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vNIOS FOR DNS, DHCP AND IPAM ON GOOGLE CLOUD PLATFORM

Industry-Leading Virtualized Network Services for GCP

THE CHALLENGE: LACK OF CONSISTENT DNS AND IP ADDRESS MANAGEMENT ACROSS NETWORKS AND CLOUD DEPLOYMENTS

Organizations are deploying workloads to cloud platforms to increase agility, reduce costs and focus on strategic initiatives. Many deployments use the hybrid cloud model. These hybrid clouds encompass traditional on-premises infrastructure, private- and public, multi-cloud services including Google Cloud Platform.

The hybrid cloud environment has many advantages, but it may also introduce inefficiencies in managing DNS, DHCP and IP addresses (DDI). Without a cohesive view of these critical network services, organizations have limited visibility into the virtual networks, VLANs, IP addresses and assigned DNS records—and little correlation of common resources across platforms. In the absence of cloud network automation, service delays can arise as a result of multiple handoffs among the teams that manage networks, applications, clouds and security. The lack of automation can also cause inconsistencies and an increase in trouble tickets and security gaps. Infoblox vNIOS for Google Cloud Platform can help resolve these challenges.

THE SOLUTION: INDUSTRY-LEADING HYBRID CLOUD DNS, DHCP AND IP ADDRESS MANAGEMENT

Leverage Infoblox DDI on GCP

Infoblox has extended its vNIOS cloud automation platform for DDI to the Google Cloud Platform, enabling better visibility, automation and control of private, hybrid- and public, multi-cloud environments. Fully integrated with Infoblox Grid™ technology, Infoblox cloud automation enables discovery and visibility of virtual resources, ensures consistent policy deployment and increases reliability and agility. By automating DNS provisioning into new and existing workflows, Infoblox avoids common bottlenecks that impact successful application rollouts and implementations by eliminating manual processes, IP conflicts and unnecessary service requests. A single, unified reporting interface further improves resource planning and reduces security risks.

Improve Discovery and Visibility to Reduce Blind Spots

Infoblox IPAM provides advanced network discovery including virtual resources, network and IP mapping and advanced filtering through innovative features such as Smart Folders. Infoblox detects and includes or excludes network resources using Selective Classless Inter-Domain Routing (CIDR or private IP) vDiscovery to ensure efficient distribution of IP addresses in GCP.

BENEFITS

Gain Industry-Leading DNS and IP Address Management for GCP
Automate provisioning, deprovisioning and modifications of DNS records for GCP workloads

Empower DHCP for GCP
Configure DHCP services on vNIOS instances on GCP and serve DHCP to on-premises clients

Improve Discovery and Visibility
Eliminate blind spots with automated discovery, unified and forensic visibility of virtual networks and machines on GCP

Ensure Consistency
Deploy DNS and IPAM consistency across traditional networks and GCP

Enable Dynamic Policies
Provide identity data and dynamic network and security policies for your users and groups

Lower Costs
Reduce total cost of ownership (TCO) by decreasing hardware, power, cooling and real-estate costs

Discover and track virtual networks and machines and network components across disparate platforms and cloud environments with a unified console that unifies different terms and naming conventions. Audit dynamic virtual resources with current and historical views to streamline and simplify compliance. Improve your detection and response time with IPAM visibility that extends from traditional networks to hybrid, multi-clouds.

Delegate DNS and IPAM Tasks to Relevant Owners

With Infoblox, the network team can collaborate effectively with applications, cloud and security teams across traditional and virtual resources. Infoblox delivers secure role-based administration and auditing capabilities to allow effective delegation of responsibilities in a virtualized environment.

Empower DHCP for GCP

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

Automate Network Services in Google Cloud Hybrid Applications

Automatically provision and deprovision DNS records to eliminate manual steps and ticket handoffs between teams. Document the destruction of a VM, clean up the DNS record and release the IP address to ensure that information is correct and current. An easy-to-use graphical user interface supplies template-based configuration, automated error prevention and real-time visibility for monitoring and reporting. Leverage powerful integration with multiple platforms, automation and orchestration solutions to maximize agility. Customize templated implementations using Infoblox's rich APIs based on individual needs to optimize hybrid cloud deployments via a single platform.

