Monetization in a 5G world
Depending on which market you operate in, the introduction of 5G may be imminent or something for which you are just starting to plan.

Even if that point still seems far away, now is the time to consider the monetization opportunities and challenges that 5G brings. Any current planning and purchase decisions in this area should be done with a clear vision of what’s required in the 5G context.
5G promises an extreme broadband experience with ultra-high reliability, low-latency, and massive scalability, enabling a wide range of new use cases. This is a significant opportunity to build more compelling offers for consumers and enterprises, but also to do this profitably. In short, you need a monetization solution that is designed to address the requirements of 5G-enabled use cases and business models.
Technology drivers

Let’s start with a closer look at the essential components of a monetization solution that reside closest to the network — the policy and charging functions. 5G introduces a new network architecture and concepts that result in new requirements for the policy control function (PCF), as well as for the Charging Function (CHF):

- **New architecture**: 5G shifts from a 4G point-to-point Diameter-based architecture to a service-based architecture enabling creation and management of network slices, while also allowing for mobile edge computing. The new architecture relies on cloud-native functions, and requires the solution to flexibly support a variety of deployment options.

- **Network slicing**: One of the fundamental 5G concepts is the ability to provide network slices for different services, applications, or use cases. Network slicing offers the potential to reach new customer segments and generate a substantial amount of additional revenue. However, this requires that PCF and OCS are slice-aware and capable of supporting multiple network slices, have one instance per slice, or a combination.

- **Low latency**: Low latency applications require certain functions that were previously delivered as part of a centralized core to be delivered in a de-centralized way — closer to the network edge. This has significant implications for the design of the applications that deliver those functions in 5G.
Use case and business model changes

Research shows that consumers are willing to pay extra for 5G devices. However, they also expect mobile data to be packaged in the same way as in 4G, with a strong preference for unlimited volume plans.¹

Ultimately, this means it will become even more important to engage your subscribers in the moments that matter. In addition, you need to work more closely with digital partners to provide compelling offers while tapping new revenue sources with the B2B and B2B2x use cases enabled by 5G. These new use cases will have different requirements in the following areas:

- **Scale:** The sheer number of devices attached to a 5G network is expected to grow significantly above and beyond today’s numbers, resulting in a substantial increase in scalability needs. Furthermore, the diversity of device types with vastly different characteristics creates another issue. The monetization solution must scale efficiently and with elasticity.

- **Complexity:** A wide range of use cases are currently being discussed in the 5G context. In addition to the more traditional B2C and B2B use cases, 5G will drive a significant increase in B2B2x use cases. The monetization solution must be able to understand and support this complexity in real-time. The vast majority of revenue management solutions deployed today are simply not designed to support a digital business.

- **Need for flexibility and speed:** It’s expected that there will be wide variations in what use cases will resonate in different markets, and that new use cases will emerge over time. What’s more, new offers will need to be created much more dynamically and with a much shorter lifespan. This will require monetization solutions with a new level of flexibility, and an even closer linkage to the sources of real-time intelligence.

Act today to get ready for 5G

With the introduction of 3G and 4G, many service providers worried about the network technology first, and about network operations second. Consequently, they often overlooked the importance of updating their BSS environment to monetize the new technology. This had a significant impact on the customer experience and resulted in loss of revenue for years to come.

5G is much more than a new network technology. Don’t repeat past mistakes and be ready on day one with a full set of 5G monetization capabilities.
How can you become 5G ready?

• The artificial intelligence (AI)-based, real-time insights from Nokia Fastermind and the Nokia Cognitive Analytics Suite allow you to better personalize offers, as well as effectively segment and target subscribers — today and in the future. Combined with omni-channel, real-time customer engagement capabilities, users of Nokia’s Monetization solution are improving campaign conversion rates by 400 percent or even more, resulting in steady ARPU growth.

• Many monetization applications claim to be cloud-native today. However, the deployment of an existing application inside a cloud-based virtual machine (VM) does not make it cloud-native. By contrast, the architecture, design, and implementation of SPS consistently apply cloud-native principles. Embracing a micro-services architecture, SPS delivers five 9s reliability today.

• Using a continuous delivery model supported by test automation, you can introduce new software releases frequently, keeping up with feature demands. This is especially important in the context of 5G where standards will continue to evolve for some time. Additionally, you can benefit from a DevOps methodology that extends the automation of R&D to customer deployments, using the same tool sets. Private and public cloud options provide flexible deployment options in response to your needs.

• Leveraging our Agile Rules Technology (A.R.T.) — backed by more than 150 patents — ensures that performance will not be degraded in more complex use cases while providing unmatched flexibility.

• When compared to conventional industry approaches, Nokia Bell Labs innovation enables the SPS to reap up to 40 percent performance savings for complex slicing tasks to ensure efficient scalability.

Don’t delay making your monetization solution 5G ready today. The Nokia Smart Plan Suite has been designed for 5G from the very beginning, and has continuously evolved based on the insights and needs of global service providers that are pioneering the introduction of 5G.

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