

SOLUTION NOTE

HYBRID AND MULTI-CLOUD INTEGRATIONS FOR WORKPLACE MODERNIZATION

**NIOS 9.0.5 / 9.0.4 / 9.0.3 / 9.0.2
8.6.3 / 8.6.2 / 8.6.1 / 8.6.0**

Organizations across virtually every market vertical are migrating data platforms and applications from legacy on-premises to hybrid, multi-cloud deployments. The benefits include improved storage, security and data protection with superior performance, scalability and potential IT cost advantages. Organizations are also interested in location-specific requirements, such as data sovereignty, low-latency and network bandwidth.

Aligned with the shift from on-premises to cloud environments, Infoblox continues its ongoing mission to add new hybrid and multi-cloud capabilities to its Network Identity Operating System (NIOS) DNS, DHCP and IP address management (DDI) platform and to keep pace with templated integrations and application programming interfaces (APIs) that help organizations navigate the journey toward workplace modernization and automation. Throughout this overview, NIOS and vNIOS refer to the on-premises and virtualized platforms respectively and provide the same critical network functionality.

BUSINESS CHALLENGES

To keep pace, stay competitive and get ahead of the locally and globally changing business and technology landscape, companies need data visibility and analytics to provide operational, triage, forensic and predictive insights for business and process optimization. Deploying sophisticated cyber security tools and solutions to protect customers, users, data and infrastructure is essential but it's not enough. Companies need to modernize networks to enable the distributed workplace, support geo-diverse branch offices and ensure agility, automation and high performance at scale from the data center to the network edge. Adopting modern technologies—including virtualization, private, hybrid cloud, public, multi-cloud, SaaS and IPv6—can help reach these goals.

Fortunately, NIOS adds and refreshes an extensive list of cloud-enabling applications, templated integrations and APIs to make it easier for organizations to serve customers, support distributed workers and achieve company objectives. This Solution Note outlines Infoblox's ongoing investment in these platforms and technologies for the NIOS 8.6.x/9.0.x software releases.

Infoblox enables workplace modernization through hybrid, multi-cloud technologies and integrations including:

PUBLIC, MULTI-CLOUD SOLUTIONS

- Amazon Web Services (AWS) 9.0.4 / 8.6.3 / 8.6.2
- Google Cloud Platform (GCP) 9.0.5 / 9.0.4 / 8.6.3 / 8.6.2 / 8.6.0
- Microsoft Azure & Azure Stack 9.0.5 / 9.0.4 / 8.6.3 / 8.6.2 / 8.6.1
- Oracle Cloud Infrastructure (OCI) 9.0.2

PRIVATE, HYBRID CLOUD SOLUTIONS

- Cisco ACI, Meraki and Viptela 8.6.0
- Cisco ISE 8.6.2
- Juniper Mist 8.6.3
- Kubernetes ExternalDNS 8.6.3 / 8.6.2
- Microsoft Hyper-V 9.0.5
- Nutanix & Nutanix Acropolis Hypervisor 8.6.3 / 8.6.2
- Python and Go-WAPI 8.6.3
- Red Hat Ansible 9.0.3 / 8.6.3 / 8.6.2 / 8.6.1

PUBLIC, MULTI-CLOUD SOLUTIONS

Amazon Web Services (AWS) Expands Cloud Network Visibility, Capacity and Scalability



If you run AWS deployments, chances are your cloud footprint is spreading. Increasingly complex IP networks, skyrocketing applications and DNS transactions, swelling databases and escalating API calls are raising the need for greater visibility, capacity and scalability in public cloud deployments. Infoblox answers these challenges with enhanced capabilities and recent innovations for AWS:

1. NIOS High Availability (HA) in AWS Advances Reliability and Resiliency

NIOS 9.0.4 allows customers running cloud platform (CP) appliances to configure two NIOS appliances for high availability (HA) redundancy and resiliency to avoid single points of failure in public cloud environments. This feature delivers greater reliability and resiliency for mission-critical cloud applications.

