

vRealize Network Insight Cloud

Manage Network and Security Across Clouds with VMware vRealize Network Insight Cloud for Service Providers

KEY BENEFITS

- Monetize network and security management for Datacenter and SD-WAN use cases
- Accelerate micro-segmentation planning and deployment
- Audit changes to the security posture and ensure compliance
- Troubleshoot quickly across virtual and physical network and security infrastructure
- Manage and scale VMware NSX® deployments with confidence
- Manage network and security across private and public clouds consistently

USE CASES FOR DATACENTER AND SD-WAN

- Monetize Network, Security, Site and Application analysis
- Reduce OpEx and CapEx Costs for Data Center

Introduction

VMware vRealize® Network Insight™ Cloud delivers intelligent operations for software defined networking and security. It is now available through VMware Cloud Provider Hub and helps customers build an optimized, highly available, and secure network infrastructure across multi-cloud environments. It accelerates micro-segmentation planning and deployment, enables visibility across virtual and physical networks, and provides operational views to manage and scale VMware NSX deployments.

vRealize Network Insight Cloud is part of the vRealize family of solutions for modern management and delivers a flexible and modular SaaS approach to delivering network visibility and analytics —enabling partners to help optimize and secure their tenant's network infrastructure across hybrid and multi-cloud environments. The cloud-based solution provides a rapid path to offering new professional service offerings, like security, network, and application evaluations, to reduce time-to-deployment and offer new ongoing services, like quarterly security evaluations.

You can now monetize two vRealize Network Insight Cloud offerings, based on network services that were previously manual, which are now automated, with reduced time to troubleshoot, enabling you to offer this service to your customers at scale.

- **vRealize Network Insight Cloud for SD-WAN:** Monitor networks with VMware SD-WAN by VeloCloud and reduce WAN costs and optimizes MPLS and internet connections for tenants.

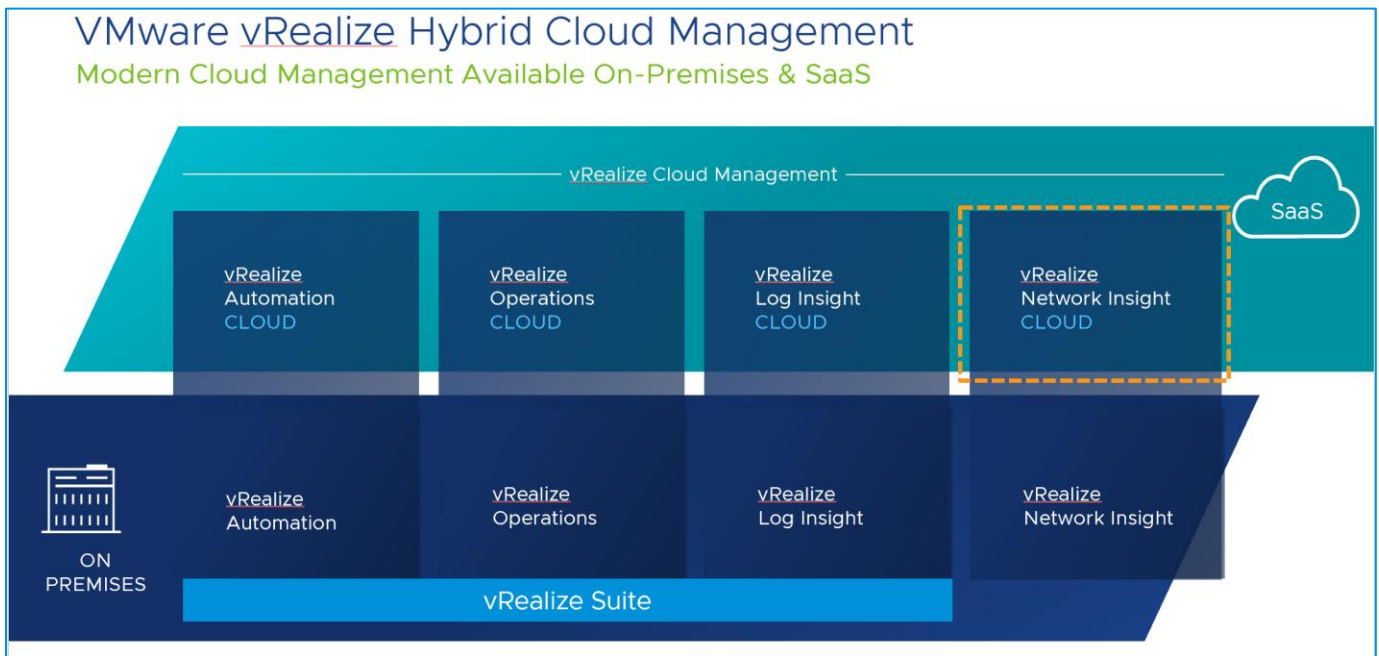
Optimizing WAN network with SD-WAN is beneficial for banks, retailers and other deployments with a lot of branch locations.

