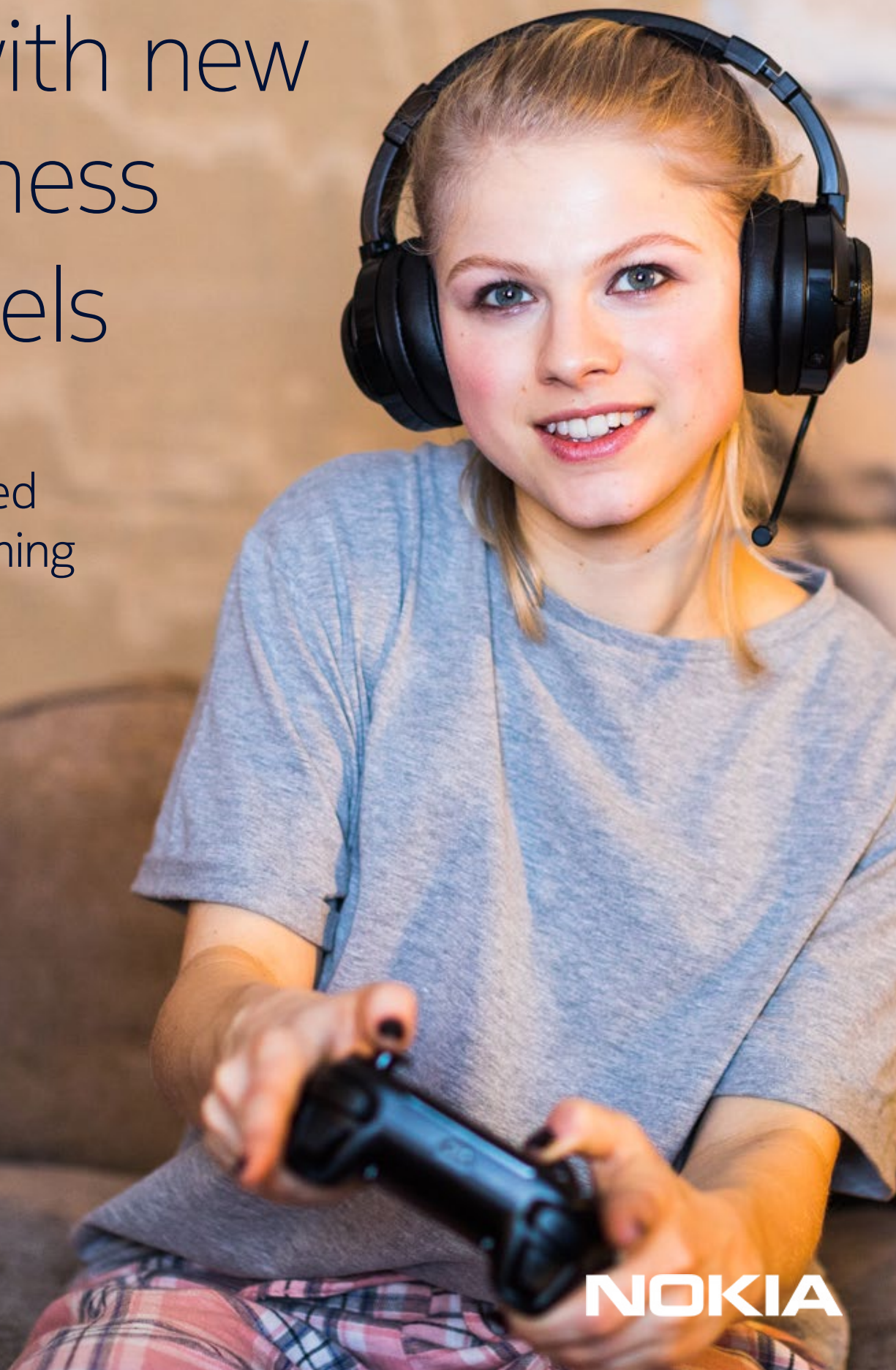# Monetize 5G with new business models

Use case: 5G-enabled cloud gaming

NOKIA

Communication service providers (CSPs) that want to become digital service providers (DSPs) need to be able to innovate in digital time. That starts by putting the right business support systems (BSS) in place so they can engage with new partners and tap into the new use cases and business models that will be made possible by 5G.

