accenture

Reinventing B2B: How CSPs can win the connected industry race

B2C global telecommunications markets are under pressure

The increasingly saturated mobile offerings, intense price competition, and the disruption from OTT providers have strained their businesses as far as they can go. What's more, according to global trends, traditional Communications Service Providers' (CSPs') business is not growing—expecting almost flat +0,1% global connectivity year-over-year revenues 2021-2024.

It has become clear that the road ahead points in one direction: a shift to B2B. As traditional Telco operators explore this territory powering tools like Cloud, IT, and industry partners, new questions emerge for the industry.

1- Can CSPs differentiate themselves from cloud giants and create a radically different technology platform?

2- Can they alter their telco DNA and upgrade their B2C connectivity culture in skills, operating model, processes, and technology?

3- And if they do, is an ecosystem fostering partnerships to develop their capabilities possible in our current context?

The right approach will require each CSP to build a clear B2B portfolio business strategy based on differentiation. Consequently, they'll need to **define the path of transformation founded on a coordinated set of technology platforms, operating models, and ecosystem building steps.**

B2B portfolio strategy:
the best route

There are two potential directions when expanding the Telco B2B Portfolio:

Catalog horizontal extension

CSPs can increase the variety of components in their portfolio by adding new domains driven by advanced network technologies (5G, programmable, etc.) such as:

• Extension in device / LAN services
• Cloud computing capabilities
• Security
• MEC / cloud edge services
• Data analytics / Intelligence
• SaaS
• Industry-specific services

Vertical integrated solutions

CSPs can transform their portfolio components into value propositions for their B2B customers. This shift will move them from a siloed and disconnected marketplace with various commercial bundles, to a ready-to-go integrated use cases and project-based cross-industry solutions.

Whether going horizontal or vertical when expanding the B2B portfolio, CSPs have an opportunity to differentiate at two control points:

Personalized Connectivity & Edge

B2B services requiring premium connectivity and the controlled/edge computing for real-time and guaranteed connectivity/mobility services and computing capabilities.