- **vRealize Network Insight Cloud for Data Center:** Monitor data center networks (Hybrid Cloud, Multi-Cloud, NSX, SDDC, VM, Kubernetes) and offer new services to deliver application discovery capabilities that are powered by machine learning and automation.

All customers such as Healthcare, Financial institutions, Public sector and other industries that have data centers require application discovery, application migration and other security monitoring for their infrastructure.

VMware vRealize Network Insight Cloud for Partners on VMware Cloud Provider Hub, is a solution to optimize highly available and secure network infrastructure across hybrid and multi-cloud environments. It provides network visibility and analytics to discover applications, minimize risk during application migration, accelerate micro-segmentation security, optimize network performance and confidently manage and scale.

For partners, there are two vRealize Network Insight offerings available to monetize based on network services that were previously manual, which can be automated and reduce time to troubleshoot. Both of these offerings can be individually offered or combined for true end-to-end network visibility across the various personas partners will work with, such as network architects, WAN engineers, security practitioners, application engineers and other infrastructure personnel.



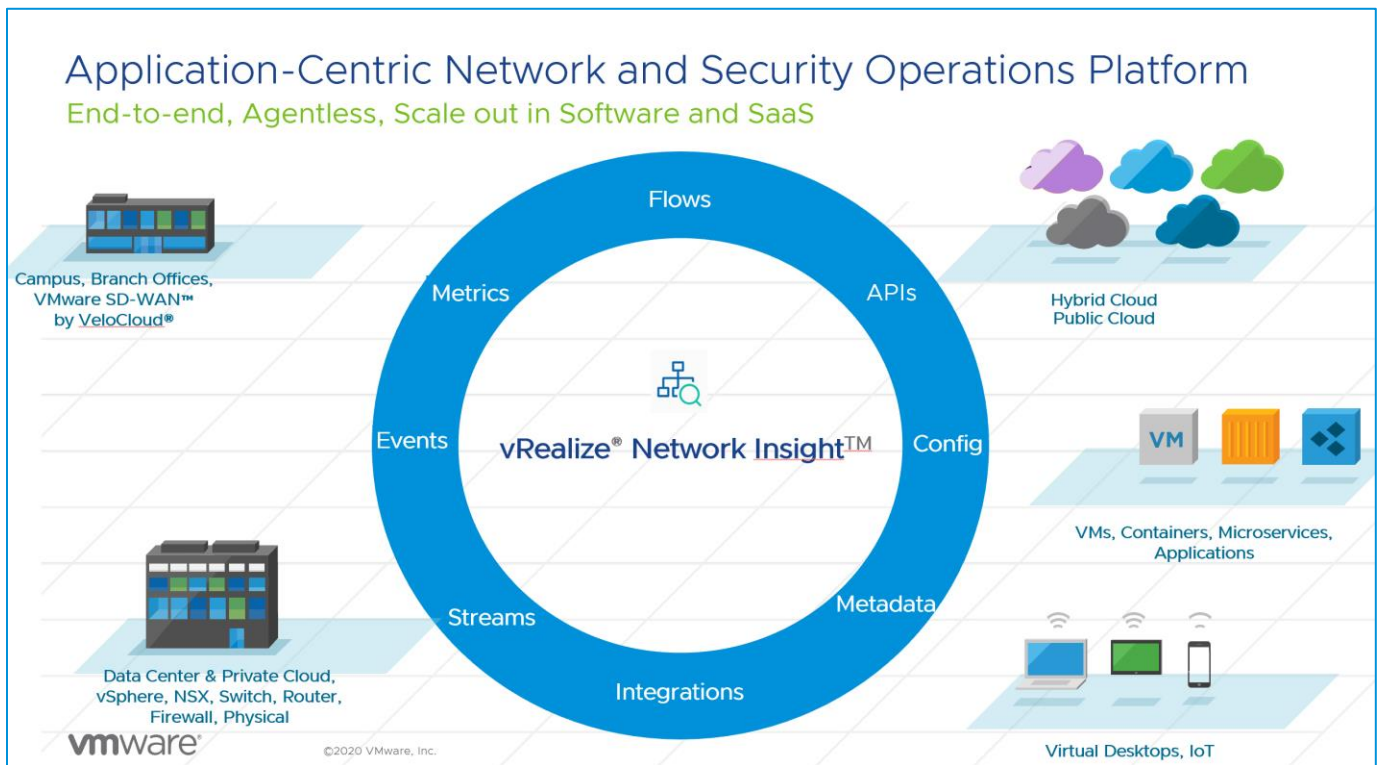
Key Benefits: vRealize Network Insight Cloud for VMware SD-WAN

