

# Content Writing Sample 0005

Title Tag: Telco Cloud: Why Carriers Need to Become Cloud Natives | TCAP

Meta-description: Telco cloud is the next step for telecom service providers. Here's why it's so important.

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## Telco Cloud: Why Carriers Need to Become Cloud Natives

Telco cloud is the next step in the evolution of telecom service providers. When carriers become 'cloudified', they're moving from NFV infrastructure to being cloud-native – agile, high-automation, scalable, and designed for the future.

Here's why telco cloud matters – and why automation platforms like [TCAP](#) are an essential part of cloud transformations.

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# What Is Telco Cloud?

Telco cloud refers to the cloud computing technologies used by telecom providers. Traditionally, carriers used complex infrastructure networks comprising proprietary hardware. Capital expenditure and ongoing maintenance costs were both high, creating barriers to market entry and impeding organisational growth.

Over time, physical network functions (PNFs) became virtualised, running on off-the-shelf hardware instead. No proprietary tech meant telcos could go to market with a fraction of the resources they'd previously needed, and GTM timelines were shortened further by frameworks like [MANO](#).

Today, though, carriers are shifting away from both PNFs and NFV. Telco cloud is not just virtualised, but designed from the ground up for a digital world. That means network infrastructure is agile, scalable, and deployable across public, private and hybrid cloud environments, with automation shortcutting many of the manual processes that used to make telco market entry so costly.

## Why Transitioning to Telco Cloud Matters

For carriers with established virtualised infrastructure, transitioning to the cloud can seem like a waste of resources. After all, with seven or eight figures in CapEx already spent, is it really worth the time and effort to go cloud-native?

The simple answer: yes. Telco cloud transforms both architecture and service delivery, which helps lower service overhead and improve margins. Cloudification also builds revenue resilience; approaches like containerisation have radically cut application GTM time, allowing carriers to quickly develop new offerings in response to changing market demand.

### Lower Costs

The clearest benefit of moving to telco cloud is the massive reduction in the costs of market entry, application development, and service delivery. For carriers still using legacy proprietary hardware, the switch to commodity tech is a clear win – expensive internal development is replaced by a simple procurement process instead.

Cloud-native app development also benefits from [containerisation](#) and [microservices](#), two architectural approaches that break down network functions into interrelated bundles and systems respectively. Both containers and microservices make network functions lighter, more manageable, and more scalable.

For example, containerisation decouples functions from infrastructure, making it easier and faster to move apps through the development lifecycle. Its stateless nature also provides performance benefits – no retained local data equals simpler debugging and fewer associated costs. Similarly, stateless microservices (built on the back of modern containerisation technologies) are more resilient and potentially cheaper to build.

Finally, service delivery can be heavily streamlined through orchestration platforms like TCAP. For example, by front-ending your OSS/BSS with TCAP, you can leverage light (trigger-based) and heavy (API-based) automation to onboard new Microsoft voice users, cutting down the associated engineer workload by up to 80%.

## Better Scalability

Cloudification delivers two obvious scalability benefits: one, the inherent scalability of hybrid cloud environments, and, two, service-level automation.

Because telco cloud can span multiple private and public cloud environments, there's no load ceiling; compute and storage capacity can be dynamically reallocated in response to shifting demand. As a result, availability and redundancy functions are both improved.

Closed-loop deployment of an app also builds in the ability to 'self-heal'. In contrast to open-loop deployments, which require humans to action feedback, closed-loop deployments automate controller remediation. Manual workloads are consequently lower, and apps have a level of resiliency that makes scaling easier.

Finally, automation at a service level – for example, automating Teams Phone deployment via TCAP – can reduce or even eliminate engineer input. By obviating the human aspects of service delivery, you can remove potential chokepoints and free up your engineers to focus on revenue-generating activities.

## Improved Time-to-market

Cloud-native automation, architecture, and dev methodologies have all simplified the process of taking a new offering to market.

At an architectural level, containerisation and microservices make it easier to move apps and services through different lifecycle stages. They're complemented by methodologies like CI/CD, which uses automation and continuous monitoring to expedite delivery and deployment. At a service delivery level, going to market is streamlined by the presence of platforms like TCAP – third parties whose automated solutions remove friction from certain processes or offerings.

Isolated container dependencies, high component granularity, continuous improvement – they all stand in stark contrast to the bulky, monolithic architectures used by legacy architectures. In the same way that the cloud isn't limited by scale, GTM processes won't be slowed by integration hell or individual service failures. Telco cloud provides resilience and flexibility, and that's good news for carriers that want to capitalise on fast-moving opportunities.

