

# Accelerating Towards Becoming a Digital-Native Service Provider



**Nikhil Batra**  
Research Director, Telecoms  
IDC Asia/Pacific



# Executive summary

Today's communication service providers (CSPs) are facing unprecedented challenges. The environment in which they operate is rapidly changing, and consumer demands are constantly rising. Compounding these issues is the spectre of thinning margins from traditional telco services and competition from non-traditional players.

All of these elements are driving CSPs to abandon a conventional telco mindset, speed up their digital transformation, and transition to a digital-native telco by evolving their product and service portfolios, while revolutionising their operational processes.

This InfoBrief discusses the challenges in the journey towards becoming a digital-native telco, and explores how CSPs can leverage next-generation technologies such as 5G, artificial intelligence and machine learning (AI/ML), and automation and orchestration for business as well as operational transformation.



Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

# The urgent need for change

With ever-changing expectations, organisations and consumers want more from their networks, and their CSPs today. Post-pandemic, the majority of organisations have understood the value of connectivity and a digital-first approach in improving business agility and growing revenues. CSPs, as primary connectivity providers, must transform to address these evolving requirements and customer initiatives.

## The three primary strategic objectives

IDC's Digital Services Provider Transformation Survey highlights that telecom executives in Asia/Pacific have **three primary strategic objectives** driving their tactical activities:

**1**



**CEO** **COO**

### Stay relevant to customers

- Address customer transformation agendas
- Change customer focus and segmentation
- Improve speed to market

**2**



**CEO** **CIO**

### Accelerate digital transformation

- Accelerate operations transformation
- Introduce digital offerings and explore partnerships
- Embrace new business models

**3**



**CEO** **CTO**

### Navigate the financial dilemma

- Identify when and where to invest
- Automate the 'right' technology and processes
- Create a sustainable, long-term vision for the company

### THE BIGGEST ROADBLOCKS

- Legacy (static) telco technology stack
- Traditional/manual processes
- Hesitation to change

Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

# Stay relevant to customers



CSPs are investing in technologies that promote the construction of the network of the future, but technology is not an end in itself. While consumers are demanding higher speeds, better quality of service (QoS), and real-time control over their subscribed services, enterprises are looking for faster, flexible, and agile connectivity that supports their digital transformation and future enterprise initiatives.

### Prediction #1



By 2024, 40% of APEJ large enterprises extend network attentiveness across all major IT teams – e.g., SecOps, DevOps, and AIOps – by expanding skill development, screening requirements, and NetOps interactions.

#### Telco impact

Telcos MUST provide **visibility and attention** across all domains of their customers to ensure that their customers have a **consistent and secure digital experience** for employees, partners, and customers – anytime, anywhere.

### Prediction #2



By 2023, 50% of APEJ large enterprises will benefit from optimised operational efficiency, enhanced security, and reduced network costs by leveraging software-defined wide area network (SD-WAN) and security for cloud-managed networking and security.

#### Telco impact

Telcos need to ensure they implement resilient network solutions to provide a superior customer experience, as well as help their customers improve operational agility and productivity.

### Prediction #3



By 2025, 55% of digital organisations in APEJ will augment “cloud first” with a “wireless first” multi-access network fabric using diverse technologies for mission critical and business continuity use cases.

#### Telco impact

Telcos need to provide tools and processes to help **improve network management, workload optimisation, security operations, and multicloud management for their customers**, with the aim to help reduce pressure on internal skills for their customers.

### Prediction #4



By 2024, 50% of APEJ large enterprises will use a hyperscaler’s cloud WAN service within their network, either directly or indirectly, pushing telcos further towards the role of service integrators.

#### Telco impact

Telcos need to get ahead of the conversation and **convince organisations on their expertise and capabilities** to help them implement cloud-WAN, and broader multicloud solutions.

**These predictions highlight the critical need for telcos to further develop and enhance automation, orchestration, and service management capabilities.**

Source: IDC Future of Connectedness Predictions 2023 - Asia/Pacific (excluding Japan) (APEJ) Implications

# Stay relevant to customers: CSPs' challenges and response



## Challenges

### Top six factors impacting CSP strategy

Changing network vendor or partner landscape	Increasing speed of innovation and change	Changing customer behaviour due to new technology	Changing competitive landscape	Rising energy costs and inflation	Environmental, social, and governance (ESG) initiatives

## Response

### Asia/Pacific CSPs are prioritising different initiatives



**Changing customer segmentation and focus** is the number 1 priority for CSPs in markets like Australia, China, Hong Kong, and South Korea



**Prioritising their operational agility for faster speed to market** is the top focus for CSPs in countries like Japan, Singapore, Malaysia, New Zealand, and India



Telcos need to **CHANGE** with the times to avoid becoming a commodity!