Control Multi-Cloud for Availability and Consistency

Empower individual departments by distributing authorization for provisioning while maintaining complete oversight as the hybrid cloud evolves. Analyze current and historical policy settings to ensure consistency and improve reliability and security. Leverage elastic scaling to add DDI capacity as hybrid clouds grow, while reducing upfront costs.

Increase Resilience and Availability

Infoblox virtual appliance software for GCP has all the redundancy, high-availability, access control and disaster-recovery features of Infoblox hardware appliances. Users gain the proven reliability and uptime benefits of an Infoblox solution while taking advantage of the cost benefits of GCP cloud offerings. With a single authoritative IPAM database serving as a centralized repository for all physical and virtual appliances and network connections, rich contextual real-time network metadata is not only easily visible through a single control plane but backed up and available to ensure network resiliency and uptime.

Extend Security to Detect, Block and Remediate Threats

Infoblox DNS and IPAM as a virtual appliance for GCP also supports BloxOne® Threat Defense, Infoblox's foundational hybrid security solution. BloxOne Threat Defense allows organizations to detect and block modern malware, C&C, data exfiltration and DGA threats, consolidate and distribute

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Use Eco-Friendly Solutions
Save power and protect the environment by reducing the number of servers and appliances

Speed Processes with Easy Deployment
Deploy easily using your standard virtualization practices

Extend Flexibility
Combine multiple physical and virtual appliance options into a single deployment

KEY CAPABILITIES

Discovery and IPAM Sync
Engage accurate, automated, vendor-agnostic discovery, visibility and multi-grid IPAM sync and mass conversion of IP addresses to managed assets

Virtual and Cloud Appliances
Speed time to value with full Infoblox DNS and IPAM integration in hybrid or public clouds

Single Control Plane
Gain visibility into your network address space via a single control plane

Flexible DNS Deployment
Develop your network with external or internal DNS deployment options

Better App Performance
Deliver better user experiences with faster DNS for GCP applications

Resiliency
Ensure resiliency with fault tolerance and support for disaster recovery

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threat intelligence to the entire ecosystem and improve SOC efficiency through automation and ecosystem integrations.

Flexible Deployment Options

Infoblox vNIOS for DNS and IPAM is tightly integrated with industry-leading on-premises, virtual and cloud appliances. Infoblox supports Google Cloud Platform, private cloud environments (including VMware, OpenStack, Microsoft and others) and traditional networks – or any combination in a hybrid deployment. The unified solution ensures maximum flexibility, scalability and service availability.

Infoblox offers a full range of deployment options through purpose-built physical appliances, virtual members on prem and/or virtual members in public clouds like GCP. Trinzic 8X5 models are ideal for remote and branch offices. The 14X5 and 22x5 series are for small-to-medium sized organizations in data centers and remote and distributed locations. The 40x5 series is designed for large enterprise and service providers. No matter what your organization needs, Infoblox provides the commercial-, enterprise and service-provider-grade solutions that deliver a consistent, critical network experience with the reliability and flexibility to scale your environment as your business needs require.

Reduce Rack Space, Power and Cooling Requirements

By leveraging the GCP, Infoblox virtual appliance software runs on public cloud resources that save equipment rack space and reduce power and cooling costs. This approach enables organizations to lower their TCO and build an environment-friendly infrastructure.

Contextual Network Intelligence
Get alerts, historical and current data and analytics for better network control

Flexible Deployment Options
Ensure flexibility, scalability and service uptime with purpose-built appliances for on-prem, virtual and cloud deployments

Threat Detection and Remediation
Integrate with BloxOne Threat Defense to detect, block and resolve security threats