2. NIOS Virtual Advanced DNS Protection (vADP) for AWS Public Cloud Enables Network Uptime

As DDoS attacks on the internet services provider Dyn and others have shown, organizations must protect against enterprise DNS-based attacks to minimize costly business disruptions. NIOS 9.0.4 adds vADP for AWS public cloud to detect and mitigate the widest range of DNS attacks, including volumetric, NXDOMAIN, DNS hijacking and other exploits, enabling administrators to maintain DNS integrity, enhance uptime and extend external DNS protection from local on-premises to public cloud environments.

3. NIOS AWS vDiscovery for Multi-Accounts and GovCloud Increases Efficiency and Control

NIOS 9.0.4 enhances efficiency and control by reducing multiple discovery tasks into a single discovery job across multiple AWS and AWS GovCloud regions and accounts. It also retains account filters to enable region selection and migration of existing vDiscovery jobs without data loss for a better user experience and improved workload efficiency and control.

NIOS 8.6.3 saves significant time and AWS usage fees by eliminating vNIOS member deployments in each account and synchronizing all Amazon Route 53 hosted zones to the Grid. This upgrade improves the user experience and reduces ongoing cloud management costs.

For federal and other government customers, NIOS 8.6.3 enables Amazon Route 53 support for AWS GovCloud to enable highly available and scalable DNS. This upgrade makes it easier to connect user requests to AWS Internet applications, customize routing policies and reduce latency.

4. NIOS Sync with Amazon Route 53 Multi-Account (Subset Lists) Elevates System Security and Control

With NIOS 9.0.4, admins can boost system security and control by extending Route 53 discovery and sync from a single NIOS instance to a list of multiple accounts in AWS. Admins can choose between 1) NIOS providing automatic account discovery or 2) specifying a list of accounts to be discovered and synchronized from Route 53 environments. The upgrade improves security by 1) preventing child accounts from accessing the root; 2) blocking delegate admin access; 3) inhibiting discovery of all Organizational Unit (OU) accounts; and 4) using Assume-Role permission access.

5. Network Insight in AWS Delivers Flexibility and Enhanced User Experience

NIOS 8.6.3 enables Network Insight discovery appliances to be deployed in AWS (and Azure) to support cloud-first initiatives, support data center to cloud migrations, reduce physical data center resources and extend network discovery deployment options to public, multi-cloud environments.

6. AWS R6 Instance Support Increases Performance and Reduces Cost

NIOS 8.6.3 extends vNIOS support from R4 to R6 instance types in AWS, improving performance and lowering the total cost of ownership.

- Red Hat CoreOS (RHCOS) 8.6.0
- Red Hat Enterprise Linux (RHEL) 9.0.5
- Red Hat OpenShift 8.6.1
- Red Hat OpenStack 8.6.2
- Terraform 9.0.5 / 9.0.4 / 9.0.3 / 8.6.3 / 8.6.2
- VMware on GCP 9.0.5
- VMware vRA/vRO 9.0.4 / 8.6.3 / 8.6.1
- VMware vSphere ESXi 9.0.5

7. AWS EBS Encryption for vNIOS Enables Cloud Security and Control

Infoblox improves cloud security in AWS with vNIOS 8.6.3 by allowing Amazon Elastic Block Store (EBS) encryption for data at rest, data in transit and all volume backups.

8. AWS EC2 Serial Console Extends User Experience and Control

NIOS 8.6.3 improves troubleshooting, user experience and control in AWS by allowing a direct NIOS connection to AWS Nitro Systems and the EC2 Serial Console.

9. Reporting in AWS Enhances Visibility and Enables Cloud Migration

Network visibility is critical in today's hybrid multi-cloud environments. NIOS 8.6.2 allows the deployment of reporting members in AWS public clouds. This new capability simplifies the migration of physical data centers to the cloud and delivers single and multi-site visibility into DDI metadata for historic audit/compliance, real-time alerting, network performance and capacity planning.

