Using Gigamon Visibility Solutions with VirtualWisdom ProbeNAS

Leverage Gigamon solutions to acquire wire data on Ethernet-based networks supporting NFSv3 and SMB storage protocols

Introduction

Gigamon was founded in 2004 to provide pervasive visibility into company data flowing across the entire network. Gigamon's Visibility Platform makes it easier for companies to secure, manage and understand their data in motion, enabling stronger security and network performance.

Many Gigamon customers have asked how they may integrate their Gigamon infrastructures with VI's VirtualWisdom Infrastructure Performance Management platform. In October 2017, the two companies introduced a partnership which enables that capability for Ethernet networks. VirtualWisdom can ingest NFSv3 and SMB data flows from Gigamon Visibility Nodes.

Today's Configurations and Use Cases

Existing users of Gigamon Visibility Nodes can send NFSv3 traffic to the VirtualWisdom 5.2 or later ProbeNAS in a multiplexed environment (see figure 1 below). Key capabilities include:

- Adds support for 40G networks to previous capabilities of VirtualWisdom
- Filters only NFS or SMB traffic to the ProbeNAS for efficient processing
- Adds support for copper networks to current VirtualWisdom support for optical networks
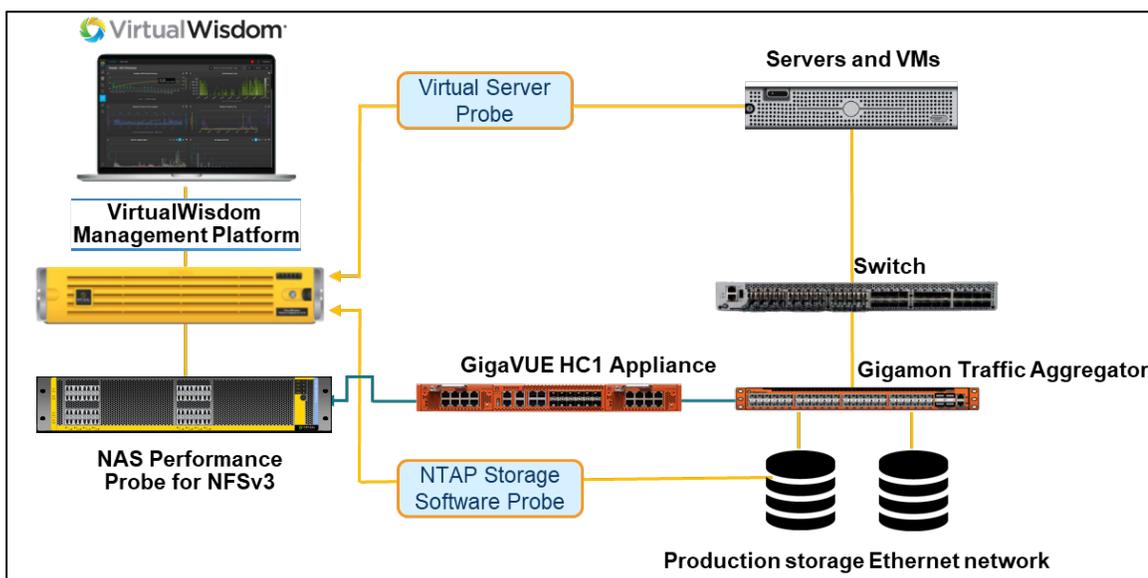- Aggregates traffic to reduce the number of ProbeNAS ports required