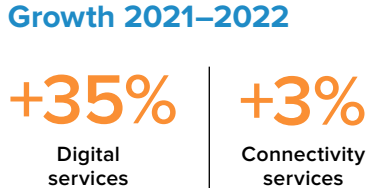
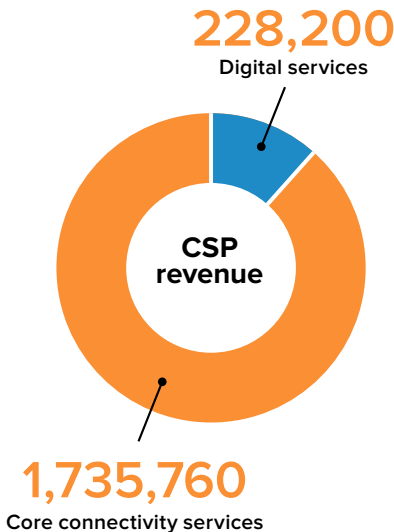
Source: IDC AP Carrier Transformation Survey, June 2023, N = 390

# Accelerate digital transformation – a multi-billion-dollar opportunity



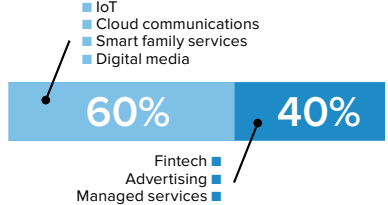
Changing consumption patterns, intense competition from over-the-top (OTT) platforms, and commoditisation are significantly shrinking revenue for CSPs from core connectivity services. Conversely, this has opened up a vast opportunity for CSPs to leverage technologies such as software-defined networking and virtualised platforms, hybrid cloud, Internet of Things (IoT), and augmented reality and virtual reality (AR/VR), to meet the rapidly evolving consumer and enterprise demands.

## Worldwide CSP digital vs traditional services revenue split, 2022 (US\$M)



Digital services accounted for only 11% of CSP revenues worldwide but **grew over 35%** in 2022. On the other hand, traditional connectivity services grew about 3% in 2022. This presents a huge, billion-dollar opportunity for telcos to increase their average revenue per user (ARPU) and improve their bottom line.

### Digital services\* revenue



Within the digital services space, IoT, cloud communications, smart family services, and digital media generated more than **60%** of operators' digital revenue, while the rest came from fintech, advertising, and managed services. Smart family services include value-added services such as on-demand video streaming, pay TV services, connected home networks, and home security.

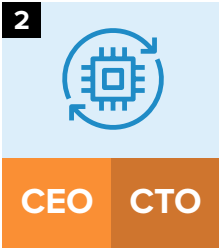
### THOSE WHO HAVE MADE IT

While most CSPs are struggling to strike the right balance, the likes of Telefonica, Orange, and BT have demonstrated strong growth in their digital services revenues.

\* Digital services refer to all non-core connectivity offerings such as IoT, cloud communications, smart family services, vertical industry solutions (e.g., fintech, healthcare etc.), advertising, and managed services.

Source: IDC AP Carrier Transformation Survey, June 2023, N = 390

# The opportunity cost of not transforming

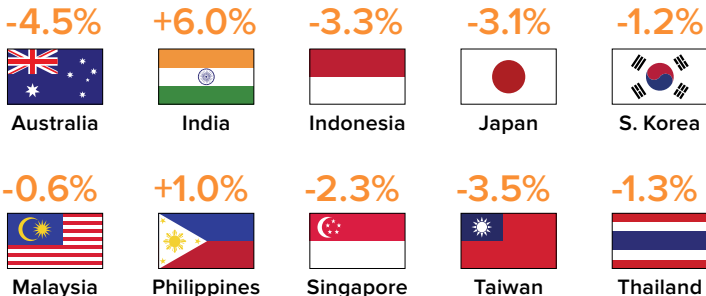


While revenues from traditional data and mobile services have been, and are expected to be, stagnant for telcos in Asia/Pacific, there is a big opportunity in adjacent spaces such as 5G enterprise services, secure virtual network services, multicloud networking, and other adjacent areas. The following comparison illustrates this:

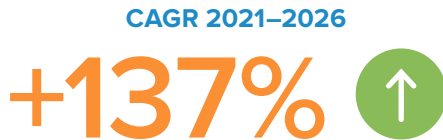
## Stagnant/declining revenues from traditional fixed + mobile telecom services



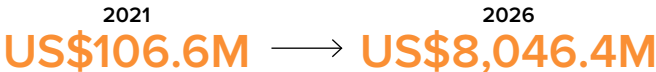
### Growth rate 2023



## Opportunity in 5G enterprise services in Asia/Pacific



### Total revenue



### Selected segment CAGR



### THE CHALLENGE OF LEGACY MINDSET

In order to capture some of these opportunities, telcos need to overcome a legacy mindset and transform themselves into digital services providers from a business, operations, and infrastructure point of view. But where are Asia/Pacific CSPs now on this transformation journey?

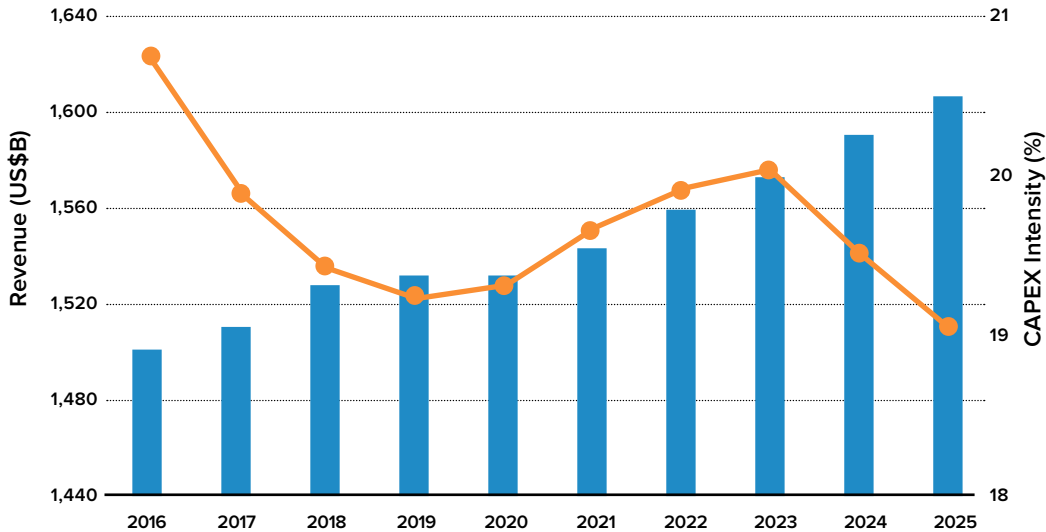
Source: IDC Semiannual Telecom Services Tracker - Connectivity Forecast 2022

