

# Multi-cloud network integration, automation visibility and control for the hybrid enterprise

## NIOS 8.6.2

Infoblox's flagship and market leading Network Identity Operating System (NIOS) continues more than two decades of customer commitment and ongoing research and development in core network services. Built on the reliable 8.x platform, NIOS 8.6.2 delivers on two current customer-driven needs—multi-cloud integration and automation and deeper DNS, DHCP, IPAM (DDI) visibility and control. Driven by global customer feedback, market trends and competitive insights, the latest NIOS solutions extend multi-cloud capabilities, strengthen core DDI, expand value-added services and broaden Infoblox's already extensive lineup of ready-to-go DDI plug-ins. These plug-ins not only enable greater visibility, orchestration and automation but also shorten time to value and enhance the ROI of existing technologies. NIOS 8.6.2 advances Infoblox's key platform values, including unified management visibility and control, multi-cloud integration, API automation, DNS encrypted security and proven, reliable, robust DDI for all hybrid networks—today and for the future.

### BUSINESS CHALLENGES

After more than two years of adapting to and managing the impacts of COVID-19, organizations are now coping with its prolonged effects—including staffing shortages, supply chain disruptions and inflation. Networking teams are not immune to these challenges. In fact, these issues are only amplified by the need for consistent favorable user experiences, remote service support, continual application availability, network performance and resiliency in case of disaster.

Managing the integrations and complexities of hybrid legacy and cloud networks, keeping pace with rapid workplace transformation, enabling network agility and productivity and reducing inefficient manual processes and costs present ongoing challenges. From large enterprises and service providers to small and commercial or mid-size organizations, IT teams must re-evaluate priorities, reconsider how best to work together and collaborate to optimize and secure data and infrastructure, especially in view of escalating BYOD, mobility and IoT endpoints and the increasing risks of complex malware, ransomware and data exfiltration.

### RELEASE BENEFITS

#### Expanded Workplace Modernization

Hybrid workplace transformation with new and extended vNIOS multi-cloud integrations Network automation

#### Improved Visibility, User Experience and Control

Stronger DNS, DHCP, IPAM (DDI) with the latest enhanced customer-centric capabilities for:

- Core network services
- Value-added services
- DDI plugins

Integrating or upgrading legacy systems and modernizing networks can mitigate many of these challenges. Enhancing the digital customer experience is essential for accelerating revenue, but it's also important to simplify workflows, connect existing technologies with modern tools and automate for reliability, performance and cost control. The need for reliable, secure networks that deliver agility, simplified processes, automation, templated integrations and robust APIs has never been greater. Infoblox NIOS 8.6.2 helps you solve these challenges with multi-cloud and core network integration, automation, visibility and control for the hybrid enterprise.

## **NIOS 8.6.2 SOLUTION BENEFITS**

### **Extended Multi-Cloud Integrations and Automation Expand Workplace Modernization**

#### **DHCP for Google Cloud Platform (GCP) – Simplifies Cloud Migration and 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.

#### **v4xx5 Appliances in AWS, Azure and GCP – Broadens User Experience**

With NIOS 8.6.2, organizations can deploy larger capacity v4015 appliances in AWS, Azure and GCP and v4025 appliances in Azure and GCP to run as virtual machines (VMs) and serve DNS. This extension improves user experience by enabling higher-capacity QPS and DHCP LPS for large enterprises supporting high-volume workflows.

### **Stronger DDI Improves User Experience, Control and Security**

#### **Multi-Primary DNS Failover for DDNS Updates – Increases User Experience and Control**

In deployments with multiple DNS Primary zones where more than one Grid DNS Primary is configured for DDNS updates, DHCP servers use the first available DNS Primary. However, if that DNS Primary is offline, NIOS 8.6.2 improves user experience and control by enabling DHCP servers to send DDNS updates automatically (failover) to designated DNS Primaries other than the offline Primary server.

#### **TLS Dynamic Control for SAML Port 8765 – Fortifies Security**

Transport Layer Security (TLS) is an Internet Engineering Task Force (IETF) standard, first defined in 1999, that encrypts data sent over the Internet so bad actors cannot see transmitted data. It's especially helpful for private and sensitive information like credit card numbers, passwords and personal correspondence. Since early versions of TLS have been available for over 20 years, and TLS 1.3 defined in August 2018 is the current standard, NIOS 8.6.2 improves security and user experience by allowing administrators to control the TLS protocols and ciphers to dynamically disable older versions of TLS 1.0 and 1.1 for SAML Port 8765. When new values are updated, the SAML service restarts, reads the new database values and applies the new configuration to fortify security requirements.

### **Enhanced Value-Added Services Deliver Better Visibility, User Experience and Control**

#### **Reporting in AWS and Azure – Raises Visibility and Enables Cloud Migration**

Network visibility is critical in today's hybrid multi-cloud environments. Another helpful NIOS 8.6.2 update includes Infoblox's most requested worldwide enhancement—the ability to deploy reporting members in AWS and Azure 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.

