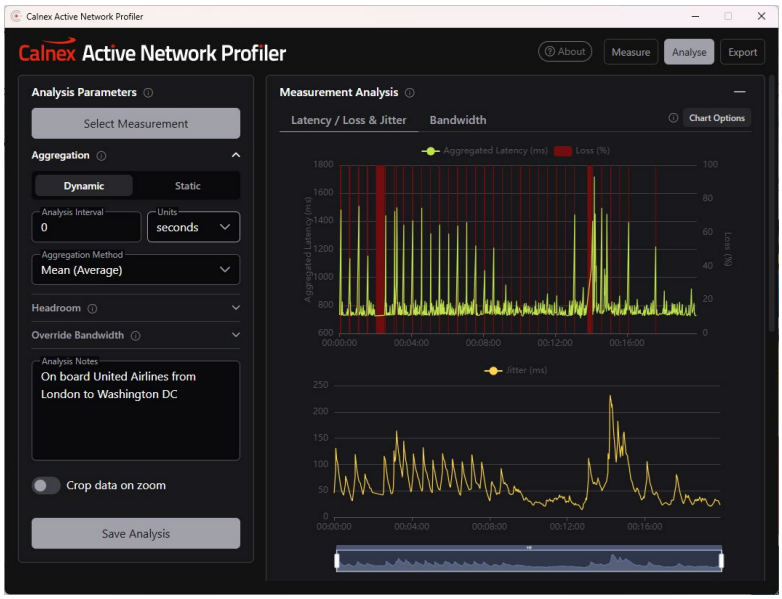


Know your network

Replicate it with confidence



Profile, analyze and recreate static or changing network conditions from a real-world network.

Key Highlights

- Capture real network characteristics including latency, loss, jitter and bandwidth behavior from live environments
- Bring real-world network conditions into the lab for controlled, repeatable testing
- Capture once and analyze many times using different time slices, statistical views and filtering techniques
- Analyze network behavior using averages, percentiles and outlier rejection to reflect true real-world conditions
- Recreate complex, time-varying behavior such as burst loss, delay variation and congestion
- Replay captured network profiles deterministically to reproduce identical test conditions
- Accelerate root cause analysis by replicating real field scenarios in a controlled environment
- Enhance network emulation with real-world data to improve test realism
- Integrate with automated test systems via APIs and orchestration frameworks
- Support modern network architectures including 5G, NTN cloud, internet and hybrid networks

Know your network - Replicate it with confidence

Every test of application or service performance over networks starts with the same question: What are the characteristics of the real network we're modeling? Without a reliable answer, teams guess at Bandwidth, Latency, Jitter, Loss and other parameters — and then find out too late that their applications weren't tested against conditions that actually matter.

Calnex Active Network Profiler closes that gap. It measures the real network your application will run on — latency, jitter, loss and bandwidth — and lets you analyze and convert those measurements into a profile that loads directly into the NE-ONE Enterprise.

A test network built on empirical data, not assumptions.

Every NE-ONE customer asks the same question: 'What network characteristics should I put in?' The Calnex Active Network Profiler answers it — directly, accurately, and in minutes.

What it delivers:

- A real-world measurement of any network — satellite, mobile, cloud, Wi-Fi or WAN
- An analysis engine that turns raw data into clean, realistic emulation profiles
- One-click export that loads directly into the NE-ONE Enterprise — no manual setup

Windows software that works wherever you do, with no additional hardware.



Measure

Point the Calnex Active Network Profiler at any network and get an immediate, accurate picture of how it behaves — without disrupting the traffic alongside it – A good neighbor.

Stop guessing. Start measuring

Profile any network — satellite, cloud, mobile, Wi-Fi or WAN — and get an accurate, real-time picture of how it behaves. Latency, jitter, loss and available bandwidth, captured simultaneously, with minimal impact on the traffic running alongside.