# Navigating the financial dilemma



In the past, telcos have never shied away from the gamble of investing in technologies despite the unpredictable return on investment (ROI). They continue to put funding into their networks to expand coverage, capacity, and add new features, while OTT and digital services providers continue to reap the most benefits of those advances. Competing in today’s market requires CSPs to be smart in their investments and keep in check their capex intensity (percentage of annual capex to annual revenue) – a business metric used to evaluate how well CSPs are navigating the financial dilemma of cost vs revenue.

## Telcos have to keep CAPEX intensity in check



IDC’s Worldwide Telecommunications CAPEX forecast highlights that capex intensity was 20% in 2022 and is expected to increase to over 20% by 2023, given the surge in investments in new networks (e.g., 5G, fibre, and SDN).

While telcos cannot stop investing in their networks and operations, there is an urgent need for CSPs to digitally transform their business and operations in order to increase agility internally, making it easier to adapt over time, and keeping costs in check.

### THE DILEMMA

When and where to invest, and identifying the right partner.

Doing nothing, not investing enough, or investing incorrectly – the wrong technology, network solution, vendor, or partner – can set back an operator for years.

Source: Worldwide Telecommunications Capex Forecast, 2022–2026

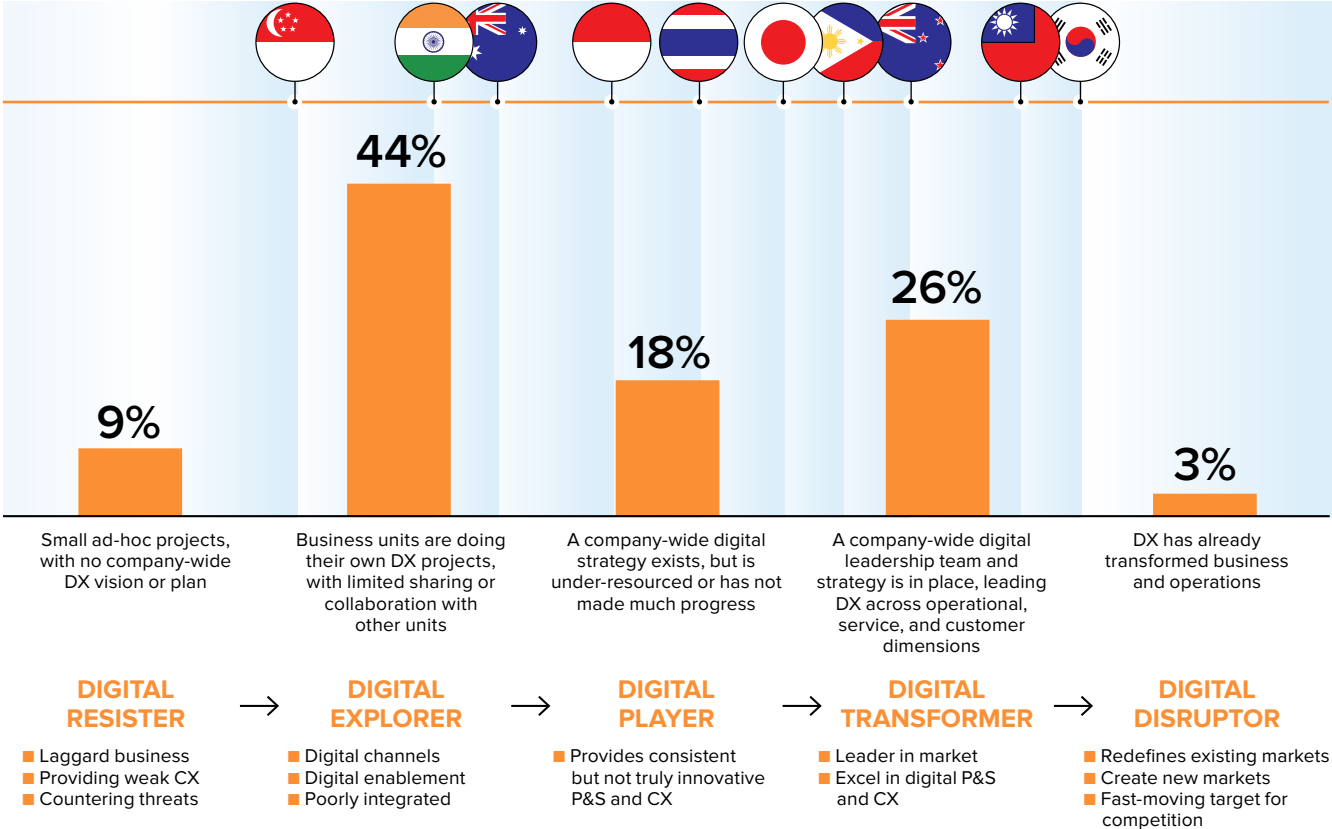


# CSPs in Asia/Pacific are well underway on their digital journey, but...

The pandemic changed the way businesses perceive the value of connectivity and intensified the importance of adopting digital-first technologies to improve business agility and grow revenue. To address the new consumer and enterprise-buying behaviours and preferences, CSPs have been further pushed to accelerate their own transformation journeys.