#### **Reporting Splunk Upgrade – Promotes Contextual Visibility**

Infoblox's Reporting and Analytics solution is built on Splunk, a market leader in data search, monitoring, visualization and SIEM solutions. NIOS 8.6.2 integrates the latest Splunk 8.2.4 release, including the new Splunk Dashboard Studio, a toolset for customizing dashboards and reports and visualizing contextualized data in just a few clicks.

### **Discovery for Cloud Services Portal (CSP) – Elevates Hybrid Visibility**

Discovery for CSP allows hybrid NIOS to BloxOne® migration and single control plane visibility by sending network data discovered by Network Insight (or NetMRI) to the CSP for visibility through the BloxOne platform. As a result, with NIOS 8.6.2, BloxOne customers can add NetMRI or a small Network Insight Grid and gain all the visibility of on-premises discovery in their BloxOne deployment.

### **DTC Health Monitor Manual Failback – Extends User Control**

On occasion, a network site may become unstable and waver on and offline. Administrators may want to disable or enable the site for maintenance without a DNS restart. The NIOS 8.6.2 DTC Manual Failback feature expands control by allowing users to disable DTC objects for, or after, a specified timeframe, yet continue network health monitoring activities until user action can manually re-enable the site or execute a DNS restart. It can also be used for traffic management during disaster recovery scenarios to ensure optimal resource and application uptime. The feature includes an upgraded GUI that displays different object settings, colors and descriptions for easy status visualization, while log messages and existing reports provide visibility into object status.

### **MSM Microsoft Server Configuration with Delegate Name Server Group – Improves Efficiency and Control**

For large enterprise customers, the NIOS 8.6.2 Delegate Name Server Group feature improves user experience, control and efficiency by enabling Microsoft Management (IPAM for Microsoft) to add and configure Microsoft servers when running Sites and Services, especially when using Delegated Name Server Groups in thousands of zones so administrators can avoid managing each of those zones individually.

### **BloxConnect Customer Data Visibility – Advances User Experience**

BloxConnect is a relatively new DDI feature that advances customer service and support. It can capture and send encrypted snapshots of automated physical and virtual system and utilization data to the Infoblox Business Operations Center, so support teams have the information they need to expedite service and support requests. Data snapshots are captured at initial system setup, then on a daily basis and also in the event of a system failure. These data snapshots include encrypted configurations, features, protocols, health, diagnostics and other details sent securely via TLS. NIOS 8.6.2 advances customer visibility and user experience by displaying to the customer the data collected by Infoblox for post-implementation service and support.

### **Extended DDI Plug-Ins Drive Visibility, Automation and User Experience**

#### **Ansible Plug-In – Boosts User Experience and Automation**

Building on the Ansible Galaxy Collection delivered in NIOS 8.6.1, the NIOS 8.6.2 Ansible plug-in maintains concurrency with Ansible 1.2.1. It boosts user experience for DDI in Ansible workflows and automation of VM workloads across multiple platforms. The nios\_modules collection provides modules and plug-ins for managing networks, IP address and DNS records and DTC global server load balancing (GSLB) to ensure critical application and resource availability and uptime.

#### **Terraform Plug-In – Heightens User Experience and Automation**

HashiCorp Terraform is an open-source infrastructure-as-code (IaC) data center automation tool for building, changing and versioning infrastructure across multiple clouds and platforms. Initially launched with DNS and IPAM support in NIOS 8.5, NIOS 8.6.2 improves user experience, control and efficiency by enabling Terraform 2.1 to manage and automate DNS and IPAM services in VMware and Azure environments. It simplifies access administration and heightens efficiency through orchestration for the next available network container, import objects, .txt resource and data sources support.

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

## Nutanix 5.20.x Plug-In – Updates Automation for Virtualized Workflows

Organizations are adopting virtualization, cloud and hyper-converged infrastructure but need agility and flexibility to realize promised efficiencies. NIOS 8.5 added vNIOS for Nutanix Acropolis Hypervisor to solve these problems and accelerate DDI deployment and management in private cloud platforms like VMware and OpenStack. NIOS 8.6.2 builds on this capability with the Nutanix 5.20.x plug-in 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.

## 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/deprovisioning and DHCP server management with integrated DNS, 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 Red Hat OpenStack platform.

## Cisco ISE 3.x Plug-In – Deepens Visibility and Control

NIOS 8.5.2 delivered support for the Cisco Identity Services Engine (ISE) 2.6/2.7/3.0 Network Access Control (NAC) solution to provide contextual data visibility and automatic threat detection alerts for faster threat response, prioritization and increased ROI on ISE investments. NIOS 8.6.2 upgrades support to ISE 3.x for deeper visibility, control and identity management across network applications, routers, switches and other devices.

For additional technical information, please see the NIOS 8.6.2 (GA 6/14/22) Release Notes located in the Infoblox Support Portal at <https://support.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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