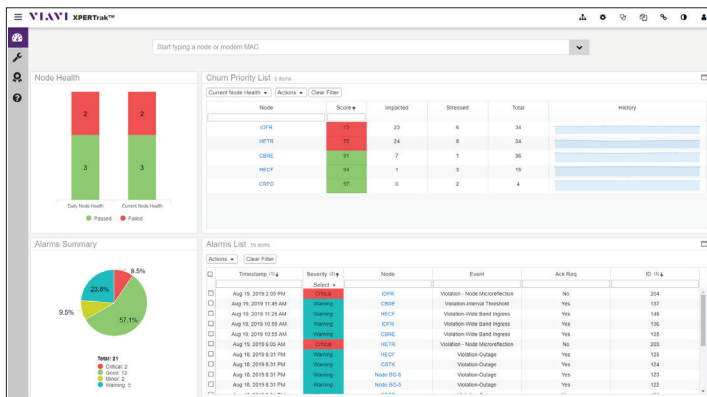VIAVI Solutions

VIAVI XPERTrak

Resolve Problems That Matter Most

There are many systems available today to turn dashboard indicators red, but only XPERTrak™ also gives you the insight and tools to help you turn them green. Spot at-risk subscribers before they churn and address the root cause issues quickly with integrated find and fix tools including plant leakage and field meter interaction. Virtualized system simplifies transition to new HFC technologies like DOCSIS 3.1 and DAA/Remote PHY and enables continuity of critical HFC maintenance capabilities.

XPERTrak is the next step in industry-leading systems from VIAVI designed with an enhanced focus on at-risk subscribers. XPERTrak correlates data from deployed network elements and optional VIAVI leakage systems and PathTrak hardware to assemble a QoE-based view of HFC plant performance. Designed with emerging technologies such as Remote PHY in mind, virtualization support is at the core of XPERTrak. Regardless of the underlying plant architecture or service provision equipment vendor in use, XPERTrak is the neutral solution to allow consistent service level measurement and superior find and fix capabilities across your entire footprint today and into the future.
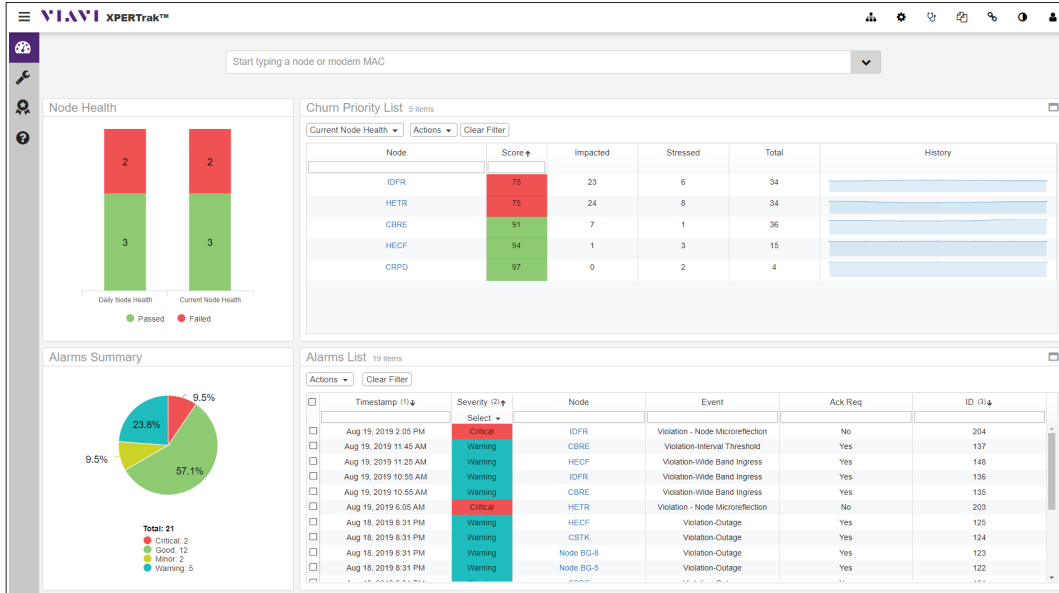

Key Benefits

- Fix what matters most by focusing on at-risk subscribers
- Know where to go and what to do to fix identified issues before customers churn
- Reduce MTTR and OPEX by optimizing every truck roll
- Reduce customer calls
- Defer nodes splits by maximizing bandwidth from existing plant
- Provides seamless transition to Remote PHY with vendor/architecture-neutral approach