10. vNIOS v40x5 VMs in AWS Enlarges Capacity, Scalability and User Experience

With NIOS 8.6.2, organizations can deploy larger capacity v4015 appliances in AWS to run as virtual machines (VMs) and serve DNS. This expansion builds on earlier NIOS releases that extended v4025 VM and IPv6 support for AWS Public Cloud and GovCloud. It also covers Infoblox's full v40x5 lineup to empower all Grid Manager (GM) and Grid Manager Candidate (GMC) features and use cases and provides organizations needing greater queries per second (QPS) and leases per second (LPS) with the capacity and scalability necessary now and in the future.

Google Cloud Platform (GCP) Adds Consistency, Scalability and User Experience

Infoblox continues its ongoing investment in expanding GCP capabilities with these recent innovations:

**1. NIOS Sync with GCP Cloud-Native DNS Improves Capability and User Experience**

NIOS 9.0.5 enables admins to configure read synchronization to match Azure Cloud-Native DNS applications for Infoblox objects and the user interface. This feature aligns with current Azure and Amazon Route 53 capabilities, improving user experience and consistency across multi-cloud platforms.

2. NIOS Google Cloud VMware Engine (GCVE) Support for VMware on GCP Enhances Flexibility and User Experience

NIOS 9.0.5 adds Google Cloud VMware Engine (GCVE), allowing organizations to better migrate and manage on-prem VMware/vSphere/ESXi workloads to GCP without having to re-architect applications. Admins can continue using standard VMware tools, processes and apps, including ESXi hypervisors, vCenter, vSphere, NSX-T networking and Hybrid Cloud Extension (HCX) for greater efficiency and control.

3. GCP High Availability (HA) Advances Reliability and Resiliency

NIOS 9.0.4 allows customers running cloud platform appliances to configure two NIOS appliances for HA redundancy and resiliency to avoid single points of failure in public cloud environments. This feature delivers greater reliability and resiliency for mission-critical cloud applications.

4. Shared Virtual Private Clouds (VPCs) in GCP Centralizes Management and Optimizes Security and Performance

NIOS 9.0.4 allows admins to discover resources across all shared VPCs on host and service projects. It also enables an admin to include or exclude any service project(s) in a host, improving visibility, user experience and workload efficiency.

Support for shared VPCs in GCP is another helpful NIOS 8.6.0 development. It allows an organization to set up centralized networking in cloud environments and allocate those networking services to multiple departments and teams. Shared VPCs operate in a host project and distribute access to multiple service projects. Deploying vNIOS into shared VPCs adds flexibility and optimizes security, centralized management, performance and availability.

5. DHCP for GCP Simplifies Cloud Migration and Delivers Consistency

Organizations interested in decommissioning physical data centers and simplifying migration to the cloud can now deploy DHCP for GCP. This NIOS 8.6.2 feature ensures service consistency by allowing DHCP services to be configured on vNIOS instances in GCP and serve DHCP to on-premises clients.

6. vNIOS v40x5 Virtual Machines (VMs) in GCP Broadens Capacity, Scalability and Experience

With NIOS 8.6.2, organizations can deploy larger capacity v4015 and v4025 appliances in GCP to run as VMs and serve DNS. This extension improves user experience by enabling higher capacity QPS and DHCP LPS for large enterprises supporting high-volume workflows to meet dynamic business requirements whenever necessary.

7. vNIOS Image for Single NIC in GCP Secures and Simplifies Services and Lowers Cost

For sharing services in GCP, previous versions of vNIOS required two Network Interface Cards (NICs). NIOS 8.6.0 offers a single-NIC vNIOS image to secure and simplify service sharing and reduce costs. It also allows additional flexibility for designing your cloud network and shared services infrastructure in GCP

Microsoft Azure Improves Flexibility, Scalability and User Experience

For organizations that use Microsoft Azure for cloud application management via Microsoft-managed data centers, Infoblox offers expanded critical network service capabilities for faster innovation, plus these latest enhancements:



1. NIOS Virtual Advanced DNS Protection (vADP) for Azure Public Cloud Enables Network Uptime

DNS continues to be a primary attack target. As internet services provider Dyn and others have shown, organizations must protect against enterprise DNS-based attacks to minimize costly business disruptions. NIOS 9.0.5 adds vADP for Azure public cloud to detect and mitigate the widest range of DNS attacks, including volumetric, NXDOMAIN, DNS hijacking and other exploits. This feature enables administrators to maintain DNS integrity, enhance uptime and extend external DNS protection from local on-premises to public cloud environments.

