

**SOLUTION NOTE**

# Infoblox DDI Hybrid Deployment

*Centralized Visibility, Automation and Control for Today's Borderless Enterprise*

**SUMMARY**

Moving to a cloud-managed network services environment offers compelling benefits including agility, cost reduction, improved user experience, and greater efficiency through streamlined workflows.

As organizations virtualize their environments and enable cloud operations, network challenges remain but are intensified across the broader ecosystem. This holds true for network discovery, visibility and synchronization, high availability and resiliency. Likewise, organizations can expect challenges with simplifying and automating workflows, scalability, reporting, technology integrations and security to protect users, data and infrastructure everywhere.

Fortunately, Infoblox offers market-leading solutions for on-premises and cloud-managed core network services, and expertise in hybrid DDI deployments to help you simplify and improve visibility, automation and control across all enterprise environments.

## Enterprise Networking for the Modern Workforce

Mobility, IoT and cloud have changed the way people connect and conduct business. Mobile devices are an essential part of daily life. IoT is expanding in manufacturing, transportation, energy and retail. Business critical applications are rapidly shifting to cloud-based solutions including Salesforce, Microsoft and Box.

As a result, the number of connected devices and locations are expanding, especially at the network edge. Employees and customers are expecting reliable connectivity, high availability, and fast response times, increasing demand for solutions that simplify and optimize management and control of distributed environments.

## Why Consider a Hybrid Approach?

Organizations traditionally manage core network services by backhauling DNS and DHCP through corporate and regional datacenters, and use local server or router-based DDI implementations at branch offices, remote sites and distributed locations.

Although these deployment models continue to offer some cost benefits, they've become less efficient as the number of locations increase and the center of activity shifts to the edge. The use of multiple DNS and DHCP solutions across corporate datacenter and remote locations is cumbersome,

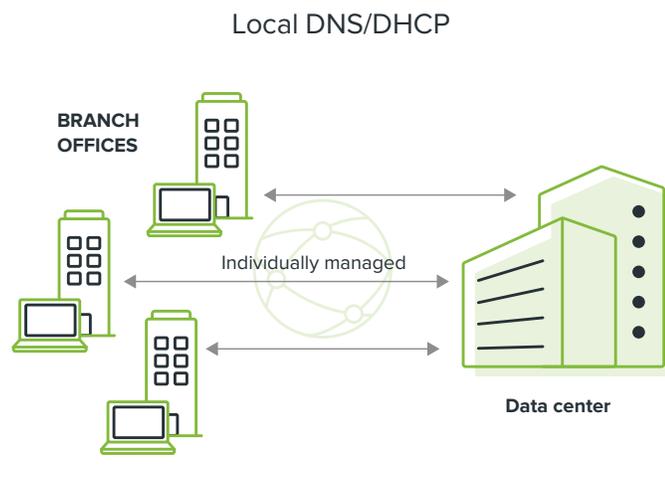


Figure 1: Traditional Network Deployment Model

time-consuming and error prone, especially at scale. Each location requires unique management using multiple tools and processes for provisioning, administration, and control. The potential for site-to-site inconsistencies, outages, and impacted application and service performance is considerable.

Further, network instability and outages are costly. Whether organizations choose to maintain a traditional architecture as they migrate to the cloud, or “lift and shift” to a full cloud deployment, the need for clear visibility, reliability, automation and control across the entire environment remains essential for every distributed environment, large or small.

## Centralized Visibility, Automation and Control for the Borderless Enterprise

For over two decades, organizations have understood the value of Infoblox DNS, DHCP and IP Address Management (or DDI) for reliable, global, mission-critical operations. As the clear industry leader, Infoblox provides organizations with a robust, manageable choice of NIOS Grid-based services, optimized for corporate and regional datacenters. For organizations with cloud initiatives, Infoblox provides cost-effective cloud-managed BloxOne™ DDI for distributed sites and locations. For everywhere in between, Infoblox delivers a combined hybrid deployment model for comprehensive datacenter-to-enterprise edge visibility, automation and control for networks of any size, all from a single control plane.

