

## Observability in PON-Based Access Networks: The Power of Insight



In the dynamic landscape of PON-based access networks, traditional network management and service assurance are no longer sufficient to ensure optimal performance and reliability. The advent of observability has revolutionized the way we understand and monitor these complex networks, providing invaluable insights and proactive capabilities. Let's dive deeper into the specific differences between plain network management, service assurance, and observability, and explore how observability is reshaping the industry.

Plain network management focuses on monitoring the network's hardware and infrastructure elements.

Service assurance takes a step further by monitoring and ensuring the quality and availability of services delivered over the network.

Observability is a paradigm shift in network monitoring and management. It embraces a holistic approach that combines telemetry data, rich context, and advanced analytics to provide a comprehensive understanding of the network behaviour & health...

Granularity



**Contextual Awareness** 

Observability offers fine-grained visibility into every layer of the PON network, from physical elements to service flows, enabling operators to pinpoint and troubleshoot issues with precision

Observability provides deep contextual understanding by correlating data from diverse sources, such as OSS-BSS systems, telemetry, and configuration repositories. This enables operators to identify patterns, root causes, and performance bottlenecks



**Proactive Insights** 



By leveraging advanced data science techniques, observability enables proactive anomaly detection, trend analysis, and predictive maintenance. It empowers operators to anticipate and mitigate issues before they impact the network's performance.

Observability seamlessly integrates with existing network management systems and ticketing platforms, fostering collaboration among different teams. It enables efficient information sharing, streamlines incident resolution, and enhances efficiency.

As FTTX access networks continue to evolve, embracing observability is essential for staying ahead in the game. With its deep insights, proactive capabilities, and contextual awareness, observability empowers network operators to optimize performance, enhance reliability, and deliver exceptional user experiences. Are you ready to make the next step and fill the gap that traditional network management and service assurance leave? We at QDXray are excited to make this journey together with you!

80+ years of collective experience in Telecom and software engineering ready to support with a data-driven approach to network operations, improvement processes, network modelling and planning.



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