Easy Updates
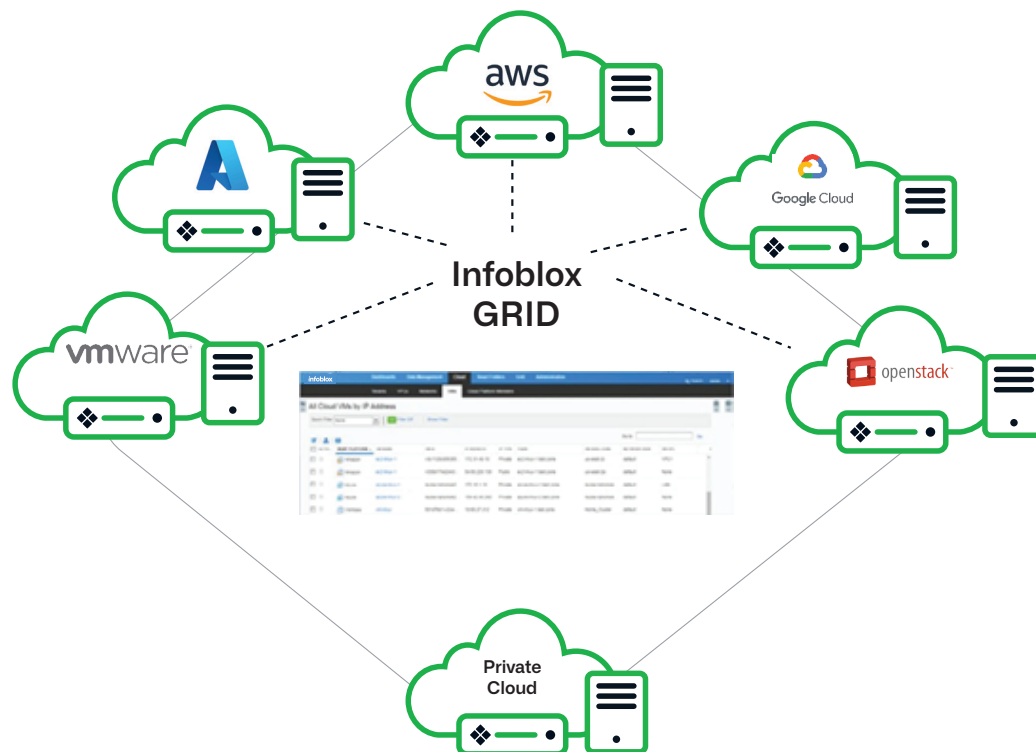Simplify operations with streamlined software upgrades

Figure 1: Infoblox virtualized network services for GCP deployed in a hybrid- or multi-cloud environment

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INFOBLOX DNS AND IPAM VIRTUAL APPLIANCE OPTIONS FOR GOOGLE CLOUD PLATFORM

Infoblox Appliance	Grid Role	Inter-faces	DNS Queries Per Second	Public Cloud Mapping			
				Instance Type	vCPU	Memory (GB)	2nd Disk Size
TE-v825	Grid Manager or Member	2	22,500	n1-highmem-2	2	13	-
TE-v1425	Grid Manager or Member	2	75,000	n1-highmem-4	4	26	-
TE-v2225	Grid Manager or Member	2	200,000	n1-highmem-8	8	52	-
TE-v4015	Grid Manager or Member	2	300,000	n1-highmem-16	16	104	-
TE-v4025	Grid Manager or Member	2	300,000	n1-highmem-16	16	104	-

DNS SECURITY IS KEY TO STOPPING RANSOMWARE AND DATA THEFT

Infoblox Appliance	Grid Role	Inter-faces	VM Capacity	API Calls Per Minute	DNS Queries Per Second*	Public Cloud Mapping			
						Instance Type	vCPU	Memory (GB)	2nd Disk Size
CP-v805	Grid Member	2	1,000	10	4,000	n1-highmem-2	2	13	-
CP-v1405	Grid Member	2	5,000	50	30,000	n1-highmem-4	4	26	-
CP-v2205	Grid Member	2	20,000	200	143,000	n1-highmem-8	8	52	-

*The stated performance numbers are for reference only. They represent the results of lab testing in a controlled environment focused on individual protocol services. Enabling additional protocols, services, cache hit ratio for recursive DNS and customer environment variables will affect performance. To design and size a solution for a production environment, please contact your local Infoblox solution architect.

CONTACT US

For more information or to get answers on Infoblox DNS, IPAM and other network services for GCP, connect with your Infoblox account team, see our critical-network integrations or contact us at Infoblox.com