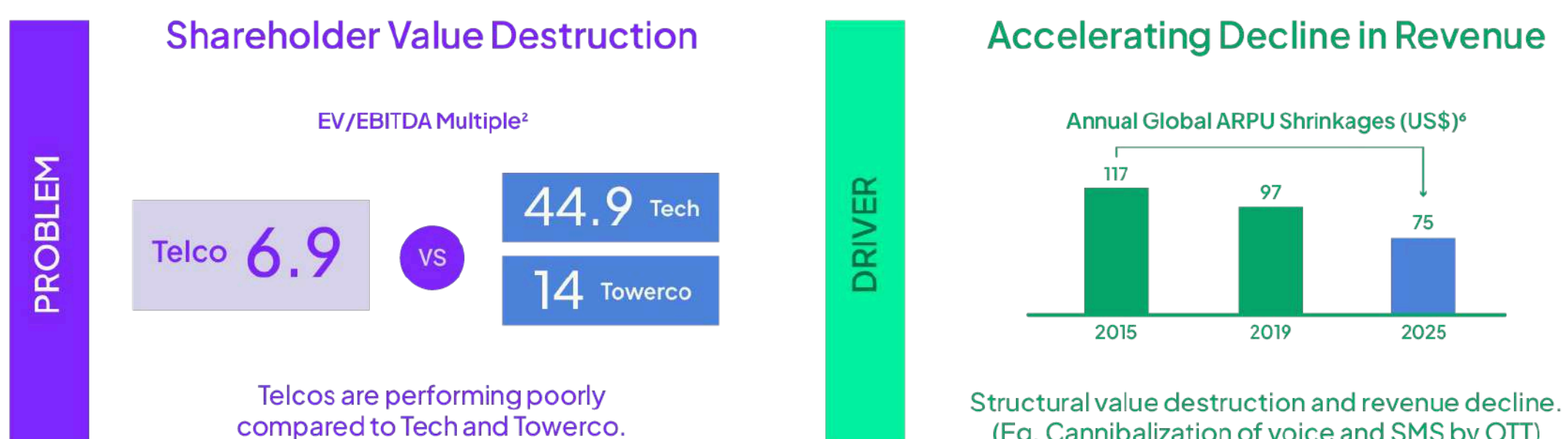Crowing segment of digital natives with digital-centric behaviours.

Telco consumers are evolving. Today, 70 to 80% of our consumer base is truly digital like Gen Zs and Gen Alphas. And one big category, that doesn't have to do with age, that we call Gen Ds, which are digitally savvy consumers.

This generation's wants and needs are very, very different from other generations. They want to interact with telcos through an app. They want personalization. They want to be in control of what services they get, how their services are customized and what the package should look like.

Fundamentally, you have to give power back to that consumer to keep them motivated, excited, and delighted. If you're not doing that, they'll ditch you with how commoditized our telco landscape is becoming.

Sadly, many telcos for years are still struggling to provide that level of service.[1] Even as recently as 2023, KPMG reported that our industry's customer experience excellence scores dropped 3% in 2023 compared to 2022.[2]
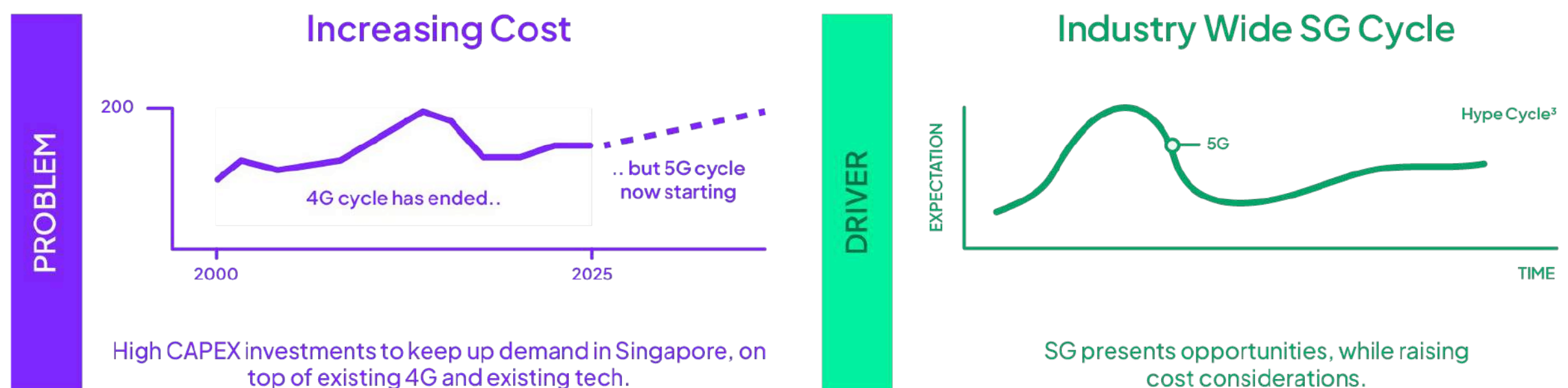
Declining Core Revenue

