

FINANCE PROBE MICROBURST DETECTION & FLOW ANALYTICS



OVERVIEW

In today's high-speed trading environment, seemingly instantaneous bursts in network traffic known as "microbursts" can wreak havoc if not detected and addressed in real-time. A microburst is a sudden, short-term spike in data transfer over a network, typically lasting 1 to 100 milliseconds. During a microburst event, traffic rates can temporarily exceed an organisation's trade processing capacity. When this infrastructure capacity is surpassed, trade instructions and packets can fail or be dropped entirely.

These fleeting microbursts fly under the radar of traditional network monitoring tools, but their impacts remain a significant threat. Failed and delayed trades can lead to substantial financial losses as well as compliance issues. That's why real-time microburst detection and mitigation is critical for financial services firms. By identifying microburst activity as it emerges, organisations can optimise network capacity, prevent system overload, reduce latency, and avoid losing trades to these disruptive spikes in traffic.

FINANCE PROBE

Telesoft's Finance Probe serves as a high-performance Microburst Detection & Analytics solution, purpose-built for the demands of financial services. Capable of supporting up to 16 X 100Gbps / 4 x 400Gbps of raw network traffic per 2RU appliance, the Finance Probe provides companies with the speed, precision, and intelligence needed to efficiently monitor network performance and plan capacity.

With advanced analytics and nanosecond timestamping, the Finance Probe empowers organisations to optimise infrastructure proactively, reroute problematic users, and uncover the root causes behind network failures. It transforms microburst data into the decision-driving intelligence financial firms need to turn volatility into opportunity.

MICROBURST DETECTION

Finance Probe continuously monitors traffic rates over 1ms intervals to detect microbursts as they occur in real-time. When user-defined throughput or packet rate thresholds are exceeded, alerts are generated to enable immediate traffic optimisation and overload prevention. Multiple associated alerts can be aggregated to prevent fatigue.

Thresholds are fully customisable per network link to fit infrastructure needs. Set lower thresholds for early notification of potential microbursts and configure higher thresholds for links with greater capacity. Alert severity indicates the extent to which a defined threshold has been surpassed.

With real-time high-resolution monitoring, configurable intelligent alerting, and microsecond-level detection, the Finance Probe provides the speed and accuracy essential for rapid microburst mitigation.



FLOW ANALYTICS

Finance Probe goes beyond basic microburst detection to provide actionable intelligence. When a microburst is identified, comprehensive flow analytics relating to the event are captured, including the specific hosts driving the spike in activity. With this level of visibility, capacity can be redistributed on the fly to reroute specific users. Utilising flow analytics and nanosecond timestamping, users can correlate microburst events with resulting packet loss to uncover the root cause of network failures.

Finance Probe delivers the capabilities essential for gaining control over fleeting microbursts and harnessing the power of network data.



KEY BENEFITS

1.6Tbps Unsampled Traffic Monitoring

Monitor up to 1.6Tbps of line-rate traffic within 2RU appliance

Receive Actionable Intelligence

Improve capacity planning with flow analytics on microburst events

Implement User-Defined Microburst Thresholds

Configure and fine-tune thresholds by throughput or packet rate monitored per 1ms interval

Receive Alerts on Anomalous Activity

Be alerted to microburst events in real time with nano-second accuracy

Correlate Microburst & Packet Loss Events

Increase root cause analysis accuracy by correlating microburst and packet loss events

1ms Burst Detection on 100GbE / 400GbE Links

Market-leading microburst analysis over high-density network links

SOLUTION ARCHITECTURE







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