

VMware vRealize Network Insight “Arkin” Messaging Document

Key Message Summary

Launch Overview

Organizations around the world are adopting an SDDC architecture based on VMware’s virtualized infrastructure.

Enterprise customers see the value of SDDC and SDN, but they often struggle with how to deploy and operate the technologies most effectively.

In acquiring Arkin (now called vRealize Network Insight), VMware will provide customers with greater visibility spanning physical and virtual networks while also making NSX easier to deploy and manage.

This would translate into tremendous value to our customers, including:

- Unprecedented visibility and insight to the datacenter traffic flows
- Faster deployments via micro-segmentation planning and recommendations
- Significantly lower time to resolution post deployment across virtual and physical networks, leveraging constructs like time-machine, natural language search and contextual analytics.

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Offering Description

VMware vRealize Network Insight delivers intelligent operations for software-defined networking and security. It helps optimize network performance and availability with converged visibility across virtual and physical networks, provides planning and recommendations for implementing micro-segmentation based security, and operational views to quickly and confidently manage and scale VMware NSX deployment.

How It Fits within VMware

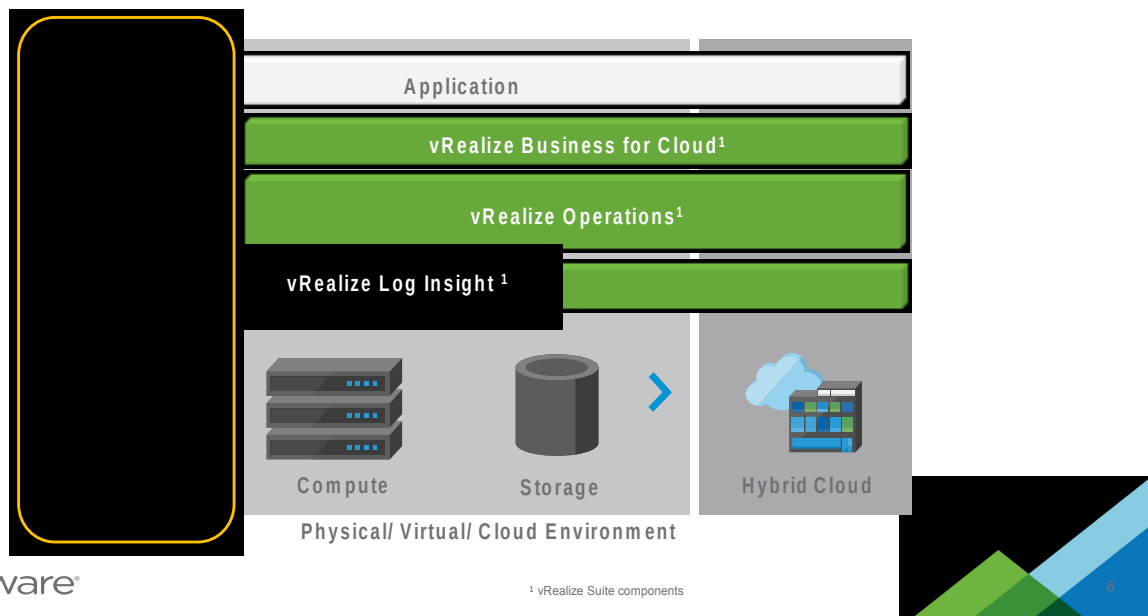
Intelligent operations includes a number of VMware vRealize family of products: notable vRealize Operation, vRealize Log Insight, vRealize Network Insight and vRealize business for Cloud (cloud costing capabilities).

vRealize Operations delivers intelligent operations management across physical, virtual, and cloud infrastructures—from vSphere and Hyper-V to Amazon Web Services. It correlates data from compute, storage and applications in a unified management tool that is easy-to-use and provides control over performance, capacity, and configuration, with predictive analytics driving proactive action, and policy-based automation. When combined with **vRealize Log Insight**, it provides insights into both structured and unstructured data for faster troubleshooting. The addition of **vRealize Business for Cloud**, cloud costing capabilities combine business insights with operational views to accelerate decision making.

VMware **vRealize Network Insight** delivers intelligent operations for software-defined networking and security. vRealize Log Insight and vRealize Network Insight are complementary for NSX management. While vRealize Network Insight analyses netflow and structured data, Log Insight analyses unstructured data for faster troubleshooting and visibility and completes the use cases for performance optimization and NSX day-2 operations.

