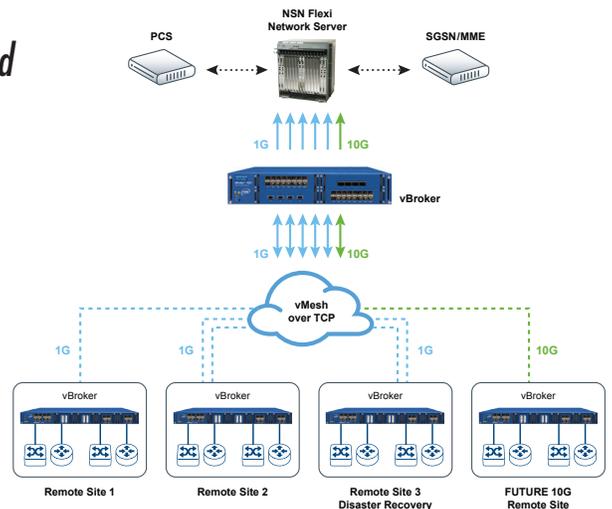


Customer Pain Points	VSS/NSN Solution
<p><b>Number of links to comprehensively monitor demands a cost-prohibitive solution.</b> Dedicating an NSN analyzer port to each link that needs to be monitored results in an unnecessarily complex and expensive solution with dozens or hundreds of underutilized analyzers.</p>	<p>The VSS Monitoring solution places inexpensive, fail-safe taps on each link and aggregates the captured traffic to an appliance running vStack over IP, which then distributes traffic to the appropriate NSN analyzer using filtering and session-aware load balancing. The result is a more efficient and cost-effective end-to-end solution.</p>
<p><b>NSN analyzers are congested with irrelevant traffic.</b> Some network packet brokers send all captured traffic to the analyzers, even those dedicated to a specific application that only need to see a fraction of the traffic. NSN analyzers are overwhelmed as they attempt to filter out irrelevant packets.</p>	<p>Hardware-based filtering directs the right traffic, and only the right traffic, to each analyzer. The end-user can configure the VSS Monitoring network packet broker to isolate a specific application or traffic type. Session-aware load balancing distributes traffic to multiple analyzers while keeping sessions intact by sending all traffic related to a specific session to the same analyzer.</p>
<p><b>The analyzer becomes congested as it reassembles fragmented packets.</b> When IP packets are fragmented during normal network operation, such as processing jumbo packets or encapsulation of TCP with UDP transport, the NSN analyzer must use processing time to reassemble them, increasing the likelihood of congestion and dropped packets.</p>	<p>VSS Monitoring appliances reassemble packets using a real-time, line-rate, hardware-based process before forwarding them to the analyzer. This allows the analyzer to dedicate processing power to its core function, packet analysis, enabling more efficient use of expensive analytic tools.</p>

## Use Case 1 – Use 1G and 10G analyzers regardless of link speed

vStack, high data burst buffers, session-aware load balancing, vBroker Expert edition

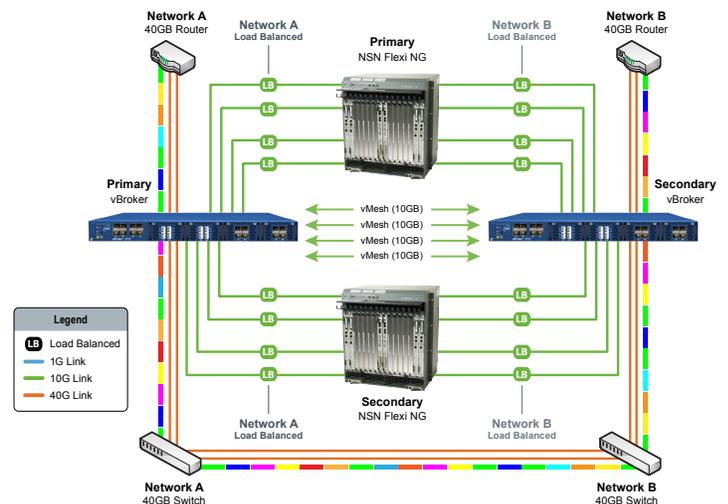
- Scale the centralized monitoring infrastructure without the need for direct physical connections between TAPs using the existing network
- Capture 100 percent of traffic, even microbursts, reliably
- Aggregate captured traffic from 1G or 10G links to distribute to 10G analyzers
- Balance traffic captured from 10G links across multiple 1G analyzers
- Avoid false alarms with session-aware load balancing
- Filter specific protocols or traffic for application-specific analyzers



## Use Case 2 – Optimize analyzer performance by off-loading processor-intensive tasks

Protocol stripping, IP packet reassembly, vBroker Advanced and Expert editions

- Use zero-latency, hardware-based decapsulation, IP packet reassembly, and filtering to allow the analyzer to focus on analysis, not housekeeping
- Strip multiple tags and protocol layers, such as VLAN tags, MPLS labels, and GTP tunnels to provide analyzer visibility into Layer 4 and beyond
- Configure filters to direct specific protocols or traffic to dedicated analyzers



