

TRANSCRIPT:

FINDING SOURCES OF INGRESS IN YOUR DOCSIS RETURN PATH

INTERMITTENT MODEMS' REPORT

[intro music]

Hi. I'm Rick.

Ingress is an ongoing battle for cable operators.

One big challenge is trying to figure out where the noise is coming in.

One thing that we do know is that over 80% of the noise that comes in on the return path comes in at the customer home or at the drop.

It could be something as simple as a loose connector.

ZCorum's PreEqualization Analyzer has a feature in it called the Intermittent Modem Report that will show you which modems are potentials for ingress and which ones are likely leaking in large amounts of noise.

Here's how it works.

The Intermittent Modem Report works by first identifying which modems are seeing large variations in their upstream transmit power.

That's represented by this Standard Deviation column,

The higher the number, the more the upstream power is varying from one polling cycle to the next.

There shouldn't be much variation in transmit power unless there's something wrong, like a loose connector, so this is already valuable information.

The next thing I want to look at is this correlation column.

This correlation is different from a correlation group.

That's where we're correlating nearby modems that have a similar in-channel frequency response.

In this case, we're looking for a correlation between transmit power, and the modem's pre-eq data for MTR.

MTR stands for Main Tap Ratio, and it's the ratio of energy in the main digital tap in the pre-eq data to all other digital taps combined.

If transmit power and MTR correlate to some extent, that means that the modem is likely seeing large amounts of ingress. The row would be red, and you'll see a "Yes" in this correlation column.

I can drill in by clicking one of these chart icons to plot those two variables.

Here, we're looking at how the transmit power and MTR have been varying over time, and if they are varying at the same time in similar magnitudes, we have a correlation.

You can see pretty clearly in this chart that their movements seem to be correlated.

Sometimes, it's less obvious so this green line points out times when the application has identified a correlation.

I'll close this chart, and I'll click on this one that says "No Correlation."

Here, I can see some movement, but recently, the movements have been pretty flat, so no correlation is shown.

You can print or export the report right here, so you can start to tackle the worst issues first.

It's a great way to reduce noise in your upstream plant.

As you can see, this is a powerful tool to help you prioritize which in-home or near-home issues to address in order to reduce the amount of noise on your plant.

And of course there's a lot of features in PreEqualization Analyzer that can help you improve the health of your plant.

For more information or to sign up for a live demo, give us a call at 800-909-9441 or go to www.PreEqualizationAnalyzer.com.



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