QuickSpecs

Overview

HPE Complete – VirtualWisdom
Infrastructure Performance Management Platform

Enterprise IT infrastructures and software defined data centers are perpetually complex and forever changing. With ever increasing workload demands being placed on them, they must deliver flawlessly, at scale and without incident.

IT architects don't have a cost-effective method of determining the optimal infrastructure to support their various application workloads, nor do they have a uniform basis for understanding how the underlying infrastructure is performing once it is deployed. What is needed is an infrastructure performance analytics solution that
enables intelligent analysis of infrastructure options, and provides an authoritative understanding of performance, health and utilization of the infrastructure from the Virtual Machine, across the switching network, and to the 3Par and/or flash storage array. HPE Complete Virtual Instrument's VirtualWisdom offers a comprehensive infrastructure and workload performance analytics solution that addresses these key challenges.
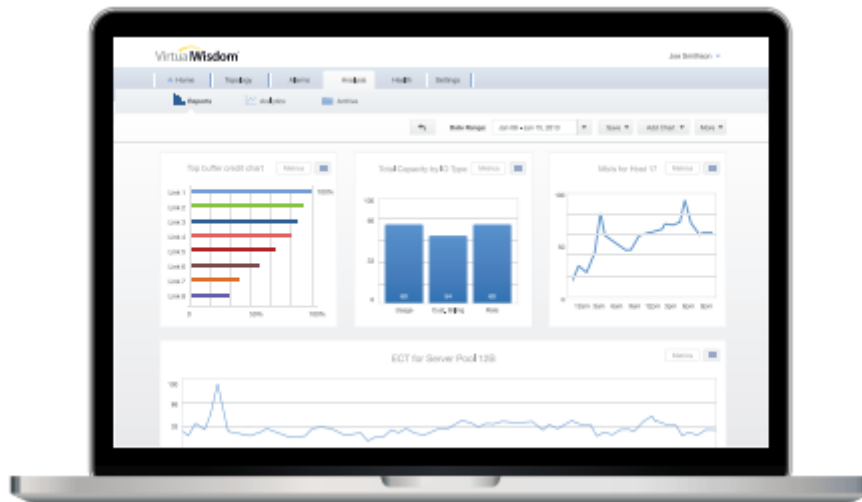

Figure 1. A view of VirtualWisdom entity-centric UI

VirtualWisdom's unique combination of software and hardware probes persists, correlates and analyzes a breadth and depth of data never before possible—collected from throughout the end-to-end infrastructure. This highly accurate and comprehensive solution enables customers to start managing performance, stop reactive troubleshooting, and achieve cost optimization across their infrastructure .

VirtualWisdom helps storage professionals:
- Guarantee performance and availability based SLAs by proactive monitoring and alerting your infrastructure from the VM to the LUN
- Speed troubleshooting by identifying and remediating root cause of outages and slowdowns
- Optimize costs by aligning infrastructure with business needs

VirtualWisdom is available on HPE Catalog via HPE Complete program.

Hewlett Packard Enterprise

Overview

HPE Complete- Resell of Third Party Branded Products

HPE Complete is a resource enabling the purchase of best in class third party branded products with the added reliability of Hewlett Packard Enterprise's interop assurance for a complete validated solution, all via one HPE purchase order.

Benefits
- One Stop Shop - Purchase complete solutions from HPE that include best in class third party branded products, all on a single HPE purchase order
- Validated solution - Confidence of The HPE interop assurance validation for third party branded products that complement HPE Storage & Server solutions
- Customer Experience - Hewlett Packard Enterprise ensures complete customer satisfaction, by troubleshooting the solution and facilitating third party expertise for the installation, support and warranty of their products
- Unique Value – Minimize risk, complexity and cost when deploying multi-vendor products and technologies into the HPE ecosystem

For more information please refer **HPE Complete** on HPE.com

Hewlett Packard Enterprise is making the following Virtual Instrument's VirtualWisdom SKUs available via HPE Complete:

Hardware SKUs		
	VI SANInsight TCV012LRLFLF57RP TAP Patch Cassette	N9Z22A
	VI SANInsight TCV008LFLFLF58RP TAP Patch Cassette	N9Z23A
	VI SANInsight TCV012LRLFLF58RP TAP Patch Cassette	N9Z24A
	VI SANInsight TPS01OF 1U TAP Patch Shelf	N9Z25A
	VI SANInsight TPS01OS 1U TAP Patch Shelf	N9Z26A
	VI C13C14 1.8m Device Power Cord	N9Z27A
	VI VirtualWisdom 4220 Platform Appliance	N9Z28A
	VI SAN Performance ProbeFC8-HD48 48-link Chassis	N9Z29A
	VI SAN Performance ProbeFC-16G-24 24-link Chassis	N9Z30A
	VI 8G Fibre Channel Multimode 850nm SFP+ Module Kit	N9Z31A
	VI 16G Fibre Channel Multimode 850nm SFP+ Module Kit	N9Z32A
	VI SANInsight TCV008LFLFLF57RP TAP Patch Cassette	N9Z33A
	VI SANInsight TCV012MRLFLF57EB MPO TAP Patch Cassette	P9M42A
	VI SANInsight TCV012MRLFLF58EB MPO TAP Patch Cassette	P9M43A

