Enhance your SD WAN experience with LatenceTech AI

SD-WAN technology is growing in popularity as it addresses the challenges of modern network environments by providing optimized connectivity, simplified and centralized management and network policies, and increased agility. To help accelerate SD-WAN market adoption, the Metro Ethernet Forum (MEF) has published the industry's first global standard.

The MEF 105 standard identifies a set of metrics and the need for real-time network performance monitoring metrics, traditionally collected every ten minutes. Real-time data is required to predict network behavior using AI and guarantee the best user experience. LatenceTech has introduced a solution, compliant with MEF 105, to implement real-time monitoring and obtain performance prediction in a simple and cost-effective way.

SD-WAN Introduction

SD-WAN technology has been around for an adoption around 2014, the rapidly increase of popularity attributed to cloud computing and remote work combined with easy to manage and optimize network connections across various locations.

To help accelerate SD-WAN market adoption and creation of powerful, new hybrid networking solutions optimized for digital transformation, MEF published the industry's first global standard defining an SD-WAN service and its service attributes—MEF 70. Later an updated version, MEF 70.1, has been issued to include new service attributes for underlay connectivity services, new measurable performance metrics that provide visibility into an application's performance within the provider network and across multiple service providers, and the infrastructure to support application-based security.

Real time observability to enable best in class service

To provide a consistent method for both Service Providers and Subscribers to monitor and report on the performance of the service and provides a way to measure the performance of different aspects of the SD-WAN service, which can be used to make forwarding decisions, MEF came up with another standard MEF 105 in April 2024.

Such specification, among other things, focus on measuring *Performance of Application Flows (AF)* metrics like:

- One-way Mean Packet Delay,
- One-way Mean Inter-Packet Delay Variation,
- One-way Packet Loss Ratio
- Measured Rate of Egress/Ingress Flows.

AF metrics help assess the quality of service for different types of application traffic.

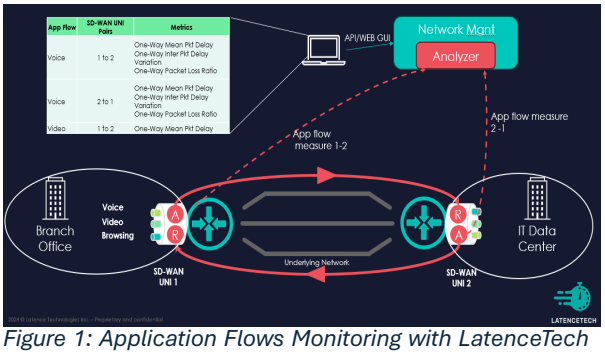


Figure 1: Application Flows Monitoring with LatenceTech solution

- *Performance of Tunnel Virtual Connections (TVCs):* TVCs are monitored using the same metrics as Application Flows.

Monitoring TVC performance helps ensure the underlying connections between SD-WAN Edges are performing as expected.

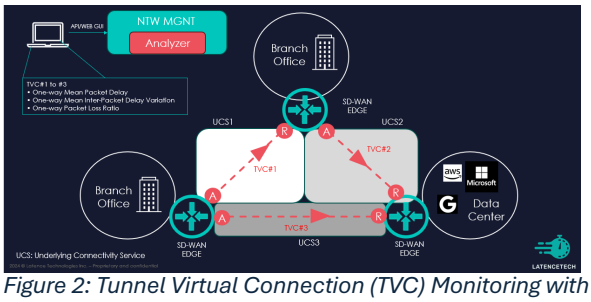


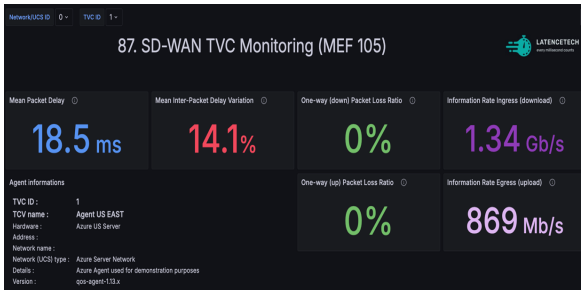
Figure 2: Tunnel Virtual Connection (TVC) Monitoring with LatenceTech solution

MEF recognize also the need to have real time metrics, 10 seconds or less, to:

- ***enable informed forwarding decisions***
- ***detect service degradations***
- ***ability to receive preventive alarms***

Real-time visibility of key metrics

Below is one of many real-time dashboards available to view quality of service metrics



AI as superpower to make predictive decision based on meaningful measurement

Measuring real time metrics and making decision as identified by MEF is not enough.