Figure 1: VirtualWisdom 5.2 and Ethernet-based storage network running NFSv3

In figure 2, below, customers can use one or more VI TAPS to send traffic to the Gigamon nodes, filter only NFS traffic, and aggregate traffic to reduce the number of required ProbeNAS ports. The benefits of this configuration are similar to figure 1, but supports only optical networks.
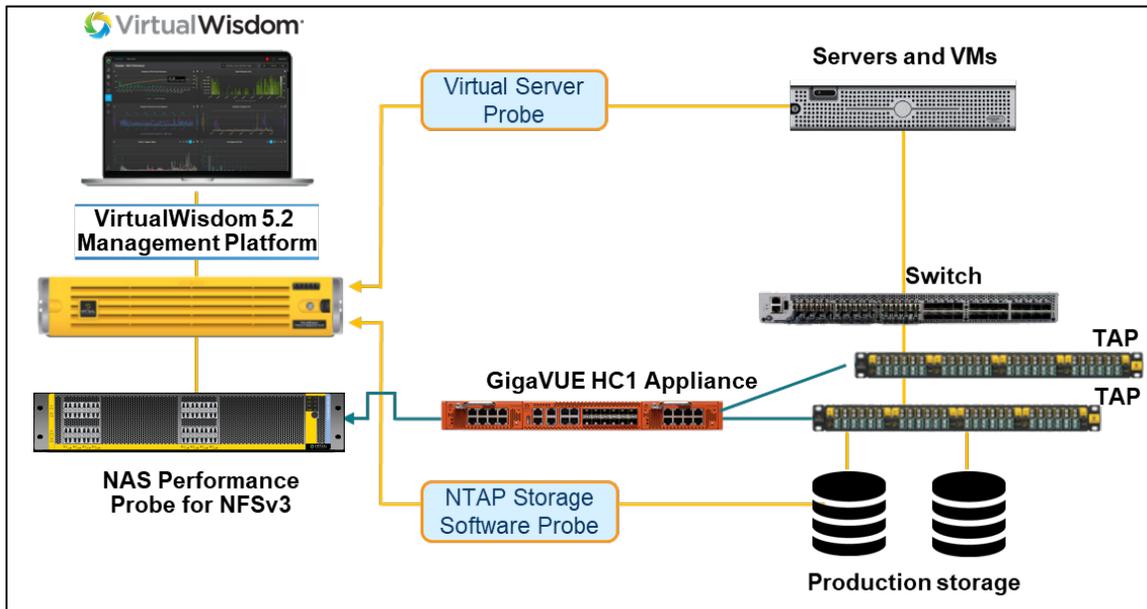

Figure 2: VirtualWisdom 5.2 and Ethernet-based storage network with Virtual Instruments TAPS running NFSv3

Forward-looking Configurations and Use Cases

For customers planning to move to VirtualWisdom 5.4, in addition to the above benefits, support for SMB arrays, and the software-based NetFlow Probe are added, enabling VirtualWisdom to access extended switch metrics, as shown below in figure 3.
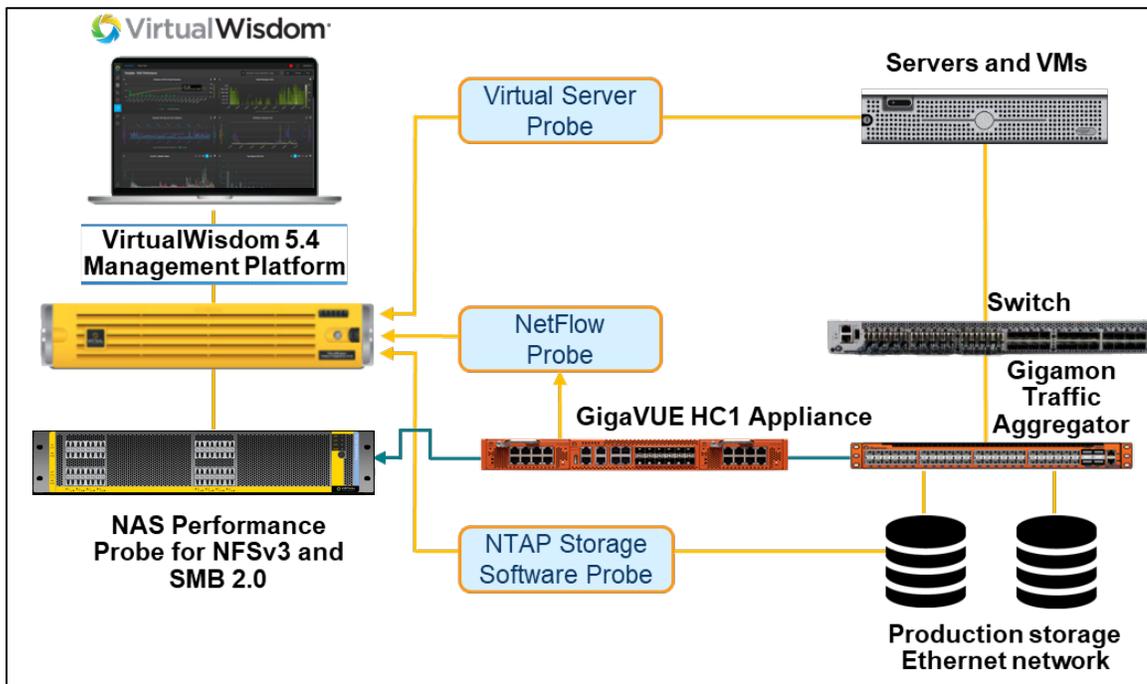