2. NIOS Sync with Azure Cloud-Native DNS Improves Capability and User Experience

NIOS 9.0.4 enables admins to configure read synchronization to match Azure Cloud-Native DNS applications for Infoblox objects and the user interface. This feature aligns with current Amazon Route 53 capability, improving user experience and consistency across cloud platforms.

3. NIOS DHCP in Azure Adds Consistency and Enriches User Experience

With NIOS 9.04, organizations with cloud-first initiatives or those interested in decommissioning physical data centers and simplifying migration to the cloud can deploy DHCP for Azure. This capability ensures service consistency by allowing DHCP services to be configured on vNIOS instances in Azure and serve DHCP to on-prem clients.

4. Network Insight in Azure Delivers Flexibility and User Experience

NIOS 8.6.3 enables Network Insight discovery appliances to be deployed in Azure (and AWS) to support cloud-first initiatives and data center to cloud migrations, reduce physical data center resources and extend network discovery deployment options to public, multi-cloud environments.

5. Reporting in Azure Enhances Visibility and Simplifies Cloud Migration

As noted above, network visibility is essential for hybrid multi-cloud environments. To meet this need, NIOS 8.6.2 enables deployment of reporting members in Azure public clouds. Not only does this capability simplify the migration of physical data centers to the cloud but it also delivers single and multi-site visibility into DDI metadata for historic audit/compliance, real-time alerting, network performance and capacity planning.

6. vNIOS v40x5 VMs in Azure Extends Capacity, Scalability and Experience

With NIOS 8.6.2, large organizations can deploy higher capacity v4015 and v4025 appliances in Azure to run as VMs and serve DNS. This extension improves user experience by enabling higher-capacity QPS and DHCP LPS to support high-volume workflows to meet growing business requirements today and later.

7. vNIOS Support for Azure Stack Expands Discovery, Visibility and Flexibility

Organizations can operate virtual appliances both on Azure and Azure Stack with NIOS 8.6.1. Within Azure Stack, teams can run Infoblox DNS, DHCP and IPAM (DDI) services and vDiscovery for detecting resources and cloud endpoints. Azure Stack Government is also supported. This on-premises cloud integration offers the ultimate flexibility and scalability for Azure deployments.

8. vNIOS Deployment on Managed Disk Enables Availability, Security and Reliability

Azure managed disks are block-level storage volumes used with Azure VMs. They resemble a physical disk in an on-premises server but are virtualized. With managed disks, an administrator specifies the disk size and type and provisions the disk, while Azure handles the rest. NIOS enables VMs to be deployed and managed on Azure platforms to gain benefits, including high durability and availability, simple, scalable VM deployment and integration, block-level storage, backup support, Azure role-based access control, granular read/write/retrieve management, server-side and Azure disk encryption for mission-critical security, HA and reliability.

Oracle Cloud Infrastructure (OCI) Increases Performance, Governance and Control

OCI is an infrastructure cloud service that allows enterprises a high level of control by returning critical performance and governance capabilities to the enterprise for managing virtualization, storage, networking and data centers. It provides local storage and servers with reliable, fast, real-time performance and granular control, yet with the scalability, cost savings and flexibility of the cloud. These capabilities enable customers to combine the full functionality of Infoblox vNIOS with all the control advantages of OCI.



1. Trinzic X6 Extends Cloud Capability with OCI Support

NIOS 9.0.2 expands cloud workflow capability by adding OCI Intel-based support for all Trinzic X6 vNIOS appliances. This addition enables organizations to deploy Trinzic X6 to run DDI for IT services in OCI cloud environments.