However, a large majority, **53%**, are still stuck in the initial stages of transformation, encumbered by various factors impeding their progress.

How Asia/Pacific organisations characterise the level of DX maturity in their organisations



On average, telcos in Korea and Taiwan are furthest along their transformation journeys, followed by New Zealand, Philippines, Thailand, and Japan.

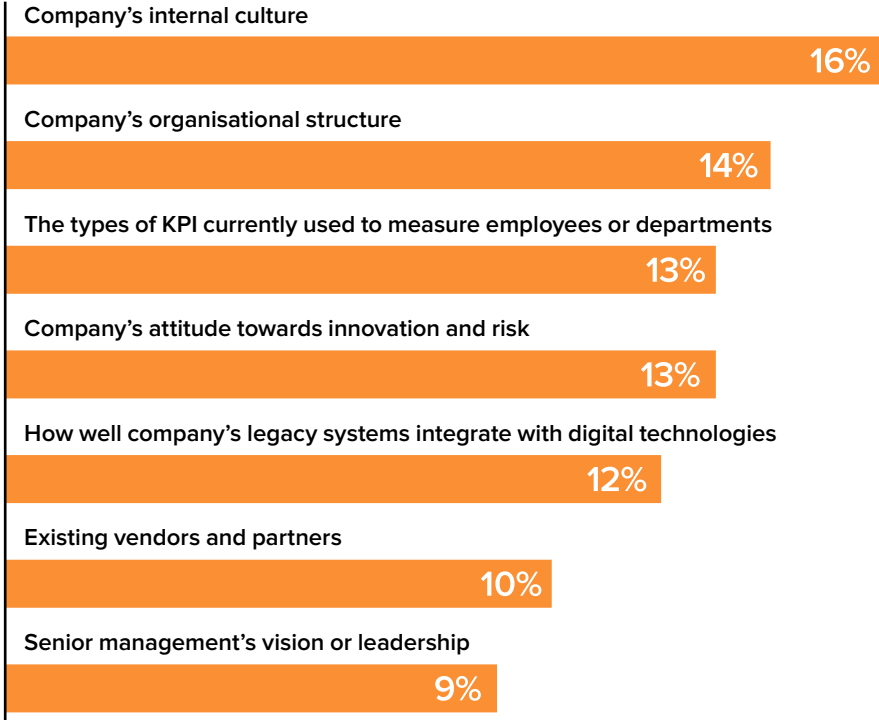
India, Singapore, and Australia have the highest number of respondents in the initial stages of their transformation journeys.

Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

# Organisation culture and legacy technology are holding back CSPs

Telcos today are not just competing with other telcos but with a different breed of digital organisations, and hence, need to evolve into a **digital-native enterprise (DNE)**. A DNE operates very differently from its traditional counterpart. It is able to scale its business and innovate at a pace greater than traditional businesses.

## The factors that most impede CSPs' DX journey



While most telcos today aspire to act and behave like a DNE, they are stymied by some major challenges in their transformation journey: a rigid organisational structure and culture, lack of risk-taking appetite, and limited integration of legacy technologies with newer digital platforms.

An intertwined, three-pronged approach can help CSPs accelerate their journey towards becoming a DNE:

- new technologies and architecture
- new ways of doing business
- new class of partners