E2E Operation at scale with geographical presence

B2B services that must be managed and operated with end-to-end carrier-grade quality of service (QoS)
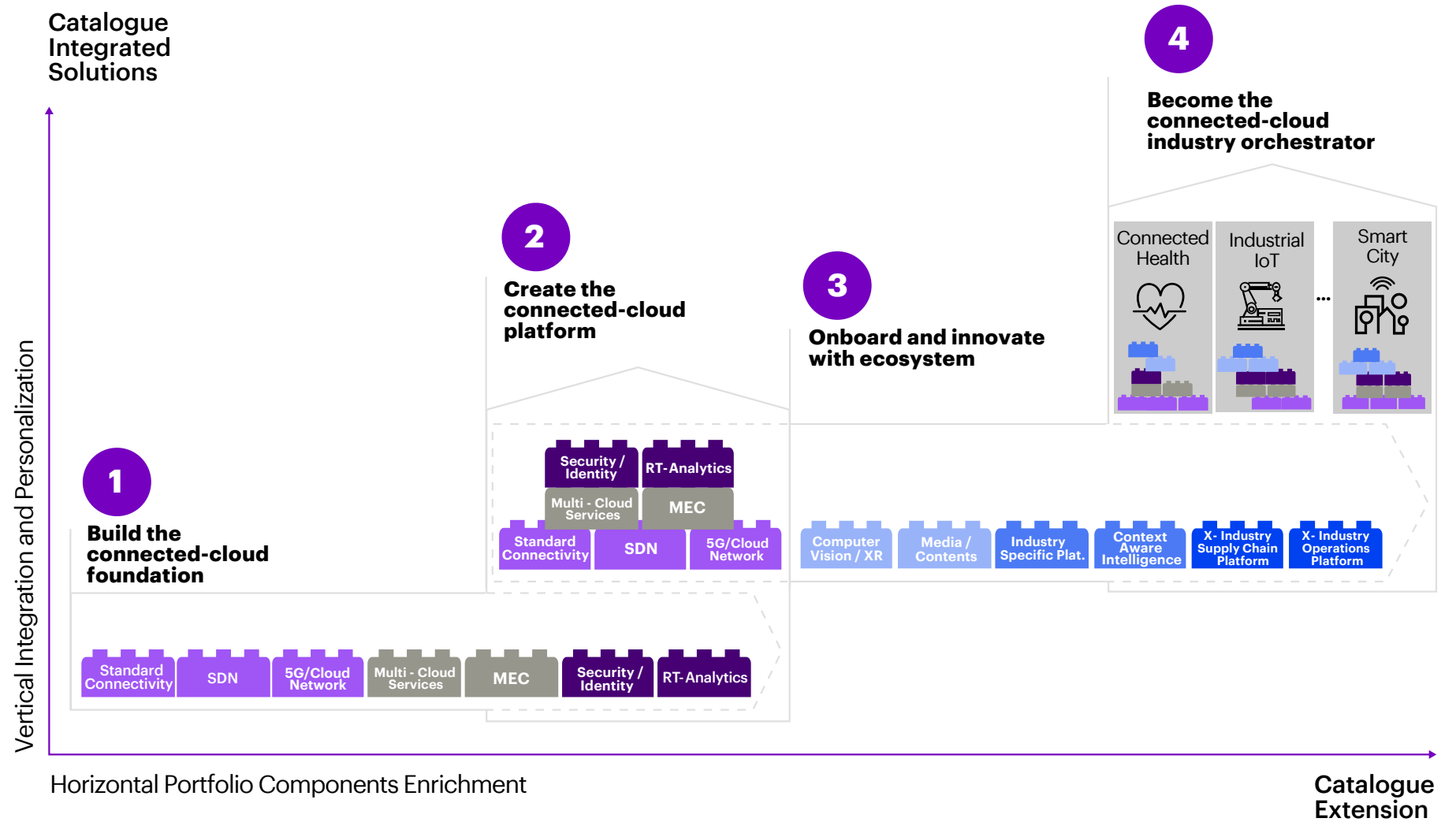
CSPs are in a unique position in this domain: they're the only player with the assets and the culture to engineer and guarantee the service-level agreements (SLAs) with end-to-end operations in the entire value chain, from on-premises to connectivity, to the cloud.

Figure 1:

B2B portfolio strategy

5G and Edge become the foundation for Telco in the journey to de-commoditize connectivity, build the Connected-Cloud Platform and enable X-Industry

Catalogue Integrated Solutions

Vertical Integration and Personalization

1 Build the connected-cloud foundation

| Standard Connectivity | SDN | 5G/Cloud Network | Multi - Cloud Services | MEC | Security / Identity | RT-Analytics |

2 Create the connected-cloud platform

Security / Identity | RT-Analytics
Multi - Cloud Services | MEC
Standard Connectivity | SDN | 5G/Cloud Network

3 Onboard and innovate with ecosystem

Computer Vision / XR | Media / Contents | Industry Specific Plat. | Context Aware Intelligence | X- Industry Supply Chain Platform | X- Industry Operations Platform