2. Selective Public Cloud vDiscovery Using CIDR (Private IP) Empowers Cloud Visibility and Control

NIOS 8.6.3 enables endpoint vDiscovery, visibility and efficient distribution of IP addresses in AWS and GCP by detecting, including or excluding network resources using Classless Inter-Domain Routing (CIDR or private IP).

PRIVATE, HYBRID CLOUD SOLUTIONS

Cisco Enriches Discovery, Visibility, Access and Control

Network data discovery and contextualized visibility are essential components for modern network access control (NAC), policy compliance, zero trust security and IP address and network management across the distributed enterprise. Infoblox's ongoing integrations with Cisco NAC, SDN and SD-WAN solutions enrich network visibility, management and control for customers with Cisco deployments. Recent innovations include:



1. Cisco Identity Service Engine (ISE) Plug-In Raises Visibility and Deepens Network Access Control (NAC)

Cisco's ISE secures and simplifies NAC and automates zero trust security and policy enforcement. Infoblox publishes critical network and DNS security event and contextual data over Cisco ISE to enrich NAC, automate threat detection notification, provide forensic information for prioritizing threats and policies and speed incident response. NIOS 8.6.2 builds on earlier NIOS releases by enhancing ROI on existing ISE investments and upgrading support to ISE 3.x for deeper visibility, identity management and control across applications, routers, switches and other network devices and assets.



2. Cisco ACI, Meraki and Viptela Unify Software Defined Network (SDN) and Software Defined Wide Area Network (SD-WAN) Discovery and Management

NIOS 8.6.0 expands Network Insight's discovery capabilities to include integrations for SDN with Cisco ACI and SD-WAN for Meraki and Viptela. These capabilities unify IPAM visibility while making IP address and network management more comprehensive. NIOS integrations increase deployment flexibility and usability, especially for discovery of assets associated with branch and remote offices.

Juniper Mist with Network Insight Advance Discovery and Visibility



1. NIOS 8.6.3 improves Network Insight, Infoblox's on-premises network discovery tool, by expanding Software Defined Network (SDN) discovery and visibility capabilities with support for Juniper Mist. By connecting with the Mist Controller and not each individual device, Network Insight saves time and reduces traffic across the network and matches current compatibility with Infoblox's NetMRI Network Change and Configuration Management (NCCM) solution.

Kubernetes External DNS Simplifies Container Automation and Security

Kubernetes (K8s) simplifies container networking by managing and automating container workloads on-premises or in the cloud. It enables traffic routing for high availability and scalability. Recent innovations include:



1. Kubernetes ExternalDNS API Endpoint Read/Write Plug-In Raises User Experience, Scalability and Control

NIOS 8.6.3 introduces an API Plug-In feature that allows different Infoblox API endpoints (i.e., Grid members) to configure API server parameters and conduct read and write operations with K8s ExternalDNS Plug-In API requests for better user experience, scalability and control.

2. Kubernetes ExternalDNS Enables Visibility and Automates Record Creation

NIOS 8.6.2 offers a K8s ExternalDNS Plug-In that enables discovery and visibility by configuring public DNS servers with exposed K8s services data. It also continues certificate-based two-factor authentication and allows K8s pods to create automated ExternalDNS records (A, Host, CNAME and TXT) in vNIOS.

Microsoft Hyper-V Creates and Runs Virtual Machines (VMs) on Windows Systems



1. For organizations using Microsoft 2022, NIOS 9.0.5 provides Hyper-V support for Microsoft 2022 based on rigorous compatibility, validation and testing to ensure consistent user experience, confidence, trust and uninterrupted business operations.

Nutanix Adds Agility and Flexibility for Virtualized Workflows

Organizations are adopting virtualization, cloud and hyper-converged infrastructure but need agility and flexibility to realize promised efficiencies. Infoblox integrates with Nutanix to enable these benefits:



1. Nutanix 6.x LTS Support Enhances User Experience

Nutanix customers benefit from its latest developments with better user experience and the assurance that NIOS 8.6.3 is current and compatible and delivers high performance with Nutanix 6.x LTS environments.

