Marvell® RELIANT™ Interconnect Telemetry Platform

End-to-end telemetry, analytics and intelligence platform
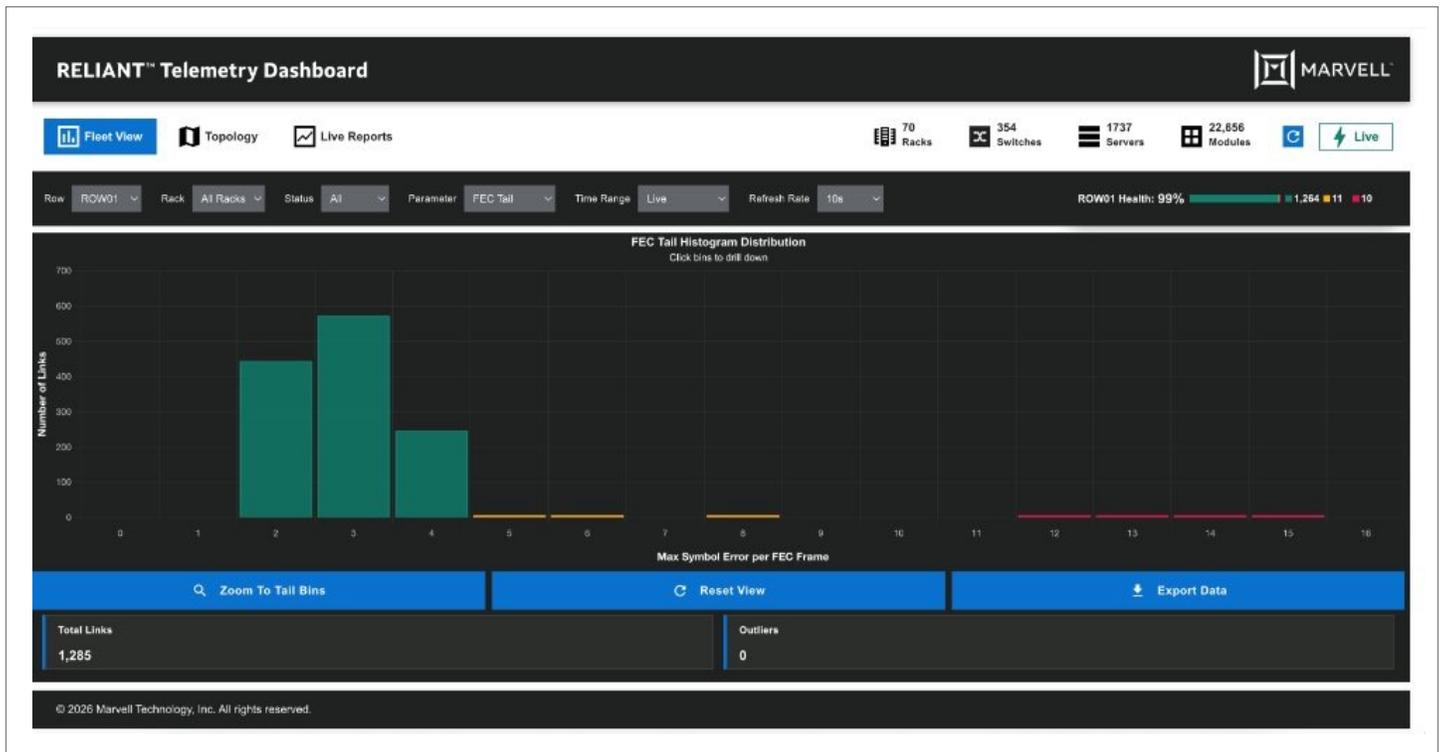
Overview

The Marvell® RELIANT™ platform is an end-to-end telemetry, analytics, and intelligence platform designed to provide **real-time visibility, predictive insight, and automated optimization** across the Marvell connectivity portfolio. It unifies data from optical, electrical, switching, and server-side components to deliver a comprehensive view of link health and system behavior.