See what's happening as it happens

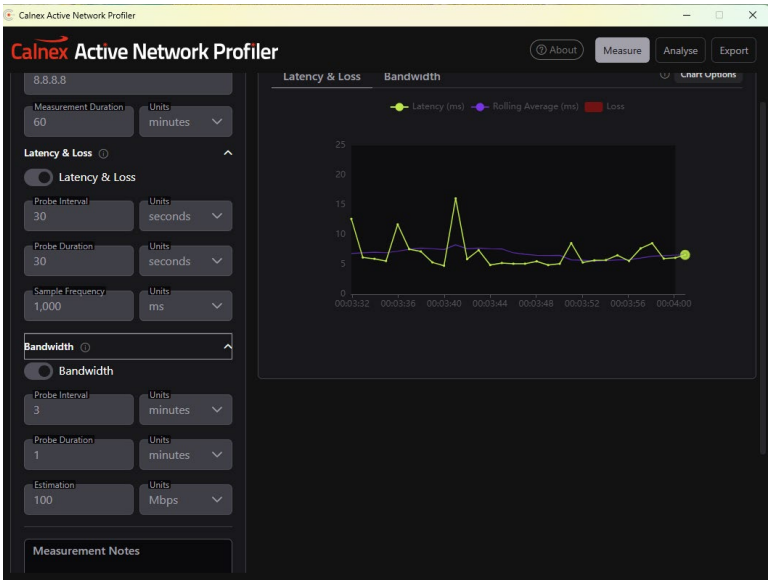
Latency trends, rolling averages, packet loss and bandwidth all update live as the test runs. Keep an eye on the graphs in a mini window while you work, or let the measurement run unattended until complete.

Built for real-world deployment scenarios

From an aircraft on Starlink to a 5G link in a moving vehicle — the profiler works wherever your laptop does. No additional hardware required. Set a target, set a duration, and start.

Flexible, configurable and fully logged

Every measurement is stored with its configuration, timestamps and notes — so your team always knows what was measured, when, and where. Revisit and re-analyze at any time.



Run the profiler at a customer site, on an aircraft, at a remote field location — or anywhere your laptop goes. No additional hardware. No network privileges required beyond a standard connection.

Analyze

Live networks contain noise — spikes, one-off events, anomalies that don't reflect typical behaviour. The Analyze module lets you turn raw measurements into profiles that are realistic, repeatable and ready to load into the NE-ONE Enterprise. Best of all, you can analyze the measured data again and again in different ways.

Choose how your profile is shaped

Dynamic mode preserves genuine variation over time — right for satellite links, mobile connections and congested WANs. Static mode distils the full measurement into a single representative value — right for stable links where consistency matters.

Filter out the noise, keep the reality

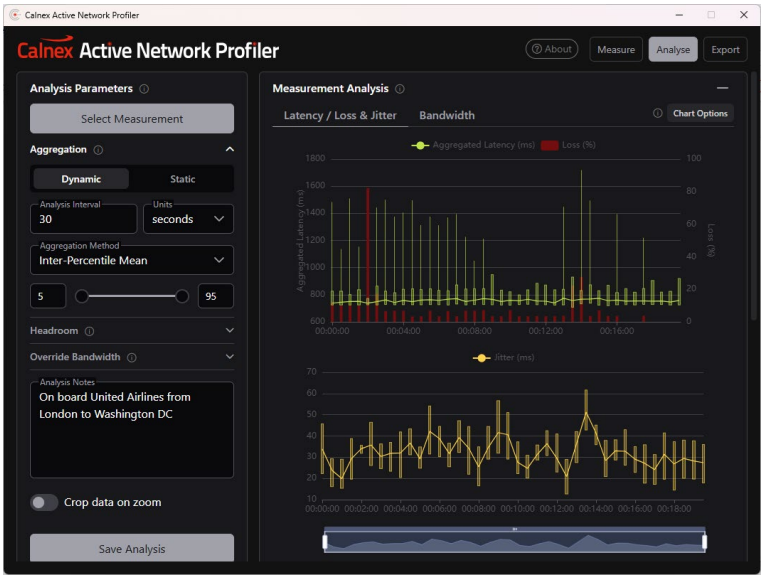
Taking the Mean over several samples smooths the full dataset. Specifying Median filters extreme spikes. Using Inter-Percentile Mean focuses on the typical operating range, ignoring the extremes. Choose the method that matches your test objective.