2. Nutanix 5.20.x Support Advances Automation for Virtualized Workflows

NIOS 8.6.2 builds on Nutanix AHV capabilities with Nutanix 5.20.x to advance hypervisor server virtualization with rapid IP address provisioning on VMs, automatic deprovisioning of IP addresses from decommissioned VMs and unified management of private and hybrid cloud networks.

3. vNIOS for Nutanix Acropolis Hypervisor (AHV) Adds Agility for Private Clouds

NIOS adds vNIOS for Nutanix AHV to gain greater agility, flexibility and efficiency while fast-tracking DDI deployment and extending management in private cloud platforms like VMware and OpenStack.

Python WAPI and Go-WAPI Client Plug-Ins Promote a Better User Experience



1. Infoblox upgrades user experience and usability with NIOS 8.6.3 by extending Infoblox (Python) Client and Go-Client concurrency and synchronization with the latest version of the WAPI Client Generator.

Red Hat Reduces Complexity, Ensures Stability and Accelerates Time to Value

Red Hat delivers hardened, open-source solutions that make it easier for enterprises to work across platforms and environments, from the core data center to the network edge. Infoblox's integrations with Red Hat make it easier to see, manage and control critical network data on applications and clouds anywhere. Recent innovations include:



1. NIOS Support for Red Hat Enterprise Linux (RHEL) v9.3 Ensures Workload Continuity

Address Red Hat's sunset of RHEL 7.x by deploying NIOS 9.0.5 for continued operations, compatibility and the feature enhancements delivered in RHEL v9.3. This update provides a consistent user experience, confidence and trust based on compatibility validation and testing with recent versions of RHEL v9.3.



2. IPAM Plug-In v1.6.1 for Ansible improves Load Balancing

NIOS 9.0.2 enhances visibility, automation and control in Ansible Workflows by adding new modules to create, read, update and delete data in DNS Traffic Control (DTC) Ansible load balancing automation and orchestration workflows. Modules can manage DTC health checks, topology rulesets, pools and LBDNs. The update also provides concurrency with the latest Ansible releases and enables customer-defined workflows to be shared with the GitHub repository.



3. NIOS Ansible and Python Certificate Authentication Modules Plug-In Advance Control

NIOS 8.6.3 develops access control by enhancing certificate authentication in the Infoblox Client and Ansible and Python SDK Playbook modules.

4. Red Hat Ansible Collection Improves User Experience and vNIOS Automation

The Ansible Galaxy Collection delivers a better user experience by combining Infoblox DDI capabilities in Ansible workflows and by enabling automation of VM workloads across multiple platforms. The NIOS 8.6.2 Ansible Plug-In builds on the Ansible Galaxy Collection delivered in NIOS 8.6.1 to maintain concurrency with the Ansible 1.2.1 release. The nios_modules collection provides modules and Plug-Ins for managing networks, IP address and DNS records and DTC global server load balancing to ensure critical application and resource availability and uptime.

5. Red Hat OpenStack Xena IPAM Plug-In Centralizes Visibility and Automation

The NIOS 8.6.2 IPAM Plug-In for Red Hat OpenStack Xena is a containerized adapter that delivers secure, single control plane and granular visibility into the entire OpenStack network. It automates IP address provisioning and deprovisioning plus DHCP server management with integrated DNS. It also simplifies troubleshooting to reduce downtime and synchronizes DDI in data center and hybrid cloud environments for seamless, secure multi-network and resource management within the RedHat OpenStack platform.



6. Red Hat OpenStack Wallaby vNIOS Support Extends Visibility and User Experience

NIOS combines drivers, API calls and meta-data tagging, enabling vNIOS IPAM for OpenStack Wallaby to provide full visibility into the OpenStack cloud from within Infoblox. Infoblox Grid data is populated into the local OpenStack database to improve visibility when allocating subnets and IP addresses. This process eliminates added WAPI calls and the need to monitor OpenStack events and query objects outside IPAM. The upgrade also helps automate cloud native applications and VMs to improve the user experience, orchestration and control.