The Marvell RELIANT interconnect telemetry platform transforms raw telemetry into actionable intelligence for Marvell and Marvell ecosystem optical, electrical, and switching components. By combining device-level data, fleet-scale analytics, and modern visualization, the RELIANT platform empowers data center operators with deeper insight, earlier warnings, and automated optimization paths. The result is a more reliable, more predictable, and more intelligent connectivity environment.
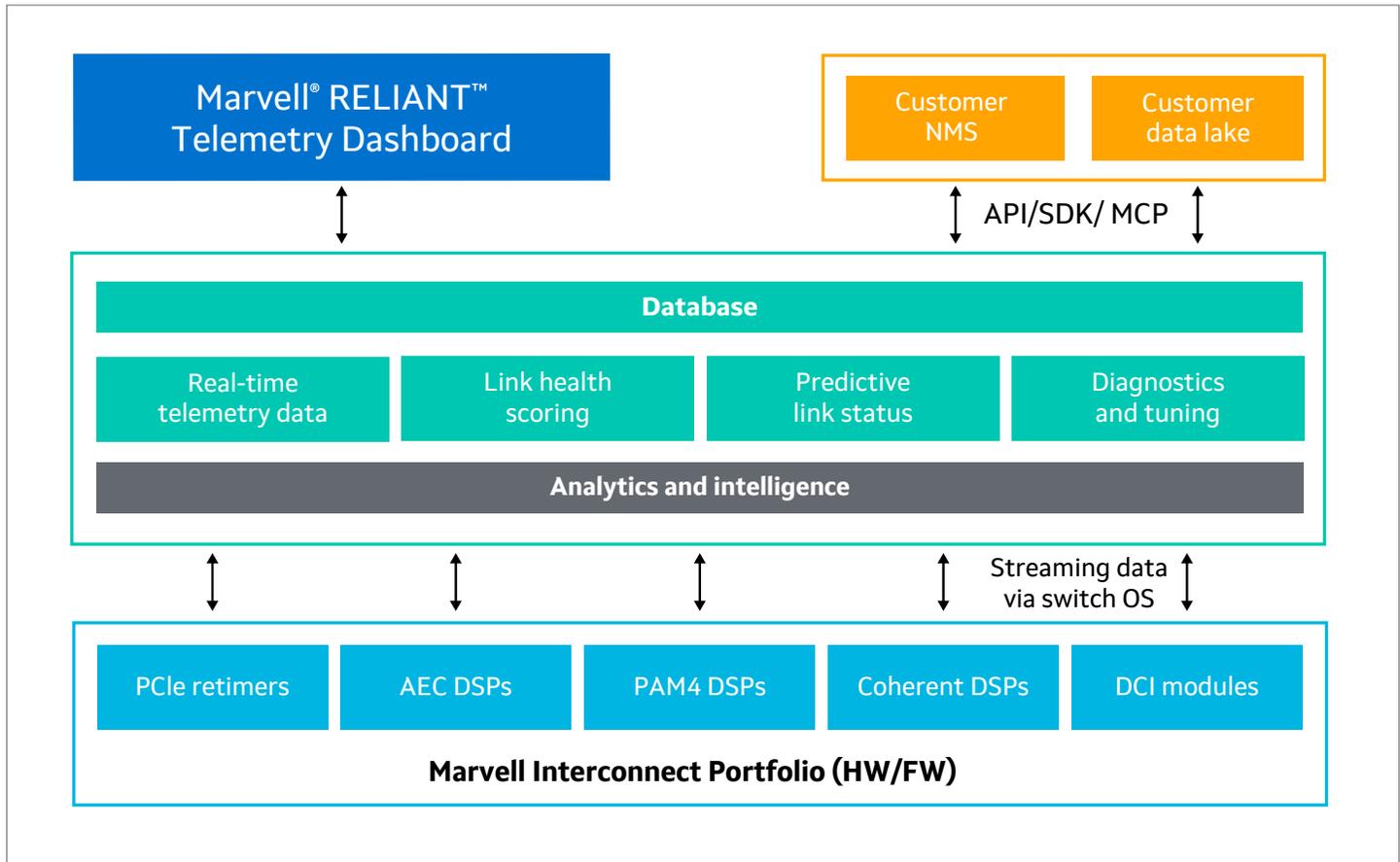
The RELIANT telemetry platform features:

- **Real-time link monitoring** for early issue detection
- **Predictive link status analytics** to prevent downtime
- **Automated diagnostics and tuning** to optimize system performance
- **Unified system visibility** across optics, DSPs, switch silicon, PCIe retimers, NICs, and modules
- **Scalable data ingestion** for large, distributed deployments
- **API/SDK-based integration** into customer NMS and data lakes

By integrating deep device telemetry with analytics and intelligence, the RELIANT interconnect telemetry platform reduces operational complexity while improving network reliability and performance for hyperscale fleet deployments.

Delivering intelligence for end-to-end connectivity

The RELIANT interconnect telemetry platform collects device-level telemetry, transports it securely, aggregates and analyzes it at scale, and presents insights through a flexible, modern dashboard or through customer APIs/data lakes.

Key Features

Feature	Detail
Telemetry and device coverage	• Collects data from the Marvell connectivity portfolio and ecosystem devices • Optical DSPs – advanced optical channel monitoring • Electrical DSPs – electrical link analytics • PCIe and Ethernet retimers – lane health and diagnostics • IMDD and coherent optical modules – CMIS-based optical telemetry • Active copper and active optical cables – link performance insights • Analog amplifiers, optical engines, CPO – component-level health
System monitoring	• Ethernet switch / MAC telemetry • NIC monitoring where supported
Analytics and intelligence	• Link health scoring • Predictive modeling • Trend analysis and anomaly detection • Real-time and historical dashboards

Target Applications

- **Data center operators** needing correlated optical/electrical link visibility
- **Cloud/AI infrastructure** requiring predictive link analytics
- **OEMs and hyperscalers** integrating telemetry into their NMS
- **Operations teams** seeking automated diagnostics and configuration guidance

MARVELL™

Marvell_RELIANT_Telemetry_PB Revised: 03/26