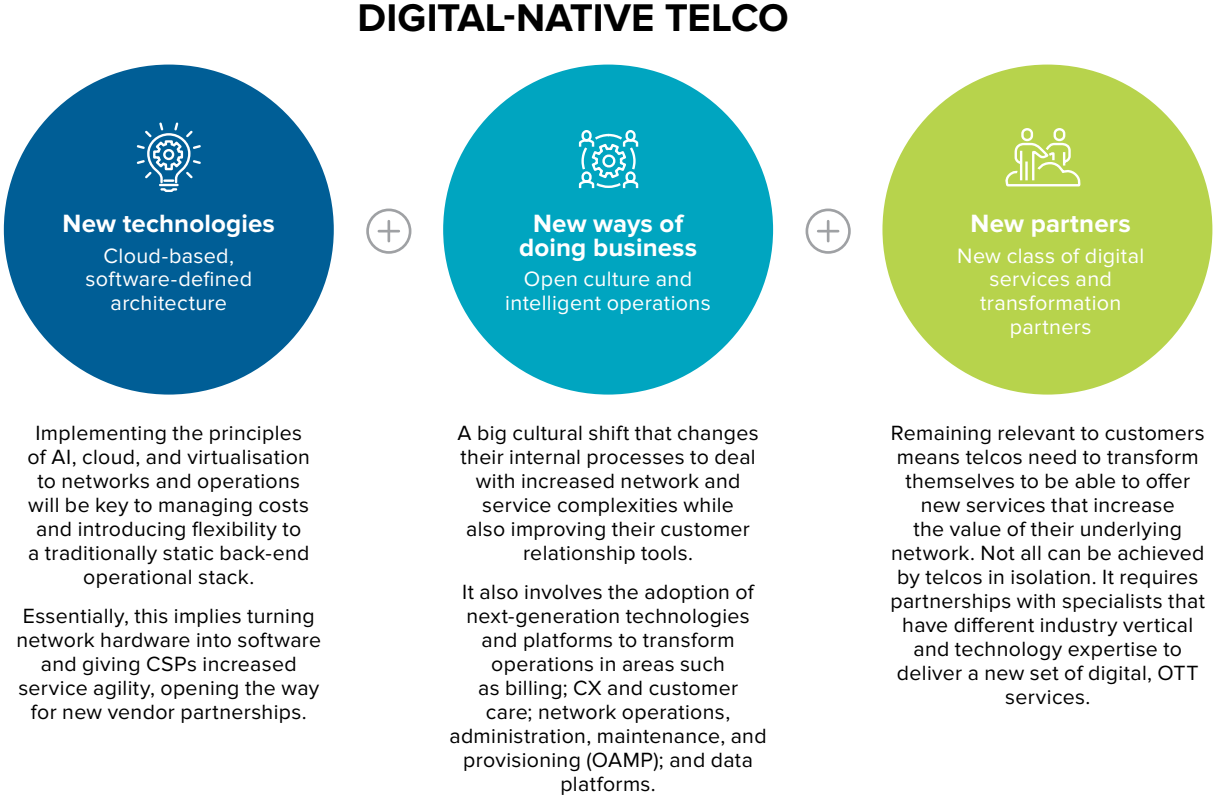
Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

# The digital native telco

Breaking the traditional telco mindset, digital-native telcos behave and operate like a DNE by **evolving its product/service portfolios** in order to take a lead in providing customers with what they want, and **transforming operations** to become more efficient and agile.

IDC has identified **three key tenets of a digital-native telco:**

## 3 key areas of change are required to transform into digital-native telcos



While CSPs often pick one or two of these areas to address, they **must realise that all these three areas of change are interrelated.** To fully maximise the benefit of each of these, the telco needs to make changes in the other two areas.

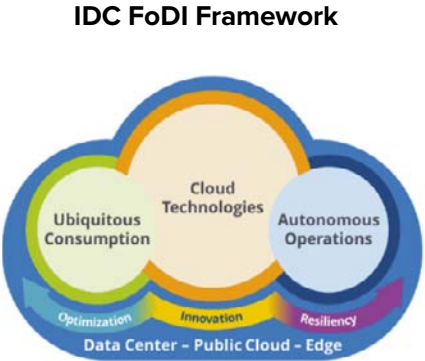
Source: The Future of Connectedness: How Telecom Operators Need to Transform to Remain Relevant (Doc #US48965822)

# New technologies – cloud-centric digital infrastructure for increased agility



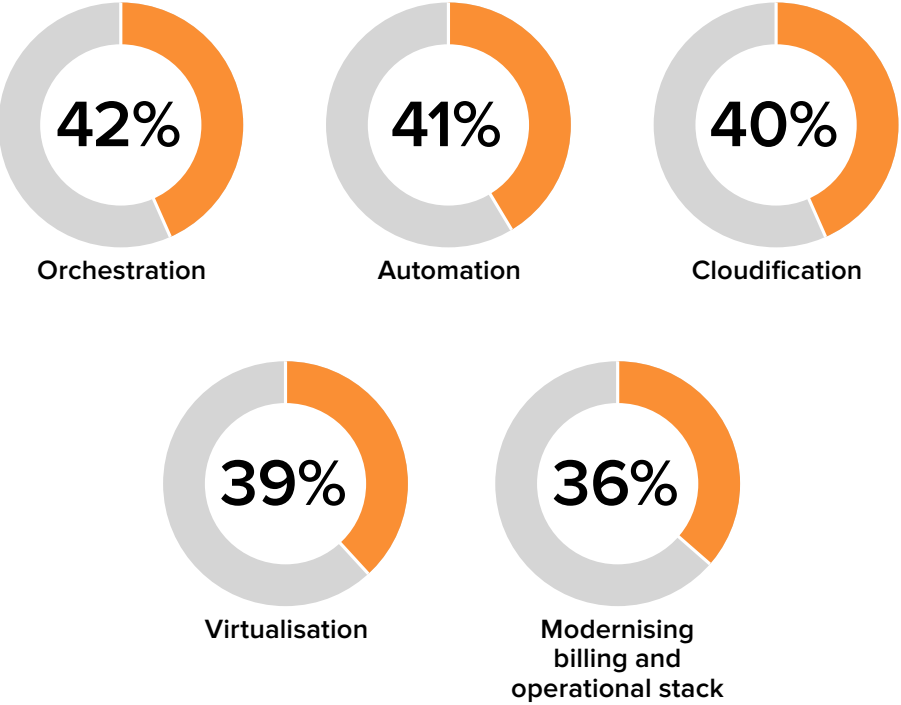
CSPs require an intelligent orchestration layer with automation at its core to manage the next-generation of order complexity. This will help to seamlessly deliver on-demand digital services, multi-access edge computing (MEC) applications, and 5G network slicing across a distributed multicloud environment. Such demands drive the need for flexible networks, agile deployment, and improved resilience.