Software SKUs		
	VI VirtualWisdom Enterprise Edition Management Software LTU	P9G99A
	VI SAN Performance ProbeFC8 8G 4-link Fibre Channel LTU	P9H00A
	VI SAN Performance ProbeFC8-HD48 8G 48-link Fibre Channel LTU	P9H01A
	VI SAN Performance ProbeFC-16G-24 8G 24-link Fibre Channel LTU	P9H02A
	VI SAN Performance ProbeFC8 16G 4-link Fibre Channel LTU	P9H03A
	VI SAN Performance ProbeFC-16G-24 16G Fibre Channel 24-link LTU	P9H04A
	VI VirtualWisdom ProbeSW Switch 10-port LTU	P9H05A
	VI VirtualWisdom ProbeVM 1 vSphere Host LTU	P9H06A
	VI VirtualWisdom ProbeVM 1 PowerVM Core LTU	P9H07A
	VI VirtualWisdom ProbeVM 1 Hyper-V Host LTU	P9H08A
	VI VirtualWisdom ProbeNTAP 1 Node LTU	P9H09A
	VI VirtualWisdom Virtual Edition Management Software LTU	P9T66A
	VI VirtualWisdom ProbeSW 100-port Switch LTU	P9T67A

Overview

VI VirtualWisdom ProbeVM 100-host vSphere LTU	P9T68A
VI VirtualWisdom ProbeVM 100-core PowerVM LTU	P9T69A
VI VirtualWisdom ProbeVM 100-host Hyper-V LTU	P9T70A
VI VirtualWisdom ProbeNTAP 100-node LTU	P9T71A

Hardware Service SKUs		
	VI SOS-4-IPM Troubleshooting Service LTU	P9H10A
	VI Infrastructure Performance Assessment Service LTU	P9H11A
	VI QuickStart Service with ProbeSW-VM LTU	P9H14A
	VI QuickStart Service with ProbeSW-VM-FC8 LTU	P9H15A
	VI 5-day Expert Service LTU	P9H17A
	VI VirtualWisdom Platform Appliance 1-year Maintenance LTU	P9R28A
	VI SAN Performance ProbeFC-16G-24 Chassis 1-year Maintenance LTU	P9R29A
	VI SAN Performance ProbeFC8-HD48 Chassis 1-year Maintenance LTU	P9R30A
	VI 16G SFP+ Multimode Fibre Channel 1-year Maintenance LTU	P9R36A
	VI 8G SFP+ Multimode Fibre Channel 1-year Maintenance LTU	P9R37A
	VI TCV-008LFLFLF-57-RP TAP Patch Cassette 4-link 1-year Maintenance LTU	P9R38A
	VI TCV-008LFLFLF-58-RP TAP Patch Cassette 4-link 1-year Maintenance LTU	P9R39A
	VI TCV-012LRLFLF-57-RP TAP Patch Cassette 6-link 1-year Maintenance LTU	P9R40A
	VI TCV-012LRLFLF-58-RP TAP Patch Cassette 6-link 1-year Maintenance LTU	P9R41A
	VI TPS-01OF 1U TAP Patch Shelf 1-year Maintenance LTU	P9R42A
	VI TPS-01OS 1U TAP Patch Shelf 1-year Maintenance LTU	P9R43A
	VI TCV012MRLFLF57EB TAP Patch Cassette 6-link 1yr Maintenance LTU	P9T82A
	VI TCV012MRLFLF58EB TAP Patch Cassette 6-link 1yr Maintenance LTU	P9T83A

Software Service SKUs		
	VI Baseline Assessment Service with ProbeSW LTU	P9H12A
	VI Baseline Assessment Service with ProbeSW-FC8 LTU	P9H13A
	VI Analytics Performance ProbeFC8 16G 4-link Fibre Channel 1yr Subscription LTU	P9R13A
	VI Analytics Full ProbeFC-16G-24 24-link 1-year Subscription LTU	P9R14A
	VI Analytics Performance ProbeFC8 8G 4-link Fibre Channel 1-year Subscription LTU	P9R15A
	VI Analytics Full ProbeFC-16G-24 24-link 8GFC 1-year Subscription LTU	P9R16A
	VI Analytics Full ProbeFC8-HD48 48-link 1-year Subscription LTU	P9R17A
	VI Analytics ProbeNTAP-001 1-year Subscription LTU	P9R18A
	VI Analytics ProbeSW-010 1-year Subscription LTU	P9R19A
	VI Analytics ProbeVM-001 Hyper-V 1-year Subscription Host LTU	P9R20A
	VI Analytics ProbeVM-001 vSphere 1-year Subscription Host LTU	P9R21A
	VI Analytics ProbeVM-001 PowerVM 1-year Subscription Core LTU	P9R22A
	VI SAN Performance ProbeFC8 16G 4-link Fibre Channel 1yr Maintenance LTU	P9R23A
	VI SAN Performance Full ProbeFC-16G-24 24-link 1-year Maintenance LTU	P9R24A
	VI SAN Performance ProbeFC8 4-link 1-year Maintenance LTU	P9R25A
	VI SAN Performance ProbeFC-16G-24 8G 24-link Fibre Channel 1yr Maintenance LTU	P9R26A
	VI SAN Performance Full ProbeFC8-HD48 1-year Maintenance LTU	P9R27A
	VI ProbeNTAP 1-node 1-year Maintenance LTU	P9R31A
	VI ProbeSW 10-port Switch 1-year Maintenance LTU	P9R32A
	VI ProbeVM 1 Hyper-V 1-year Maintenance Host LTU	P9R33A
	VI ProbeVM 1 vSphere Server 1-year Maintenance LTU	P9R34A
	VI ProbeVM 1 PowerVM 1-year Maintenance Core LTU	P9R35A

