

# HOW TO BECOME AN AI-NATIVE TELCO



# A GUIDE TO BECOMING AI-NATIVE

Artificial intelligence (AI) can help operators increase margins, diversify their service offering, enhance quality and improve customer experience, but there are a number of key areas that telcos need to focus on to achieve a successful transition

**T**elcos are increasingly embracing artificial intelligence as they invest in the technology to capture the benefits it offers in revenue, costs and efficiencies.

The focus of communications service providers (CSPs) has shifted from piloting and testing AI suitability to gearing towards integrating AI tools and technologies; scaling the adoption of AI tools, including generative AI (GenAI); and exploring ways to play a key role in the AI value chain.

In this transition to 'AI-native telcos', many CSPs are hoping to improve their margins, but first they must address a number of challenges.

## Drivers and barriers in deploying AI

For decades, CSPs have remained under financial pressure with fears of becoming 'dumb pipes'. As a result, they are highly motivated to

explore routes that help them to diversify and open new revenue streams.

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**Many AI projects fail to make it to production or to scale due to long deployment times and inefficiencies, such as duplicated effort, high costs or prototypes that use data that are not scalable**

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Analysts believe investments in AI technologies not only help operators to grow revenue and deliver service diversification, but also enable them to provide better service quality and improve customer experience. However, there are barriers that slow down or inhibit the successful deployment and scaling of AI.

These include lack of access to extensive high-quality data, immature technology, inability to scale AI use case deployments, siloed data infrastructures and processes, lack of skills and long deployment times.

Here, Teradata provides a guide to the main priority areas operators need to focus on to overcome barriers and achieve a successful transition to AI.

## A guide for the AI-native journey

### Key priority 1: Integrate AI into core operations and services

The integration of AI into core operations and services creates a key competency for telcos to gain efficiencies and reduce costs.

GenAI is often considered a low-hanging fruit that enables efficiency gains in many areas, including employee productivity and customer services. Meanwhile, the application of agentic AI not only adds to network efficiency, but it also helps to reduce costs through higher levels of automation.

Agentic AI capabilities are said to further supercharge those of GenAI. Not only by supporting more workflow automation, for example, creating summaries after customer interactions, but also by creating new workflows

– such as identifying new revenue opportunities, creating and implementing action plans, and autonomously using tools to process data.

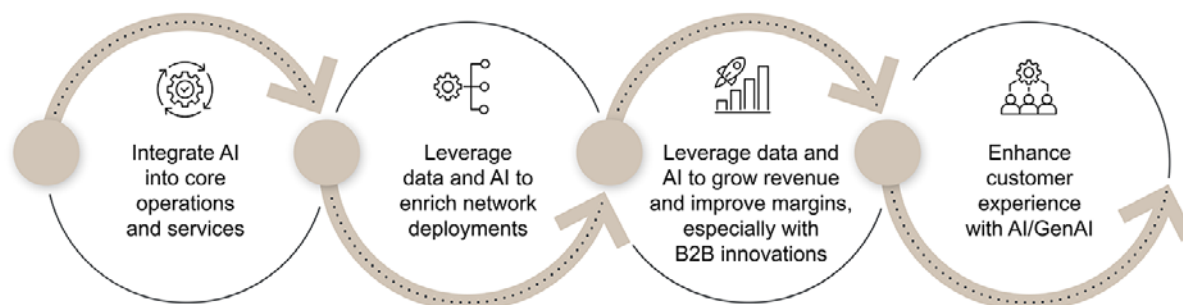
Other AI technologies, such as predictive AI and the application of machine learning (ML) algorithms, assist with core operational tasks. For example, they can help to prevent network failure by prioritising network problems, and identifying root causes and associated resolutions.

All of these AI deployments lead to cost savings across multiple functions in the telco enterprise, including network operations, customer service, support functions, marketing and sales, and IT.

To integrate AI successfully into core operations and services, there is also a need for concrete AI operating models. CSPs should develop models and talent strategies through joint governance between [technology and business teams](#), thereby avoiding a siloed infrastructure.

There is also a clear need to establish strong AI partnerships with the ecosystem to help scale initiatives and benefit from specialised skills. Studies have shown that many AI projects fail to make it into production or scale to a level that delivers a strong ROI. Often this is due to long deployment times and inefficiencies – such as duplicated effort, high costs or prototypes that use data that is not scalable.

## FOUR KEY PRIORITY AREAS FOR THE AI-NATIVE JOURNEY





Finally, it is recommended that CSPs consider factors that may affect deployment timelines and choose partners that can assist them in focusing on high-impact collaborations.

### **Key priority 2: Leverage data and AI to enrich your network deployments**

In a highly competitive sector such as telecoms, remaining relevant is a key challenge. But leveraging data and AI helps operators to gain an advantage, improve capital expenditure (capex) ratio, reduce churn and improve cashflow.

These goals can be achieved in several ways. Telcos can use customer mobility and behaviour to decide on cell expansion; they can prioritise locations based on factors such as where high-value customers are concentrated; and they can ensure a quality experience to reduce churn and minimise impact – for example, when sunsetting older technologies.

Further, operators can identify locations that have the most potential for network growth. They can reduce capex by using more accurate network coverage maps, triangulating geolocations and cell tower data. When implementing small cells, they can improve their placements through traffic density maps to help ensure they achieve the most effective use and best capacity gains.

The use of data-driven insights and AI can also help with network resource allocation. AI tools can instruct dynamic resource allocation by predicting network capacity requirements, analysing performance and predicting congestions.

