



End-to-end Network Performance Measurement for Enterprise and Colocation Data Center

Network Master Pro

Network Master Pro

Virtual Network Master for AWS*

MT1000A

MT1040A

MX109030PC

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95% of all customer data, daily operations, applications and processing is housed and transported through an enterprise cloud. IT management teams face significant and costly impacts to network availability when connectivity outage occur. Loss of data is estimated up to \$100,000 in the first hour of outage, then increases exponentially. One incident can amount to multi-million dollars in large hospital case.

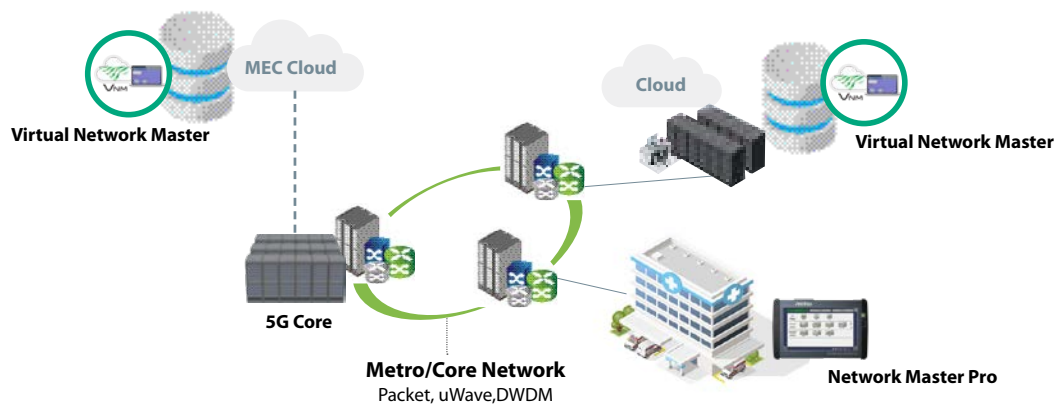


Figure 1: Anritsu Measurement Solutions for Enterprise Data Center interconnect Network

End-to-end IP layer measurements using the Anritsu Network Master Pro and Virtual Network Master for AWS provide numerous advantages to enterprises by ensuring reliable, efficient, and scalable network infrastructure to support digitalized applications. Here's how these tools benefit enterprise applications.

Key Benefits

Performance Visibility

Enterprise IT professionals gain a complete view of the network Key Performance Indicators (KPI), using Carrier approved test and measurement equipment.

Faster Fault Identification and Resolution

Early detection of anomalies and Service Level Agreement (SLA) verification reduces downtime and avoids costly service interruptions, improving overall network reliability.

Cost Effectiveness

Remote control, scalable test platforms compatible with your equipment to grow with your network, enabling test and monitoring from any location without requiring on-site point of presence.

Features

Virtual Network Master for AWS

On the cloud where your application server is deployed, a Virtual Network Master for AWS can be deployed. This allows thorough bi-directional point-to-point or point-to-point or point-to-multi point network connection end-to-end latency, packet loss and throughput performance measurement.

Carrier Grade Benchmark Testing

Have the confidence in your network performance and troubleshooting results, with Carrier grade, Carrier approved Anritsu's test solutions providing ITU-T and IEEE defined KPI benchmark measurements.

Adapting to Your Cloud

The Virtual Network Master for AWS enables user to test from their office using Anritsu's Network Master Pro™ field instruments to through their AWS cloud to verify KPI's, saving significant cost and time.

Why select Virtual Network Master for AWS

Comparing PC tools like iPerf and ping, the test set is designed to minimize uncertainty of the test methodology.

Software based Solutions		iPerf	Ping
Latency Measurement	One Way or Roundtrip w/ Clock sync (NTP, PTP)	One Way (UDP) or Roundtrip (TCP RTT)	Roundtrip only
Traffic Load	Multi-stream, Independent profiles at full line rate, ramping and burst controls	Real IP Traffic Single profile, rate dependent	ICMP, Sparse load, Windows: 1s interval Mac: 100 ms interval
Load Accuracy	Layer 1-3 bit, frame and packet verification for all traffic profiles	CPU load dependent	N/A