Overview

VI VirtualWisdom Enterprise Edition Management Software 1yr Maintenance LTU	P9R44A
VI Analytics ProbeNTAP 100-node 1yr Subscription LTU	P9T72A
VI Analytics ProbeSW 100-host 1yr Subscription LTU	P9T73A
VI Analytics ProbeVM 100-host Hyper-V 1yr Subscription LTU	P9T74A
VI Analytics ProbeVM 100-host vSphere 1yr Subscription LTU	P9T75A
VI Analytics ProbeVM 100-core PowerVM 1yr Subscription LTU	P9T76A
VI ProbeNTAP 100-node 1yr Maintenance LTU	P9T77A
VI ProbeSW 100-port Switch 1yr Maintenance LTU	P9T78A
VI ProbeVM 100-host Hyper-V 1yr Maintenance LTU	P9T79A
VI ProbeVM 100-host vSphere Server 1yr Maintenance LTU	P9T80A
VI ProbeVM 100-core PowerVM 1yr Maintenance LTU	P9T81A
VI VirtualWisdom Virtual Edition Management Software 1yr Maintenance LTU	P9T84A

Features and Benefits

The VirtualWisdom Platform is composed of a fully integrated combination of VirtualWisdom software and hardware probes and the purpose-built VirtualWisdom Platform Appliance. This powerful combination of hardware and software, all fully developed, integrated, and tested in-house at Virtual Instruments, ensures the highest levels of performance, scalability, and serviceability.
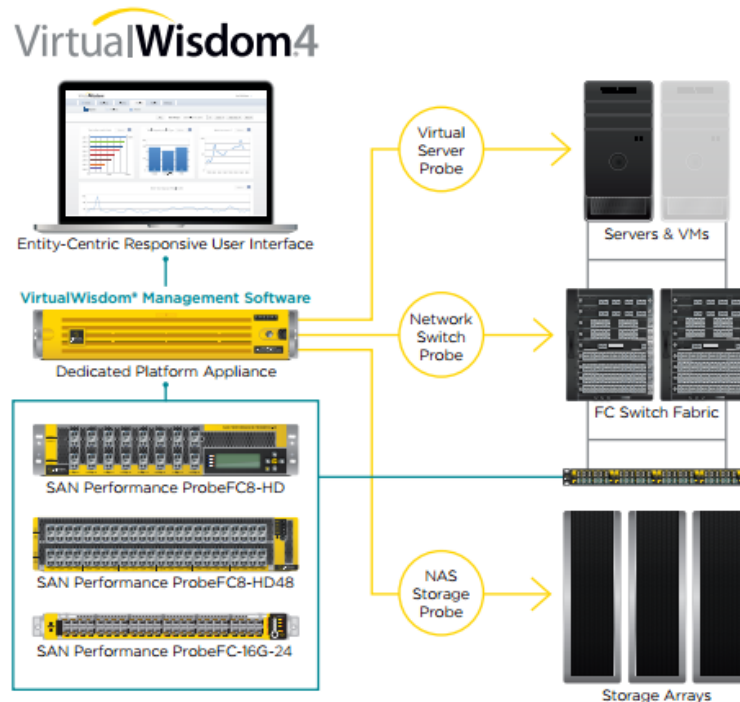

Figure 2. VirtualWisdom Architecture

Key Features

Using agentless software probes and purpose-built hardware, the platform intelligently collects, correlates, and analyzes an unmatched breadth and depth of data, transforming data into actionable insights. VirtualWisdom provides unbiased insights by analyzing wire-line data directly from your 3Par infrastructure, from the VM, physical server, switch fabric, and storage. This enables IT teams to guarantee performance-based service level agreements (SLAs), increasing the value of the infrastructure.

Rich Performance Management

- Helps avoid problems via highly accurate trending and analysis using detailed continuous real-time, unbiased monitoring. Does performance trending to identify hardware degradation, to enable preemptive component replacement before failure.
- Speeds troubleshooting by pinpointing of root causes and impacts on infrastructure and application performance
- Provides the ability to determine if configuration changes are affecting application and infrastructure performance by examining systemic latency
- Determine the optimal 3Par storage and switch price / performance configuration, or identify the optimal cluster and host to deploy a VM, based on available capacity and expected VM workload across CPU, Memory, I/O and Network.

Rich User Interface and Live Reports

- Offers a comprehensive view of the entire open-systems stack to find problems undetectable by software-only monitoring. IT teams can view the stack from the point of view that makes most sense to their specific role, or concern.

Features and Benefits

- Build charts and reports for viewing by other members across your organization, including non-technical teams where SLA concerns often matter most

Case-Based Alarms

- Intelligent alerting so you aren't notified of "non-events"
- Set multi-variate thresholds, and make tuning adjustments on-the-fly via data-informed prediction of resource needs, based on the hourly/daily/weekly/monthly seasonality of business workloads.

Configuration Information

The HPE Complete VirtualWisdom configuration are as follows:

Step-1 Hardware	**The Appliance**	

VI VirtualWisdom 4220 Platform Appliance **N9Z28A**

VirtualWisdom Platform Appliance 4220. Dedicated hardware appliance for deploying the VirtualWisdom Management Software Enterprise Edition. Includes RAID-protected, hot swappable data and system drives and redundant hot swappable power supplies. Requires 2 C13 device power cords, sold separately. Requires VI VirtualWisdom Enterprise or Virtual Edition Software License.

Step-2 Select Software **Software**

VI VirtualWisdom Enterprise Edition Management Software LTU **P9G99A**

VirtualWisdom Management Software, Enterprise Edition. Enables operation on a single Platform Appliance. Every appliance requires 1 qty of this license. Probe Licenses must be purchased separately.

VI VirtualWisdom Virtual Edition Management Software LTU **P9T66A**

VirtualWisdom Management Software, Virtual Edition. Enables operation of a single Virtual Appliance instance. Probe capacity limited by License. Supports up to (50,000) ProbeSW Ports, (24) ProbeFC8/FC8-HD Links, (20) ProbeNTAP Nodes, (200) ProbeVM ESX Hosts, (100) ProbeVM Hyper-V Hosts, (320) ProbeVM AIX Cores. Probe Licenses must be purchased separately.

