

# 5 Key Opportunities in 5G

5G is much more than simply the technological evolution of 4G/LTE. The foundations are strong in its simplified, virtualized and cloudified design principles, ability to be tuned to particular needs, converged 'network for all reasons' potential, and its rich and diverse monetization capabilities.

5G is not bound by traditional network thinking either. The timing and accelerated adoption of augmented intelligence, virtual reality and machine learning creates a potentially wonderful inflection point for the fusion of layered network and service intelligence.

To truly realize the possibilities that 5G presents requires a full-on paradigm shift in thinking and approach. The market is in its 'post-peak telco' phase and needs to quickly tap into a new seam of sustainable options to turn that position around. In addition, the end-user is increasingly loyal to the digital experience they receive. 5G presents an inflection point opportunity to morph from the classic 'lead with the network' attitude of 3 and 4G, to a 'lead with the experience' approach that taps into that expectation head-on.

Across consumer, business, industry and IoT domains, each degree of separation, every tuneable characteristic, every programmable variable and every unique plan combination begs the question, "What could happen in a 5G minute?"

## 1. Network Slicing

Network slicing will truly be the bedrock of 5G monetization for the telcos with its ability to micro-target specific groups or domains. From device to the cloud, the network can now be segmented, securely partitioned end-to-end and 'tuned' to the inherent needs of a particular domain based on need and opportunity. That tuning could include adjustable parameters such as bandwidth, quality of service, latency, security and reliability. In addition, the capacity to fuse elements such as intelligent utilization triggers, behavioral analytics and intra-domain coherence delivers a compelling capability.

### Monetization Opportunity

Network slice as a service will provide a 'self-help' package for businesses as they configure and control their own network service, such as a wireless VPN via a digital portal. The end-user will then be responsible for all adds, moves, changes and parameter adjustments within that slice. The monetization prospect for the telco lies within the overall market appeal and draw of a self-controlled service combined with operational change triggers and offers driven via behavioral analytics.

## 2. Small Cell as a Service

One of the main promises of 5G lies in its increased bandwidth potential over LTE/4G, which is partially driven by greater usage of higher frequency bands in the radio spectrum. While this does offer massively augmented bandwidth, it suffers from limited distance propagation and requires the siting of many distributed small cells (appearing where large crowds gather) to be effective.

### Monetization Opportunity

Providing a sponsored 'small cell as a service' (for example, in sporting venues or retail malls) in which users can automatically 'roam' may offer appealing VR based customer engagement applications that require ultra-high bandwidth. The handover between the macro and small cell environment would be seamless AND the experience consistent, with full feature transparency between the two being part of the same network or slice. The monetization opportunity for the telcos lies within the provision of a managed service on behalf of the venue with triggers based on utilization, treatment, advertising and big-data behavioral analytics driving broader upsell.

## 3. Smart Family

The increasing 'digital footprint' within the modern household, consisting of a myriad of personal and smart devices creates a compelling and sizeable opportunity. While 'friends and family' group plans have been common for some time, often households are left with a number of separate suppliers to contend with when the bigger footprint is considered.

### Monetization Opportunity

The monetization outlook for telcos is supplying a one-stop shop that brings disparate service elements under an integrated umbrella with numerous probability and usage triggers. The ability to deliver and uniquely treat all aspects of a smart family service, from VR gaming to home security to remote meter monitoring, has an inherent appeal. It also helps telcos tap into an increased share of household spending by broadening their reach beyond simply mobile.

## 4. IoT as a Platform

Based on several analyst reports, the broad IoT market's largest revenue opportunity lies within the provision of applications and services, not in simple communications. Providing a basic SIM and connectivity service is a commodity, differentiated solely on price. 5G as a platform offers potential for an IoT service explosion based on its capacity to provide IoT connectivity on a cost/scale basis not currently achievable. Most importantly, 5G will enable the integration of IoT services across multiple domains and industry verticals on a common service platform.

### Monetization Opportunity

The opening for telcos in IoT is predicated on offering it as a service, targeting by specific industry verticals and acting as a lead partner or as part of a consortia. Providing services to millions of users, combined with extensive logistical skills and existing commercial relationships delivered at scale, give telcos a powerful seat at the table. Monetization will result from managed service delivery with utilization triggers based on treatment (QoS, latency, bandwidth and security) or utilization triggers (adds, moves, changes and parameter expansion) for more general applications and devices.

## 5. Enhanced Broadband

Bandwidth is a crucial element of all plans and yet, on its own, is a commodity. All-you-can-eat and bandwidth only plans, which put that bandwidth at the heart of an offer, have served to continue a race to the bottom in terms of commoditization and margin. 5G will define a series of 'bandwidth +' type experiences that draw on elements such as network slicing and other specific treatments to

define more value per bit oriented plans and offerings. The added use of video, virtual reality and business needs in remote healthcare, education and industry 4.0 applications, combined with extended network reach with small cells, will keep high bandwidth needs at the center of many plans.

### Monetization Opportunity

5G should be a pivot point in terms of bandwidth only and all-you-can-eat plans which have no place in a value per bit business model. From a consumer perspective, tying bandwidth to services (smart family plans) or applications (gaming, music or video) becomes paramount. Combining bandwidth and services is achievable via specific 'slice' treatment of bandwidth, latency and quality of service combined with VR, AI and big-data driven opportunity triggers based on behavioral analytics. For businesses, offering pooled bandwidth as part of a network slice as a service or IoT based service, which is then left to the user to define and utilize as needed, creates openings to monetize.

## Final Thoughts

The days of 'leading with the network' are over as 5G, combined with capabilities such as VR, AI and ML, will have a profound impact on the digital user experience. The complexities, variabilities and scale of that 'Digital Service Provider' offering require a fundamental shift and will be the defining approach of this era. Maximizing possibilities through the linking of opportunity intelligence data and monetizing it via a 'single source of commerce truth' will be paramount in driving commercial success in this digital decade.