In the lead-up to 5G's deployment, CSPs who start evolving their monetization solutions today will be in a much better position to capitalize on new opportunities right out of the gate — and also gain the scalability and agility needed to generate more revenue from existing sources now.

Challenge
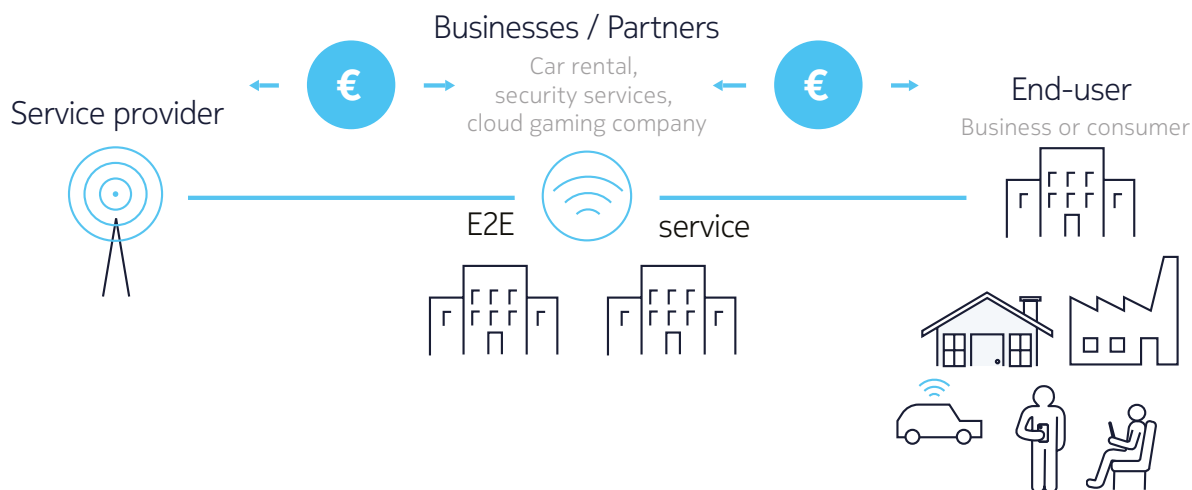## Hitting the ground running with 5G

When 3G and 4G were introduced, many CSPs worried about the network technology first and operations second. Overlooking the importance of updating their BSS environments, however, had a negative impact on the customer experience and resulted in lost revenue for years to come. To avoid repeating the same history with 5G, CSPs need to be ready from the start with a full set of monetization capabilities.

> What will be the best way to package, price, promote and sell digital services for the 5G era?

In a 5G world, the boundaries between partners, customers and channels will become increasingly blurred. One of the key features of 5G architecture is the ability of CSPs to create network "slices": virtualized portions of the network that third-party companies can use to support enterprise and consumer services that depend heavily on consistent, high-performance connectivity, such as cloud gaming. This opens the door for CSPs to reach new customer segments and generate additional revenue by becoming a vital part of the digital value chain — revenue they are largely missing out on today.

But there is a hurdle: many of the monetization solutions currently used for business-to-business services lack the granularity and flexibility to manage a broad ecosystem of third-party partners and are unable to operate in real time. To allow their digital partners to create and deploy compelling new offers for their customers, CSPs need to approach monetization in a radically different way.

Figure 1. Monetizing 5G to enable new business models and use cases

Businesses / Partners

Car rental, security services, cloud gaming company

Service provider

€ → ← € →

End-user
Business or consumer

E2E   service

Opportunity

A world of new partnership possibilities

The Internet of Things (IoT) and connected devices are making cities, factories and hospitals smarter. Virtual reality, augmented reality and eSports are on the rise. All of these can be made better by the ultra-high reliability and scalability promised by 5G. They also provide an opportunity for CSPs to work more closely with digital partners to create more innovative service offerings for consumers and enterprises.