Step-3 Select Hardware Probes **Hardware Probes**

VI SAN Performance ProbeFC8-HD48 48-link Chassis **N9Z29A**

Supports monitoring up to 48 concurrent 2/4/8 Gbps Fibre Channel Links. Field-reversible airflow. Requires up to 96 single or multimode SFPs and appropriate License key, and 2 IEC C13 device power cords.

VI SAN Performance ProbeFC-16G-24 24-link Chassis **N9Z30A**

Supports monitoring up to 24 concurrent 4/8/16 Gbps Fibre Channel Links. Field-reversible airflow. Requires up to 48 single or multimode SFPs and appropriate License key, and 2 IEC C13 device power cords.

NOTE: Probes can be mixed based on the requirement

Step-4 Select Hardware Probe LTUs **Hardware Probes LTUs**

VI SAN Performance ProbeFC8 8G 4-link Fibre Channel License **P9H00A**

SAN Performance ProbeFC8 License, 8G FC, 4 Link. Enables monitoring up to 4 concurrent 2/4/8 Gbps Fibre Channel Links. Supports ProbeFC8, FC8-HD, and FC8-HD48 devices

VI SAN Performance ProbeFC8-HD48 8G 48-link Fibre Channel License **P9H01A**

SAN Performance ProbeFC8-HD48 License, 8G FC, 48 Link. Enables monitoring up to 48 concurrent 2/4/8 Gbps Fibre Channel Links. Requires ProbeFC8-HD48 chassis.

VI SAN Performance ProbeFC-16G-24 8G 24-link Fibre Channel License **P9H02A**

Configuration Information

SAN Performance ProbeFC-16G-24 License, 8G FC, 24 Link. Enables monitoring up to 24 concurrent 2/4/8 Gbps Fibre Channel Links. Requires ProbeFC-16G-24 chassis.

VI SAN Performance ProbeFC8 16G 4-link Fibre Channel License	**P9H03A**

SAN Performance ProbeFC8 License, 16G FC, 4 Link. Enables monitoring up to 4 concurrent 2/4/8/16 Gbps Fibre Channel Links. Supports ProbeFC-16G-24 devices

VI SAN Performance ProbeFC-16G-24 16G Fibre Channel 24 Link License	**P9H04A**

SAN Performance ProbeFC-16G-24 License, 16G FC, 24 Link. Enables monitoring up to 24 concurrent 2/4/8/16 Gbps Fibre Channel Links. Requires ProbeFC-16G-24 chassis.

NOTE: Software Probe LTUs are required for every hardware probe selected

Step-5 Select Transceivers

Transceivers

VI 8G Fibre Channel Multimode 850nm SFP+ Module Ki	**N9Z31A**

SFP+ modules, 8G FC multimode 850 NM, high sensitivity, kit of 8 SFPs to support 4 Links. Support 2/4/8 Gbps multimode Fibre Channel. For use in all ProbeFC8 models. Each ProbeFC8-HD48 supports up to 12 kits, each ProbeFC-16G-24 supports up to 6 kits.

VI 16G Fibre Channel Multimode 850nm SFP+ Module Kit	**N9Z32A**

SFP+ modules, 16G FC multimode 850 NM, high sensitivity, kit of 8 SFPs to support 4 Links. Support 8/16 Gbps multimode Fibre Channel. For use in HD48 and FC16G24 models. Each ProbeFC8-HD48 supports up to 12 kits, each ProbeFC-16G-24 supports up to 6 kits.

NOTE : 1 transceiver is required for every Hardware Probe selected

Step-6 Select Patch Shelf

Patch Shelf

VI SANInsight TPS01OF 1U TAP Patch Shelf	**N9Z25A**

SANInsight TPS-01OF 1U TCV TAP Patch Shelf, covered. 1U rackmount, 14 inches / 35.5 cm deep, includes removable cover. Mounts up to 4 TCV series TAP Patch Cassettes; typically used with Cassettes having both rear and front adapters.

VI SANInsight TPS01OS 1U TAP Patch Shelf	**N9Z26A**

SANInsight TPS-01OS 1U TCV TAP Patch Shelf, open short. 1U rackmount, 9 inches / 22.8 cm deep. Mounts up to 4 TCV series TAP Patch Cassettes; typically used with Cassettes having only front adapters.

NOTE: Patch Shelves can be mixed

Step-7 Select Cassettes

TAP Cassettes

VI SANInsight TCV008LFLFLF57RP TAP Patch Cassette	**N9Z33A**

SANInsight TCV-008LFLFLF-57-RP TAP Patch Cassette, 4 Link OM4, LC-LC-LC. Fits VI TCV TAP Patch shelves, TPS-01OS recommended. Standard cassette for adding TAPs to existing cabling. Front LC adapters for trunk, patch, and TAP connections. 50μm OM3 MM fiber, 70/30 coupling ratio. Regular polarity on live links (A-B, B-A).

VI SANInsight TCV012LRLFLF57RP TAP Patch Cassette	**N9Z22A**

Configuration Information

SANInsight TCV-012LRLFLF-57-RP TAP Patch Cassette, 6 Link OM4 MM, LC-LC-LC. Fits VI TCV TAP Patch shelves, TPS-01OF recommended. Standard TAP cassette for replacing an existing LC-LC patch panel with rear and front connections. Rear LC adapters for trunk connections; front LC adapters for patch and TAP connections. 50μm OM3 MM fiber, 70/30 coupling ratio. Regular polarity on live links (A-B, B-A).