A future proof technology shall have AI in his DNA to make predictive decision on forwarding actions to select another TVC for example.

The real-time analytical aspect of finding the most optimal data path (e.g. by switching TCV) involves a large amount of real-time data and computation which calls for latest approach in Machine Learning technique.

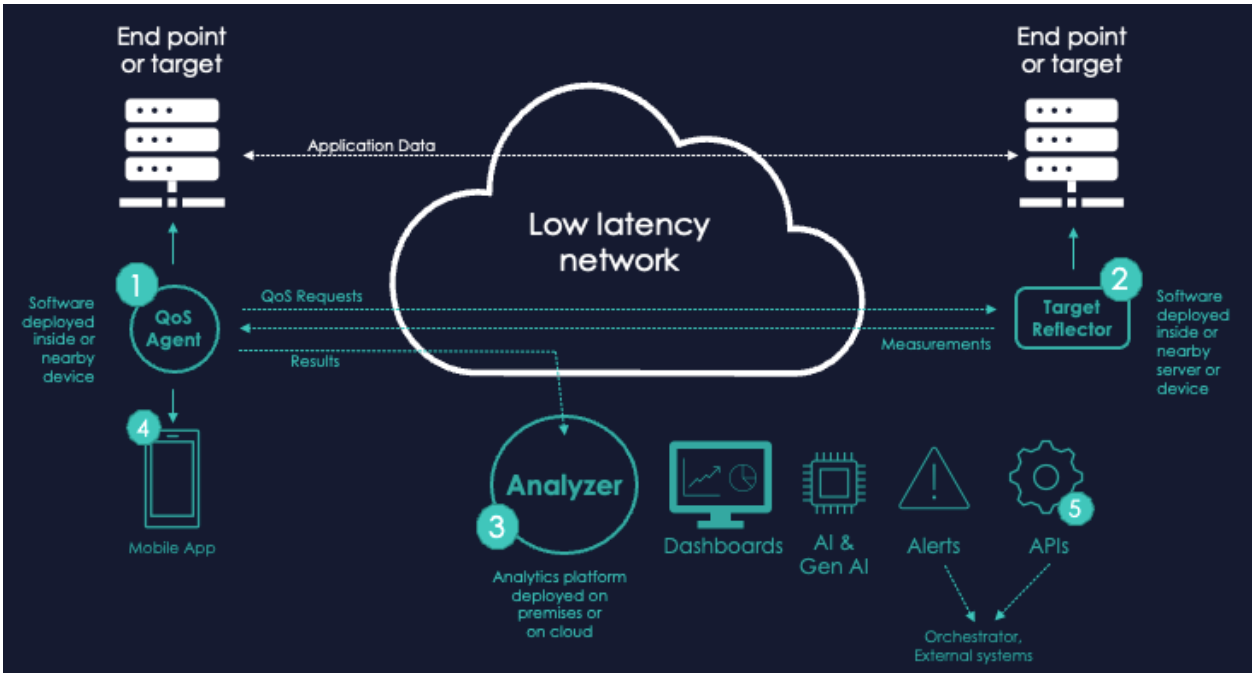
Why LatenceTech?

Measuring real time meaningful metrics is the essence of Latencetech solution. **The simplicity** (plug and play solution software only), **support for multiple access technologies** (5G, Satellite, Fiber/FTTH), **vendor agnosticity** (installable in any device or host supporting containers), **ability to detect anomalies and predict network degradations** using AI/ML makes Latencetech a perfect partner to enable real time observability and make super powerful decision in any SD-WAN solutions.

The solution can be deployed onto the SD-WAN network and endpoints to perform monitoring, anomaly detection, prediction of quality/latency in the near future, manage SLAs and provide diagnostics and insights to resolve issues and perform continuous connectivity improvements supporting the most demanding applications. Our solution can complement or replace existing traditional service assurance product providing higher flexibility, AI analytics at a lower cost.

LatenceTech solution overview

Our container-based solution is composed of three software components that can be quickly and easily deployed to fit your specific monitoring needs. A **QoS Agent** (1), performing end-to-end active measurements using multiple network and IP protocols; A **Reflector** (2), acting as the target for the path to be monitored and the **Analyzer** (3) a real-time AI data analytics platform running diagnostics, predictions and providing end-to-end observability of network quality metrics (latency, throughput, reliability) using visual dashboards, **open APIs** (5), threshold alerting, diagnostics and recommendations to understand and resolve issues. A mobile app (4) can be deployed as an agent.



Contact us for more details or for a live demo.

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