7. Red Hat CoreOS (RHCOS) OpenShift vNIOS Support Adds Security and Efficiency

Greater security and operational efficiency for container-based workloads through automation are key benefits for container OS technologies. vNIOS supports Red Hat OpenShift, the leading Kubernetes container automation platform.



8. vNIOS 4015 KVM Appliance Increases Capability and Capacity and Saves Resources

NIOS 8.6.1 adds the larger capacity 4015 KVM appliance to the 2225 machine in the vNIOS lineup to run as a VM and serve DNS on Red Hat OpenShift, the leading Kubernetes container-based automation platform. This addition saves time and money, and it simplifies infrastructure and workflows by delivering DNS through OpenShift to manage services and zones without having to rely on DNS running elsewhere. It also allows large enterprises and service providers to manage numerous servers and migrate to containerized architectures.

9. vNIOS VMs Serving DNS on OpenShift Simplifies, Saves Resources and Adds Control

NIOS allows vNIOS VMs to serve DNS on OpenShift to save time and money and simplify infrastructure, services and zone workflows without having to rely on DNS running elsewhere. vNIOS on Red Hat OpenShift is available on-premises, for AWS, Azure and IBM Cloud services. It supports use cases including VMs running on OpenShift as DNS servers and Anycast e-BGP use cases. vNIOS on OpenShift delivers improved user experience and automation for service providers and large enterprises that manage many servers and are starting to migrate to containerized architectures.

10. vNIOS VM Support for OpenShift Streamlines Workflows and Saves Money

Infoblox provides VM support for OpenShift and leverages a Kubernetes technology called KubeVirt to run non-containerized VMs inside Docker containers. This approach simplifies orchestration workflows and saves time and money with virtual deployments.

Silver Peak Securely Connects Users and Applications for Greater Productivity and Cost Savings



1. Network Insight Silver Peak (HPE Aruba) Software Defined Wide Area Network (SD-WAN) Support Elevates Visibility and User Experience

NIOS 9.0.5 enables Network Insight (NI) discovery of remote network assets using the Infoblox Application Programming Interface (API) and Silver Peak (HPE Aruba) SD-WAN engine for greater visibility, user experience and control.

Terraform Unifies Multi-Cloud Provisioning, Management and Automation with IaC



Terraform by HashiCorp is an open-source infrastructure-as-code (IaC) data center automation tool for building, changing and versioning infrastructure across multiple clouds and platforms. Infoblox's ongoing integrations with Terraform enable organizations to view, manage and automate DDI workflows simply and easily across hybrid, multi-cloud environments.

1. The NIOS Terraform IPAM Plug-In 2.7.0 delivers greater resource efficiency, automation and control. It enables the latest vendor features through upgrades to Terraform (v0.14 to v1.8.1) and Go language (v1.17 to v1.21). The Plug-In saves time by avoiding manual steps when making web API (WAPI) calls to retrieve object IDs and automates the migration of legacy DNS platforms to NIOS. The Plug-In also creates DNS authoritative and conditional forwarder zones. Further, the block import feature saves time by gathering objects seamlessly through a simple command or the Go module. Using the Terraform IPAM Plug-In increases efficiency, simplifies complexity and adds control over network environments.
2. Infoblox's Terraform Plug-In 2.6.0 enhances automation by adding a new Extensible Attribute as an immutable ID to reference and sync objects simultaneously in NIOS and Terraform user interfaces. This new ID ensures workflow continuity, improved search efficiency, and a more consistent user experience.
3. NIOS 9.0.3 introduces IPAM Plug-In for Data Search in Terraform 2.5.1 to enable access to tagged network and IP data faster using Extensible Attribute metatag searches. This release supports new resources, DNS views, authoritative zones and inherited attributes to accelerate data search and improve visibility.
4. NIOS 8.6.3 simplifies user experience and improves efficiency and control by enabling NIOS object import functionality and extended data source support for enhanced automation.
5. NIOS 8.6.2 improves the user experience, control and efficiency by enabling Terraform 2.1 to manage and automate DNS and IPAM services in VMware and Azure environments throughout the deployment, operations/management and retirement lifecycle. It simplifies access administration and heightens efficiency through orchestration for the next available network container, import objects, .txt resource and data sources support. It further introduces four new vNIOS enhancements for Terraform:
 - a. **vNIOS IPAM Support for AWS Upgrades Cloud User Experience and Efficiency**
Infoblox enhances the user experience and efficiency by extending the vNIOS IPAM Plug-In for Terraform to run and automate IPAM deployment and management on AWS platforms.