VI SANInsight TCV008LFLFLF58RP TAP Patch Cassette   N9Z23A

SANInsight TCV-008LFLFLF-58-RP TAP Patch Cassette, 4 Link OM4, LC-LC-LC. Fits VI TCV TAP Patch shelves, TPS-01OS recommended. Standard cassette for adding TAPs to existing cabling. Front LC adapters for trunk, patch, and TAP connections. 50μm OM4 MM fiber, 80/20 coupling ratio. Regular polarity on live links (A-B, B-A).

VI SANInsight TCV012LRLFLF58RP TAP Patch Cassette   N9Z24A

SANInsight TCV-012LRLFLF-58-RP TAP Patch Cassette, 6 Link OM4, LC-LC-LC. Fits VI TCV TAP Patch shelves, TPS-01OF recommended. Standard TAP cassette for replacing an existing LC-LC patch panel with rear and front connections. Rear LC adapters for trunk connections; front LC adapters for patch and TAP connections. 50μm OM4 MM fiber, 80/20 coupling ratio. Regular polarity on live links (A-B, B-A).

VI SANInsight TCV012MRLFLF57EB MPO TAP Patch Cassette   P9M42A

SANInsight TCV-012MRLFLF-57-EB TAP Patch Cassette, 6 Link OM4, MPO(m)-LC-LC. Fits VI TCV TAP Patch shelves, TPS-01OF recommended. Rear MPO male adapter for trunk connections; front LC adapters for patch and TAP connections. 50μm OM4 MM fiber, 70/30 coupling ratio. EB (Method B-compatible) polarity on live links: even MPO positions in from TX, out to front LC adapter B ports.

VI SANInsight TCV012MRLFLF58EB MPO TAP Patch Cassette   P9M43A

SANInsight TCV-012MRLFLF-58-EB TAP Patch Cassette, 6 Link OM4, MPO(m)-LC-LC. Fits VI TCV TAP Patch shelves, TPS-01OF recommended. Rear MPO male adapter for trunk connections; front LC adapters for patch and TAP connections. 50μm OM4 MM fiber, 80/20 coupling ratio. EB (Method B-compatible) polarity on live links: even MPO positions in from TX, out to front LC adapter B ports.

NOTE : 1 cassette is required for every patch shelf

Step-8 Select Power Cord

Power Cord

VI C13C14 1.8m Device Power Cord   N9Z27A

Device power cords, 6 foot, kit of 2. For the SAN Performance ProbeFC8 family, Platform Appliance 4220, and other devices with C14 inlets. IEC C13 to C14 connectors, 13 amp rating.

NOTE: 1 kit is required with the purchase of the VI Platform Appliance 4220

Step-9 Select Software Probe LTUs

Software Probe LTUs

VI VirtualWisdom ProbeSW Switch 10-port License   P9H05A

VirtualWisdom ProbeSW 10 Switch Port License. Enables monitoring up to 10 active Switch Ports.

VI VirtualWisdom ProbeVM 1 vSphere Host License   P9H06A

VirtualWisdom ProbeVM 1 vSphere Host License. Enables monitoring 1 vSphere Host.

Configuration Information

VI VirtualWisdom ProbeVM 1 PowerVM Core License	**P9H07A**

VirtualWisdom ProbeVM 1 PowerVM Core License. Enables monitoring 1 PowerVM Core.

VI VirtualWisdom ProbeVM 1 Hyper-V Host License	**P9H08A**

VirtualWisdom ProbeVM 1 Hyper-V Host License. Enables monitoring 1 Hyper-V Host

VI VirtualWisdom ProbeNTAP 1 Node License	**P9H09A**

VirtualWisdom ProbeNTAP 1 Node License. Enables monitoring 1 NetApp filer storage node.

VI VirtualWisdom ProbeSW 100-port Switch License	**P9T67A**

VirtualWisdom ProbeSW 100 Port switch License. Enables monitoring up to 100 active Switch Ports.

VI VirtualWisdom ProbeVM 100-host vSphere License	**P9T68A**

VirtualWisdom ProbeVM 100 host vSphere License. Enables monitoring 100 vSphere Host.

VI VirtualWisdom ProbeVM 100-core PowerVM License	**P9T69A**

VirtualWisdom ProbeVM 100 core PowerVM License. Enables monitoring 100 PowerVM Core.

VI VirtualWisdom ProbeVM 100-host Hyper-V License	**P9T70A**

VirtualWisdom ProbeVM 100 host Hyper-V License. Enables monitoring 100 Hyper-V Host

VI VirtualWisdom ProbeNTAP 100-node License	**P9T71A**

VirtualWisdom ProbeNTAP 100 node License. Enables monitoring 100 NetApp filer storage node.

NOTE: Software-only probes can be mixed based on the requirement and deployed only if needed.

Step-10 Select Hardware Services	**Hardware Services**	
	VI SOS-4-IPM Troubleshooting Service LTU	**P9H10A**

SOS-4-IPM Troubleshooting Service. Evaluate environment, troubleshoot specific problem areas, provide data and direction to issue resolution, review best practices. Includes monitoring equipment, monitoring of up to 16 Links and 20 switches, and T&E for up to five 5 days on-site service.

VI Infrastructure Performance Assessment Service LTU	**P9H11A**

Infrastructure Performance Assessment Service. Evaluate environment, identify problem areas, provide data and direction to issue resolution, review best practices. Includes monitoring equipment, monitoring of up to 16 links and 20 switches, and T&E for one site visit of up to 3 days for installation

VI QuickStart Service with ProbeSW-VM LTU	**P9H14A**

QuickStart Service, ProbeSW and -VM. Includes planning, logistics, remote preparation, onsite installation and configuration service, post install training sessions, workshop review of initial findings, prioritization of infrastructure optimization processes, T&E.