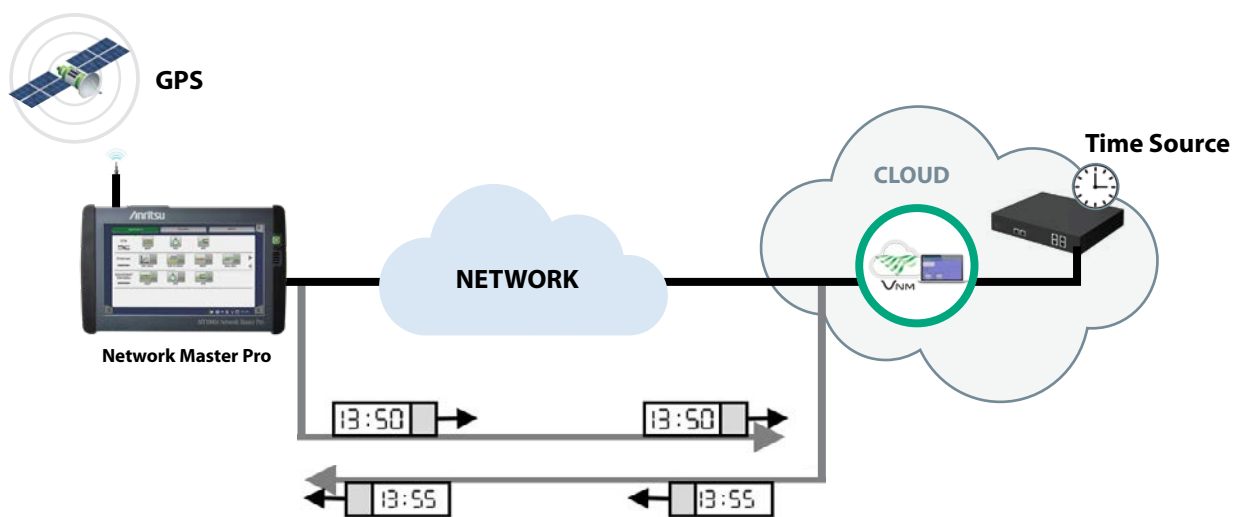


Figure 3: Anritsu End-to-end Network Latency and Synchronization Measurements

Statistical Latency Analysis

Since the latency is measured in every single packet manner, statistical analysis mathematically makes sense. CDF, Cumulative Distribution Function, is a recognized measure of statistical behavior of a network. It gives credence to the system performance of Ultra Reliable Low Latency Communication or URLLC applications.

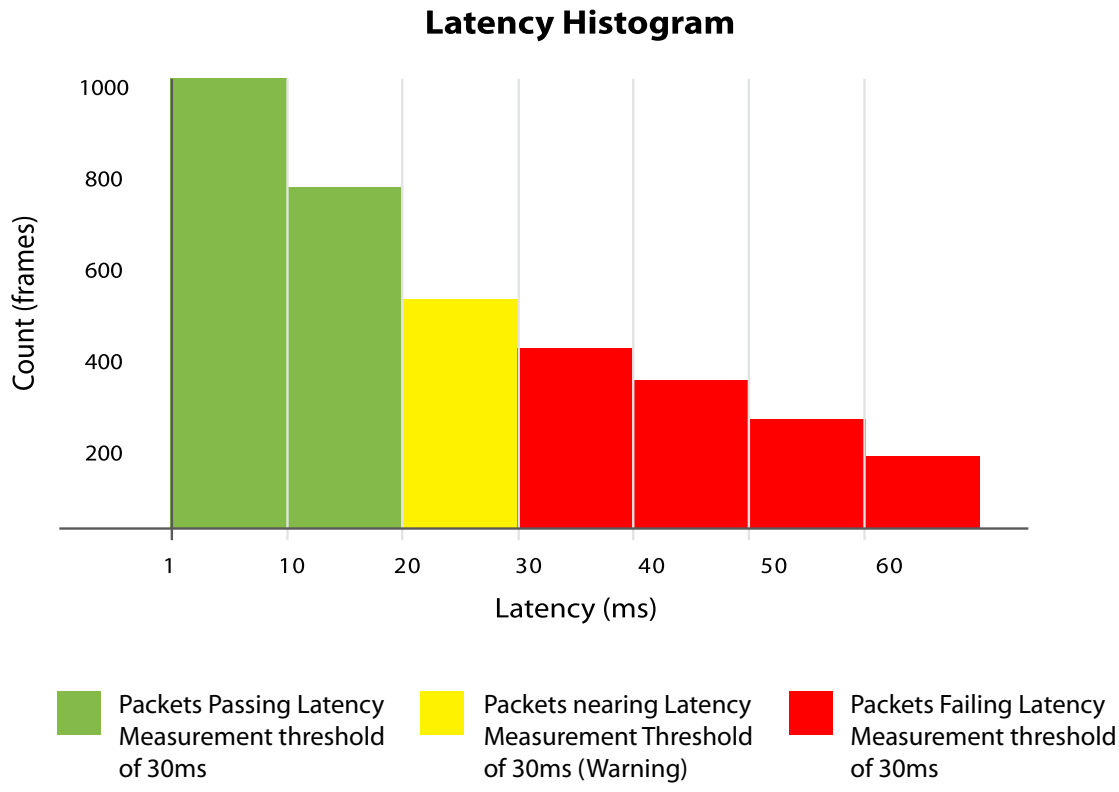


Figure 4: Full Throughput Frame Latency Measurement with SLA thresholds