4 Become the connected-cloud industry orchestrator

Connected Health | Industrial IoT | ... | Smart City

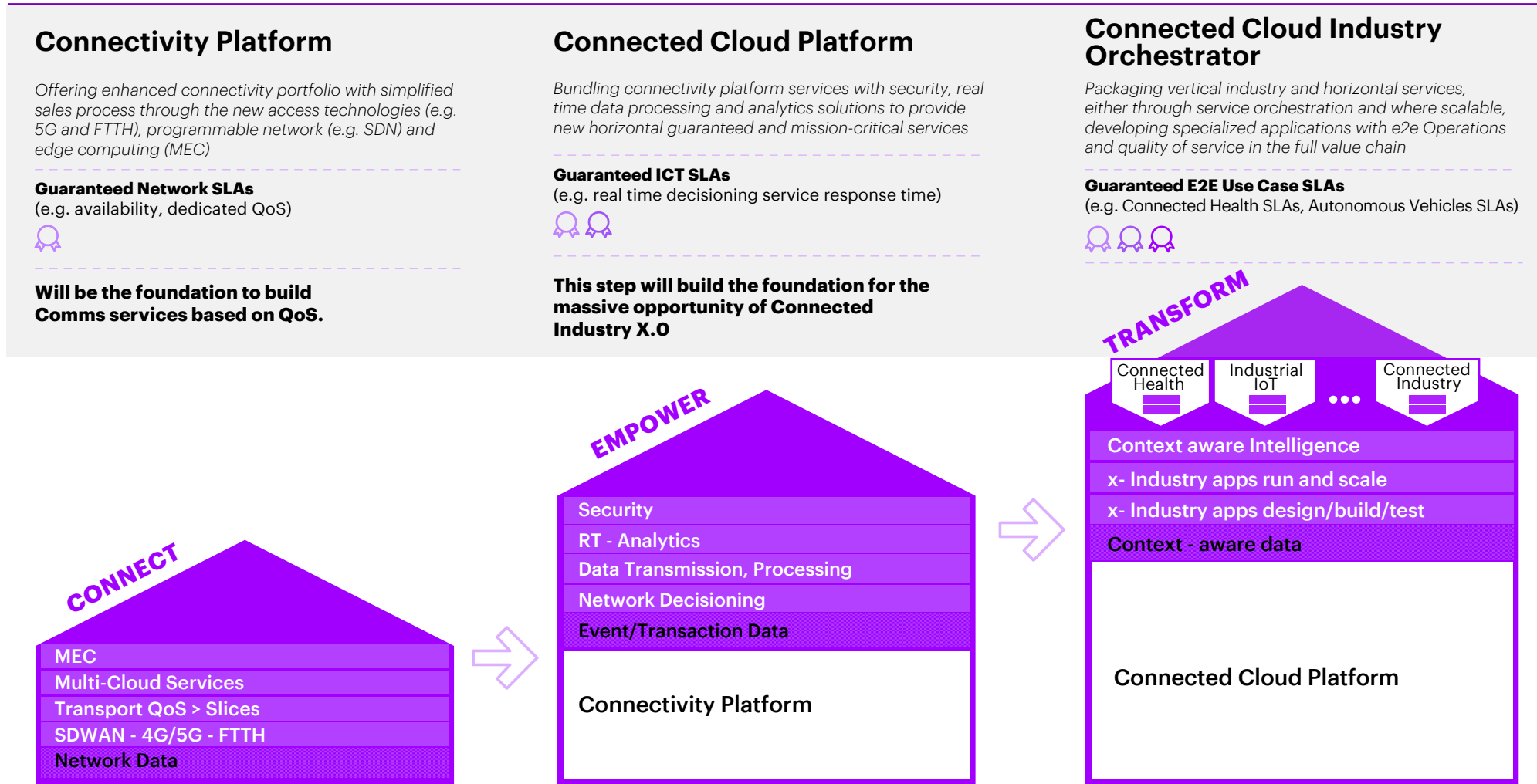Horizontal Portfolio Components Enrichment

Catalogue Extension

The portfolio evolution: From connectivity to connected cloud industry orchestrator

Today, CSPs face a dual challenge: defend the core connectivity business and leverage connectivity to capitalize on the emerging 5G-driven demand. These new opportunities are already firmly in the sights of digital powerhouses such as Amazon, Google, and Microsoft, making significant moves to strengthen their communications expertise. What's more, the bill for CSPs' 5G network buildout is still growing. CSPs need to accelerate the return on their capex-intensive 5G investment, which will only be partially aided by heightened government spending.

But CSPs have no choice. They need to evolve and revitalize their business to provide industry-defining services for years to come.

Figure 2:

The CSP portfolio evolution

Connectivity Platform

Offering enhanced connectivity portfolio with simplified sales process through the new access technologies (e.g. 5G and FTTH), programmable network (e.g. SDN) and edge computing (MEC)

Guaranteed Network SLAs
(e.g. availability, dedicated QoS)

Will be the foundation to build Comms services based on QoS.