It offers network monitoring with VMware SD-WAN by VeloCloud. The network visibility offered by vRealize Network Insight Cloud offers partners the ability to reduce WAN costs and manage expensive MPLS connections for their tenants. The solution offers partners the ability to fine tune application performance, security, and optimization for tenants. This helps enable business priorities across tenant's applications and edge links. vRealize Network Insight Cloud for VMware SD-WAN offers SLA monitoring, analytics, capacity planning, overlay and underlay troubleshooting. It provides access to the Cloud Provider Hub dashboard for tenant visibility, onboarding, and monitoring.

Cloud Providers get the following benefits:

- End-to-End visibility from the data center, to the cloud, to the branch
- Manage network and security across private clouds, public clouds and SD-WAN
- Application discovery and performance optimization
- Application and network health monitoring
- Connectivity, path visibility and hotspot detection

- Intuitive troubleshooting and out-of-the-box analytics
- Access to an MSP dashboard to get visibility into network and security
- Capacity Planning
- SD-WAN evaluation
- Timeseries historic insights
- Configuration change management
- Policy: Visibility into how many business policies are in use today



Key Benefits: vRealize Network Insight Cloud for Data Center

It offers network monitoring for data centers (Hybrid Cloud, Multi-Cloud, NSX, SDDC, VM, and Kubernetes deployments). vRealize Network Insight Cloud allows partners to offer tenants with application discovery capabilities that are powered by machine learning and automation to bill for migration services, to help tenants migrate to public or private cloud. The solution also helps partners to optimize firewall rules and policies to provide strength in partner's security practices, that they offer to tenants, such as micro segmentation. Through four customer interviews and data aggregation, *Forrester Research* concluded that VMware vRealize Network Insight has a 477% ROI three-year financial impact.




