

LIVIN' ON THE EDGE, PART 1: EVOLVING TOMORROW'S INTERNET

MAY 18, 2020

The Cable Opportunity, Use Cases, Timing And Challenges

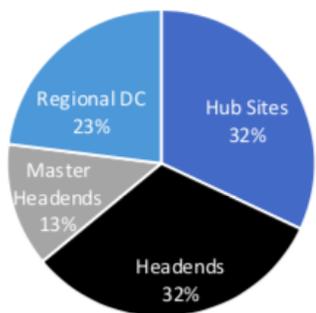
In addition to our work, we cite a recent survey by Broadband Success Partners as the research/consulting firm interviewed 24 Cable MSO executives (from 11 Tier 1 and Tier 2 MSOs). The survey results shed light on the latest cable thinking around the edge, specifically around the drivers, opportunity, use cases, timing of deployment, and challenges.

Location Of Edge Compute Equipment – Evenly Split (Headends, Hubs, Data Centers) Among Tier 1 Providers

According to the survey, 45% of respondents noted edge equipment will be located in Headends (regional or master Headends), 32% noted in Hubs, followed by 23% regional data centers. However, Tier 1 executives were nearly split evenly between Headends, Hubs, and data centers. Meanwhile, Tier 2 executives skewed far more to deploying at Headends (60%), which makes sense as deploying at the more local hub level in more rural areas is costly and low-latency use cases such as in 5G will be less critical vs. in more urban Tier 1 areas. While edge compute will be located in Headends/Hubs/ regional data centers, we believe content caching servers could branch out to the Hubs, while the 5G antennas, IoT sensors, and monitors deployed out at the optical nodes (and reconverted traditional amplifier nodes) deeper in the neighborhoods.

Figure 30 Edge Skew to Headend/Master Headends

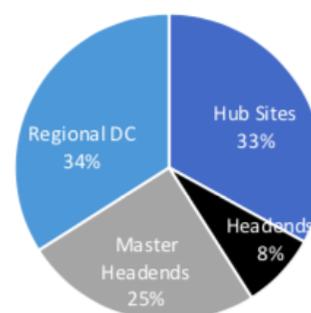
Location of Edge Equipment



Source: Broadband Success Partners

Figure 31 Tier 1 Providers Will Look to Deploy In Hub Sites

Location of Edge Equipment - Tier 1 Providers



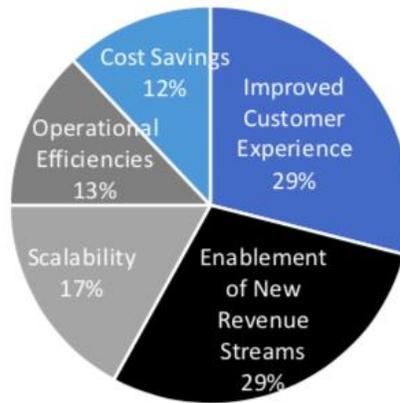
Source: Broadband Success Partners

Drivers of the Edge –New Revenue Streams, Improved Customer Experience, and Savings/Scale/Efficiencies

The top drivers of the edge were evenly split with 29% noting “new revenue streams” and 29% noting improved customer experience, followed by 17% scalability, 13% operational efficiencies, and 12% cost savings. Interestingly if you add the last three as “in house” (non-customer facing) solutions, it makes up the majority of answers (42%).

Figure 32 New Revenue Streams Just 29% For Cable Edge

Edge Computing Drivers



Source: Broadband Success Partners

The Revenue Opportunities -Largely Business And 5G

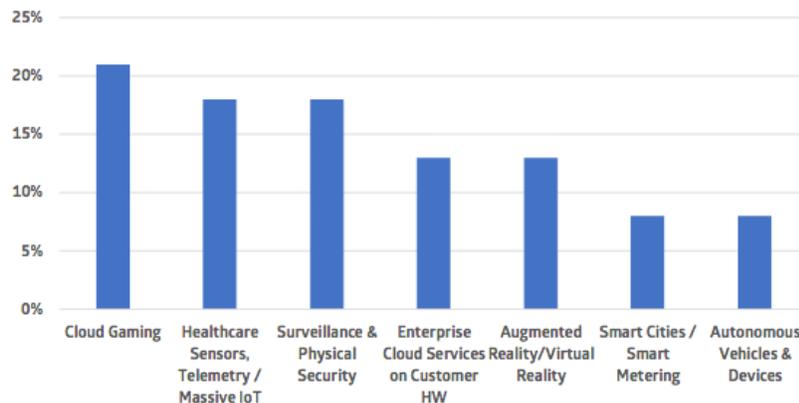
As for revenue opportunities, 50% of respondents noted new business services while only 23% noted consumer services. 18% of respondents noted 5G (which can be either consumer, but we believe skewed more toward business services). Meanwhile 9% noted new lines of businesses.

Use Cases –Gaming, Healthcare IoT, Security/Surveillance

As noted, while only 23% of executives believed consumer services to be the top revenue opportunity, however Broadband Success Partners found Cloud Gaming to be the top use case to be developed (~21%), followed by healthcare IoT (~18%), security/surveillance (~18%), enterprise cloud on customer hardware (~13%), AR/VR (~13%), smart cities (~8%), and AV (~8%).

Figure 33 Cloud Gaming, Healthcare IoT, and Security Top Use Cases for Cable

Top Cable Edge Computing Use Cases



Source: Broadband Success Partners

The data is telling in that cloud gaming may be a top use case, but perhaps not a top revenue opportunity, as Cable instead may be focused on improving the consumer experience rather than monetizing it.