With a cloud-native and 5G-ready monetization solution, CSPs will be better able to support new service offerings and new business models, including the ability to deliver and monetize 5G network slices. That kind of solution also provides more flexibility in the way those new services can be priced (by enabling dynamic pricing, for example, or billing based on latency requirements rather than gigabytes used), meaning CSPs have an opportunity to tap into all-new revenue sources and increase average revenue per account (ARPA).

> 5G provides CSPs with a significant opportunity to build more compelling offers for consumers and enterprises — and tap into new, more profitable revenue sources.

Application
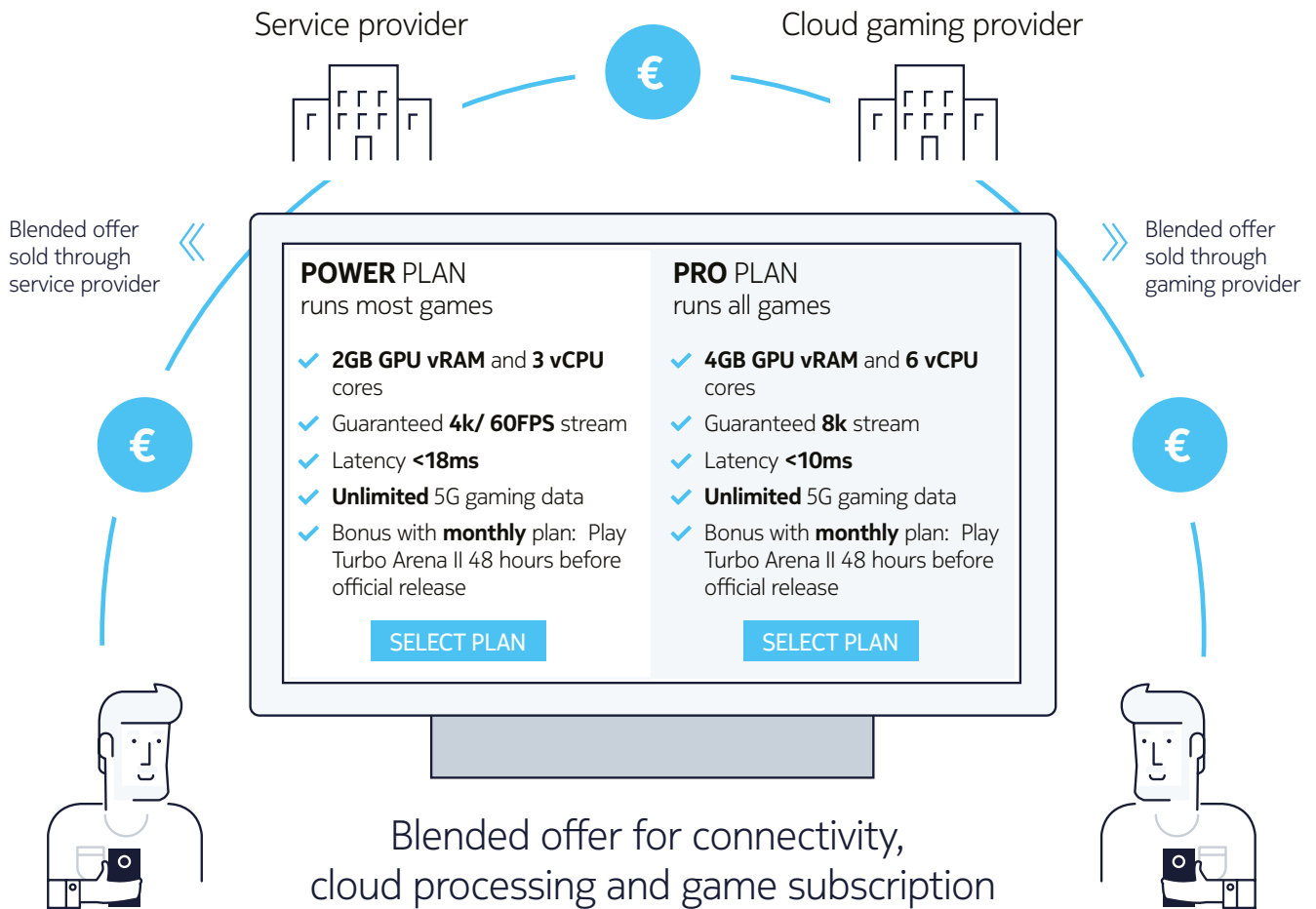
Making cloud gaming a winning proposition