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VMware Delivers: Intelligent Operations for Software-Defined Datacenter



Capabilities

Use Case 1:

Optimize Network Performance with 3600 Visibility

- Virtual and physical network topology mapping
- Performance Optimization across Overlay and Underlay
- Log Analytics provided by vRealize Log Insight for improved visibility

Use case 2:

Ensure Health and Availability of NSX Deployment

- Intuitive UI, Natural language search to quickly pinpoint issues
- Best practice deployment and compliance
- Log analytics for accelerated troubleshooting provides by vRealize Log Insight

Use case 3:

Plan Micro-Segmentation and Deployment & Ensure Compliance

- Comprehensive netflow assessment and analysis to model security groups and firewall rules
- Recommendations to make micro-segmentation easier to deploy
- Continuously monitor and audit compliance postures over time

Market Information

Target Audience

Both buyers and users who are NSX customers.

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- Buyers: cloud infrastructure & operations teams.
- Users: admins at network, security, and cloud levels.

Market Dynamics, Competition & Differentiation

Changing application architectures and the proliferation of cloud services dramatically impact the way networks are designed, built and managed.

The market is evolving to meet the new architectures and currently has small players with niche solutions and legacy management platforms. The niche solutions include Solar Winds which provides basic networking device management and troubleshooting, VMTurbo network pack that provides VM placement that is network aware with basic troubleshooting capabilities, Fixstream that provides basic flow, Extrahop and F5. Most legacy management solutions do not support virtual networks, are often silo'ed and break down at the physical and virtual boundary. vRealize Network Insight provides a more complete solution with troubleshooting, planning and configuration management , and is purpose built for NSX and the microsegmentation use case.

Other operations platforms are

- Not designed for next generation datacenter architectures
- Do not provide contextual information across IT disciplines
- Are hard to extend – need adapters, agents and other connectors
- Are extremely difficult to deploy and use

Arkin is:

- Agentless – easily extensible
- Provides Complete coverage – Virtual to Physical
- X-domain correlated views across compute, network and security
- Provides ease of search functionality
- Delivered on-premise or as a SaaS offering in the cloud

Obstacles

The obstacles Marketing faces are enablement of core Sales and Specialists as well as educating existing NSX customers on the solution features and benefits.

Customer References

CA Department of Water
Nebraska Medicine
Columbia Sportswear
USAA

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Offering Description

Business Issues

- Microsegmentation provides deep security at the VM level, however getting visibility into datacenter and designing the dataflow for optimum East-West traffic can be challenging and time consuming if done manually.
- Customers need converged visibility across virtual and physical networks in order to optimize performance
- Customers need an intuitive management tool post NSX deployment

Positioning Statement

Unlike niche players, VMware vRealize Network Insights customers will get intelligent operations for software-defined networking and security, including planning and recommendations to take guess work out of deploying micro-segmentation, converged visibility across physical and virtual networks and NSX day-2 operations and compliance management. Unlike legacy solutions, vRealize Network Insight is purpose built for NSX and micro-segmentation security. It fits into the overall intelligent operations use case along with other vRealize family of products to provide operations management for entire SDDC – compute, storage, network and applications.

Business Benefits

- Proactive - Take the guesswork out of deploying micro-segmentation with comprehensive netflow assessment to model security groups and firewall rules, get actionable recommendations for implementing micro-segmentation and monitoring compliance postures over time
- Efficiency - Improve performance and availability with converged visibility across physical and virtual networks
- Simplification - Simplify NSX operations management with intuitive UI and natural language search quickly to pinpoint issues and troubleshoot as well as get best practices deployment and compliance recommendations

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Technical Issues

- **Visibility:** There are multiple layers, technologies and vendors involved in an SDDC across the overlay (virtual) and underlay (physical) network layers. Getting end to end visibility of how these layers are connected, and what’s happening within each layer and what’s flowing through them can be challenging. Adding public cloud (AWS) to the mix further blurs out visibility.
- **Modeling Application behavior for Microsegmentation:** Understanding application behavior and how different tiers communicate is a challenge but absolutely necessary to model security policies and firewall rules in an accurate and predictable fashion.
- **Operationalizing NSX based environments:** Today’s operations team are trained and skilled in managing and monitoring physical networks and the tools they have been using have not changed. Virtual networking introduces new constructs and additional complexity. Organizations are still trying to get a grasp of the best practices to implement and operate VXLANs and Virtual Firewalls. Troubleshooting could become a challenge with the siloed tools and skillset gap that exists in organizations.
- **Audit & Compliance:** Virtual firewalls and networks are subject to the same kind of compliance and audit requirements as their physical counterparts. However, due to distributed nature of these technologies and separation of planes (control, management, data), it is harder to keep track of the changes and maintain compliance.