Key Features

- Comprehensive DOCSIS 3.1 support
- Maintenance prioritization based on churn risk
- Service assurance and field find and fix capabilities in a single solution
- Fully supports PathTrak hardware and network element integration including R-PHY sweep
- Integrated PNM solution to illuminate HFC upstream, downstream, and home issues
- Consistent system-wide network performance assessment, vendor neutral
- Seamless integration of PathTrak HW, PNM, QoE, Leakage, and field meter interaction
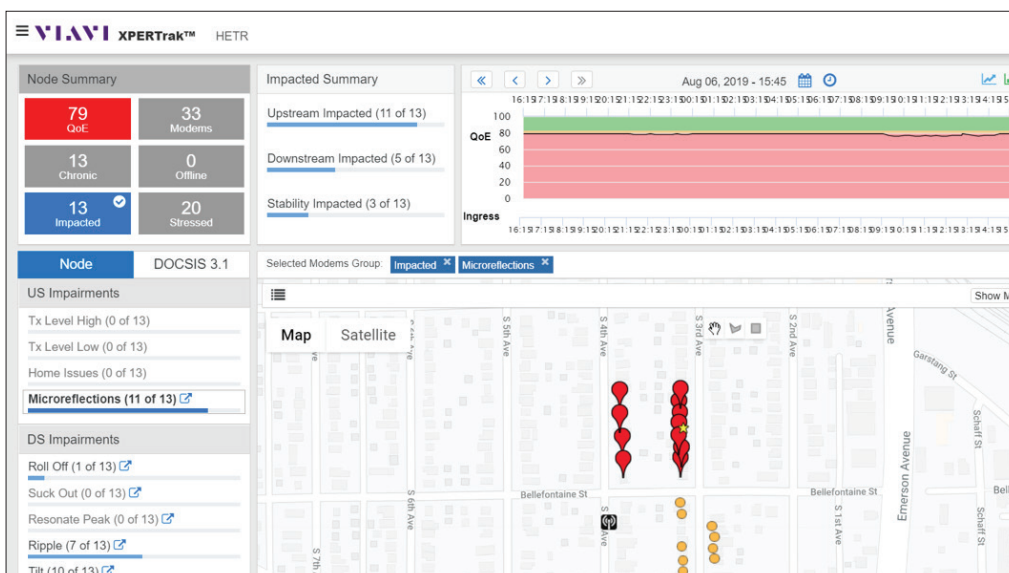
Identify Impaired Nodes and At-Risk Subscribers

The XPERTrak Service Dashboard provides visibility into the worst performing nodes in an operator's system using adjustable QoE metrics. Node-level roll-ups are presented with drill-down granularity to per-subscriber QoE metrics. Trending displays are available to quickly identify chronic offenders vs. one-time occurrences, and alarm status is displayed to flag nodes where immediate action is warranted. Now service issues can be identified before subscribers call and repairs prioritized based on service impact.

Correlate Customer Issues to Impairments

Beyond just pointing out the worst nodes, XPERTrak correlates impacted subscribers with detected plant impairments to pinpoint which specific issues to address to maximize customer QoE improvement and reduce churn. VIAVI draws on decades of experience to define appropriate impairment correlations and corresponding corrective actions. This allows sending the right person at the right time to fix the issue versus requiring extensive field diagnostics. By making QoE metrics readily available to field technicians on the tools that they commonly use they can confirm that any fixes applied truly addressed customer impact, not just improved physical layer symptoms.

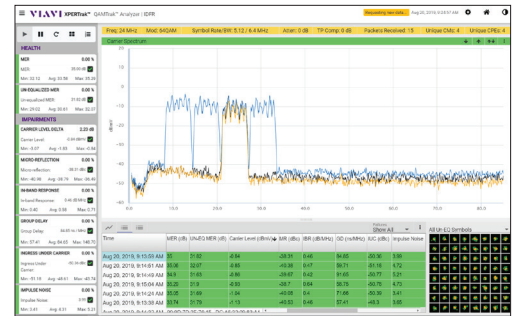## Ensure Consistency of Test Through DAA/R-PHY Transition

