



Small Operators Can Step Up to SDN/NFV by Virtualizing Video

Demands a Strategy

NEWS

It is no secret that people everywhere want mobile broadband access to the Internet, and part of that desire includes ever increasing video traffic. Video traffic was originally consumption of content, but with the advent of 4G and mobile tablets, personal video traffic is expected to increase. Operators need to develop their total business plan to address video, network resources, monetization, optimization, and customer experience management to ensure profitable operations.

How This Impacts the Operator

IMPACT

In the beginning of mobile broadband, operators used simple flat rate pricing, all you can eat data plans, which worked well until subscriber and smartphone penetration increased and moved up the S-curve. Mobile broadband operators were somewhat caught offguard by the heavy traffic demands, especially the consumption of hard to monetize OTT video. Faced with a pending "Video Apocalypse," operators responded with the tools at hand, and those led to unsatisfactory user experiences. Some operators attempted to force a double sided business model with the OTT players, but to no avail. Where competition was not as severe, operators responded with tiered data buckets, which help – as long as the competition behaves well. Some operators started brute force video compression with significant CAPEX outlays and hardware proliferation. While these approaches helped manage traffic, they did not provide a compelling user experience.

Some markets are already well along the path to 4G, and those operators experience a momentary pause from congestion – until the subscribers catch up with new devices, and then it is *déjà vu*. Operators need a comprehensive optimization strategy that fits their overall business plan and market need. Tier 1 operators are able to pursue elaborate Content Delivery schemes and negotiate special arrangements with other ecosystem partners, including two sided business models. The rest of the operators, Tier 2 through Tier 4, have all the same video issues as Tier 1 and more, but with less resource to address those needs. Also consider that the telecom market is at the edge of SDN/NFV and Tiers 2 – 4 need to pay even more attention to market developments and prepare to be a fast follower or, as shown below, outmaneuver their larger competitors.

Tier 2 – Tier 4 operators in North America (and elsewhere) have special issues. Foremost is the need to maintain device and service parity with the Tier 1 operators; that is, provide extensive coverage and an attractive selection of smartphones. This also leads to the challenging uptake of data to contend with, namely OTT video, and still maintain a good customer experience.

Secondly, a significant portion of their subscriber traffic happens outside of their home market while roaming onto a national provider. The subscriber does not see a roaming fee, but it does affect the operator's bottom line. In this situation, the operator needs to judiciously manage and optimize every byte headed toward the roaming partner. A similar situation will appear in the European Union should they ever get roaming fees under control. The € flow may be a little different, but attention to bits and bytes will be fruitful. In these situations, it is still important to maintain the subscriber experience and optimize the video flow rather than use brute force methods such as throttling.

A third and closely related issue is encouraging more data use by subscribers, and video is a means to do this with any number of monetization schemes on the market. A quick campaign and video offering can be quite compelling and pull a subscriber from feature phones to smartphones to participate fully in the mobile broadband revolution.

In other markets, smaller operators face a different set of problems, that of competing with much larger operators and gaining market share. Their foremost problem is differentiating and finding subscribers to come onto their network. As their networks are often lightly loaded, those operators can deliver unique video content that is difficult for the large operators to manage. An operator with a suitable toolkit that manages special rating (even two sided business model) and the customer experience (especially on any of thousands of subscriber devices) can carve out a defensible niche. But how is a Tier 2 to Tier 4 operator to do these things?