## Standalone 5G

Cloudification is integral to maximising the impact of your standalone (SA) 5G revenue streams. From cloud-native dev patterns like CI/CD to complementary architectures like microservices, SA 5G demands light, scalable network functions built on cloud-native architecture.

As carriers move from NSA 5G to standalone, network edges are becoming increasingly prioritised; moving services and workloads from central core networks to the edge (closer to where data is used) lowers latency and improves CX. Cloud-native architectures, like containerisation, are essential for migrating network functions like RANs and MEC to the edge. Because cloud environments can be so diverse – especially in edge data centres – adopting highly flexible, resilient architectures and delivery methods is essential for a smooth 5G experience.

## Enhanced Stickiness

It's easy to view telco cloud from a pure efficiency standpoint – faster, cheaper, easier. But the downstream effects of those efficiencies are less obvious and just as important. When costs are reduced on the carrier end, the savings are passed through to partners and end customers, which results in better retention. Over time, better retention translates into higher average lifetime value.

Importantly, the flexibility of telco cloud means highly customised offerings for specific verticals can be developed quickly (and, when demand eases, wound down just as quickly). There's no demand/solution gap – instead, telcos can evolve with their customers, fluently meeting needs instead of scrambling to keep up. That creates happier, more satisfied customers who are less likely to churn.

Becoming cloud-native isn't just a way to cut costs or make market entry easier. Enhanced stickiness pulls on the revenue lever too, enabling carriers to accelerate their growth and keep the market share they capture.

## Key Cloudification Points

Migrating your network functions to the cloud requires careful planning and a comprehensive NVF-to-cloud strategy. Unless you're starting from scratch with greenfield architecture, migration will likely be a gradual process that requires integration between legacy network environments and telco cloud.

As such, it's important to work out which apps and network functions can remain as VMs and which ones need to be rebuilt as microservices. Deciding on a cloud mix is also a major consideration. Most cloud-native carriers have adopted a mix of private cloud and public cloud (from [hyperscalers](#) like AWS, Azure, and Google Cloud); hybrid cloud environments can be leveraged for different benefits based on the performance and security requirements of individual functions and apps.

Internally, methodologies like DevOps and Agile should be evaluated for adoption. It's important to understand that 'methodologies' is almost a misnomer – both DevOps and Agile are high-level combinations of culture, ideas, and approaches that will radically transform how your organisation functions. Implementation, while highly beneficial, isn't something to approach lightly.

## Using TCAP to Become Cloud-native

Automation is a key part of becoming cloud-native. During your pre-transition assessments, it's important to identify orchestration tools that can help you manage your service delivery by eliminating costly manual processes.

For carriers that want to enter the sprawling Microsoft voice space, orchestration is one of the biggest challenges. Even with the introduction of [Operator Connect](#), integrating legacy OSS/BSSs with OC APIs costs an average of AU\$1 million in CapEx and 12 months in development times – a cost that's often prohibitive.

The solution? Fully automated orchestration platforms like TCAP.

TCAP makes it easy to integrate your OSS/BSS with Microsoft's APIs ([for either direct routing or Operator Connect](#)). For example, going to market with an OC offering typically requires manual development of an API bridge, custom software development, and weeks of testing. TCAP's zero-code automations shortcut that process, delivering a turnkey product that's ready for market in an average of two weeks. The platform even automatically validates your integrations and certifies you as an OC provider – all through a consumption-based monthly subscription.

With billing, DID management, and orchestration bundled into a single, easy-to-use platform, TCAP delivers a zero-touch Microsoft voice offering that lets end customers start making and taking calls [less than 10 minutes after sign-up](#). The platform itself isn't integral to becoming cloud-native – but, for cloudified carriers adding Teams Phone to their product portfolio, it's the simplest, most cost-effective way to go to market.

## Summary

Transitioning to the cloud isn't a simple process. In fact, it can be gruelling, resource-intensive and deeply complicated. But, like most metamorphoses, it's the precursor to a healthier, more robust organisation – one that has its eyes fixed on the future, not the past, with the capabilities to thrive in a constantly evolving communications landscape.

For carriers that want to capitalise on emerging markets like 5G and Microsoft voice, telco cloud is more than just the next step in technology. It's a game-changing competitive advantage – the kind that kills slow-moving incumbents and elevates challengers to category leaders.