

# CA Virtual Network Assurance

## CA Network Operations Analytics

### At A Glance

Close the loop among traditional physical network environments and new virtualized networking technologies to reduce complexity in network visibility and planning. CA Virtual Network Assurance bridges existing and new network management capabilities to meet the needs of software-defined networking (SDN), network functions virtualization (NFV), software-defined data centers (SDDC) and software-defined wide area networks (SD-WAN). The solution provides a gateway for performance monitoring for CA Performance Management and topology and fault management for CA Spectrum for all the network components and layers within the SDN/NFV stack and application service chains.

#### KEY BENEFITS

- **Deliver operational intelligence.** Identify vulnerabilities and bottlenecks that could impact service delivery with end-to-end network visibility.
- **Reinvent service delivery.** Accelerate and tailor revenue-generating services in real time.
- **Protect investments.** Extend existing CA infrastructure management investments to support SDN, NFV, SDDC, SD-WAN and hybrid cloud architectures.

#### KEY FEATURES

- **Comprehensive hybrid coverage.** Broad capabilities to acquire, analyze and present metrics on devices flow and applications across traditional software-defined architectures and cloud end points to improve operational visibility.
- **Support for Cisco and Versa SD-WAN.** Single-pane, proactive health monitoring of traditional and new SD-WAN networks with correlation and validation to the application experience.
- **Support for Cisco ACI software-defined data centers.** Visualize the new network abstraction via discovery and collection of your Cisco ACI deployments, along with traditional infrastructure.
- **Support for Nokia Nuage network-as-a-service.** Monitor self-service VPN over multi-tenant wide area networks.
- **Advanced scale.** Provides 4 million monitored items at 500,000 metrics per second, making it one of the most scalable network monitoring platforms in the market.

### Business Challenges

The adoption of modern networking technologies offers tremendous benefits to organizations, such as automation, speed and agility, but have also introduced many challenges in monitoring and assuring these new networks. There are four areas that fuel these challenges:

- The application economy is putting a strain on network performance and resources.
- The cloud is redirecting traffic patterns and introducing limited network visibility.
- SDN introduces complexities at a rapid rate with a high degree of change.
- IoT is pushing the scale limits of traditional network monitoring.

Traditional network monitoring will not work and limits your ability to:

- Correlate the network impact to the application experience.
- Close the visibility gaps between on-premises network monitoring and the performance of the network path and the cloud (SD-WAN) where workloads are being moved.
- Understand, visualize and relate the different SDN layers (physical, virtual, logical) and vendor technology variances.
- Monitor your traditional network along with the new virtual networks in one dashboard; scaling for and correlating the relationships and dependencies of both your old and new networks.

### Solution Overview

CA Virtual Network Assurance is a flexible and scalable software gateway add-on that provides robust capabilities to lower the cost of managing modern network technologies while delivering on the promise of network agility through:

- **Comprehensive coverage** via scalable and heterogeneous monitoring across the greatest number of technology stacks of traditional, SDN, SDDC, SD-WAN, NFV and hybrid-cloud architectures.
- **Prescriptive analytics and easy health indicators** that enable real-time performance analysis and guided workflows for rapid triage.
- **SDN/NFV and cloud stack correlation** that remove management complexity for healthy modern network operations.

- **Extended overlay/underlay visibility** through rich, Open API visualizations of integrated SDN/NFV metrics with SNMP of virtual network and cloud architectures alongside traditional infrastructure in relationships and building block views.
- **Service-level fault identification** that accurately identifies performance bottlenecks and vulnerabilities in application traffic within traditional, software-defined and hybrid cloud ecosystems.