b. IPAM Next Available Network Query Streamlines and Controls IPAM Workflows

The vNIOS IPAM Plug-In improves the user experience, automation and control for Terraform by enabling automatic query for the next available Infoblox network to discover, use and manage IP addresses.

c. Record Support Improves Data Visibility, Experience and Control

Infoblox enriches the functionality and user experience via the vNIOS Terraform Plug-In to discover, create, use and manage IPv6 addresses and records (e.g., DNS A, AAAA, PTR and CNAME) for better network discovery, visibility, user experience and control.

d. Update Functionality Increases User Experience with Full IPAM

Control Enhanced vNIOS IPAM support extends prior create, delete and read functionality by allowing a full update of NIOS objects through Terraform.

VMware Enables Multi-Cloud Innovation

VMware is a leading provider of multi-cloud services for software applications that enable digital innovation with enterprise control from the data center to the network edge. VMware specializes in app modernization, simplifying cross-cloud complexity and secure services for the distributed environment. Infoblox continues its long-standing commitment to VMware integration:

**1. NIOS for VMware vSphere ESXi8.0u2 Enables Secure Workload Consistency**

Improve performance, efficiency and innovation with NIOS 9.0.5, which provides verified concurrency support for NIOS with VMware vSphere ESXi8.0u2. The vSphere release supports more graphics processing unit (GPU) resources per virtual machine to accelerate processing speeds, integrate hybrid cloud services and reduce maintenance times.

2. VMware IPAM Plug-In 6.1.0 Delivers Consistent User Experience

Orchestration and automation are keys to network efficiency and cost savings. The NIOS VMware IPAM Plug-In delivers consistent user experience, confidence and trust based on rigorous compatibility validation and testing with recent versions of VMware vRA/vRO 8.8.2.

3. VMware 7.0.x Support Improves User Experience

For customers with VMware integrations, NIOS 8.6.3 enhances user experience and confidence by providing Infoblox validation for NIOS compatibility with VMware 7.0.x environments.

4. vNIOS IPAM Plug-In for vRO v8.0 Provides Consistent Workflow Management

NIOS 8.6.1 introduces an updated vNIOS IPAM Plug-In to support the latest VMware vRO v8.0 functionality for DDI VM provisioning, deprovisioning and workflows.

5. vNIOS IPAM Plug-In for vRA/vRO v7.6 with NSX Extends Provisioning and SDN Experience

NIOS updates the IPAM Plug-In for VMware IPAM v4.5.0 on vRA/vRO v7.6 with NSX (SDN) 6.4.6 to enhance the user experience and support VMware's latest functionality for DDI VM provisioning.

6. vNIOS IPAM Plug-In for vRA v7.6 Simplifies Operations and Automation

NIOS validates the Infoblox IPAM Plug-In for vRealize Automation (vRA) 7.6 to enable VM provisioning, deprovisioning and automation for greater accuracy, workload simplification, automation and cost savings.

CONTACT US

For additional technical information, please see the NIOS Release Notes located in the Infoblox Support Portal at <https://support.infoblox.com>.

To get specific answers on Infoblox's extensive lineup of hybrid, multi-cloud integrations for workplace modernization, connect with your Infoblox account team, see our critical network integrations or contact us at infoblox.com.



Infoblox unites networking and security to deliver unmatched performance and protection. Trusted by Fortune 100 companies and emerging innovators, we provide real-time visibility and control over who and what connects to your network, so your organization runs faster and stops threats earlier.

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