VI QuickStart Service with ProbeSW-VM-FC8 LTU	**P9H15A**

QuickStart Service, ProbeSW, -VM, and -FC. Includes planning, logistics, remote preparation, onsite installation and configuration service, post install training sessions, workshop review of initial findings, prioritization of infrastructure optimization processes, T&E.

VI Expert 5 Days Onsite Services License LTU	**P9H17A**

Configuration Information

Expert Services, 5 days onsite or remote. To assist with configuring, tuning and ongoing analysis using VirtualWisdom.

VI VirtualWisdom Platform Appliance 1-year Maintenance LTU   **P9R28A**

Annual maintenance for VirtualWisdom Platform Appliance 4220

VI SAN Performance ProbeFC-16G-24 Chassis 1-year Maintenance LTU   **P9R29A**

Annual maintenance for SAN Performance ProbeFC-16G-24 Chassis

VI SAN Performance ProbeFC8-HD48 Chassis 1-year Maintenance LTU   **P9R30A**

Annual maintenance for SAN Performance ProbeFC8-HD48 Chassis

VI 16G SFP+ Multimode Fibre Channel 1-year Maintenance LTU   **P9R36A**

Annual maintenance for SFP+ modules, 16G FC multimode 850 NM, high sensitivity, kit of 8 SFPs to support 4 Links. Support 8/16 Gbps multimode Fibre Channel. For use in ProbeFC8-HD48 and ProbeFC-16G-24 models. Each ProbeFC8-HD48 supports up to 12 kits, each ProbeFC-16G-24 supports up to 6 kits.

VI 8G SFP+ Multimode Fibre Channel 1-year Maintenance LTU   **P9R37A**

Annual maintenance for SFP+ modules, 8G FC multimode 850 NM, high sensitivity, kit of 8 SFPs to support 4 Links. Support 2/4/8 Gbps multimode Fibre Channel. For use in all ProbeFC8 models. Each ProbeFC8-HD48 supports up to 12 kits, each ProbeFC-16G-24 supports up to 6 kits.

VI TCV-008LFLFLF-57-RP TAP Patch Cassette 4-link 1-year Maintenance LTU   **P9R38A**

Annual maintenance for SANInsight TCV-008LFLFLF-57-RP TAP Patch Cassette, 4 Link, LC-LC-LC.

VI TCV-008LFLFLF-58-RP TAP Patch Cassette 4-link 1-year Maintenance LTU   **P9R39A**

Annual maintenance for SANInsight TCV-008LFLFLF-58-RP TAP Patch Cassette, 4 Link, LC-LC-LC.

VI TCV-012LRLFLF-57-RP TAP Patch Cassette 6-link 1-year Maintenance LTU   **P9R40A**

Annual maintenance for SANInsight TCV-012LRLFLF-57-RP TAP Patch Cassette, 4 Link, LC-LC-LC.

VI TCV-012LRLFLF-58-RP TAP Patch Cassette 6-link 1-year Maintenance LTU   **P9R41A**

Annual maintenance for SANInsight TCV-012LRLFLF-58-RP TAP Patch Cassette, 4 Link, LC-LC-LC.

VI TPS-01OF 1U TAP Patch Shelf 1-year Maintenance LTU   **P9R42A**

Annual maintenance for SANInsight TPS-01OF 1U TAP Patch Shelf, covered

VI TPS-01OS 1U TAP Patch Shelf 1-year Maintenance LTU   **P9R43A**

Annual maintenance for SANInsight TPS-01OS 1U TAP Patch Shelf, covered.

VI TCV012MRLFLF57EB TAP Patch Cassette 6-link 1yr Maintenance LTU   **P9T82A**

Annual maintenance for SANInsight TCV-012MRLFLF-57-EB TAP Patch Cassette, 6 Link, MPO(m)-LC-LC.

VI TCV012MRLFLF58EB TAP Patch Cassette 6-link 1yr Maintenance LTU   **P9T83A**

Annual maintenance for SANInsight TCV-012MRLFLF-58-EB TAP Patch Cassette, 6 Link, MPO(m)-LC-LC.

NOTE: It is a recommended practice to get a VI Maintenance SKU, corresponding to every hardware SKU purchased

Step-11	**Software Services**	
Select	**VI Baseline Assessment Service with ProbeSW LTU**	**P9H12A**

Configuration Information

Software Services

Baseline Assessment Service, ProbeSW. Evaluate SAN environment; baseline current health, utilization, and multi-path operation. REQUIREMENT: VirtualWisdom and ProbeSW must be installed with at least (1) week of data collected; customer must provide copy of VirtualWisdom database. Includes monitoring of up to 10 switches, 1 week of remote assessment service, and findings report.

VI Baseline Assessment Service with ProbeSW-FC8 LTU	**P9H13A**

Baseline Assessment Service, ProbeSW and -FC. Evaluate SAN environment; baseline current performance, health, utilization, and multi-path operation. REQUIREMENT: VirtualWisdom, ProbeSW, and ProbeFC must be installed with at least (1) week of data collected; customer must provide copy of VirtualWisdom database. Includes monitoring of up to 16 Links and 10 switches, 1 week of remote assessment service, and findings report.

VI Analytics Performance ProbeFC8 16G 4-link Fibre Channel 1yr Subscription LTU	**P9R13A**

VirtualWisdom Analytics annual subscription for Performance Probe 4-Link License. Enables Analytics for 1 Performance Probe 4 Link 16G FC license for 1 year. An Analytics subscription is required for every ProbeFC license installed on the Management Software instance.

VI Analytics Full ProbeFC-16G-24 24-link 1-year Subscription LTU	**P9R14A**

VirtualWisdom Analytics annual subscription for Full ProbeFC-16G-24 Link License. Enables Analytics for 1 ProbeFC-16G-24 24 Link 16G FC license for 1 year. An Analytics subscription is required for every ProbeFC license installed on the Management Software instance.