1.1.1 Time to Press the Fast Forward Button

COMMENTARY

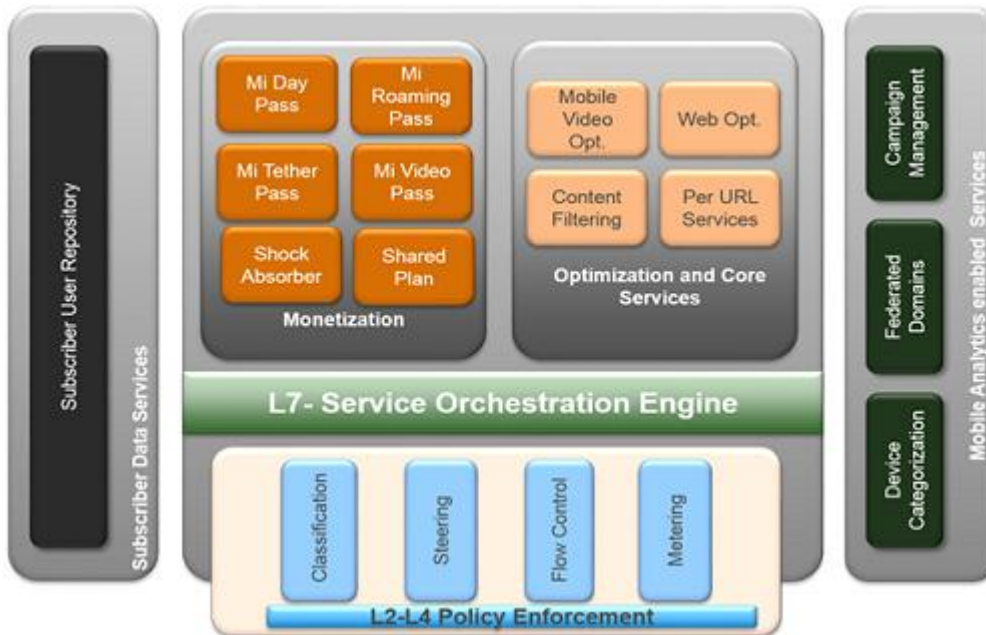
A strategy that will have a big payoff is virtualization / SDN / NFV / Cloud that is just around the corner. ABI Research findings indicate that the Service Plane, that is the Gi-LAN and those network services, are the low hanging fruit for virtualization that allows the operators to scale the infrastructure in the core in a cost effective fashion while looking at cloud offerings as a means to turn CAPEX into OPEX. Further, they will yield the fastest time to profit as they can dynamically add new services and deploy resources without the lead times associated with the current deployment models and potentially use the Cloud as a means to handle bursts and peak load.

The strategy for a smaller operator is then to select a vendor that offers what they need for video (and HTTP and TCP/IP optimization) with a software solution. This vendor must also be ready for virtualization on commercial IT platforms. The next step on the road to virtualization / SDN / NFV / Cloud will be to expand the initial deployment for video optimization to service chaining and gain the experience needed to operate as a WebScale firm. A big advantage is a "grow as you earn" approach. With a virtualized Gi-LAN solution for video optimization, the experienced operator can manage capacity (hence CAPEX and OPEX) to exactly fit their business need. And once the operator discovers virtualized service chaining, they can accelerate their offering innovations and outrun the competition.

There are several vendors that can meet the various needs of the Tier 2 – 4 operator, but one that is focused on the particular needs of video optimization, monetization, and keeps an eye on Virtualization / SDN / NFV / Cloud is OpenWave Mobility. The OpenWave Mobility Integra platform is one answer to the Tier 2 – 4 operator needs. With the Integra Platform solution, the operator can immediately address and optimize both OTT video traffic and also web traffic. In addition, the OpenWave Mobility monetization features are put in play – including an advanced analytics capability and a scalable subscriber repository. As the operator gains more experience and subscriber revenue, the platform can grow with the business (*i.e.*, CAPEX and OPEX aligned with revenue). As a further benefit, the CAPEX expansions in the future follow innovation curves of the commercial IT hardware. So when a new blade or server is available with the next generation Xeon processor, an operator just adds it to the mix and immediately gains the benefit from the inexorable cost-performance improvement common in the IT ecosystem.

With virtualization and commercial IT platforms, it just keeps getting better. A next step for the operator is to consider full-up virtualization of the Gi-LAN network services. And they can be built on the existing platform and integrated together. Need more MIPS? Just add more blades and servers. With virtualization of even just the Service Plane, the smaller operator can quickly match the services of the Tier 1 competitors, and because they are often so very agile, may likely surpass the Tier 1s with compelling services and features.

Figure 1. OpenWave Mobility Integra Platform (Source: OpenWave Mobility)



The future is bright with Virtualization / SDN / NFV / Cloud, and the Tier 2 – 4 operators no longer have to play the fast follower. With a focus on video optimization as the first step, operators can plan a roadmap that quickly grows into world class service and capability – and do so in a cost effective “grow as you earn” manner.

Detailed strategic marketing insights are part of ABI Research’s [Next Generation Optimization, DPI and Policy Research Service](#), which is part of the wider ranging [Telco Software, Optimization & Monetization Research Practice](#).