Cloud Providers get the following benefits:

- Application discovery and migration
- Ability to audit changes to the security posture and ensure compliance
- Troubleshoot quickly across virtual and physical network and security infrastructure
- Manage and scale NSX deployments with confidence

- Reduce business risk by mapping application dependencies during application migration planning
- Accelerate performance of their business-critical applications by optimizing their network and eliminating bottlenecks
- Operationalize Kubernetes and troubleshoot connectivity issues between containerized workloads

Monetize vRealize Network Insight Cloud

MSPs have many opportunities to increase services revenue

		
Managing the Network Fixed fee per unit, VMs, Containers, devices at \$x per unit/month	Application Performance: Offer services on app discovery and app migration with latency measurement	Security Administration Offer Recommendations by Analyzing App Flows and develop Security Planning Policies for Micro-segmentation
Network Performance and SLAs	Application Optimization	Security Audits and Compliance

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Provider and Tenant Challenges for Multi-Cloud

Operations engineers, security practitioners, network architects, and planners are looking for a simple, unifying solution to handle any environment. VMware vRealize Network Insight Cloud offers this flexibility and support of multiple vendors to discover, optimize, and troubleshoot app security and network connectivity across disparate critical infrastructure.

Today's tools for monitoring the dataflow across SD-WAN and Data Center environments for optimum east-west traffic can be challenging and time-consuming because they involve manual processes. Niche and legacy network management tools do not provide converged visibility across virtual and physical networks to optimize performance.

Customers need a simple, easy-to-use, end-to-end management tool to troubleshoot and get compliance best practices for VMware SD-WAN™ by VeloCloud® and Data Center NSX and vSphere deployments. With vRealize Network Insight Cloud, you can take the guesswork out of deploying micro-segmentation with a comprehensive NetFlow assessment, to model security groups and firewall rules, and get actionable recommendations for implementing micro-segmentation and monitoring compliance postures over time. In addition, vRealize Network Insight Cloud can help you improve performance and availability, with converged visibility across physical and virtual networks. You can also simplify NSX operations management with an intuitive UI and natural language search to quickly pinpoint issues and troubleshoot, as well as get best practice

recommendations for deployment and compliance. vRealize Network Insight Cloud is available to monitor deployments for on-premises and/or cloud infrastructure.

Challenges

- Monetizing network operations, performance monitoring and application security planning
- Agile management and troubleshooting needs for diverse infrastructure and network topologies
- Lack of a unified view for network visibility of physical and virtual infrastructure
- Increased security complexity and consistency, delaying business critical activities such as security and application migration planning
- Reduced speed for application mobility, migration and troubleshooting in a multi-cloud environment with increasing application dependencies
- Reduced time-to-market for new business priorities with more agile network deployments versus managing multiple tools for monitoring and time for on-ramp
- Infrastructure Proliferation
- Network Visibility of Physical and Virtual Infrastructure
- Security Complexity and Consistency
- High Cost to Manage with Manual Processes
- Ability to Adapt and Grow for Business Priorities
- Challenges for the various personas who manage the infrastructure from operations practitioners to network architects and planners.

SOLUTION

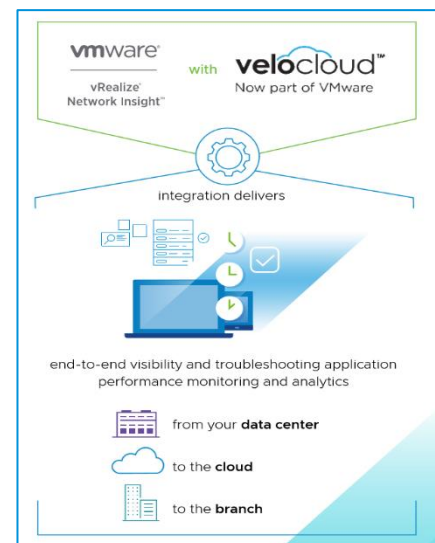
vRealize Network Insight Cloud for SD-WAN offers visibility for VMware SD-WAN by VeloCloud across branches, applications, and physical and virtual edges

vRealize Network Insight Cloud offers visibility for Data Centers across applications, on-premises, physical and virtual firewalls, switches, routers, private cloud, public cloud, VMs, containers, and virtual desktops (VDI).

With VMware vRealize Network Insight Cloud integrated with VMware SD-WAN, some of the advantages offered are =performance, operations and compliance benefits. Our goal is to help improve both, your Return on Investment (ROI) and Total Cost of Ownership (TCO).