Figure 3: VirtualWisdom 5.4 and Ethernet-based storage network running NFSv3 and/or SMB

Compatible Gigamon products and solutions

The Virtual Instruments ProbeNAS is compatible with all Gigamon nodes and TAPS.

Appliances

Gigamon's H-Series Visibility Appliance range in scale and capacity to fit any need, from small and remote offices to end-of-row data center deployments. Modular chassis options provide further customization. Regardless of size, each runs GigaVUE-OS, supports end-to-end management and orchestration with clustering with GigaVUE-FM, and provides traffic intelligence with GigaSMART technology.

- GigaVUE-HB1, HC1, HC2, HC3, HD4, HD8

Aggregators

Traffic aggregators bring together traffic from TAPs and SPANs across the network, giving a pervasive view into data in motion. The TA Series combines low-utilized links, improving efficiency and reducing cost. The power of Flow Mapping® is brought to the edge by clustering the TA Series with H Series visibility nodes, giving network, application and security managers pervasive visibility.

- GigaVUE TA10, TA40, TA100, TA100 CXP Series

Passive optical TAPs

Passive optical TAPs are the ultimate source of truth for data in motion on the network because they create perfect copies of all traffic at full bandwidth. They require no power or management and do not actively interact with other components of the network. Optical TAP solutions:

- G-TAP M Series, BiDi, G Series

Active network TAPs

Active TAPs are used in networks where copper cabling or optical budgets do not allow for passive TAPs. In the event of a power failure, active TAPs have battery backup to keep them running and will send an alert to indicate the failure. A bypass TAP is a type of active TAP that also has a relay that closes when it loses power, maintaining the network connection and minimizing disruption to traffic. Active network TAP solutions:

- G-TAP A Series
- Embedded Tapping for 1Gb Copper: GigaVUE-HC1, HC2
- Embedded Bypass TAPs: GigaVue HC2

Summary

The VirtualWisdom App-centric Infrastructure Performance Management (IPM) platform provides real-time and historical insights into the performance, availability, health and utilization of your data center infrastructure–across physical, virtual, and cloud environments. It intelligently collects machine and wire data via agentless software probes and purpose-built hardware devices. Our Applied Analytics transforms the data into actionable insights that can be used to optimize your environment and proactively find and resolve issues before users are affected. VirtualWisdom is the leading real-time, application-centric, vendor-independent, cross-domain performance monitoring and analytics solution in the industry.

To these remarkable capabilities are added the functionality obtained by deployment in a Gigamon Visibility Infrastructure. With Gigamon, VirtualWisdom can access 40G Ethernet copper and optical networks; and efficiencies are achieved by Gigamon's aggregation capabilities, lessening the required number of ProbeNAS ports.

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