Hybrid deployment begins with the robust functionality and benefits of Infoblox NIOS Grid-based DDI integrated with value-added services including Microsoft Management for visibility and synchronization, Network Insight and Cloud-Network Automation for discovery and automation, DNS Traffic Control (DTC) for global server load balancing and Reporting and Analytics for contextual network visibility. Open RESTful APIs and templated integrations enhance business value and speed DevOps deployments. Further, future-ready architecture enables BloxOne™ DDI’s SaaS application and service optimization, and local survivability through a single management model. BloxOne DDI also utilizes an extensible microservices and container-based platform to simplify deployments, streamline operations, and minimize overall cost of ownership while managing tens, hundreds., or even thousands of distributed sites and locations.

Infoblox delivers the ability to extend offerings with integrated DNS security, firewalls, and an extensive and growing security ecosystem to protect organizations against expanding threats. Together, Infoblox’s hybrid solutions enable the deployment, management and control of multiple datacenters and globally distributed sites, all from a central location, while protecting investments, optimizing ROI and scaling to meet future business requirements.

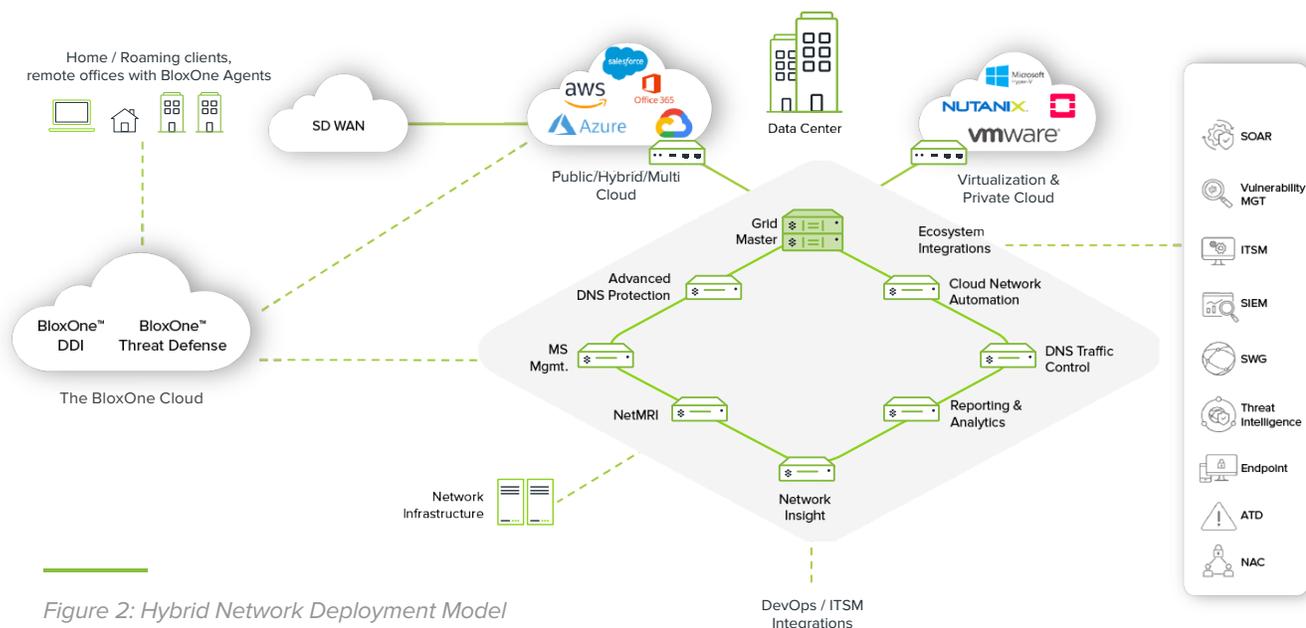


Figure 2: Hybrid Network Deployment Model

- **Reliability:** Fully integrated DNS on premises or in the cloud
- **Future ready:** Cloud-managed infrastructure to the network edge
- **Resiliency:** Cloud-managed branches enabled with local survivability
- **Security:** Unified DNS protection enables foundational security everywhere
- **Automation:** APIs and integrated templates speed deployment and enhance investment
- **Control:** DNS GSLB for traffic management, disaster recovery and scalability
- **Visibility:** Central control plane with real time contextual data for fast triage and resolution