Shareholder Value Destruction

PROBLEM

EV/EBITDA Multiple[2]

Telco 6.9

VS

44.9 Tech

14 Towerco

Telcos are performing poorly compared to Tech and Towerco.

Accelerating Decline in Revenue

DRIVER

Annual Global ARPU Shrinkages (US$)[6]

117 — 2015
97 — 2019
75 — 2025

Structural value destruction and revenue decline. (Eg. Cannibalization of voice and SMS by OTT)

Traditional sources of revenue like connectivity have been declining. Voice and SMS markets are saturated with competitors. OTT players like Whatsapp add to the strain. Fixed and mobile subscriptions are reaching saturation points as well, all placing heavy pressure on average revenue per user (ARPU).[3]

Investing in new connectivity infrastructure has been rocky too. Investments in 5G are taking longer than expected to provide good returns. What happened was that customers didn't see why they should pay more for 5G when its value seems exactly the same as 4G. To get people to switch to 5G, many telcos kept prices low which made it harder to recoup their infrastructure investments and slowed revenue growth.

Technological Disruption

PROBLEM

Increasing Cost

200

4G cycle has ended..

.. but 5G cycle now starting

2000   2025

High CAPEX investments to keep up demand in Singapore, on top of existing 4G and existing tech.

DRIVER

Industry Wide SG Cycle

EXPECTATION

5G

Hype Cycle[3]

TIME

SG presents opportunities, while raising cost considerations.

But let's not get stuck in doom and gloom. Yes, telcos are under a lot of pressure, but it is also the most exciting time I've seen in the industry thanks to new technology developments.

We've got AI, IoT, and advanced analytics maturing at exactly the right moment. This is the opportunity of a lifetime for telcos to reinvent themselves.

In the B2C space, why not become a hub for people's digital lifestyles? Why not branch out and provide computing power and server solutions to B2B clients? As B2B clients digitize, they are now demanding sophisticated connectivity and data solutions that are scalable, reliable and secure. I've seen telcos that provides AI-as-a-Service[4] and even GPU-as-a-Service[5] offerings as an example.

Competition: Change or Die

We've arrived at a point where telecom operators either innovate now or risk falling behind the competition. Here are some headlines:

- Vodafone hired 7000 new software engineers to accelerate their development of digital platforms.[6]
- Deutsche Telekom announced plans to use artificial intelligence and global economies of scale to accelerate its growth.[7]

The more fierce the competition is getting, the faster companies digitalize.

[1] Miller – Understanding Customer Experience, [2] KPMG – Customer Experience Excellence Report 2023–24, p.6, [3] KPMG – Telco to Techco, [4] Telecoms.com – AI-as-a-Service: Telcos Are Eyeing New Revenue Potential from Generative AI, [5] InvestKOREA – SK Telecom Partners with Lambda for AI Data Center, [6] Vodafone – To Accelerate Build of Digital Platforms with 7,000 New Software Engineers, [7] Deutsche Telekom – CMD 2024: Plans to Accelerate Growth