It is worth noting that data and AI tools are not here to replace existing infrastructure deployment activities. Instead, they will help telcos to prioritise valued customers and bridge the gap between deployment and the telco domains to enrich these activities on capex, customer satisfaction and on their cashflows.

## **CASE STUDY: VANTAGECLOUD ENABLES ENTERPRISES TO TAKE ADVANTAGE OF THEIR PRIVATE 5G NETWORKS**

In a proof-of-concept case study, VantageCloud demonstrated its capabilities in collaboration with Telefónica Spain and Würth, a global assembly and fastener materials supplier.

Würth's key objective was to advance the digitisation of its logistics processes. For this smart logistics solution, Teradata integrated VantageCloud with Telefónica's 5G+ network and a real-time video analytics solution.

This enabled Würth to combine video and sensor data to facilitate decision-making through dashboards, which provide early warning of stoppages and quality issues during packaging and dispatch.

### **Key priority 3: Leverage data and AI to grow revenue and improve margins, especially with B2B innovations**

Revenue growth is undoubtedly one of the top strategic business objectives for AI – many CSPs expect 10-15% earnings before interest, taxes, depreciation and amortisation (EBIDTA) margin gains from the technology. To this end, operator case studies are emerging that highlight the value already achieved.

For instance, a European CSP using GenAI accelerated its hyper-personalisation efforts to

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upsell. The telco reportedly achieved a 5-15% increase in average revenue per user in some customer segments. Other examples include cost reductions of 35% in customer calls and a 60% increase in customer resolution rates through an AI-driven helpdesk bot.

As more operators turn to AI, an important differentiator will be to build services based on exclusive data, which includes network data, existing customer information and voice or text data.

Further, analysts suggest new services based on GenAI, including offering AI infrastructure services to enterprise customers, can help operators to capture new revenue streams.

AI also helps to orchestrate network as a service (NaaS). Examples include network slicing and ensuring service level agreements are met.

AI also plays an important role in provisioning cloud systems. But many CSPs have strict requirements (such as privacy, legal, performance) that mean data and AI tools must remain on-premise or adopt a hybrid environment.

Teradata's hybrid and multicloud data management solutions platform, VantageCloud, provides unique benefits, with the ability to fulfil requirements irrespective of the conditions of the production environment.

#### Key priority 4: Enhance customer experience with AI/GenAI

Improving customer experience is a high priority across industries, and telecoms is no exception. But the explosion of data leaves telcos with volumes of unstructured data.

Teradata recommends CSPs turn large volumes of unstructured data into clean and reliable data. This creates the foundation for all successful AI projects and the basis for meaningful outcomes with AI/ML capabilities.

While traditional AI also supports customer experience – for example, predictive AI assists with customer issue prediction and prevention – attention is now shifting towards GenAI capabilities. Applications include chatbots, call summarisation and optimisation, and customer complaint resolution.

VantageCloud leverages GenAI capabilities to improve customer experience. Use cases include automating complaint resolution processes, generating user-friendly explanations, predicting customer complaints and increasing knowledge across the enterprise about complaints to accelerate resolutions.

#### Key takeaways

These four key priority areas provide a guide for CSPs on their journey to becoming AI-native telcos. Integrating AI and associated tools into

## CASE STUDY: BOOSTING SAUDI TELECOM COMPANY'S CUSTOMER EXPERIENCE

In collaboration with Teradata, Saudi Telecom Company (STC) relies on VantageCloud to harmonise and share trusted data across the enterprise, providing opportunities to accelerate digitisation, expedite growth, reinvent experiences and expand scale.

The collaboration has allowed STC to use AL and ML to improve segmentation and connect with customers in more personalised ways. As a result, it has achieved a 40% take rate on more than 50,000 personalised campaigns, leading to top-line growth and strong delivery on corporate strategy.



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core operations and services is key. Focus should be on use cases that enable the best revenue outcome and gain the most value from AI. Integrating and harmonising data across the whole organisation is another critical aspect to achieving success.

Operators should also aim to become part of a flexible, open and connected ecosystem that addresses key requirements. Teradata VantageCloud provides flexible deployment options – whether in the cloud, on-premises, or in a hybrid environment – tailored to your unique needs and strategic goals. It ensures compliance with privacy, legal and performance requirements while maximising ROI. This means the platform brings AI tools to the telco's data and production environment. And Teradata's rich history in providing data analytics solutions at extreme scale means the platform can also support AI use case deployments at scale across several domains.

These case studies and examples of operator initiatives demonstrate that AI provides real business value and is not merely an experimental technology. But it is imperative for the industry to use harmonised, integrated, bias-free and secure data as the foundation for any AI project.

## TERADATA – THE TRUSTED AI COMPANY

At Teradata, we believe that people thrive when empowered with trusted information. Trusted by five of the top six communication companies, as well as the top organisations in other B2C industries, our best-in-class cloud analytics and data platform delivers harmonised data, trusted AI/ML, and faster innovation for better decision-making. Find out more on [teradata.com](https://www.teradata.com)

The value of AI is not only available in the cloud. AI Factory is an on-premises AI platform ideal for regulated industries and organisations seeking greater control, security, and predictable costs for their AI projects. Teradata AI Factory transforms the complexity of AI investments into a streamlined experience by providing a fully integrated AI stack, enabling scalable and secure AI execution within a customer's datacentre.

Finally, trusted AI is a key component of Teradata's value proposition and the way people, data and AI work together, with transparency, to create value.



**Read more about Teradata VantageCloud.**  
**Read more about Teradata AI Factory.**