

Mariner Partners Navigates HD Upgrades

Multichannel News

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Mariner Partners has been working with phone companies launching Internet-protocol television service since 1997.

Today, the St. John, Canada-based company offers a variety of technologies for debugging problems in IPTV networks, as well as consulting and

integration services. Mariner president, CEO and co-founder Curtis Howe talked with *HD Update* contributor George Winslow about some of the unique problems facing telcos as they expand their high-definition offerings.



MCN: What are some of the challenges facing telcos as they try to launch and then expand their HD services?

Curtis Howe: I think the tremendous increase in bandwidth that is necessary for HD is well-understood. All of the operators anticipate that and know that it is a significant lift.

Beyond that, if you look at a complete architectural map of the IPTV ecosystem, from headend to set-top, virtually every area is impacted. The fact that there are so many moving parts in the network and the fact that all of them are being changed at once creates some of the biggest challenges.

In a big telco, you can take the problems into a lab and you run hundreds or thousands of regression tests until you debug these problems. But in a smaller telco, you often don't have the luxury of a lab and you have limited personnel to work with. We found the sheer number of components -- whether it is software or hardware -- that change in the course of an HD upgrade [to be] a major challenge.

MCN: How do your products help deal with those issues?

CH: With our technology, we have inverted the conventional and time-honored method of monitoring and trouble-shooting an IP network. Rather than monitoring the status of a particular network device or even a series of network devices, we concentrate on understanding the quality of experience that is being delivered into the home and we have a series of technologies help us understand that.

Our solutions are all software-based and can be downloaded into the system to work with the middleware. If it is a Microsoft Mediaroom system, we can piggy-back the existing Microsoft Mediaroom technology to assess how well the service is working.

To do that, we go all the way to end of the delivery chain and look at what is happening there. If you imagine putting low cost probes into every single home, that is what we are doing. We harvest all that data and correlate it to understand all the behavior of the network in each region, on each node, on each channel. We can tell you how many people are watching a particular channel and how many of them are getting a degraded service. We can tell you within a particular home if all the TVs are getting a good signal, if they can order video-on-demand, if the set-top box CPU is overloaded, etc.

So, we can go through an immense amount of data in real time and map that onto the network typology to very quickly find and solve some very elusive classes of problems that can take hours and hours the conventional way.

[Over time, we have also] built up a repository of case studies. Based on those, we've found solving problems the conventional way take 153 minutes. But with our technology, we can get this down to a five minute target.

MCN: What sort of costs might those problems create for telcos compared to satellite and cable?

CH: There are really two ways to measure the kind of issues I've been describing. You can look at it through eye of network management or engineering. They describe the problem in terms of the mean time to repair network outages and the duration of those outages. We can help them by reducing mean time to repair, reducing frequency of outages and severity of outages.

The other lens is the lens of the chief financial officer. If you look at these problems through his or her eyes, you see those problems are driving repair cost and customer dissatisfaction.

We've calibrated those costs from a number of different systems that we've worked with in North America and we think we have one of the best analysis and data bases around in terms of the frequency of customer problems, the cost of addressing those problems and finally, if you are unsuccessful in resolving them, the cost of churn.

Based on that analysis, we find that IPTV operators on average are spending about two to three times as much in repair and the cost of replacing lost customers as a result of churn as best in class cable. Obviously, this is a real problem. We only know of one IPTV operator in North America that claims to be break even on an EBITDA basis.

MCN: Do these higher costs relate to the fact that the telcos are relatively inexperienced with video or does the problem have to do with the complexity of IPTV networks?

CH: I would say a great deal is related to the complexity of these networks.

If you just take home networks, we have seen problems caused by everything from elevators to treadmills to doorbells. If you are trying to find a problem like that remotely it is very difficult because they will often be transient problems. They appear for a while and then they disappear. Or they appear but only on certain channels or only on high definition channels.

And, when a consumer complains about them, they won't be giving you a proper technical description of the problem. That makes it very difficult for telcos that try to decode those complaints and look for patterns. It becomes a case of garbage in, garbage out. If the customer gives you a very ambiguous picture, then you get a very ambiguous analysis of what causes the problem.

MCN: How important has HD become for telcos?

CH: All the telcos we have worked with want to get there. The question is, how and at what price tag? We've seen operators who have implemented HD and enjoyed a more than 20% improvement in their penetration within 12 months of making the upgrade. We've worked with a few mid-sized operators in that transition [who have] also seen that HD has been very critical in terms of reducing churn.

Cable and satellite have really set a high bar here for the rollout of HD and for the telcos, HD is now table stakes. You need to get at least 25% to 30% market share to have a reasonable hope of a payback on IPTV and we don't believe you can get there without high definition any more.

And we think this is a sweet spot for us as a company. We have a lot of experience using our tools to help operators make that transition and we have customers who say that we've shaved four months off the transition.

MCN: How important is it for telcos to be able to enhance the HD experience with newer features like whole-home digital video recorders or interactivity?

CH: We are finding that the whole-home DVR is one of the things that the operators see as a big benefit of moving to Microsoft Mediaroom.

Beyond that, we think that the whole justification for doing IP video is about the potential of interactive services. We've seen that interactive services can be a surprising impact on churn, with as much as three-fourths of a percentage point improvement in churn associated with adding interactive services on top of broadcast and VOD.