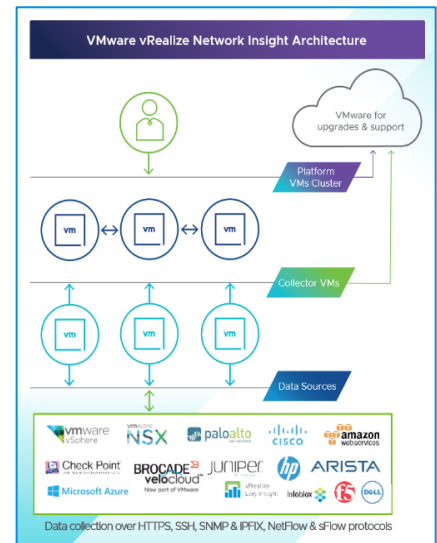
On Day 0 and Day 1 vRealize Network Insight Cloud provides:

- Rapid standup and connection to all sources (including Cisco routers, SD-WAN, etc.)
- Application and tier discovery
- Application dependency mapping
- Instant data collection for immediate cost assessment

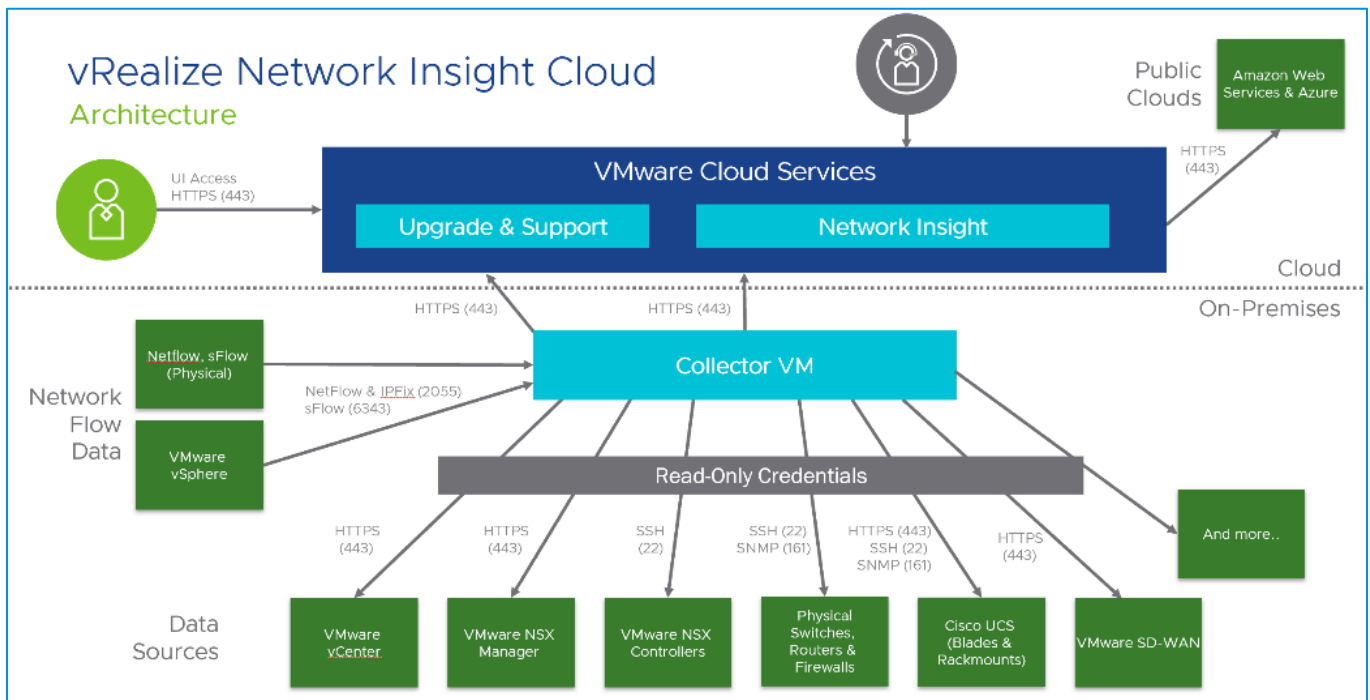


From Day 2 post-deployment link monitoring assures:

