

Managing the OTT Hurricane

Introduction

Sales of smartphones passed an incredible milestone in 2013 with sales of over 1bn devices and a share of 55% of all mobile phones sales according to research company IDC.

While great for consumers and app stores, the shifting market represents a major threat to network operators with lost revenues via OTT messaging apps and disengagement from their customers, just at the point where large investment is required in network technology to cope with insatiable bandwidth demand.

Operators need new and innovative strategies to help them remain relevant and profitable as the market shifts away from a network and technology focus to being completely consumer and 3rd party driven.

This white paper will discuss how Anritsu provides invaluable information to support new strategies and methodologies of protecting revenue and ensuring great Customer Experience.

The Rise of the App

Everyone's heard the phrase "there's an app for that" and the market is now driven by smartphones and apps that have a use for everything from setting your DVR to record your favorite TV show, checking email, tweeting, catching up with friends on Facebook, chatting with friends. Essentially the smartphone enables consumers with true "anything anywhere" capability without the need to actually use core revenue generating services of speech and SMS, the traditional domain of the MNO.



This is a problem for operators on several fronts:

- Core revenue from the traditional speech and messaging is under threat from apps such as Skype, Whatsapp, Viber, etc. Ovum estimate that OTT Messaging apps cost operators \$32.6B in SMS revenue during 2013 and expect that to rise to \$86B in 2020
- Losing customer intimacy on what drives them to spend, calling circles, marketing opportunities, etc.
- Margins under pressure while having to continually expand capacity

Customers now choose devices based on price plans, handset availability (need the apps) as key choices, with indoor and home coverage second (Wi-Fi offload).

Traditional benefits such as coverage and quality, that operators can use to differentiate themselves are greatly diminished as the market changes.

Quality of Experience has Changed

But not by that much. Operators are still highly network focused, and it makes sense as a network operators' "product" is their network, so it is obviously important to understand the key metrics of customer experience.

Network Accessibility, Network Retainability and Network Quality

Where is the line drawn for delivering services or apps of sufficient quality? It is here that the line starts to get fuzzy. Sure the operator is responsible for enabling access for their subscribers to access the apps and services they desire – but the actual delivery of that service is outside the control of the operator. Who actually owns delivering the following metrics?



Service Accessibility, Service Retainability and Service Performance

The difference of course, is that in many cases, operators are no longer responsible for all aspects of the actual experience of the user of that app, or service as it depends on downloaded apps.

For these apps to work properly, the network still has to operate correctly by ensuring there are enough resources to cope with the demands placed on it by all of the users, whatever they are doing. This provides a great opportunity that can be exploited in seeking new revenue streams and maximizing ROI for network expansions.

The Importance of the Right Information



Visibility of network performance is no longer a guarantee that your customers will have a great experience while using your network to access their data, content or chat to their friends, there is no simple solution that can pinpoint why not everyone can join a 3 way call using VoLTE on 3 different networks on 3 different continents.

Focusing only on the network layer means that as an operator trying to launch or manage these services, you're never going to get to see the big picture. Yes, you can say that everything within your "span of control" is all working correctly, but what's the next step if the issue is not within your span of control? That the 3-way call was controlled by an application server in someone else's network?

In the ecosystem where the apps and consumers drive innovation, the right information is the ability to identify which apps, and what type of data your consumers are, well, consuming.

Utilizing DPI technology in a passive way to identify apps that traverse your network provides that next stage in visibility to network operators, that when combined with information on the network provides the right information to enable your operations, planning, engineering, sales and marketing teams with the information to make the right decisions.

Transforming Data into Actionable Intelligence

Operators have lots of data, but in many cases, no-one has the time to actually do anything with it – a screen with a lot of KPIs or “Christmas tree lights” is not really going to help you identify key issues that are affecting QoE.

By transforming that data into actionable intelligence, ops teams, planning, marketing, sales, and Troubleshooting teams get the information needed to take action in order to resolve issues and take the right decisions to protect QoE.

Combining network, application, location and user information together provides unparalleled visibility to support new business models and obtain a true picture of customer experience, even if you can't charge directly for app usage.

The following benefits can be derived from this combination of data, network and subscriber information.

Improve Quality by Identifying Impact of Apps on other Services

Many applications can have unpredicted effects on the network as they place different demands on it when combined with how the network operates. For example, some apps may cause a low increase in data bandwidth needed, but require a large increase in control traffic. This may result in network capacity problems that cause other services to be impacted. By identifying the popular apps and the users that use them, these issues can be minimized before they impact other users, especially ones using core services.



Improve CAPEX Spend by Identifying the True Causes of Congestion

With an eye on reducing costs, the days of simply throwing capacity at problems is over. With bandwidth hungry apps such as video streaming, Peer to Peer and other high bandwidth services rising in popularity it's important to think smarter. By identifying what service are used where and by how many subscribers, engineering and planning teams

can identify if there are general capacity problems in an area, or if the congestion is caused by a few subscribers – enabling the targeting of investment in a far more efficient way.

Protect New Revenue Sources

As mentioned earlier, customers care about their apps and content, with providers such as Skype, Whatsapp, Line, QQ, Netflix to name a few gaining traction and providing value while users are still paying for their data plans.

By tracking the quality of these services delivered to subscribers, operators can implement SLAs with content providers and ensure that guaranteed quality results in a revenue sharing arrangement—meaning better service for customers and protection of potential new revenue streams.

Identify Heavy Users to Protect Quality for All

With the rise of data services and M2M, from smart meters to key functions such as remote health monitoring, it's important to be able to ensure that data can be transferred when required. In some cases, heavy users can impact the quality for other users, especially with file sharing or streaming services. Identifying those users on an ongoing and cell-based basis and enabling a feed to modify the policy enforced for them to adjust their throughput and freeing resources for other subscribers means higher quality without the need to invest more resources.

Conclusions

The ecosystem has changed completely in the mobile marketplace, being apps and consumers the ones driving innovation. Being able to identify apps and services that are used is a key requirement, and Service Assurance systems have to migrate to support this reality.

However, that is only part of the story. Providing the right information, in the right context and at the right time is a key requirement too, as it provides operators with the actionable intelligence to maintain and improve customer experience, while allowing greater efficiency.

Anritsu MasterClaw suite provides this level of information and flexibility across all key mobile technologies from 2G through 4G, with a range of powerful and flexible capabilities that enable operators to meet the ongoing challenge of the network revolution.

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