The Benefits of Becoming a Techco

Competitive pressures aside, there's a host of benefits that telcos get from becoming techcos. Techcos' have higher earnings, higher customer loyalty, more competitive brands, and better long-term growth.
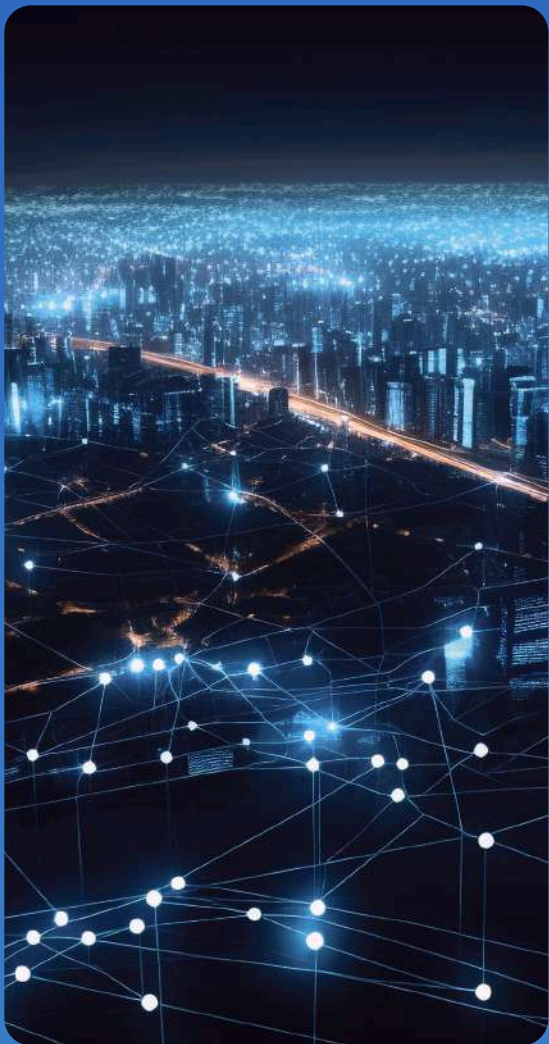
Enhanced revenue streams through diversification

We're at a point where the tech is no longer the blocker, your imagination is. I was at MWC 2025 this year, and the energy was electric. We're seeing telcos offer GPU-as-a-Service,[8] cloud environment rentals for enterprise solutions and AI workloads,[9] and package up generative AI like it's SaaS on the B2B side.[10] These offers are live. These offers are making money.

The playbook is wide open on the B2C side too. From digital entertainment to content creation, telcos have a shot at becoming the digital lifestyle hub people live on. Some techcos we met are quite ambitious. They're betting big on customer retention by aiming to build the best digital lifestyle hubs in their markets.

Improved competitive positioning and reduced dependence on traditional telco services

Any telco relying on just one revenue stream today will fail. We've already seen how even selling data isn't bulletproof. Just look at how B2C 5G revenues have underdelivered, despite the massive CAPEX we've all sunk into the infrastructure. We need to diversify. We need to have multiple growth engines running. And once you've found your niche, you can build your brand around it but remember: never stop innovating.

Long-term growth in emerging digital markets

If you've got the muscle, now's the time to place some bold bets. Look at how Google plays the long game with their moonshot projects. You don't need to build the next self-driving car, but you should keep fingers in the pies of different emerging digital markets. That's a smart strategy. That's how you can be the first in the industry to launch new offerings and stay ahead of the curve.

[8] Telekom Malaysia (TM) – To Offer Sovereign GPU as a Service as Nation Embarks on AI, [9] Red Hat – What Is Telco Cloud?, [10] Telecoms.com – AI-as-a-Service: Telcos Are Eyeing New Revenue Potential from Generative AI

Transformation pillars to go from Telco to Techco

Now that we know that all telcos should be becoming techcos, it's time to nail down what the term techco means.

In general, a techco is a telco that has broken free from its legacy telco roots and embraced the digital landscape and beyond while focusing on multiple core pillars.[11]

Digital & Cloud Transformation

Migrate to cloud solutions & leverage infrastructure: AI, automation, IoT, etc.

Inject digital DNA through strategic partnerships with digital companies

Customer–centric Innovation

Offer personalised user experiences via insights from AI and Big Data

Build omnichannel engagement, super apps, and bundled digital services

Diversification into Digital Services

Offer financial services, digital entertainment, content production etc.

Offer services like cloud solutions, AI, data analytics, IoT, etc.