IDC’s Future of Digital Infrastructure (FoDI) framework provides a blueprint for telcos, highlighting what is expected of their networks and the technology principles required to deliver on customer expectations.



Source: IDC

## ‘Very important’ attributes in fulfilling organisation’s DX ambitions



Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

Even though a large percentage of CSPs believe that automation, orchestration, cloudification, and virtualisation are essential to their transformation journey, a majority of them shared that these are also some of the most difficult to implement.

This emphasises the need to work with the right set of vendors/partners to bring this to fruition – a factor that was corroborated by the survey.

# Over 38%

of telcos are re-evaluating their partner ecosystem through 2023-24.

# New technologies – some recent examples



The following showcases recent telco partnerships:

## NTT and ServiceNow (2022–23)



NTT employs ServiceNow’s AI-enabled workflow automation platform to streamline the deployment and integration of its private 5G offerings for its enterprise customers.

## Verizon and AWS (2019–2020)



Verizon and AWS collaborated to launch edge computing using AWS Wavelength on Verizon’s 5G network.

## Singtel and Microsoft Azure (2021–2022)



Harnessing the capabilities of Microsoft’s Azure cloud platform to offer 5G edge computing infrastructure, Singtel intends to deploy use cases like autonomous guided vehicles, drones, robots, and AR/VR or mixed reality.

Source: IDC research

# New ways of doing business – operations transformation is critical to becoming a digital telco



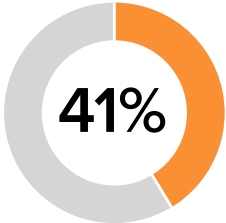
To realise the aspiration of becoming a truly digital-native

telco, CSPs must evaluate the transformation of their operations and operational environment to

- provide superior experiences for their customers;
- optimise how they manage their investments; and
- uncover opportunities for new sources of monetisation.

To remain competitive, telcos must look at transforming their existing processes and operations in the six key areas shown on the right.

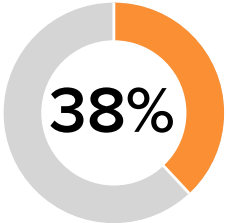
## 6 key areas that have a major impact on operations transformation



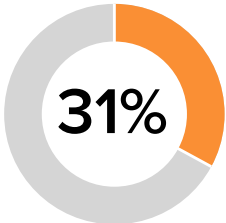
Service delivery (service creation, deployment, and orchestration)



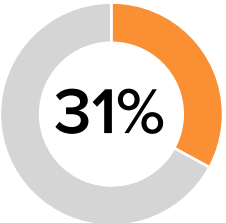
Core network and data management platforms



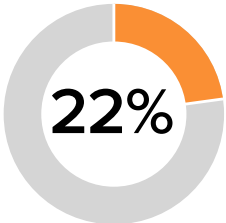
Customer experience including customer care



Sales, marketing, and offer management



Network operations, administration, maintenance, and provisioning (OAMP)



Billing, settlement, and revenue assurance

The IDC Carrier Transformation Survey highlights that most CSPs in Asia/Pacific believe transforming service delivery (41%) will have the most impact on their DX journeys, followed by transformation of core network and data platforms (38%), and improving customer experience (38%).

But in most cases, they cannot take on everything themselves, and that is why identifying, evaluating, and selecting partners for this digital journey is critical to this transformation.

Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

# Transformation to a digital telco requires changes to the partner landscape

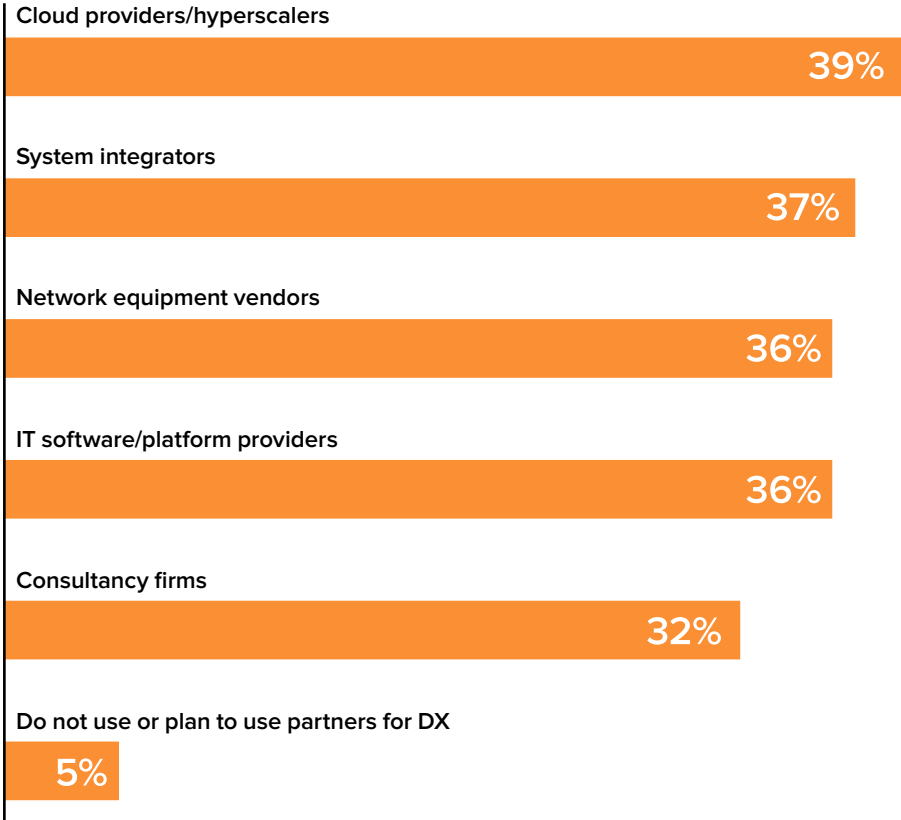


DX is a journey, not a destination. As such, most CSPs should expect each

transformation phase to last 2-3 years and that there will be multiple phases. To progress well on this multi-phased journey, CSPs should be, and are, increasingly relying on the broader partner ecosystem to achieve their transformation from a **network-driven telco** to a **software-driven, virtualised telco**.

IDC's Asia/Pacific Digital Service Provider Transformation Survey 2023 highlights that 39% of CSPs prefer cloud providers as strategic partners for their DX journey, followed by SIs (37%), and IT software/telco platform vendors (36%).

## Preferred DX partner



However, it is interesting to note that these partner preferences vary from market to market.

- **Australia** - telcos mostly prefer to work with **SIs**
- **Hong Kong, India, and Taiwan** - telcos favour **cloud providers** as their strategic partners
- **Indonesia, New Zealand, Philippines, and Japan** - telcos are more inclined towards **IT software/platform vendors**

Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

# Realising the digital telco – the change can be hard

Today, investments are being made for strategic rather than tactical reasons, and CSPs must recognise that this transformation is not straightforward. The biggest challenge in this transformation is not just about new technology or processes; it is also about **people and culture**.

Here are some key pointers for CSPs to keep in mind as they navigate through the complexities of this journey:

## PEOPLE



- **Break down silos** and bring together islands of data and people across disparate teams/ systems.
- **Involve people** on this transformation journey by keeping them apprised of plans, providing them opportunities to reskill. Make external partner management an integral part of workforce, culture, operational processes, and product/service development in wider digital value chain ecosystems.

## PROCESS



- **Build agile and multi-disciplinary teams** that develop software-driven products in discrete areas across product and system value chains (i.e., network, IT, and digital innovation).
- **Start small.** Start out digital, DevOps-based transformation on a small scale. Leverage operational systems environments to facilitate closed-loop creation, design, testing, deployment, and integration as value creation progresses throughout the organisation.

## TECHNOLOGY



- **Venture into digital business models** which are technology infrastructure-enabled by allocating resources to cloud-based, distributed, real-time, and data-driven operational and monetisation system architectures.
- **Identify the right set of partners** i.e. technological as well as advisory, services, and implementation partners. Leverage IT, software, cloud vendors, digital platform suppliers, and technology specialists while managing legacy telco equipment suppliers diligently during the transition period.

Don't expect any **real transformation** unless the culture of the organisation changes.



AUSTRALIA / NEW ZEALAND



# Forced by competitive pressures and shareholder scrutiny, ANZ telcos actively pursue greater operational agility



Australia and New Zealand (ANZ) telcos have done a brilliant job of building fast, pervasive, and reliable communications infrastructure. While some telcos believe they have closed the gap with OTT players through

investments in edge architecture and digital platforms, others are still in a classic margin squeeze.

Telcos in ANZ highlighted that **“changing customer behaviour”**, **“increasing speed of innovation and change”**, and **“focus on ESG initiatives”** are the top three challenges putting further pressure on their business.

To address these challenges, ANZ telco operators are prioritising the key business goals as shown on the right, and are putting investments into related technologies to attain these goals.

### Top business goals

- 1  Perceived market leadership
- 2  Increase operational agility and speed to market
- 3  Improve cost structure

### Key investment areas

As the telecom market continues to evolve in ANZ, **service providers will need to transform to be flexible, agile, and fast to respond** to the needs of their customers in order to remain competitive. Some of the key investment areas for ANZ telcos for the next 12-24 months are as follows:

- 1  Data analytics
- 2  Network orchestration and automation
- 3  Customer engagement platforms

Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

JAPAN



# Tech-savvy Japanese customers are demanding more innovative and immersive experiences



In terms of revenue, Japan is one of the largest telecom markets globally. The country is home to some of the world’s biggest and most technologically advanced telcos, such as NTT, KDDI, and Softbank, along with disruptors like Rakuten. However, telcos here also face challenges.

However, telcos here also face challenges.

Telcos in Japan highlighted “**evolving nature of competition**”, “**increasing speed of innovation and change**”, and “**changing partner landscape**” as their top three challenges.

To address these challenges, Japan telco operators are prioritising the key business goals shown on the right, and are putting investments into related technologies to attain these goals.

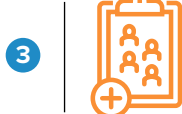
### Top business goals



1 Increase operational agility and speed to market



2 Perceived market leadership



3 Reduce churn and increase customer lifetime value

### Key investment areas

As the telecom market continues to evolve in Japan, **service providers will need to transform to be flexible, agile, and fast to respond** to the needs of their customers to remain competitive. Japan communications networks have also been susceptible to nation-wide outages, resulting in increased focus on resilience and operational efficiencies.

