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LOADING...

NETWORK PROBLEMS

5 of Telcos' Toughest Challenges

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From innovation to expectation

It takes almost no time for an incredible innovation to become a basic expectation. With every telco development, the baseline of consumer expectation rises. As speed, coverage, reliability, and capability increase exponentially, so does the threshold for customer satisfaction.

Telcos are facing a lot of questions about what they will need to offer consumers, and how they can deliver it. **This guide discusses five of the toughest challenges that telcos face, and looks at some solutions.**
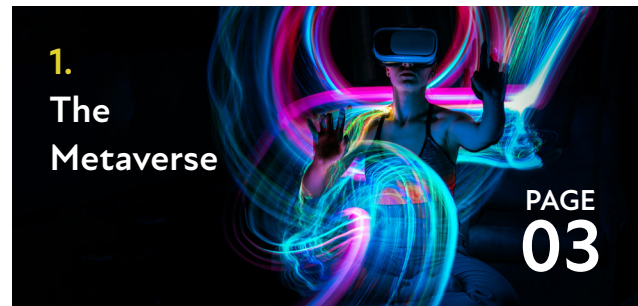
1.
The Metaverse

The Metaverse is taking early steps from concept to reality, and it offers a fundamental change to the way we interact with the internet. The commercial potential is huge — for example, already a third of UK consumers intend to use the Metaverse for shopping.

The challenges:

DATA

At their most ambitious, visions for the metaverse include virtual reproductions of our physical world, perhaps with the added possibilities that virtual reality allows. Straight away, anyone can see just how much data that would require. If businesses are going to deliver on that promise, they need to consider how that will happen, because existing hardware and software are simply not capable.

INVESTMENT

Since the technology we have is not up to the task, supporting a metaverse will take enormous investment, and after that happens, businesses and investors will expect a return. However, the upfront investment and the inevitable cost to deliver the metaverse mean that for telcos to make a return, consumers will need to be willing — at least initially — to pay a premium for access.

WHAT IS IT?

The metaverse only really exists as a concept, and a vague one at that. Telcos need to decide if by investing in metaverse infrastructure, they'd be betting on the greatest data innovation since the world wide web, or throwing huge amounts of money into a black hole. Either way, it's a big gamble.

The solution:

Telcos need to balance visionary thinking with sober commercial sense. Predicting how people are going to use your networks in the coming years is basically impossible. However, business leaders with a combination of creativity, analytical flair, and a deep understanding of the tech landscape can make informed decisions about where customer behaviour and preferences are heading.

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2.
The eSIM revolution

Before long, the days of the SIM card will be over. Rather than containing an inserted, interchangeable card, devices will feature a permanent chip which operates as a programmable SIM.

The challenges:

CONSUMER PICK AND MIX

If customers aren't tied to a specific carrier through their SIM, they can pick and choose which services are provided by whom. For telcos, that means competition is not on one front, but many. Traditionally, they would compete to provide a mobile service, which customers could judge in whole on its faults and strengths. Soon, they will compete for business in every element of a mobile service.

UNCERTAINTY

The flexibility that eSIMs will offer, and the ease of switching operators, will likely make consumers very reluctant to commit to 24-month contracts. Telcos will have a much less concrete sense of their forecasts.

The solution:

To remain competitive in its offering and pricing structures, your business will need a mixture of technical expertise and commercial vision among its leadership. The fear of uncertainty is a valid one, but eSIMs provide opportunities for greater customer loyalty — 91% of customers are more likely to stick with a provider that offers them bespoke services and packages. If you have experts at crafting profitable and attractive offerings, you'll be able to retain customers even without contract commitments.

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3.
Open RAN

Open RAN aims to provide radio access networks through vendor-neutral hardware. With Open RAN, operators could theoretically use multiple vendors for different aspects of the Radio Access Network.