The fast, reliable connectivity of 5G will have a significant impact on the video gaming industry. Similar to the shift that happened when 4G was introduced and mobile video content streaming became viable, 5G will allow the most advanced games (including augmented/virtual reality) to be played from the cloud on any device in any location — without the need for players to own a dedicated home console or PC. Low latency and high throughput will be key to an optimal high-resolution gaming experience, so cloud gaming companies will be under intense pressure to deliver the highest levels of performance to their subscribers. One way to provide that will be to partner with CSPs on a blended offer.

While CSPs might choose to sell connectivity services related to cloud-gaming directly to consumers, others will likely enter into multiple lucrative new partnerships with cloud gaming companies. In doing so, they make it possible for those partner companies to offer subscribers access to their games plus high-bandwidth network connectivity as a single, integrated offering.

> CSPs that want to monetize cloud gaming will require a flexible monetization platform that can support both partners and end users in digital time.

In this arrangement, the gaming company provides the cloud-based graphics processing and computing capabilities, while the CSP provides connectivity at guaranteed latency levels and bandwidth allocations. The gaming company could even offer tiered bundles with different levels of latency or varying throughput.

Figure 2. A blended offer from both the CSP and the cloud gaming provider

Service provider

€

Cloud gaming provider

Blended offer sold through service provider

≪

Blended offer sold through gaming provider

≫

€

€

POWER PLAN
runs most games

✓ **2GB GPU vRAM** and **3 vCPU** cores

✓ Guaranteed **4k/ 60FPS** stream

✓ Latency **<18ms**

✓ **Unlimited** 5G gaming data

✓ Bonus with **monthly** plan: Play Turbo Arena II 48 hours before official release

SELECT PLAN

PRO PLAN
runs all games

✓ **4GB GPU vRAM** and **6 vCPU** cores

✓ Guaranteed **8k** stream

✓ Latency **<10ms**

✓ **Unlimited** 5G gaming data

✓ Bonus with **monthly** plan: Play Turbo Arena II 48 hours before official release

SELECT PLAN

Blended offer for connectivity,
cloud processing and game subscription

Solution

A monetization platform built for 5G

Designed specifically for 5G and IoT, Nokia's monetization solution includes the following key components:

- Nokia Smart Plan Suite, a modular, cloud-native solution for policy control, real-time charging, and customer and partner engagement that allows CSPs to flexibly monetize even the most advanced use cases

- Nokia Data Refinery, a mediation solution that captures data of any type and from any source, refines that data with relevant contextual information

and then sends it on to any target business application — all in real time

- Nokia Cognitive Analytics for Customer Insight, which uses AI and machine learning to provide CSPs with the customer experience insights they need to effectively segment and target subscribers with more relevant and personalized offerings

- Pre-integrated CRM and billing capabilities through Nokia's partnerships with industry leaders such as Salesforce and Cerillion

270+
service providers using Nokia Monetization solutions

1.8 billion
subscribers supported by those solutions

Up to 400%
Increase in campaign conversion rates

Anticipated benefits

New insights and new innovations

Nokia's cloud-native monetization solution allows CSPs to:

- Leverage real-time intelligence to predict customer behavior and improve campaign success rates
- Engage with customers with contextualized, real-time offers to increase revenues
- Embrace innovative new business models to tap into new revenue sources with their digital partners
- Scale efficiently to support networks of any size
- Choose from flexible options for public and private cloud deployments
- Benefit from a continuous delivery model supported by DevOps automation, enabling more frequent software releases to keep up with evolving standards and feature demands

Get ready for new use cases and business models with a monetization solution that was designed from the ground up for the 5G era.

To learn more, visit networks.nokia.com/solutions/monetization.

Monetization in the 5G era:
Are your business systems ready?

Get the e-book

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