

Improving Gross Margins through Subscriber Satisfaction



OVERVIEW

As the importance of broadband continues to grow for consumers, so do their expectations of broadband performance. Facing an increasingly competitive market, communications service providers must reach higher levels of network quality assurance to retain their existing customers, including becoming the “IT resource” to resolve subscriber broadband performance issues. Traditional network analysis tools are ill-suited to investigate service issues at the IP layer. As a result, service providers are often drawn into using precious network operations resources or even deploying truck rolls to troubleshoot service issues that occur at the IP layer.

Compass Flow Analyzer is an essential tool to remotely triage and quickly diagnose customer service issues at the IP layer.

SLOW INTERNET: A RESOURCE DRAIN

Subscriber reports of “slow Internet” are perhaps the most common broadband service complaint and a growing source of service provider support costs and subscriber dissatisfaction. All too often the root cause of these complaints is network traffic generated by a subscriber application. Network analysis tools are not helpful in these situations because they are designed to report information about the broadband “pipe,” not about the data being carried by the pipes.

The most common scenarios responsible for “slow Internet” are:

- Unintended use of file sharing programs by subscribers
- Hidden use of the broadband Internet connection by other devices or users in the home or by outside users highjacking an open wifi network
- Malware-affected devices contributing to abnormally high bandwidth consumption on the broadband connection (“spammers” or “netbots”)

Service providers are usually ill-equipped to identify – let alone locate – the source any of the circumstances

mentioned above. In fact, the most common course of action once the integrity of the network has been verified at Layers 1 and 2 is for a support technician to make an appointment to continue the troubleshooting on-site as shown in Figure 1.

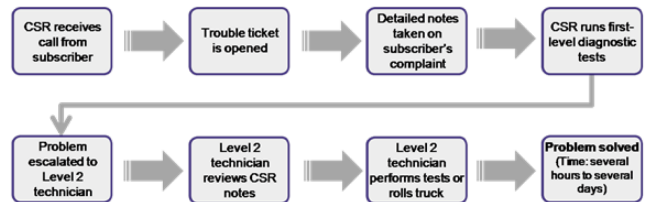


Figure 1 – Typical workflow to isolate causes of slow Internet

This is a costly proposition. To make matters worse, it is common for these situations to require multiple on-site visits before a resolution is reached. The consequences of such behavior are very straightforward: High service delivery cost and high subscriber dissatisfaction (potentially leading to subscriber loss).

While it is tempting to accept these support expenses as “sunk costs,” the reality is that as subscribers rely on their broadband connection to satisfy an ever growing set of needs, support requirements will likely grow commensurately. And accepting these growing expenses as sunk costs is not sustainable.

A HIGH COST PROPOSITION

Let's assume that in any given month, as few as 1% of broadband subscribers who call in to Customer Service with complaints result in a truck roll. This conservative figure leaves us with approximately 10 customer support incidents per month for every 1,000 broadband subscribers that require on-site troubleshooting. Assuming a very conservative \$150 cost for a truck roll, you are looking at a monthly service delivery cost that can be as much as \$1,500 per month for every 1,000 subscribers (see Figure 2). Or, looking at it in different terms: service provider businesses typically spend approximately \$1.50 per subscriber per month to diagnose and isolate the causes of slow Internet. Clearly, eliminating these truck roll expenses would make a significant impact on profitability.

Number of incidents per 1000 subscribers per month

$$1,000 \times 1\% = 10$$

Total monthly truck roll cost

$$\underline{\$150 \times 10 = \$1500}$$

Cost per broadband subscriber

$$\underline{\$1500 / 1000 = \$1.50}$$

Figure 2 – High cost per subscriber per month when truck rolls are required

FLOW ANALYZER: IMMEDIATE RETURN ON INVESTMENT

Compass Flow Analyzer was designed to enable service providers to remotely diagnose a wide variety of subscribers' service complaints and thereby help improve profitability and maintain subscriber satisfaction. At its core, Flow Analyzer can isolate any flow from a single subscriber and display the necessary information for identifying the signatures of all common network issues. Some of these signatures are small packet size/high packet rate and disproportionate use of bandwidth resources.

With the click of a mouse, service providers using Compass Flow Analyzer can monitor the broadband activity of individual subscribers, and gain access to easily recognizable traffic patterns and signatures to immediately identify

unusual email activity (spammers), web server subscribers (file sharing applications), or unexpected bandwidth consumption (multiple users in the home or WiFi hijacking).

With Flow Analyzer, customer complaints often can be solved with a level-1 support technician. Those complaints that are escalated to level-2 can usually be solved without a truck roll, as shown in Figure 2.



Figure 2 – Typical workflow to isolate causes of slow Internet when using Flow Analyzer

Assuming that this remote diagnosis easily avoids 50% of the truck rolls described earlier, deploying Flow Analyzer for this purpose alone puts as much as \$750 per month for every 1,000 subscribers back into the bottom line – or it positively adds \$0.75 of gross margin per subscriber per month for the company.

Since Flow Analyzer is deployed using a very simple Software-as-a-Service (SaaS) model, with zero upfront investment required, the return on investment for using Flow Analyzer is immediate. Most importantly, it has the potential to immediately begin yielding gross margin improvements.

SUMMARY

Satisfying subscriber expectations of broadband performance is becoming a business imperative for service providers. The unique features of Flow Analyzer make it a powerful tool for achieving this goal while at the same time enabling higher gross margins.

For more information about Compass Flow Analyzer, send an email to CompassSales@Calix.com or contact your Calix Sales team.