- The health of your branches/edges, delivering visibility into flows and networking entities
- Delivery on the SLAs providers promised
- Rapid troubleshooting
- Simplified management and scaling
- Monitoring of all apps, all flows of data, in and out of every branch, enables you to see:
- Which apps are being accessed, by whom, and when
- The enterprise view of your network infrastructure, all the way down to the branch or site level, that allows you to automatically monitor all the flows of data in and out, and allows you to extend and troubleshoot
- Gaining consistent visibility across the data center, clouds and branches



This Figure shows the Architecture Overview of how vRealize Network Insight gathers data from various sources to make a complete view of the network infrastructure



Feature matrix

CAPABILITY	vREALIZE NETWORK INSIGHT ADVANCED	vREALIZE NETWORK INSIGHT ENTERPRISE	vREALIZE NETWORK INSIGHT CLOUD	SD-WAN (On-premises or Cloud-SaaS)
Virtual Flows (VDS IPFIX, V2V, V2P)	•	•	•	
NSX Firewall Micro-segmentation Planning and Operations (NSX IPFIX)	•	•	•	
Application Discovery Dashboard (Names, Tags, RegEx)	•	•	•	
NSX Day 2 Ops (Topology View, Health Checklist, Edge Load Balance Dashboard)	•	•	•	
Visibility Across Third-Party Switches, Routers, Firewalls and Load Balancers	•	•	•	
Public APIs	•	•	•	
DNS Mapping (Import Bind File)	•	•	•	
NSX PCI Compliance Dashboard		•	•	
ServiceNow Integration for App Discovery		•	•	
Security Planning and Visibility for VMware Cloud on AWS		•	•	
Amazon AWS		•	•	
VMware Cloud		•	•	
VMware Cloud on AWS Direct Connect		•	•	
Microsoft Azure		•	•	
DNS Resolution with Infoblox		•	•	
Physical Flows (NetFlow v7 and v9, and sFlow)		•	•	
Visibility for VMware Enterprise Tanzu Kubernetes and RedHat OpenShift		•	•	
Network and Security Analytics (Top Talkers, Anomalies, Outlier Detection, etc.)		•	•	
Configurable and Extended Retention Period for Data		•	•	

Cisco ACI, BGP-EVPN Underlay Visibility		•	•	
Flow Based Application Discovery (powered by Machine Learning)			•	
vRealize Operations Manager Integration	•	•	•	
VMware SD-WAN Visibility and Analytics				•
VMware SD-WAN Application Discovery & Optimize Performance				•
VMware SD-WAN Application & Network Health Monitoring				•
VMware SD-WAN Connectivity, Path Visibility and Hotspot Detection				•
VMware SD-WAN Troubleshooting & Out-of-Box Analytics				•
VMware SD-WAN Capacity Planning				•
VMware SD-WAN Assessment				•
VMware SD-WAN Time Series Historic insights				•
VMware SD-WAN Configuration Change Management				•

USE CASES:

Solving the virtual and physical network puzzle when it comes to managing, troubleshooting, and securing the network, many network administrators face a puzzling, and frustrating, visibility gap across the virtual and physical network. vRealize Network Insight Cloud can help you with the following use cases.