Distributed access architectures (DAA) such as Remote PHY are disruptive to HFC monitoring and maintenance practices. Most MSO's plan to implement more than one type of DAA and use multiple vendors, and it will be challenging to develop standard processes to monitor and maintain networks with this highly heterogeneous mix during the typical 5+ year transition period. XPERTrak provides continuity of test for upstream capabilities including live spectrum and QAM analysis, monitoring/alarming, performance history, and sweep using the same field meters and processes used for legacy nodes. Technicians using PathTrak to maintain and troubleshoot traditional nodes today can seamlessly transition to the DAA equivalents in XPERTrak with no learning curve or process changes.
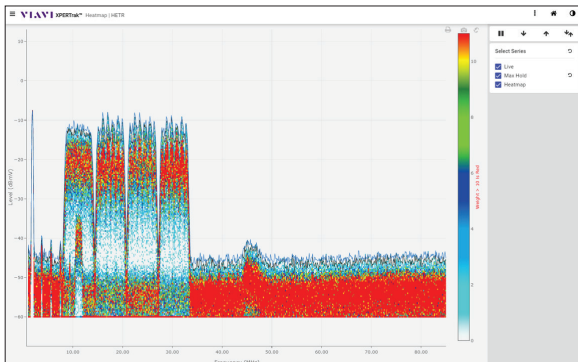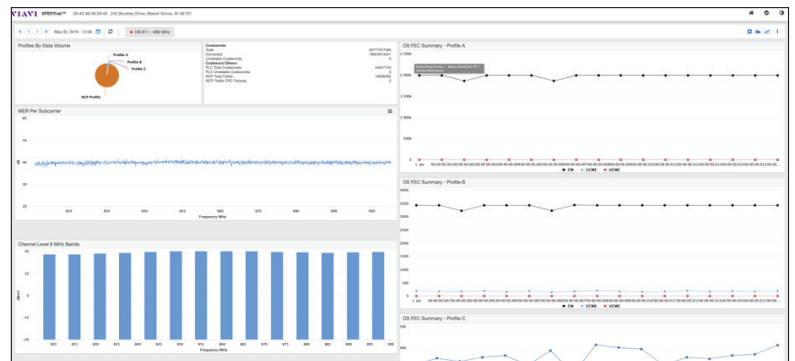

ONX-Based Return Sweep

Enhanced Virtual Spectrum

Virtual QAMTrak

Complete DOCSIS 3.1 Monitoring and Troubleshooting Visibility

DOCSIS 3.1 provides significant enhancements to plant health visibility, and XPERTrak is the first solution available to take full advantage of these. DOCSIS 3.1 metrics are interwoven into existing XPERTrak QoE monitoring algorithms enabling most accurate identification of issues creating the greatest churn risk in an operators network. Summary views give a quick picture of network health based on OFDM profile distributions to drive proactive actions, and an optional DOCSIS 3.1 Analyzer is available for on-demand troubleshooting of per-modem issues. PathTrak hardware is leveraged to provide heatmap spectral analysis, addressing the challenge that wider OFDM-A carriers create in the common task of ingress remediation. Only XPERTrak provides the full set of capabilities needed to effectively monitor, maintain, and troubleshoot DOCSIS 3.1 networks.
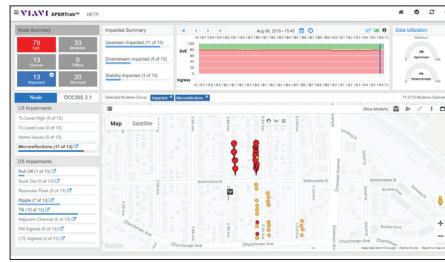

Heatmap Spectrum Analysis

DOCSIS 3.1 Analyzer

Fully Supports PathTrak Hardware, Integrates VIAVI Leakage Data

XPERTrak fully supports your deployed base of PathTrak hardware. It can do everything that previous PathTrak server versions could but adds a new streamlined workflow to quickly root-cause issues and verify fixes. XPERTrak also integrates VIAVI Leakage data to simplify correlation of PNM findings with detected plant leaks.

Vendor-Neutral Solution

XPERTrak works equally well with data from all network equipment vendors—it is not a proprietary system tied to any single CPE, CMTS, or DAA vendor. Deploying a solution from an independent T&M vendor maximizes test and measurement coverage regardless of DAA vendor choices and reduces risk in second-sourcing network equipment—don't get locked into gear from a specific NEM based on T&M system chosen. See supported partners at the VIAVI DAA Test-Ready site.

VIAVI Collaborates

As a long-time contributing member to SCTE and CableLabs groups including the CableLabs PNM Working Group, VIAVI has access to the latest innovations from industry experts to augment our own IP. VIAVI is collaborating with all leading DAA vendors to enable capabilities like standards-based upstream R-PHY spectrum analysis and return sweep leveraging our deployed field meters and leakage tagger functionality. CPE chipset vendor collaboration enabled VIAVI to be first to market with a DOCSIS 3.1 service meters and embedded CPE test clients. VIAVI has strong subject matter expertise as evidenced by annual selection for speaking slots at leading Cable trade shows, and we continue to work with industry leaders to advance the HFC as the dominant broadband service delivery network for years to come.

Accelerate Your ROI

VIAVI offers a complete line of professional services to ensure that your XPERTrak deployment is successful. Quickly turn up your system while minimizing internal resource loading with installation and commissioning services. VIAVI Operational Assistants augment your system administrator and ensure that your system is available when your staff needs it most. XPERTrak Mentors are seasoned HFC veterans who can quickly move your staff beyond basic use cases to those which add maximum value to your specific organization. Specialized consultation is available on a per-day or SoW basis to address any needs that you may have.

VIAVI Solutions

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