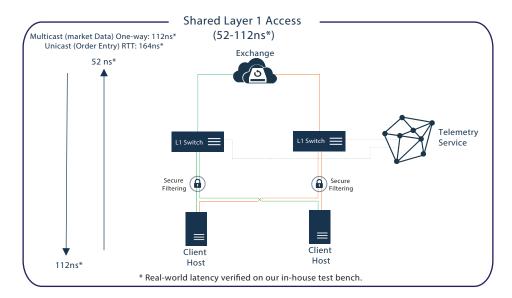
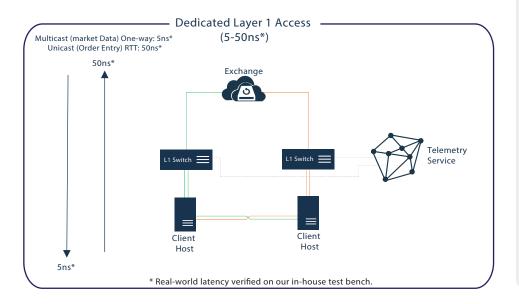
Options One Hop ULL Solution **Shared and Dedicated**



As industry experts we conduct extensive, low-level independent testing providing detailed insight into Layer 1 technology. In turn, we leverage our knowledge to deliver highly optimised ULL Layer 1 solutions for our clients, that provide every possible competitive edge.





KEY BENEFITS



Ultra precise telemetry



Verified secure shared



ULL Layer 1 connectivity to exchanges utilising a one hop architecture



Shared or dedicated infrastructure providing flexibility of deployment



Fully engineered and optimised design ensuring lowest latency profile (proven on our test bench)

ABOUT OPTIONS



Options is a global leader in financial technology, specialising in Capital Markets technology and enterprise-grade solutions. With a presence in key financial hubs, including New York, London, Chicago, Tokyo, Hong Kong, Singapore, Toronto, Paris, Belfast, Cambridge, and Auckland, we provide mission-critical services to clients worldwide. At Options, we excel in the hottest trends in global tech, offering high-performance Networking, Cloud, Security, Modern Desktop, AI (Artificial Intelligence), and Market Data solutions

SPEAK TO OUR SPECIALISTS TODAY: SALES@OPTIONS-IT.COM

Scale Operations into New Markets

We not only provide access to all key Liquidity venues globally, we're also expanding into new markets based on client demand. Rather than purchasing a whole rack, Options provide the option of utilising a shared rack, shared/dedicated Layer 1 technology, and market connectivity to get you up and running.



Our Expertise

Cost Reduction

Utilising our Shared Laver 1 solution, you won't incur hefty opex costs due to utilising ports on the shared switch rather than having to purchase an entire appliance.



DR Solution

Options provides a like for like DR environment which utilises different lines and racks to where you are currently trading.

options

RISTA

Gain market leading insight, through low level independent testing



As a global MSP, we're trusted to provide vendor and technology agnostic solutions to our clients, whereby we understand all technology options on the market. Through extensive independent low-level testing we're able to be experts in the field and provide highly optimised low latency solutions for our clients; providing every possible competitive edge.

Testbench in detail



Test Scheduling Iterating tests for signal replication, signal multiplexing, signal filtering and bi-directional flows using an IMIX of packets.

Hardware Timestamp Extraction Iterating tests for signal replication, signal Multiplexing, signal filtering and bi-directional flows using an IMIX of packets.

Configuration Iterations Testing the device in all potential configurations that may be required by a design.

> Post Processing Resulting Data Sorting and storing of all data and results in a format that is easily readable.

Leverage Results to Provide Insight Invaluable insight that can be leveraged to build better solution.

Discover Configuration Nuances Highlight unexpected results and quirks that aren't published elsewhere.

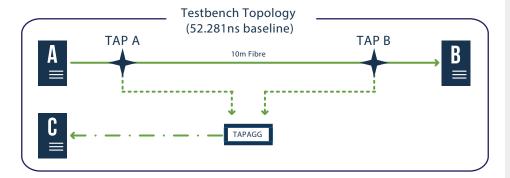
► Real-World Latency End-to-End Stack used in testing is fully representative of real-world latency.

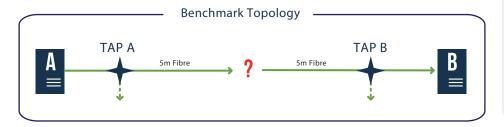
Crosspoint and Port Proximity Monitoring as standard for port-to-port latency



Baseline Testing

The testbench objective was to be able to accurately measure the latency profile of any given network component down to the picosecond. Once built it gave us the ability to accurately measure latencies in real world scenarios and discover the quirks that lead to an optimal setup.





TESTING ACCURACY



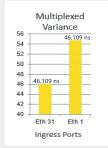
Testing with an IMIX of packets and ensuring picosecond accuracy against a proven baseline, meant it was possible to catch subtle variances. Shown beneath is an example of variance seen across two types of test.

Testbench Results Summary

To Client	5.077 ns
To Exchange	50.593 ns
To Client (Filtered)	138.159 ns*
To Exchange (Filtered)	139.194 ns*

*Results shown without inhibit delay enabled





KEY DRIVERS



Detailed low-level understanding of all product offerings



Discover undocumented nuances and features in the lab



Independently verify latency profiles



Use known testbench with proven baseline and timestamping



Understand how best to optimise L1 solutions for lowest latency



Test interactions as part of complete solution