Digital Infrastructure Investment

Expand into 5G, edge computing, & software-defined networking (SDN)

Make scalable platforms for smart cities, autonomous vehicles and health tech

Adoption of Agile Business Models

Shift from rigid telecom models to dynamic subscription-based or as-a-service offerings (e.g. SaaS, PaaS, and IaaS)

Ecosystem Building & Partnerships

Co-create solutions with digital ecosystem partners

Expand capabilities and market reach via APIs and digital platforms

Agile and Adaptive Operating Model

Implement Agile methodologies

Dev ops & continuous innovation: accelerate product development and market responsiveness

Cultural Shift

Embrace tech-oriented workforce: AI, cloud, data analytics expertise

Encourage innovation: hackathons, skunkworks, and R&D hubs

Traditional Telcos Face an Uphill Climb, but It's Better to Start Climbing Now

If you're running a traditional telco, you should have started your digital transformation long ago. If you haven't, you need to start now. **Here are some challenges that you'll need to overcome.**

Overcome legacy technologies, business models, systems and processes

Back in the day, traditional telcos only needed to focus on infrastructure and network operations. As long as connectivity was fine, it didn't matter if the customer experience was poor. This expectation of low service quality was so widespread, it was even criticised in a Harvard Business Review article.[12]

This mindset led to more emphasis on physical infrastructure. Software upgrades were secondary, and a piecemeal method of development added to layers upon layers of decades-old legacy software.

But customer-centric experiences and offers matter now.

Legacy systems and processes now hamper telcos' agility and their ability to develop customer-centric services and user experiences.[13]

Let's call 'integration challenges' what it is. Spaghetti. Most telcos are stuck managing a tangled mess of bespoke vendor solutions, each with their own APIs, workflows, and quirks. Just keeping the lights on eats up thousands of man-hours.[14] And that's before you even try to innovate on top of it.

Back when we were just selling voice and SMS, sure, that kind of setup worked. But today's digital natives won't wait for you to untangle that mess. They want speed, personalization, and instant everything.

I get that CAPEX for completely new software can be a financial punch in the gut. But here's the thing: it's either that or continue paying high OPEX and still provide low NPS score service.

That's why the smart telcos are already simplifying, automating, and investing in real-time customer intelligence. They're cleaning up their stacks and migrating OSS and BSS to the cloud,[15] just like KDDI did with its povo brand in Japan.

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[12] Miller – Understanding Customer Experience, [13] KPMG Thailand – From Telco to Techco: Towards Tomorrow's Telecom, [14] KPMG – From Telco to Techco: Towards Tomorrow's Telecom, [15] Telecoms.com – AI-as-a-Service: Telcos Are Eyeing New Revenue Potential from Generative AI

Overcome old mindsets

Ironically, the sky-high OPEX caused by legacy software started with telcos trying to save on CAPEX. They held on to legacy systems and added on one bespoke software feature at a time, adding a new strand of spaghetti to their mess each time.

See, this is what you get with short-sighted mindsets. Everything from the inside out needs to change. Your mindsets. Your culture. Your software. Holding onto any outdated processes or software will cause problems. Even if the overhaul is scary or it hurts, the long-term savings and your new capabilities are what you need to survive. Your staff need to be adaptable, not just to the software, but to be flexible enough to react to market changes quickly. They need to have a client-centric mindset that focuses on serving great experiences rapidly.

Build new capabilities

When it comes to what your telco should offer, you're spoiled for choice. You've got IoT, AI, machine learning, cloud computing, GPU-as-a-Service and more that you can offer. Once you've got that, you can make your brand be B2B-focused, B2C-focused or both.

B2C customers want fast and reliable connectivity, personalized services and great customer experiences. **B2B customers** want secure, scalable solutions with integrated services and personalized support. Once you've chosen a niche, remember to keep growing and investing in your telcos' capabilities.

Ensuring cybersecurity and data privacy compliance

As your telco levels up, so do the threats. That's just the reality.

The more interconnected your services get, the more doors that hackers can use to break in. We've seen it year after year: big names, big breaches. If cybersecurity isn't already a top priority for you, it needs to be.

And let's not forget data privacy. As your stack gets smarter and your insights get deeper, your responsibility gets heavier. Remember that customers are trusting you to protect their data.