## Customer Insights: Solving Modern Network Challenges

### Global Law Firm: Avoiding Network Outages The Power of a Fully Integrated Solution

When a global law firm with multiple worldwide locations faced extensive DNS stability issues, they launched a project to upgrade their environment. Stakeholders from every aspect of the business were engaged to ensure the solution met key business objectives including expanded security and their cloud-first initiative. The firm was not ready to migrate the entire infrastructure to the cloud, so they chose to deploy a hybrid environment.

The law firm selected a combination of Infoblox NIOS-based DDI, BloxOne™ DDI and BloxOne™ Threat Defense solutions to meet all requirements. The NIOS DDI solution included Advanced DNS Protection (ADP) to secure their DNS against Distributed Denial of Service (DDoS) attacks. They also utilized DNS Traffic Control (DTC) Global Server Load Balancing for datacenter traffic management, application resiliency and scalability. BloxOne DDI was chosen for all remote sites and locations to simplify deployment and administration while ensuring consistent application performance and local survivability throughout the distributed enterprise.

BloxOne Threat Defense was also added to extend the existing ADP for DDoS protection, and DNS Firewall (DNSFW) was deployed to complete the unified security solution. Automation via APIs and configuration templates simplified integrations with required business, troubleshooting and problem resolution solutions.

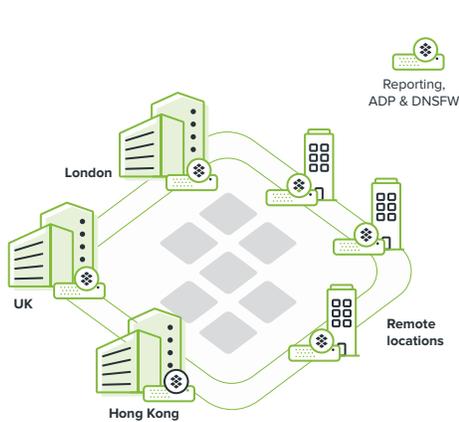


Figure 3: Before – Traditional DDI Model

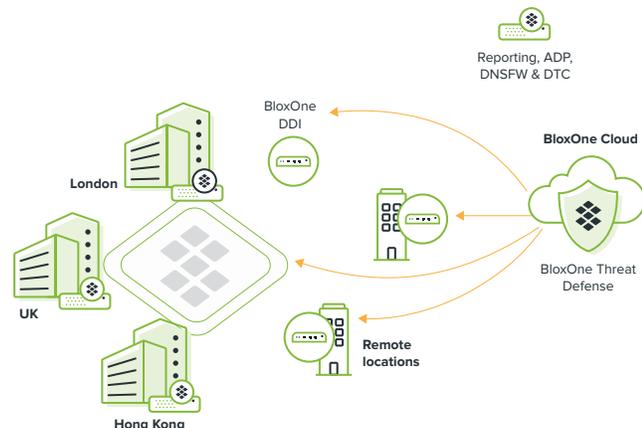


Figure 4: After – Cloud-Managed SaaS Model

- **Disaster Recovery:** Quick return to normal for business continuity when adversity strikes
- **Resiliency:** Cloud-managed branches enabled with local survivability
- **Visibility:** Central control plane with real time contextual data for better network management
- **Sustainability:** Most cost-effective distributed site DDI services for better total cost of ownership
- **Central Control:** Simplified deployments, improved efficiency and streamlined operations
- **Automation:** APIs and integrated templates speed deployment and enhance investment

## Global Healthcare Supplier:

### Ensuring Business Continuity During Natural Disasters

#### Disaster Recovery and Site Survivability

When a hurricane knocked-out a key manufacturing site, shipments, supply-chain, business operations and revenue were impacted worldwide for this global healthcare supplier. After restoring operations, the supplier prioritized the expansion of IT activities beyond traditional disaster recovery to ensure site survivability and operational continuity in the event of future disasters.