## Qualifying Questions

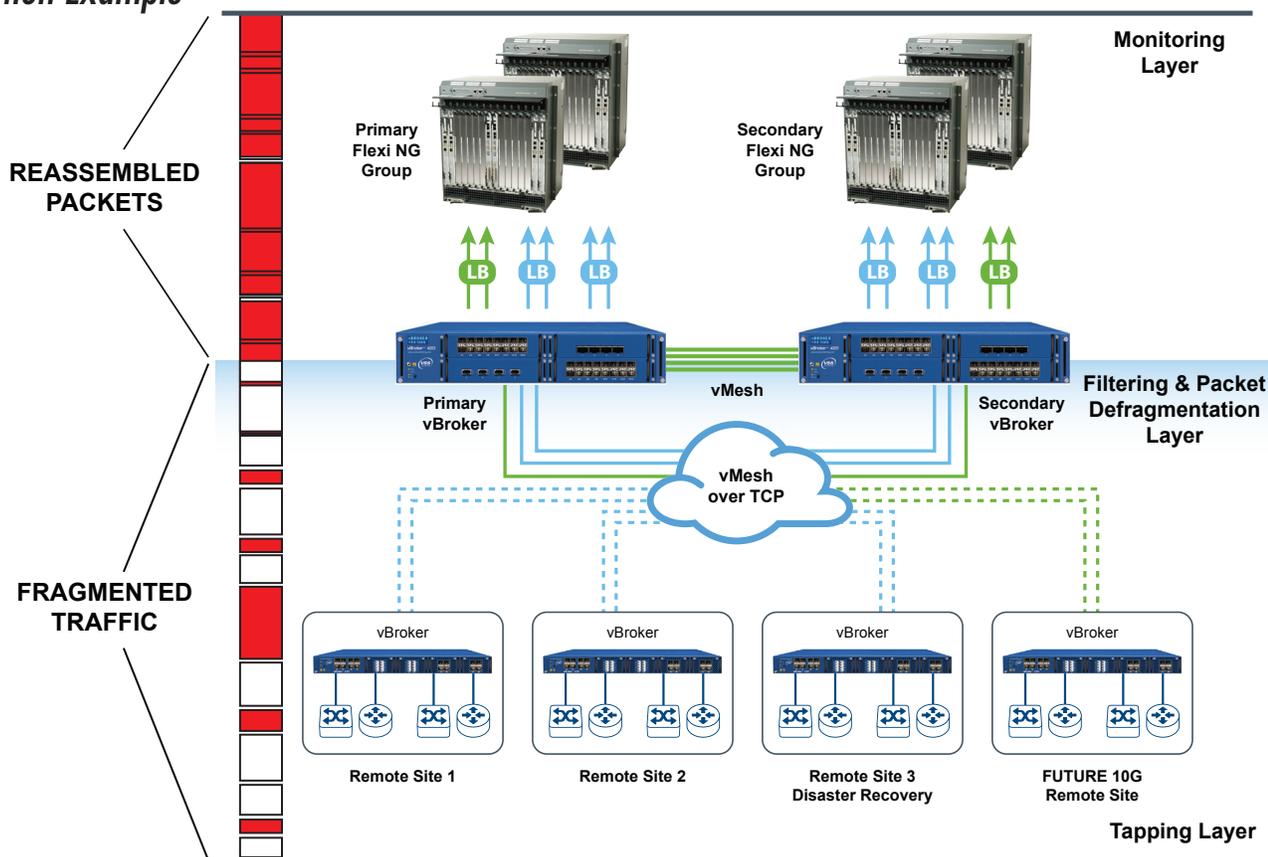
### New NSN Deployments

- Does the customer application have bursty traffic, such as video?
- Does the customer need to monitor links that vary in speed and utilization levels?
- Does the customer need network visibility down to the link level?
- Does the customer need to filter packets to send specific traffic types to specific analyzers?
- Does the customer need to load balance session-oriented traffic across multiple analyzers?

### Existing NSN Deployments

- Are your existing analyzers oversubscribed?
- Are you adding additional analyzers?
- Are you expanding the number of links to be monitored?
- Have higher speed links been added to the network since the initial NSN deployment?
- Do you want to monitor higher-speed links with existing lower-speed analyzers?
- Does your configuration require the same traffic to be sent to multiple analyzers?
- Do you need to load balance session-oriented traffic across multiple analyzers?

### Solution Example



## NSN & VSS Monitoring Products

VSS Monitoring Network Packet Brokers access and deliver traffic from one or more full-duplex networks to one or more NSN network intelligence tools. VSS provides policy-based triggers, filtering, and load balancing combined with packet optimization and specific application features to provide redundant network intelligence system building for full LAN, WAN, or cloud-based network visibility.

## Contact Us

For more information on the VSS/NSN partnership, including relevant Solution Briefs, Use Cases, Product Brochures and Whitepapers, please go to <http://www.vssmonitoring.com/partners/alliances/NSN.asp> or scan:

For more resources: [NSN@vssmonitoring.com](mailto:NSN@vssmonitoring.com)