### Critical Differentiators

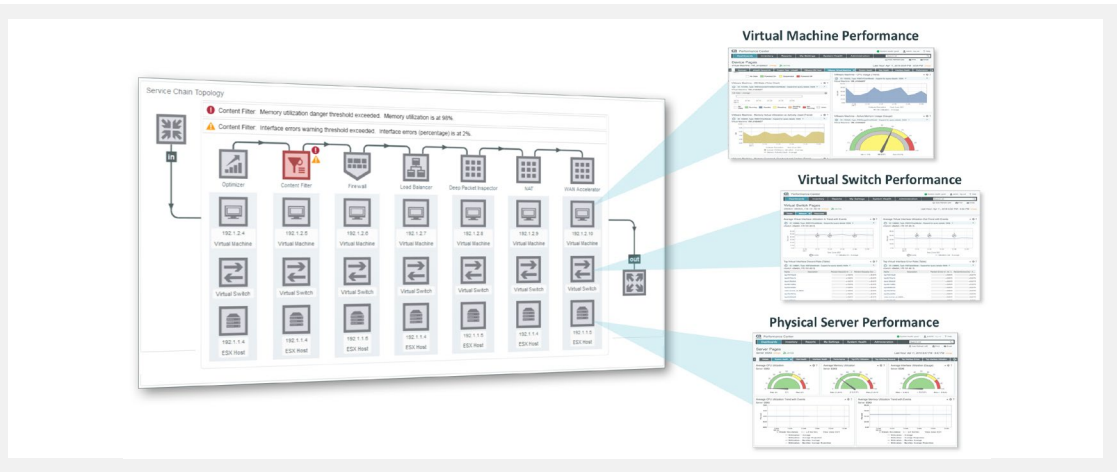
- Full pathway to the cloud assurance
- SDN/NFV and cloud stack modeling
- Service chain building block views
- Expertise in visibility, flexibility and scale

### Related Products/Solutions

- **CA Performance Management** provides comprehensive network performance monitoring and analytics for traditional, SDN and hybrid cloud architectures.
- **CA Spectrum** offers superior network fault and root cause analysis.

CA Virtual Network Assurance Technical Specifications		
Minimal software requirements	<ul style="list-style-type: none"> <li>• RHEL 6.x-7.x</li> </ul>	<ul style="list-style-type: none"> <li>• Java™ 8 (1.8.0_45)</li> </ul>
Supported SDN/NFV environments	<ul style="list-style-type: none"> <li>• <b>Controllers:</b> Open Contrail 2.20-2.21, OpenDaylight (Helium, Beryllium), VMware NSX 4.2.4, Nokia Nuage 4.0.0 (VNS), Cisco ACI 2.0-3.1, on-demand plugins</li> <li>• <b>Cloud orchestration:</b> OpenStack (Juno, Kilo, Mitaka), on-demand plugins</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Virtual Switch:</b> Open vSwitch 2.3.2, on-demand plug-ins</li> <li>• <b>NFV Orchestration:</b> On-demand plug-ins</li> <li>• <b>Virtual Machine Managers:</b> VMware vSphere for Cisco ACI</li> </ul>
Supported SDN/NFV use cases	<ul style="list-style-type: none"> <li>• SDDC (Cisco ACI)</li> <li>• SD-WAN [Cisco SD-WAN (Viptela), Versa]</li> <li>• Network-as-a-Service (Nokia Nuage)</li> <li>• Virtual Customer Premise Equipment (vCPE)</li> </ul>	<ul style="list-style-type: none"> <li>• vGiLAN</li> <li>• Service chaining</li> <li>• Underlay-overlay topology mapping</li> <li>• SDN/NFV health dashboards</li> </ul>
Management capabilities	<ul style="list-style-type: none"> <li>• <b>Communication Protocols:</b> REST API, Web sockets</li> <li>• <b>Managed Entity Types:</b> VNF, VM, vNet, service chains, vSwitch, Hypervisor, Host, application profiles, endpoint groups, endpoints, contracts, pods, WAN tunnels, application classes and paths</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Data Types:</b> Fault, flow, performance, inventory</li> <li>• <b>Data Transfer:</b> Poll, Pub/Sub notifications</li> </ul>
Supported clients	<ul style="list-style-type: none"> <li>• CA Performance Management 2.8 and above</li> <li>• CA Spectrum® Infrastructure Manager 10.1.1 and above</li> </ul>	<ul style="list-style-type: none"> <li>• Third-party infrastructure management solutions</li> </ul>

Through advanced monitoring and relationship correlation, auto-discovered SDN/NFV service chains and their multilayered building blocks can be expertly managed in a single and intuitive dashboard experience.



For more information, please visit [ca.com/vna](http://ca.com/vna)

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