Use Cases for VMware SD-WAN:

Monetize Network, Site, Security and Application Evaluation

- Providers can monitor application and network health to reduce time to resolution and monetize improved SLA offers for private clouds, public clouds
- Capacity Planning to help service providers and tenants manage growth and the effect of adds/moves/changes
- Monetize by offering periodic Network, Security, Site and Application Evaluation with vRealize Network Cloud for SD-WAN:

- **Virtual Security and Network Evaluation:** Basic, high level assessment of data center security and network traffic flows
- **Site Evaluation:** Deeper, fee-based analysis of all application flows within an environment (or) site
- **Application Evaluation** of network security and performance for each specific application

Reduce OpEx and CapEx costs for SD-WAN

- Providers can leverage connectivity, path visibility and hotspot detection features, so they can quickly pinpoint the issue for tenants
- Providers can optimize performance and application discovery to reduce latency and accelerate business priorities. It also helps expedite root cause to prove network innocence.
- Providers can manage network and security across private clouds, public clouds and SD-WAN
- Application discovery and performance optimization to reduce latency and improve business priorities.
 - Intuitive troubleshooting and out-of-the-box analytics to help with planner personas at tenant sites who continually focus on optimization
 - Timeseries historic insights to allow service providers to root cause issues and build confidence in the service for tenants
 - Configuration change management for documentation and compliance with regulatory requirements from tenants
 - Policy: Visibility into how many business policies are in use today to further optimize on business priorities for tenants

Use Cases for Data Center:

Monetize Network, Security, Site and Application Evaluation

- Providers can monetize security policy planning with the ability to audit changes to the security posture and ensure compliance for tenant's regulatory requirements and policies
- *Forrester Research* concluded that VMware vRealize Network Insight has a [477% ROI three-year financial impact](#)
- Monetize by offering periodic Network, Security, Site and Application evaluation with vRealize Network Cloud for Datacenter:
 - **Virtual Security and Network Evaluation:** Basic, high level analysis of data center security and network traffic flows for NSX and other infrastructure
 - **Site Evaluation:** Deeper, fee-based analysis of all application flows within an environment / site
 - **Application Evaluation:** Analysis of network security and performance for each specific application

Reduce OpEx and CapEx Costs for Data Center

- Providers can now accelerate performance of their tenant's business critical applications by optimizing their network and eliminating bottlenecks
- Providers can manage and scale NSX deployments for tenants and themselves with confidence and avoid 95% of time previously spent addressing network errors
 - Scale across multiple NSX Managers
 - Boost uptime by proactively detecting misconfiguration errors
 - Ensure compliance for NSX
- Providers can reduce 80% of the time spent toward conducting network flow analysis for physical, virtual, and 3rd party infrastructure and troubleshooting

- Reduce mean time to resolution for application connectivity issues
 - Optimize application performance by eliminating network bottlenecks
 - Audit network and security changes over time
- Providers can expect to save 75% of their time on creating security policies with the automation of firewall rule generation through flow analysis.
- Providers can improve business agility through application discovery and migration with machine learning, for faster application deployment.
 - Accelerate micro-segmentation deployment
 - Troubleshoot security for the NSX, Software-Defined-Datacenter (SDDC), native AWS, Azure, Kubernetes containers, and hybrid cloud
 - Ability to audit changes to the security posture and ensure compliance for tenant’s regulatory requirements and security plans
 - Minimize business risk during application migration
- Providers can reduce business risk for tenants by mapping application dependencies during application migration planning.

HOW DO PARTNERS BENEFIT	HOW DO END CUSTOMERS BENEFIT
<p>Differentiation: Cloud providers can tap into a market of over 500,000 VMware customers looking to move workloads to a compatible cloud.</p>	<p>Expansion: Customers can rapidly expand their Network, Security and SD-WAN monitoring footprint to new geographies and lines of businesses while reducing CapEx costs and enjoying a faster time to market. (At GA, services will be launched in US West)</p>
<p>Investment: No data center investment or maintenance is required.</p>	<p>Faster application deployment is possible with application discovery and migration using machine learning.</p>
<p>Agility: Cloud providers maintain control of their customers’ contracted support and lifecycle, whilst VMware components are managed by VMware.</p>	<p>End-to-End Visibility for End customers with visibility across both SD-WAN and data center with the same UX for easy training and on-ramp.</p>
<p>Faster on-ramp: Cloud providers can monetize services without having to re-skill and re-tool. This enables cloud providers to deliver a consistent experience to their customers across multi-cloud investments.</p>	<p>Simplified User Experience: Tenants have network monitoring with automatic updates/new features exactly how they want to consume from MSPs:</p> <ul style="list-style-type: none"> - Read-only access where the tenant lets the MSP manage the vRNI Cloud instance and network issues completely - Read/ write access where the tenant manages their own network monitoring issues after the MSP’s initial