VI Analytics Performance ProbeFC8 8G 4-link Fibre Channel 1-year Subscription LTU	**P9R15A**

VirtualWisdom Analytics annual subscription for Performance Probe 4-Link License. Enables Analytics for 1 Performance Probe 4 Link 8G FC license for 1 year. An Analytics subscription is required for every ProbeFC8 license installed on the Management Software instance.

VI Analytics Full ProbeFC-16G-24 24-link 8GFC 1-year Subscription LTU	**P9R16A**

VirtualWisdom Analytics annual subscription for Full ProbeFC-16G-24 Link License. Enables Analytics for 1 ProbeFC-16G-24 24 Link 8G FC license for 1 year. An Analytics subscription is required for every ProbeFC8 license installed on the Management Software instance.

VI Analytics Full ProbeFC8-HD48 48-link 1-year Subscription LTU	**P9R17A**

VirtualWisdom Analytics annual subscription for Full ProbeFC8-HD48 Link License. Enables Analytics for 1 ProbeFC8-HD48 48 Link 8G FC license for 1 year. An Analytics subscription is required for every ProbeFC8 license installed on the Management Software instance.

VI Analytics ProbeNTAP-001 1-year Subscription LTU	**P9R18A**

VirtualWisdom Analytics annual subscription for ProbeNTAP-001 License. Enables Analytics for 1 ProbeNTAP 1 Node license for 1 year. An Analytics subscription is required for every ProbeNTAP license installed on the Management Software instance.

VI Analytics ProbeSW-010 1-year Subscription LTU	**P9R19A**

VirtualWisdom Analytics annual subscription for ProbeSW-010 License. Enables Analytics for 1 ProbeSW 10 Switch Port license for 1 year. An Analytics subscription is required for every ProbeSW license installed on the Management Software instance.

VI Analytics ProbeVM-001 Hyper-V 1-year Subscription Host LTU	**P9R20A**

VirtualWisdom Analytics annual subscription for ProbeVM-001 Hyper-V Host License. Enables Analytics for 1 ProbeVM for Hyper-V 1 Host license for 1 year. An Analytics subscription is required for every ProbeVM license installed on the Management Software instance.

VI Analytics ProbeVM-001 vSphere 1-year Subscription Host LTU	**P9R21A**

VirtualWisdom Analytics annual subscription for ProbeVM-001 vSphere Host License. Enables Analytics for 1 ProbeVM for vSphere 1 Host license for 1 year. An Analytics subscription is required for every ProbeVM license installed on the Management Software instance.

Configuration Information

VI Analytics ProbeVM-001 PowerVM 1-year Subscription Core LTU	**P9R22A**

VirtualWisdom Analytics annual subscription for ProbeVM-001 PowerVM Core License. Enables Analytics for 1 ProbeVM for PowerVM 1 Core license for 1 year. An Analytics subscription is required for every ProbeVM license installed on the Management Software instance.

VI SAN Performance ProbeFC8 16G 4-link Fibre Channel 1yr Maintenance LTU	**P9R23A**

Annual maintenance for SAN Performance Probe License, 16G FC, 4 Link.

VI SAN Performance Full ProbeFC-16G-24 24-link 1-year Maintenance LTU	**P9R24A**

Annual maintenance for SAN Performance Full ProbeFC-16G-24 License, 16G FC, 24 Link.

VI SAN Performance ProbeFC8 4-link 1-year Maintenance LTU	**P9R25A**

Annual maintenance for SAN Performance Probe License, 8G FC, 4 Link.

VI SAN Performance ProbeFC-16G-24 8G 24-link Fibre Channel 1yr Maintenance LTU	**P9R26A**

Annual maintenance for SAN Performance Full ProbeFC-16G-24 License, 8G FC, 24 Link.

VI SAN Performance Full ProbeFC8-HD48 1-year Maintenance LTU	**P9R27A**

Annual maintenance for SAN Performance Full ProbeFC8-HD48 License, 8G FC, 48 Link.

VI ProbeNTAP 1-node 1-year Maintenance LTU	**P9R31A**

Annual maintenance for VirtualWisdom ProbeNTAP 1 Node License.

VI ProbeSW 10-port Switch 1-year Maintenance LTU	**P9R32A**

Annual maintenance for VirtualWisdom ProbeSW 10 Switch Port License.

VI ProbeVM 1 Hyper-V 1-year Maintenance Host LTU	**P9R33A**

Annual maintenance for VirtualWisdom ProbeVM 1 Hyper-V Host License.

VI ProbeVM 1 vSphere Server 1-year Maintenance LTU	**P9R34A**

Annual maintenance for VirtualWisdom ProbeVM 1 vSphere Server License.

VI ProbeVM 1 PowerVM 1-year Maintenance Core LTU	**P9R35A**

Annual maintenance for VirtualWisdom ProbeVM 1 PowerVM Core License.

VI VirtualWisdom Enterprise Edition Management Software 1yr Maintenance LTU	**P9R44A**

Annual maintenance for VirtualWisdom Management Software Enterprise Edition License.

VI Analytics ProbeNTAP 100-node 1yr Subscription LTU	**P9T72A**

VirtualWisdom Analytics annual subscription for ProbeNTAP-100 License. Enables Analytics for 1 ProbeNTAP 100 Node license for 1 year. An Analytics subscription is required for every ProbeNTAP license installed on the Management Software instance.

VI Analytics ProbeSW 100-host 1yr Subscription LTU	**P9T73A**

VirtualWisdom Analytics annual subscription for ProbeSW-100 License. Enables Analytics for 1 ProbeSW 100 Switch Port license for 1 year. An Analytics subscription is required for every ProbeSW license installed on the Management Software instance.