Connected Cloud Platform

Bundling connectivity platform services with security, real time data processing and analytics solutions to provide new horizontal guaranteed and mission-critical services

Guaranteed ICT SLAs
(e.g. real time decisioning service response time)

This step will build the foundation for the massive opportunity of Connected Industry X.0

Connected Cloud Industry Orchestrator

Packaging vertical industry and horizontal services, either through service orchestration and where scalable, developing specialized applications with e2e Operations and quality of service in the full value chain

Guaranteed E2E Use Case SLAs
(e.g. Connected Health SLAs, Autonomous Vehicles SLAs)

TRANSFORM

| Connected Health | Industrial IoT | ••• | Connected Industry |

Context aware Intelligence

x- Industry apps run and scale

x- Industry apps design/build/test

Context - aware data

Connected Cloud Platform

EMPOWER

Security

RT - Analytics

Data Transmission, Processing

Network Decisioning

Event/Transaction Data

Connectivity Platform

CONNECT

MEC

Multi-Cloud Services

Transport QoS > Slices

SDWAN - 4G/5G - FTTH

Network Data

This evolution begins with the Connectivity Platform.

This means enriching the standard connectivity leveraging new network and infrastructure technologies such as 5G and FTTH, programmable networks (SDN), and edge computing (MEC). It will provide enhanced connectivity services **with guaranteed Network & Infrastructure SLAs** (for example, network availability and response time, dedicated QoS), including network slicing, vRAN aaS, SD-WAN. Moreover, CSPs will find monetization opportunities coming from edge location rental and network-related data (e.g., GPS location data, network performance).

With connectivity platform as the foundation, CSPs can move on to **Connected-Cloud Platform** business bundling - enhancing connectivity services with software functionalities at the edge such as cloud/IT, security, real-time data processing, and analytics. This will provide new mission-critical and horizontal services **with guaranteed**

Information & Communication Technologies SLAs (for example, multi-cloud real-time decisions and service response time). CSPs will then monetize an expanding range of data, including local data traffic, device and sensor data (e.g., images, video, and sounds).

Such services and capabilities are prerequisites for capitalizing on the massive opportunity of connected industries and are increasing CSPs' right to play.

The final step is to become the **Connected-Cloud Industry Orchestrator**. Here, CSPs leverage their edge functionalities and connectivity to build vertically integrated industry solutions, such as Connected Health, Connected Manufacturing, and Connected Automotive. This can be done by orchestrating industry-specific service providers, cloud providers, the broader ecosystem of partners, or, where scalable, developing their specialized applications

(including hardware). In this scenario, the use cases (e.g., Remote Surgery, Autonomous Vehicles) are mission-critical with strong demand regarding reliability, resiliency, real-time, and control of the entire value chain. CSPs are uniquely positioned to guarantee such use case SLAs leveraging their expertise on carrier-grade end-to-end operations and leveraging their geographical presence.

At Connected Cloud Industry Orchestrator, CSPs are fully transformed, enjoying robust new growth.

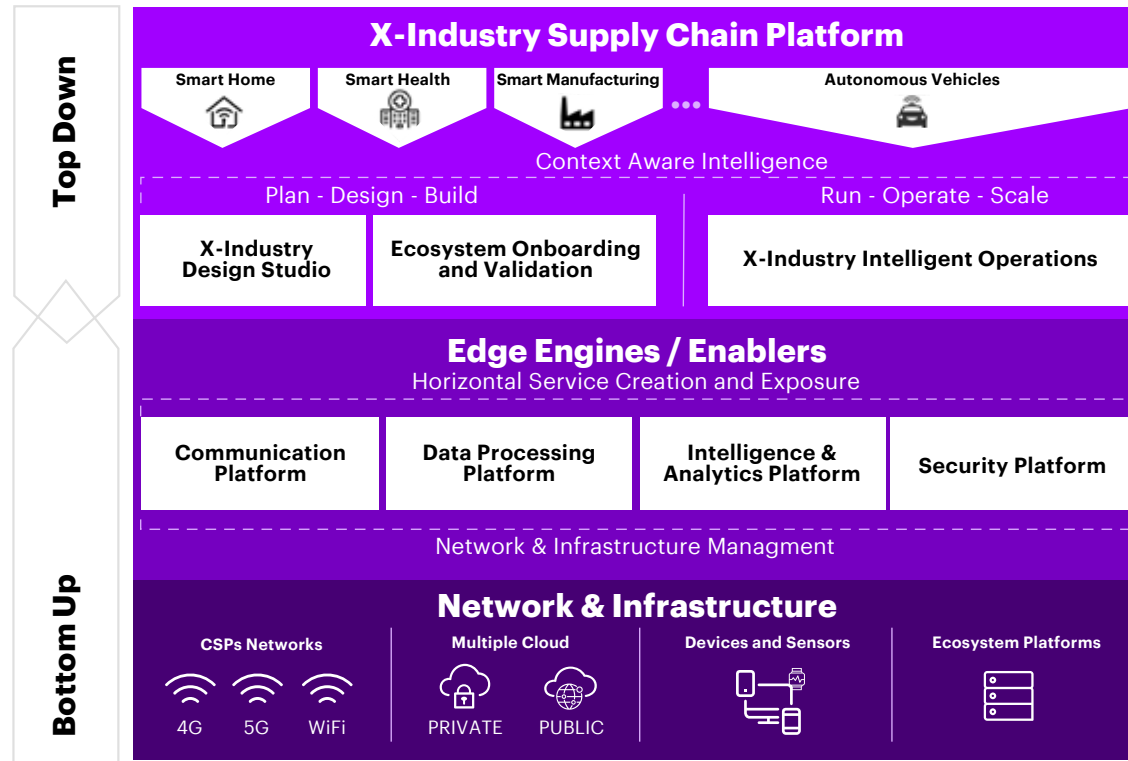# How to do it:

