Taking a Slice of the 5G Enterprise Market Pie

Can Operators Monetise 5G from Enterprise Customers?

Niall Byrne
Head of Automated Networks, Openet

Network slicing has been touted as one of the ways that operators can monetise on 5G, in particular for the enterprise market, quality of service will be a critical feature on their digital transformation paths.

Back when the 5G hype began, the enterprise market seemed an enticing opportunity; an alternative source of revenue that would go some way to justify the huge infrastructure cost of 5G and generate some ROI. Today however, the picture is a little different.

Several countries have revealed that they are planning to reserve some spectrum availability for the enterprise market, allowing enterprises to build their own networks, thus bypassing the operator and going straight to the equipment vendors. The reason? Enterprises perceive that operators simply aren't moving quickly enough to adequately meet their 5G needs now, and they're not prepared to wait. And this is where it gets a little worrying for the operators; if they cannot change and adapt to provide the digital, flexible and nimble solutions enterprises need to offer and roll-out 5G private networks, they will soon find themselves on the sidelines of this lucrative opportunity.

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Thankfully however, it's not all bad news for operators. According to a recent Capgemini report on 5G industrial operations, nearly 70% of the 800 manufacturing companies surveyed said that 5G was critical to their digital transformation, and that better 5G QoS is something they'd be willing to pay a premium for. This creates an interesting opportunity for operators to effectively monetise their spectrum assets, and use 5G-enabled services to create revenue on a per-slice basis. Turning this into a reality is all dependent on operators' willingness and urgency to change and transform. The 5G enterprise opportunity is there, and it will continue to grow, but if operators cannot shake the perceptions of being obstacles, as opposed to enablers, they'll soon find themselves on the sidelines.

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The network slicing opportunity

Operators around the world have invested heavily in 5G, shelling out millions for spectrum licenses and for new technologies to support 5G network architectures. Yet, despite existing investments, the 5G killer use case remains undefined. While operators are continuing to adopt the "build it, and they will come" mantra — as they have done for previous generations of wireless technology — 5G will require a little more thought if operators are to see a decent return on investment.

Quality of service (QoS) could very well be one of the answers to operators' current 5G monetization conundrum. Assuring network QoS has long been a challenge for operators. While existing network management tools have been used on 3G and 4G networks to manage some elements of network utilization, in a 5G era — where data volumes are set to explode — operators will need to get serious about how they assure QoS and manage network and bandwidth utilization. Network slicing heralds an entirely new opportunity for operators to do this.

Unlike previous network management tools, 5G architectures allow for the network to be divided into different slices, with each slice serving a different application or service. This allows for operators to carefully and selectively allocate network resources on a per-slice basis, and to scale these resources up or down according to real-time requirements. Doing so optimizes how the entire network runs, ensuring optimal capacity utilization, and reducing the likelihood of QoS-related issues impacting the end user. In addition to this, it allows operators to enable QoS-as-a-service, whereby the ability to guarantee QoS on a per-slice basis creates new revenue opportunities for enterprises delivering services from real-time analytics using edge computing, and remote operations through AR/VR technologies, all the way through to AI-enabled and remote-controlled motion for drones or self-driving cars, or video surveillance of remote production lines or machinery.

It's all about transformation

While there's little doubt that an enticing opportunity exists when it comes to 5G enterprise networks, operators have some way to go to turn this opportunity into revenue. Enterprises won't opt to partner with an operator to build their private networks if telcos cannot demonstrate that they can move quickly and deliver agile, modern networks that can evolve according to industry needs and demands.

For this to happen operators must think carefully about their existing technology stacks and monetization tools. Legacy infrastructure will do little to adequately accommodate the services network slicing will enable. While operators may choose to upgrade or rearchitect existing systems, this is likely to be costly and disruptive. Even once upgraded, legacy architectures could still be prohibitive in enabling the full monetization of 5G-enabled services.

Indeed, operators must assess their current monetization tools — are existing charging systems able to meet the demands of 5G? Will they be able to support various slicing capabilities — cross-slicing, in-slicing or

even hybrid-slicing capabilities? And as we see the emergence of service-specific slices and application-driven slices, how will current charging systems be impacted? What are the capabilities and limitations of their existing charging systems and how will these work in a mature 5G world?

These are important considerations for operators seeking a piece of the 5G enterprise pie. And as network slicing evolves, it is only the operators that can evolve and adapt to deliver fully cloud-based monetization solutions to handle latency-critical services and applications, that will reap the full rewards of network slicing, and allow them to take control of the 5G enterprise opportunity — and more.

Learn how Openet enables service providers to **open up new use cases and drive revenue streams** by bridging the 4G/5G divide. Or if you'd like to gain insights into how VoltDB works with innovative vendors like Openet to power their 5G-enabled enterprise applications, **check out the VoltDB website.**

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About Openet

Openet provides Digital and 5G BSS to enable service providers to create new revenues from digital services, improve customer engagement and be ready for the opportunities from 5G. Our solutions enable service providers to be more agile, innovative and enjoy a faster time to value.

From monetising content and data services over 4G to enabling innovative enterprise IoT offers over 5G, Openet's Digital and 5G BSS offers a fast and agile alternative to the large legacy companies whose track record of over-charging and under delivering has resulted in high failure rates of large scale transformation projects.

Since its foundation in 1999, Openet has been at the forefront of telecoms software development and innovation. Our success is personified by the many long-term relationships it has fostered with the largest, most progressive, and demanding operators across the globe. For more information visit **www.openet.com**.

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About VoltDB

VoltDB powers applications that require real-time intelligent decisions on streaming data for a connected world, without compromising on ACID requirements. No other database can fuel applications that require a combination of speed, scale, volume and accuracy.

Architected by the 2014 A.M. Turing Award winner, **Dr. Mike Stonebraker**, VoltDB is a ground-up redesign of the relational database for today's growing **real-time** operations and machine learning challenges. Dr. Stonebraker has conducted research on database technologies for more than 40 years, leading to numerous innovations in fast data, streaming data and in-memory databases. With VoltDB, he realized the full potential of tapping streaming data with in-memory transactional database technology that can handle data's speed and volume while delivering real-time analytics and decision making. VoltDB is a trusted name in the industry already validated by leading organizations like: Nokia, Financial Times, Mitsubishi Electric, HPE, Barclays, Huawei, **and more**.

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