And with regulations tightening around the world, from GDPR to local data residency laws, there's no cutting corners. Get your legal playbook right. Get the right partners in place. This is table stakes for any serious techco.

But here's the bigger picture: winners in this space aren't defined by high CAPEX investments any longer. The winners will be the ones who can move fast, stay secure, and deliver exactly what their customers want, when they want it. That's the edge. That's how you lead the digital shift instead of getting swept up in it.

Seven Broad Steps to Holistic Techco Transformation

There's no one-size-fits-all play here. Some telcos go all-in on digitizing their core brand. Others spin up bold new B-brands from scratch. Both can work. It just depends on your ambition, where you can fit in your market, and your execution muscle. You can check out these seven broad steps to figure out what works for your telco[16]

1

Assess your current capabilities
Identify strengths that can be leveraged and gaps that must be addressed to set the stage for a transformation agenda.

2

Decide where you want to play in the techco world
Craft a distinct identity that resonates with evolving market demands and your unique value proposition.

3

Consider the key value streams
Understand what will drive value for your business and your customers and stakeholders.

4

Identify the key capabilities you need to get there
Chart a strategic roadmap to drive the capabilities necessary to deliver on new value streams.

5

Define the strategy for the transformation journey
Prioritize the design and build of the transformation value streams and determine the right balance between business-as-usual operation and ongoing initiatives.

6

Go beyond the tech
Foster a culture that integrates talent, compliance, and governance to ingrain agility and innovation into the corporate DNA.

7

Leverage partnerships, co-development, and external support
Create an ecosystem of partners that can help amplify innovation, drive growth, and facilitate market penetration.

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[16] Telecoms.com – AI-as-a-Service: Telcos Are Eyeing New Revenue Potential from Generative AI

I've had the chance to work with telcos around the world, and let me tell you: most of them know **what** they want. But when it comes to **how** to get there, that's where things fall apart. You can have all the ambition in the world, but without a clear vision and a plan to shift your telco from the inside out, you're flying blind.

And that's how so many digital transformations fail. No alignment across teams. No clear ownership. Everything dumped on IT. We've seen this too many times, great strategy on paper but chaos in execution.

That's exactly why we built the Ideal DMO playbook at Circles. We've lived this. We've helped telcos go from legacy-heavy to lightning-fast. And we've captured what works into a real transformation model built to create digital telco brands that actually connect with today's consumers.

> **At Circles, telco digital transformation is the shift from traditional telco models to become ideal DMOs.** Ideal DMOs use the best aspects of tech companies to become most admired digital brand among digital natives and mainstream customers through a holistic transformation:
>
> **Connect:** Delivering seamless connectivity
>
> **Delight:** Enhancing customer experience
>
> **Beyond:** Expanding into digital services beyond connectivity services

Offering **connectivity** is table stakes for any telco. What ideal DMOs need to do is to bring **delight** on that, such as bringing gamification into what you offer. Then you can take your telco **beyond** with other value-added products that really keeps your consumers enticed and motivates them to use your app like you would a super app.

In an ideal situation, if your customers want to book a trial of a service or play some games, they can use your telco app. By giving them no reason to go anywhere else, the holistic nature of your telco app will keep them loyal to your brand.

A telco's journey to becoming an ideal DMO requires an agile, data-driven operating model, leveraging AI, automation, and customer-centric innovations.

At the same time, becoming a techco should still bring positive business outcomes. These include improved profitability, high Net Promoter Scores, and diversified revenue streams beyond connectivity.

Telcos shouldn't be running away from these problems but should be racing ahead of the competition to become ideal DMOs. Success lies in embracing disruptive technologies while reinventing your telco's culture to be agile and customer focused.

Future Projections

Sure, the road from telco to techco isn't without its bumps. Regulatory hoops, cyber risks, and the not-so-small matter of shifting mindsets inside the organization can be daunting. But here's the exciting part: when telcos lean into this transformation, the payoff is massive.

We're talking about unlocking whole new revenue streams, launching bold digital business models, and rewriting how the industry creates value. Winners will be able to run not just the best networks, but build well-loved ecosystems. That's what will separate the survivors from the telco champions of tomorrow.

Now comes the question. Will you be that champion?

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