Opportunity built on a platform

The evolution described will be neither quick nor easy. It's a complete, multi-year transformation encompassing a CSP's entire organization and ecosystem. Importantly, it's a staggering journey that requires both a bottom-up and top-down approach, in which CSPs progressively enable more critical and real-time use cases to leverage their capabilities to orchestrate the new wave of core Connected Industry-X.

A framework for CSPs' transformation

Top Down

X-Industry Supply Chain Platform

Smart Home | Smart Health | Smart Manufacturing | ... | Autonomous Vehicles

Context Aware Intelligence

Plan - Design - Build		Run - Operate - Scale
X-Industry Design Studio	Ecosystem Onboarding and Validation	X-Industry Intelligent Operations

Edge Engines / Enablers
Horizontal Service Creation and Exposure

Communication Platform	Data Processing Platform	Intelligence & Analytics Platform	Security Platform

Network & Infrastructure Managment

Network & Infrastructure

Bottom Up

CSPs Networks	Multiple Cloud	Devices and Sensors	Ecosystem Platforms
4G 5G WiFi	PRIVATE PUBLIC		

The 5G/edge platform capabilities enable progressively more critical and reaL-time use cases, allowing CSPs to leverage their capabilities to orchestrate the new wave of core Connected Industry-X.

Relevance: Optional Criticality: Best Effort

Relevance: Core Criticality: Mission Critical

CATEGORIES	USE CASES			
AUTOMOTIVE	Connected Car	Vehicle to Infraestructure	Assisted Car	Autonomous Car
UTILITIES	Water & Gas	Smart Metering	Smart Grid	T&D Network of the Future
RETAIL	Location based Adversating	Smart Inventory Management	Virtual Fashion Shows	Digital Store
HEALTH	Continuous Health Monitoring	Remote Patient Care	Future Hospital	Remote Sugery
PUBBLIC/CITIES	Smart Parking	Smart Traffic Lights	Public Transport	City Surveillance
MANUFACTURING &MINING	Predictive Maintenance	Smart Factory / Plant	Digital Twin	Industrial Workforce

The bottom-up approach is necessary for CSPs to standardize and automate their connectivity and computing (internal and through partners) capabilities. This is the domain of technology enablers at the edge requiring a deep network, infrastructure, and cloud platform knowledge. In parallel, CSPs have to scale their ability to **top-down siloed business ideas into the actual development of connected industry use cases.** The result will be to expose standardized and reusable APIs to manage the increasing complexity of horizontal building blocks in Connectivity/Comms, Data Processing, Applied Intelligence, and Security.

