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A DATACOM SYSTEMS CASE STUDY

Major Stock Exchange Leverages 10G Tool Investment

Provides visibility into hundreds of links with minimal number of network analysis tools.

SINGLEstream™ from Datacom systems allows diagnosis and resolution of connectivity and performance issues for clients that purchase market data feeds. It has generated an internal revenue stream for the Exchange.

Maximizing Performance

This stock exchange is a major US-based firm with global operations and data centers that host their own trading floor applications.

In recent years the business model has expanded to include co-location services for major investment banks and securities trading firms who use the services of the exchange. Clients pay ongoing contract fees to receive low latency high speed connections for market data feeds and trading applications - crucial for maintaining a competitive edge in today's increasingly automated trading environment.

The tangible dollar value losses associated with slow performance or loss of connectivity dictate that any data access and capture solution which is deployed must reduce MTTR (Mean Time To Resolution) to an absolute minimum.

Challenge: The Cost of High Performance 10G Monitoring Tools

The premier 10G packet capture and analysis tools used in enterprise data networks start at \$125,000 per probe - and up. Deploying eight 10G tools means a capital investment of over \$1,000,000 - not including costs for software renewals, maintenance etc. In a data center with hundreds of 10G links that need complete network analysis visibility in an instant, a solution is required that can leverage the investment in tools and allow them to be used selectively on multiple points of interest. Tool access must be available as needed and where needed, with an intuitive remote interface that allows engineers to quickly and easily gather data to resolve issues.

Solution: SINGLEstream™ SS-2212-10G

The challenges faced by a market exchange require link tapping and directed output to analysis tools, in minimal rack space. The SS-2212-10G family of products was designed by Datacom Systems to meet these specific requirements.

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SINGLEstream Solution

- 1RU rack space consumption with ten integrated 10G taps (SR or LR links or custom mix)
- 100% of packets available. Non-aggregated output provides full visibility to non-standard or error packets
- Simple Command Line Interface allows remote users to quickly connect either or both of the attached capture and monitoring tools to the desired point of interest
- Stacking feature allows up to eight units to be interconnected – tools can be leveraged across up to 80 links
- Field proven reliability of Datacom SINGLEstream™ products provides assurance that the network and analysis will be accomplished with minimal risk.

Delivering the Solution

The objective was to provide on-demand troubleshooting access to over 80 10G client links and create an internal revenue stream by selling performance a monitoring service to individual clients.

The Approach

10G links flow through the SINGLEstream device, which doesn't block or add latency to network traffic. A copy of the network traffic is internally switched to provide data copies to network forensics and protocol analysis tools. This allows diagnosis and resolution of connectivity and performance issues for clients that purchase market data feeds and trading application connectivity.

Technology Improvements include:

- Immediate selective remote tool access available to any link with reported issues
- Passive fiber tapping ensures zero impact on network and non-aggregated output provides visibility into 100% of traffic with no risk of packet loss
- Stacking feature of device allows easy expansion as additional client links are put into service

A Better Return

Datacom Systems SS-2212-10G allows customers to see 100% of 10G traffic on network analyzers without risking link failure. Copies of traffic can be directed to internal resources, or sold as a service to end users to validate their Service Level Agreements. The SS-2212-10G permits the purchase of a lower port density 10G analyzer representing a better return on investment for analysis.

Use of switching technology allows full line rate 10G capture tools to be dynamically directed to any network link, with up to 80 links available, delivering a very reasonable per client cost for analysis.

Rapid problem resolution improves up-time percentage. Improved customer satisfaction and a new revenue stream were delivered to the Exchange.

For more information, visit www.datacomsystems.com