VI Analytics ProbeVM 100-host Hyper-V 1yr Subscription LTU	**P9T74A**

VirtualWisdom Analytics annual subscription for ProbeVM-100 Hyper-V Host License. Enables Analytics for 1 ProbeVM for Hyper-V 100 Host license for 1 year. An Analytics subscription is required for every ProbeVM license installed on the Management Software instance.

VI Analytics ProbeVM 100-host vSphere 1yr Subscription LTU	**P9T75A**

VirtualWisdom Analytics annual subscription for ProbeVM-100 vSphere Host License. Enables Analytics for 1 ProbeVM for vSphere 100 Host license for 1 year. An Analytics subscription is required for every ProbeVM license installed on the Management Software instance.

VI Analytics ProbeVM 100-core PowerVM 1yr Subscription LTU	**P9T76A**

Configuration Information

VirtualWisdom Analytics annual subscription for ProbeVM-100 PowerVM Core License. Enables Analytics for 1 ProbeVM for PowerVM 100 Core license for 1 year. An Analytics subscription is required for every ProbeVM license installed on the Management Software instance.

VI ProbeNTAP 100-node 1yr Maintenance LTU   **P9T77A**

Annual maintenance for VirtualWisdom ProbeNTAP 100Node License.

VI ProbeSW 100-port Switch 1yr Maintenance LTU   **P9T78A**

Annual maintenance for VirtualWisdom ProbeSW 100 Switch Port License.

VI ProbeVM 100-host Hyper-V 1yr Maintenance LTU   **P9T79A**

Annual maintenance for VirtualWisdom ProbeVM 100 Hyper-V Host License.

VI ProbeVM 100-host vSphere Server 1yr Maintenance LTU   **P9T80A**

Annual maintenance for VirtualWisdom ProbeVM 100 vSphere Server License.

VI ProbeVM 100-core PowerVM 1yr Maintenance LTU   **P9T81A**

Annual maintenance for VirtualWisdom ProbeVM 100 PowerVM Core License.

VI VirtualWisdom Virtual Edition Management Software 1yr Maintenance LTU   **P9T84A**

Annual maintenance for VirtualWisdom Management Software Virtual Edition License

NOTE: Please that it is a recommended and in some cases a required practice to get a VI Analytics and a VI Maintenance SKU, corresponding to every software SKU purchased.

Service, Support and Warranty information

Service and Support

Service and Support for the VirtualWisdom product is provided directly by Virtual Instruments. When The Hewlett Packard Enterprise customer requires support for VirtualWisdom, The Hewlett Packard Enterprise customer can contact Virtual Instruments at **support@virtualinstruments.com** or call the following numbers,

- International Phone: +1-408-579-4100
- US Toll Free Phone: 888-988-9925

Virtual Instruments licensors service delivery organization will be responsible for responding with a call, assigning a Severity Level to the call, and determining the service Severity Level acceptable to Hewlett Packard Enterprise customer. The support request will be processed by Virtual Instruments in accordance with the Severity Level agreed upon.

Warranty
Product Warranty

HPE Complete partner Virtual Instruments warrants to Customer that, commencing on the date of shipment, and for a period of (a) ninety (90) days with respect to software Products, and (b) one (1) year from with respect to hardware Products, the Products will substantially conform to the Documentation for such Products. The foregoing warranty does not apply to Evaluation Products, Products supplied as part of Support Services, or Products that have been damaged, mishandled, mistreated, used, maintained or stored other than in conformity with this Agreement or the Documentation and instructions. Customer's sole and exclusive remedy for any breach of the foregoing warranty shall be, at Virtual Instruments' option, to repair or replace the non-conforming Product with a conforming Product, or refund fees received by Virtual Instruments for the non-conforming Product. Virtual Instruments shall have a reasonable time to make repairs or issue a replacement, and such repaired or replaced Products shall be warranted for the remainder of the original warranty period. The warranty remedies in this Section require that: (i) Customer reports the non-conformity during the warranty period; and (ii) Virtual Instruments issues a "Return Materials Authorization" ("RMA") for the non-conforming Product in accordance with the RMA procedures set forth in the Support Services Supplement, and (iii) Customer returns such Products during the applicable warranty period to Virtual Instruments in accordance with Virtual Instruments' return instructions

Services Warranty

HPE Complete Partner Virtual Instruments warrants to Customer that Support Services and Professional Services delivered by Virtual Instruments to Customer shall be performed in a professional and workmanlike manner in accordance with applicable industry standards and laws applicable to Virtual Instrument in the performance thereof. Customer's sole and exclusive remedy for any breach of the foregoing warranty shall be for Customer to report the non-conformity no later than thirty (30) days following performance of the Professional Service or Support Service, and permit Virtual Instruments' to either re-perform the non-conforming Services at no additional charge to Customer within a reasonable time or refund fees received by Virtual Instruments for the non-conforming Support Services or Professional Services, as applicable

Restrictions

Customer acknowledges and agrees that Virtual Instruments assumes no liability in connection with: (i) the operation of the Customer's SAN; (ii) incomplete, inaccurate, outdated or unavailable SAN performance data caused by faulty SAN components or improperly installed SAN components monitored by use of the Products; (iii) Product errors or malfunctions, or the unavailability of SAN monitoring data resulting from improper Product installation or configuration by any party other than Virtual Instruments. Customer acknowledges and agrees that Customer has not relied and will not rely on the availability of any future version of a Product or any future Product in executing this Agreement or making any purchases under this Agreement.

Summary of Changes

Date	Version History	Action	Description of Change
07-Jun-2016	Version 1	Created	All content created

f 🐦 in ✉

Sign up for updates

Hewlett Packard Enterprise