This is where continuous innovation happens, requiring high-value industry services together with the ability to industrialize the onboarding, certification, and orchestration of ecosystem alliances and CSPs' applications. In the top-down stage of the transformation, CSPs focus on the industry supply chain platform, which standardizes and automates the industry use cases fabric through:

Design studio capability
to enable CSPs to create and configure use cases and **value cases**, including use case value analysis and business case in a collaborative development environment among different ecosystem alliances.

Ecosystem service onboarding capability
enables registering and introducing partners' services into the platform through an automated validation process.

Context-aware intelligence library
defining, reusing, and evolving the data models of industry-specific contexts, developing and deploying specific analytics models, creating digital experiences, and simulating the orchestration of the end-to-end use case and rules to optimize its technical and business performance.

Intelligent operations capabilities
to deploy, run, and monitor the end-to-end solution in real-time.

The answers so far

Based on our experience, we can start answering the questions raised in the beginning.

This can be used as a starting point for a structured B2B transformation approach. Still, Telcos should consider the right way to tackle any new opportunity based on their capabilities and ecosystem perspective.

1 Reaching giant-height

CSPs can distinguish themselves from cloud giants, primarily if they focus on segments, use cases requiring complex and mission-critical "Connectivity + Cloud" QoS, and power local end-to-end operations.
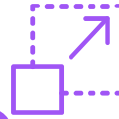
2 Outgrowing the telco DNA

CSPs can transform their "B2C connectivity culture" and grow in skills, operating models, processes, and technology through a clearly defined strategy. They must build a new platform, not only in terms of technology capabilities but also as enablers of new ways to co-create and innovate at scale.
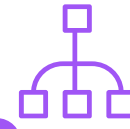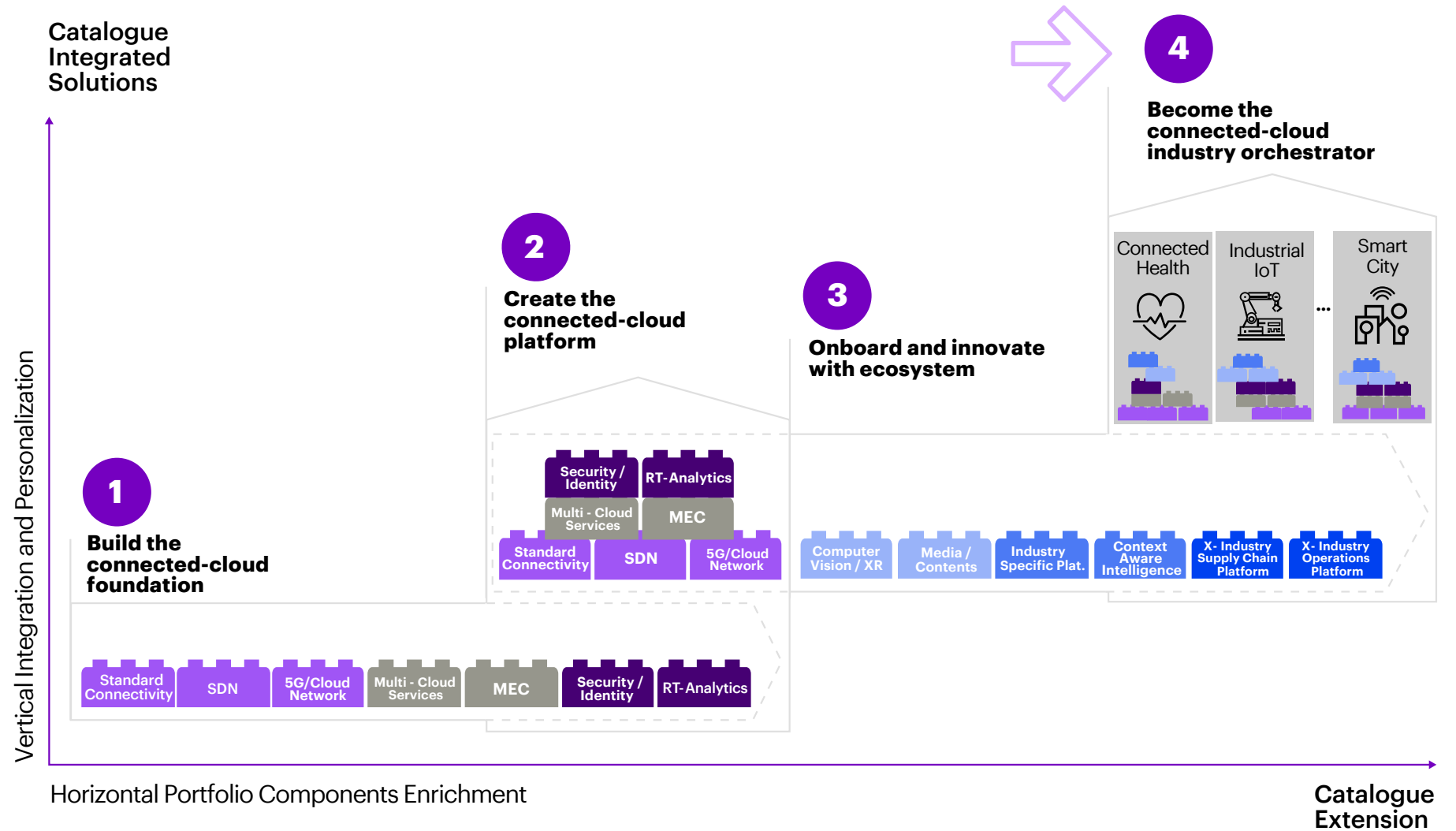
3 Becoming ecosystem-driven