The challenges:

SECURITY

If telcos are partnering with multiple vendors in their RAN, that means that the 'surface area' for a cyber attack is much greater. Since there can be much more to protect, defence measures will have to be more robust, and operators will have to be more coordinated with their vendors in risk assessment.

INTEGRATION

If each part of the RAN is serviced by a different vendor:
- the procurement process is inevitably more complex, and the operator has to consider more bids, but also how different combinations of vendors might work.
- the network becomes more complex to manage, meaning the skills to manage it will be in greater demand, more difficult to find, and therefore more expensive.

The solution:

Handled well and implemented strategically, Open RAN should lead to cost-savings long term.
So, while expertise in that technology procurement might be relatively rare and expensive, it's an up-front investment that pays for itself. For those who don't have it already, the main struggle could well be locating and securing it, which is where partnering with an expert will help. Those with candidate networks and deep sector knowledge can make connections between that rare talent and the telcos that need them.

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4.
Internet of Things (IoT)

An increasing number of objects and facilities come with the ability to process data and communicate over networks, and telcos need to build networks that can cope with that strain.

The challenges:

DATA PROCESSING, STORAGE, AND ANALYSIS

As the number of communicating devices grows, so does the amount of data that will need to be processed, analysed and stored. By 2025, there could be a total of 73.1 Zettabytes (73.1 trillion gigabytes) of data generated by IoT devices. Capacity will need huge expansion to accommodate that.

SECURITY

The more connected devices there are, and the more data is shared, the more opportunities there are for data breaches and network infiltration. IoT will demand a lot of investment and security measures to protect consumers and businesses. There is also the risk of public perception when it comes to IoT security. 74% of global consumers worry about losing their civil rights because of IoT, and it will take skilful communication, as well as an impeccable security track record, to reassure sceptical customers that their data is safe, and so is the network that connects them.

The solution:

Telcos need a combination of technical expertise and consumer-facing strategy in their leadership. Businesses handling data from IoT devices need to process enormous volumes of information, much of which comes from devices in the home. Customers will need a lot of reassurance about their privacy, as well as an excellent experience with devices and software, or consumer mistrust could swiftly grow.

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5.
Energy

The energy demands of advancing technology could mean rising costs and negative PR. Open RAN, for example, uses three to four times more power than traditional RAN, and 5G towers need about 70% more energy than 4G towers.

The challenges:

COSTS

Energy costs are volatile, and are currently extremely high. Either telcos pass that cost on to their consumers, or they absorb it themselves. Either way, costs and margins could be volatile for some time.

PUBLIC IMAGE

The difficult balance that telcos need to strike is between energy efficiency and service quality. Realistically, customers may be conscious and genuinely concerned about emissions, but they also want a reliable connection. Customers want the best of both worlds, and telcos have to work out how to offer it.

The solution:

The answer to the energy question is efficiency. As time goes on, legacy tech will become more of a waste of energy, and out-of-date systems will continue to demand energy that could be better spent. Streamlining your infrastructure and addressing your legacy technology burden will dramatically reduce your energy consumption, costs, and environmental impact — but it needs careful consideration to balance the commercial pros and cons.

5G towers need

70%

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Fierce Wireless

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One solution for telco challenges.

The solution to any telco challenge of the approaching years starts with talent.

- At the head of the business, and running throughout, companies need technology leaders with sector expertise, the empathy to imagine the consumer perspective, the creativity to innovate, and the technical knowledge to deliver that vision.
- Throughout the business, telcos will need teams with the skills to deliver innovation and help turn new ideas into tangible business offerings.
- Telcos also need to be able to access that talent quickly, whenever a need or vacancy arises.

It will come as little surprise that the most in-demand talent amongst our telco clients right now focuses on data monetisation, cyber security, and software development, and that competition to fill these roles is fierce. That talent is rare and sought-after, and securing them for your business requires intense effort.

By working with a partner who has a deep industry heritage and a vast candidate network, you can fill your senior positions without diverting the time and energy of your existing talent. Contact RPI today, and get access to the international talent that will transform your business.

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