Build in a safety margin (headroom)

Nudge latency, loss and bandwidth by a percentage before export — ensuring the emulated network is never easier than the real one. Add stress without having to find a real worst-case network.

Focus on the moments that matter

Zoom into any time window — a congestion spike, a handover event, a coverage edge — and analyze just that slice as your profile. No need to re-run the measurement.



The result is a network profile that's realistic enough to be meaningful, and, controlled enough to be repeatable. Test your application against conditions you chose — not just all the conditions that happened to occur during the test.

Export to the NE-ONE Enterprise

Calnex Active Network Profiler is designed to feed the NE-ONE Enterprise. One click generates a link profile file that imports straight into the emulator — no manual setup required.

From field measurement to lab emulation in minutes

Select Analysis > Export > Import. Your team can be testing against real-world conditions within minutes of completing a measurement — whether it's a Starlink link from an aircraft or a 4G connection from a remote site.

Integrity you can rely on

Link profiles are fully encrypted — an exact, unaltered record of what was measured. What goes into the NE-ONE matches what was in the field. No rounding, no reconstruction.

A shared library of real-world conditions

Build a library of real-world conditions — different locations, networks and times of day — and share them across your team. Regression testing, acceptance testing, customer demos: everyone tests against the same reference.

Manage your profile library

A clear library of every saved link profile — name, date, duration, and a statistical summary. Browse, select, export. Delete what you no longer need.

Where It's Being Used

LEO Satellite & Aerospace

Capture how latency and bandwidth shift as satellites pass overhead — from aircraft, vessels or ground stations. Replay those conditions in the lab before applications go airborne.

Cloud & Enterprise WAN

Profile your cloud or WAN connections and build test environments that reflect their actual performance envelope — before your application goes live on them.

Mobile & 5G

Measure real mobile behaviour from moving vehicles, trains and remote sites — including handover events and coverage edge conditions. Turn unpredictable field trial scenarios into repeatable lab tests.

IoT & Connected Devices

Profile the networks real users experience — home broadband, mobile data, public Wi-Fi — and validate device performance against them before deployment.

More reasons to choose Calnex Active Network Profiler

Works on any network, from any location

No additional hardware. No special network access. Install on a Windows laptop, point at any IP or URL, and measure — in a lab, at a customer site, on a flight, a home environment, or in the field.

Safe to run on live networks

Measures available bandwidth with minimal probe traffic — a fraction of what a 'speed testing tool' uses. Safe to run on production networks and customer networks during pre-sales visits, without disrupting live traffic.

NE-ONE Designed for the NE-ONE Enterprise — and for the teams who use it

The profiler completes the missing first step in the NE-ONE workflow — delivering the real-world input data that makes emulation meaningful. Every feature is built around one goal: the right conditions in the emulator, fast.

Professional Services & Support

Software updates, support tickets and product FAQs are all available through the Calnex Support Portal. A library of application notes and test guides is hosted at calnexsol.com/support.

Training

While the product is straightforward to use, instructor-led and self-paced training options are available. These cover installation, configuration and operation of the Calnex Active Network Profiler. Online and on-site courses available.

System Requirements

Requirements	Minimum	Recommended
Operating System	Windows 10 64-bit version 21H2 or above / Windows 11	
Processor	Dual Core Intel/ AMD at 2.8 Hz	4 Core Intel / AMD Ryzen Series 3
Memory	4 GB	8 GB
Storage	5 GB (core software)	10 GB (extra space for data)
Internet Connection	Not required for installation. May be required for measurements.	



Calnex Solutions plc is a leading provider of test instrumentation solutions for network synchronization, monitoring and emulation.

For more information on Calnex's network emulation products, and how they enable network and application assurance, contact Calnex Solutions today:

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