Some of the key investment areas for Japan telcos for the next 12-24 months are as follows:



1 Billing and monetisation solutions



2 Customer engagement platforms



3 Network orchestration and automation

Source: Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

# SOUTHEAST ASIA



## A mixed market with diverse customer expectations



Southeast Asia (SEA) consists of an interesting mix of some of the most advanced economies and developing ones. While digital transformation and business resilience are high on the enterprise agenda in developed

economies like Singapore, consumers in developing ones like Philippines and Indonesia are some of the most active and engaged social media users globally. This has resulted in unique challenges for telcos as they work on meeting customers' expectations and needs.

Telcos in SEA highlighted that **“rising energy costs and inflation”**, **“changing customer behaviour and preferences”**, and **“changing partner landscape”** are their top three challenges.

To address these challenges, SEA telco operators are prioritising the key business goals shown on the right, and are putting investments into related technologies to attain these goals.

### Top business goals

- 1 Perceived market leadership
- 2 Improve cost structure
- 3 Increase operational agility and speed to market

### Key investment areas

As the telecom market continues to evolve in SEA, **service providers will need to transform to be flexible, agile, and fast to respond** to the needs of their customers in order to remain competitive.

Some of the key investment areas being explored by SEA telcos for the next 12-24 months are as follows:

- 1 Customer engagement platforms
- 2 Billing and monetisation solutions
- 3 Network orchestration and automation

\*\* ASEAN includes Indonesia, Malaysia, Philippines, Singapore, and Thailand  
Source: Source: IDC Digital Services Provider Transformation Survey, June 2023, N = 390

## CASE STUDY 1

# NTT Docomo rolls out zero-touch service operations

### CHALLENGE

NTT teams were facing an ever-increasing volume of work to ensure system failures do not lead to long-term or extended outages. To address this, the company decided to launch zero-touch operations to fix issues remotely without the need for human input.

By automating these processes, the company aimed to speed up recovery times and significantly reduce the number of staff involved in maintenance, while increasing the quality of work carried out and eliminating the risk of human error.

“Telecommunication services make up a significant part of our business and revenue,” says Yuki Nagaguro, Senior Associate of International Service Technologies in the Services Operations Department, Network Division. “The challenge we’re facing is how to grow other areas of the business. If we can redeploy personnel by automating certain tasks, they can actively contribute to more strategic transformation initiatives.”

### SOLUTION

Automation helped to speed up identifying and resolving issues. It allows the company to reallocate remote networking technicians to more complex cases.

In October 2020, the company launched a proof of concept to introduce zero-touch operations for remote maintenance work, starting with international roaming services that let Docomo customers make phone calls and use data when they are travelling abroad.



### RESULTS

**75%**  
decrease in  
time to recover

**30%**  
of staff redeployed to  
impactful work and  
eliminated human error  
with automation

Source: <https://www.servicenow.com/content/dam/servicenow-assets/public/en-us/doc-type/resource-center/case-study/cs-ntt-docomo-story-05052023.pdf>

CASE STUDY 2

# BT Group eyes £25M in savings with AI-led operations

### CHALLENGE

As the UK’s primary fixed-line, broadband, and mobile telecom operator, BT Group’s services enable businesses, connect friends and families, and provide critical links between the public and essential facilities, such as the National Health Service (NHS) and emergency services.

BT Group’s mission is to be the world’s most trusted connector of people, devices, and machines, while maintaining sustainability at the core of its business.

### SOLUTION

BT Group began the process of reimagining its customer service processes, including proactive notifications and improved self-service capabilities. It sought a platform that would simultaneously give agents end-to-end visibility while reducing duplication and double-keying, and providing accurate, easily accessible information to optimise the customer experience.

As part of its strategic digital transformation program, BT Group worked in close collaboration with the selected platform provider to dramatically simplify service management processes across the group.

The phased roll out began in 2019 when BT Group transferred 500 agents to the provider’s telecommunications service

management (TSM) team. This was followed by the global Multiprotocol Label Switching (MPLS) network and the initial pilots for the enterprise and global businesses. The team then started the development of new products and fulfillment workflows using out-of-the-box functionality supplied by TSM team and order management for telecommunications, which was launched in just three months as part of a managed services implementation.



### RESULTS

**3 months**  
to successfully launch order management

**56**  
service management systems to be retired

**£25M**  
savings forecast by 2027

Source: <https://www.servicenow.com/customers/bt-ai.html>

# Message from the sponsor



## About ServiceNow

ServiceNow makes the world of telecommunications work better for everyone. Our cloud based platform and solutions help digitise and unify organisations so that they can find smarter, faster, better ways to make work flow so employees and customers can be more connected, more innovative, and more agile to accelerate growth and reduce costs. And we can all create the future we imagine. The world works with ServiceNow.

[Learn more](#)



# About the IDC analyst

**Nikhil Batra**

Research Director, Regional Telecommunications  
IDC Asia/Pacific

Based in Australia, Nikhil focuses on telecom service provider and tech vendor strategies, along with enterprise services across the Asia/Pacific region. In his role, Nikhil works with the regional telecom teams to produce intelligence reports, market insights, and contributes to various consulting projects for leading regional telcos and tech vendors. Nikhil has 12 years of experience in the telecom and technology industry and has worked with some of the industry's giants.

[More about Nikhil Batra](#)

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IDC Asia/Pacific  
83 Clemenceau Avenue, #17-01 UE Square, West Wing, Singapore 239920  
T +65 6226 0330

X@idc

in @idc

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