Proofpoints:

Business

Proactive: Best practices around change management, audit and compliance for virtual firewalls.

Efficiency: Microsegmentation, troubleshooting and recommendations

Simplification: Leverage existing skillsets, intuitive Google search-like UI, single pane of glass for physical and virtual

Technical

Visibility: Arkin provides converged visibility across overlay and underlay, virtual and physical, private and public cloud. Arkin does it by integrating deeply with Virtual (NSX) and Physical layers (physical switches, routers, firewalls), and connecting the dots between the two, across vendors and cloud. The VM to VM path and VXLAN views are proof points. Organizations like CA Department of Water (CDWR) have implemented Arkin in their state of art SDDC that contains VMware NSX and other vendors.

Modeling Application Behavior for Microsegmentation: Arkin collects and analyzes Network flow flows in real time and puts all the flows in the context of the VMs and Applications that they are originating from or terminating to. By tying network (IP) flows to compute (VM names and Application boundaries), users can easily understand who is talking to whom and what flows need to be allowed and what could be blocked. Thus using Arkin, a very accurate real life micro-segmentation model could be achieved.

Nebraska Medicine has been securing their apps on NSX with lot of speed and accuracy using Arkin.

Operationalizing NSX based environments: Arkin provides simple Google like search and intuitive UI to operate NSX based environments. Using day to day networking and data center verbiage, admins and operators can easily manage and troubleshoot NSX without requiring lot of additional training. Columbia sportswear have enabled their existing teams to easily operate NSX and an ecosystem partner using vRealize Network Insight

Arkin provides best practice checks to guide users through their VXLAN and firewall implementation and alerts them of any pitfalls in their design and implementation of NSX. This has tremendously benefitted Mckesson in their VXLAN implementation.

Audit and Compliance: Arkin provides a data center time machine that tracks all the changes for audit

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and compliance purpose. You can go back in time and look at historical changes and how they impacted security of a VM.

Technical Solution

Technical Benefits

- Integrated with 80% of customer deployments including VMware, Cisco, Arista, Brocade, Juniper, and Palo Alto network (Simplify operations)
- Reduction in troubleshooting from on average 45-60 minutes to under 5 minutes with natural language search engine (Simplify operations)
- Between a 2 to 3 X time savings of customers integrating their current operations tools with NSX virtual networking (Efficiency)

Net Takeaway

VMware vRealize Network Insight delivers intelligent operations for software-defined networking and security, with converged visibility across virtual and physical networks, planning and recommendations for micro-segmentation and operations management for NSX

Key Terms

VMware NSX, NSX, VMware vRealize Network Insight, LogInsight, vRealize Operations

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Boilerplates

Description (25 words)	VMware vRealize Network Insight delivers intelligent operations for software-defined networking and security, with converged visibility across virtual and physical networks, planning and recommendations for micro-segmentation and operations management for NSX
Description (50 words)	VMware vRealize Network Insight delivers intelligent operations for software-defined networking and security. It helps optimize network performance and availability with converged visibility across virtual and physical networks, provides planning and recommendations for implementing micro-segmentation based security, and operational views to quickly and confidently manage and scale VMware NSX deployment.
Description (100 words)	VMware vRealize Network Insight delivers intelligent operations management for software-defined networking and security. It helps optimize network performance and availability with converged visibility across virtual and physical networks, provides planning and recommendations for implementing micro-segmentation based security, and operational views to quickly and confidently manage and scale VMware NSX deployment. It can optimize network performance with 3600 visibility with topology mapping across physical and virtual networks. It can ease micro-segmentation deployment with comprehensive netflow analysis, recommendations and ensure compliance with post deployment monitoring. It can ensure health and availability of NSX deployments with an intuitive UI, natural language search.

Appendix

<http://vmblog.com/archive/2016/04/28/vmblog-s-expert-interviews-calif-dept-of-water-and-arkin-talk-sddc-visibility-operations-and-security.aspx#.V4UvgVcR3r>

<https://gcn.com/articles/2016/05/03/cdwr-sddc.aspx>