CSPs can become ecosystem-driven and form meaningful alliances with a bottom-up model to onboard and expose internal and third parties' capabilities. Plus, enabling a top-down approach to cooperate with business integrators and vertical industry partners in building and orchestrating the end-to-end use cases.

Accenture and AT&T Bring Mobile Connectivity with Private Cellular Network

An oil and gas company had recurring cellular performance gaps with a public network near one of its refineries. The company had started a series of digital transformation initiatives that required increased mobile connectivity.

The Accenture team designed a private wireless network, built from the ground up, tailor-made to address the company's industrial digital requirements and connectivity concerns. As a proof of concept, Accenture partnered with AT&T to bring dedicated private wireless infrastructure onsite and record speed improvements at the refinery. The private cellular networks improved signal strength and penetration into selected process units, showing pervasive cellular connectivity is possible within a heavy industrial environment. The solution will serve as a blueprint for future 5G use cases, including support for Industrial Internet of Things (IIoT) and low latency applications.

Figure 1b: **5G and Edge become the foundation for Telco in the journey to de-commoditize connectivity, build the Connected-Cloud Platform and enable X-Industry**

Catalogue Integrated Solutions

Vertical Integration and Personalization

4
Become the connected-cloud industry orchestrator

Connected Health | Industrial IoT | ... | Smart City

2
Create the connected-cloud platform

3
Onboard and innovate with ecosystem

1
Build the connected-cloud foundation

Security / Identity | RT-Analytics
Multi - Cloud Services | MEC
Standard Connectivity | SDN | 5G/Cloud Network

Computer Vision / XR | Media / Contents | Industry Specific Plat. | Context Aware Intelligence | X- Industry Supply Chain Platform | X- Industry Operations Platform

Standard Connectivity | SDN | 5G/Cloud Network | Multi - Cloud Services | MEC | Security / Identity | RT-Analytics

Horizontal Portfolio Components Enrichment

Catalogue Extension

Signs of change

CSPs have a lot of work to do to capitalize on the growth potential of connected industry solutions. However, most CSPs only have one small (albeit vital) element of the broader framework for CSPs' transformation – detailed on page 10.
But, as we have shown, it *is* possible for leading CSPs to begin moving in the right direction and enjoy some early benefits.

About Accenture

Accenture is a global professional services company with leading capabilities in digital, cloud and security. Combining unmatched experience and specialized skills across more than 40 industries, we offer Strategy and Consulting, Interactive, Technology and Operations services — all powered by the world's largest network of Advanced Technology and Intelligent Operations centers. Our 514,000 people deliver on the promise of technology and human ingenuity every day, serving clients in more than 120 countries. We embrace the power of change to create value and shared success for our clients, people, shareholders, partners and communities. Visit us at **www.accenture.com**