	onboarding
Continuity: Service providers can quickly provision and scale high availability instances for tenants	Quick identification of tenant issues is possible with path visibility and hotspot detection for customer tenants.
Monetization: There are many opportunities to monetize services for tenants around networking, application, security, compliance, performance.	Optimization: End customers can optimize their network and eliminate bottlenecks for their business operations.
Pay as you Grow Model: Cloud providers can quickly add new customer segments and gain better economies of scale in an asset-light, pay-as-you-grow model.	Growth: Customers can manage growth through capacity planning and the effect of adds, moves and changes.
Offer Unified Monitoring: Partners can use the benefits of vRealize Network Insight Cloud to provide their end-customers with SaaS visibility across their infrastructure for SD-WAN, data center/multi-cloud, while easing the complexity of managing physical and virtual devices.	Faster Time to Value: Customers can reduce the time spent on network flow analysis, security policy creation and app discovery and migration for their physical, virtual and 3rd party infrastructure.

MSP Platform

The Managed Service Provider (MSP) route to market gives partners the option to use VMware software -as-a-service offerings without investment in their own data center infrastructure, delivering managed services on top. vRealize Network Insight Cloud will be offered to our MSPs through our centralized service provisioning portal, the VMware Cloud Provider Hub which helps MSPs transact, deploy and provision SaaS offerings from a single pane of glass.

How to Get Started

Below is an overview of the VMware Cloud Providers Managed Service Provider (MSP) lifecycle:

- **Commit Contract** – Partner signs a VMware vRealize Network Insight Cloud Managed Service Provider commit contract with a VMware Aggregator. Partner then commits to VMware an MSRP (list price) spend to obtain a volume discount for their purchases.
- **Cloud Provider builds MSP Pipeline** – Partner initiates go to market activities and starts building their business for Managed Services.
- **Deliver Managed Services and Own the Terms of Service** – Once the opportunity has been identified, partners can order vRealize Network Insight Cloud from VMware and provide Managed Services as part of the offering to their customers. Partners must provide their own terms of service and managed services as part of the offering to the end customer. At a

minimum, this must include technical support for the service and all functions associated with service configuration, additions, renewals and anything pertaining to billing.

- **On-Board and Provide Support to their Customers** – Partner will on-board vRealize Network Insight cloud for their customers. Subsequently, they may obtain technical support from VMware as needed, with the following [provisions](#). In turn, partners are responsible for all customer support, which may include but may not be limited to customer communication, any managed services, answering installation, configuration and usage questions.
- **Complete Monthly End Customer Reports and Pay Invoices** – On the 5th of every month, the partner will log into the Business Portal and review the prior month's usage. Partner will review the report and submit it to their Aggregator. Following that, the Aggregator will send the Partner an invoice for the month.

SUMMARY

vRealize Network Insight Cloud offers Partners the ability to monetize their network services and build a practice managing previously complex services in a simpler way. Partners can use the benefits of vRealize Network Insight Cloud to provide their customers/tenants with SaaS visibility across their infrastructure for SD-WAN, data center and multi-cloud environments, while easing the complexity of managing physical and virtual devices. APIs are available where partners can create value-add capabilities. vRealize Network Insight Cloud has the same UX for both VMware SD-WAN and Data Center for easy training and on-ramp. vRealize Network Insight Cloud offers benefits to both partners and their end customer because VMware will manage the entire system end-to-end so that the partner will not have to manage system upgrades or maintenance and can just focus on selling network monitoring services.

For more information on vRealize Network Insight Cloud and other Managed Service Provider services, please visit the [website](#) or contact your [VMware representative](#).