NIOS-based DDI was installed to improve performance and resiliency in the corporate datacenters. BloxOne™ DDI was chosen for distributed locations because it provided the most cost-effective per-site solution for core services, and optimized access to applications, local survivability and operational continuity.

By combining Infoblox NIOS-based DDI and cloud-native BloxOne™ DDI solutions, the supplier gained the most reliable and economical solution to ensure disaster recovery and site survivability. It also added real-time, granular visibility from the datacenter to enterprise edge, and simplified administration and control at a lower average cost per deployed site when compared with alternative solutions.

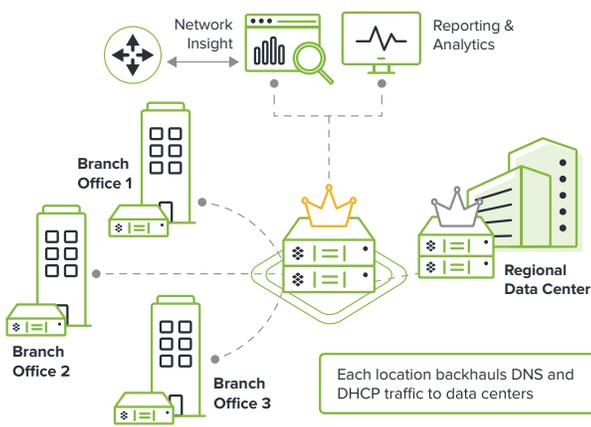


Figure 5: Before – Traditional DDI Backhaul Model

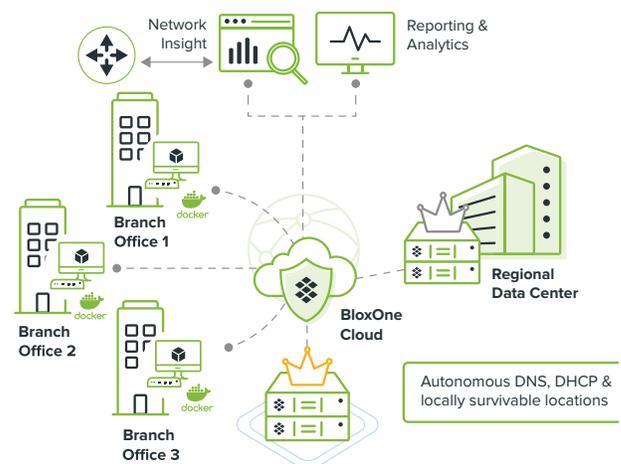


Figure 6: After – Cloud-Managed SaaS Model

- **Reliability:** Fully integrated DNS on premises or in the cloud for 24/7/365 reliability
- **Visibility:** Central control plane with real time contextual data for better network management
- **Resiliency:** Built-in disaster recovery and redundancy for business continuity
- **Cost Control:** Subscriptions reduce cost, ensure latest technologies and enable portability
- **Future ready:** Hybrid and cloud-managed architecture scales to the network edge
- **Security:** Unified DNS protection enables foundational security everywhere

## Global Energy, Oil and Gas:

### Improving Reliability and Managing Costs

#### Disaster Recovery and Site Survivability

For this global energy giant, mergers, acquisitions, global organic growth and technological change over time resulted in multiple network solutions and environments spanning on-premises datacenters to scores of remote sites utilizing cloud-based SaaS applications. Adding to this complexity was the task of ensuring reliable connectivity for thousands of global on/off valves, flow control and logic controllers, telemetry devices and a host of other required machinery. Many devices required 24/7 monitoring and control, so visibility, redundancy and resiliency were critical. A massive effort was launched to unify and modernize the global infrastructure for improved visibility, agility, security, performance and cost management.

A NIOS-based DDI solution using next-generation physical, virtual and cloud-based appliances provided the foundation in the datacenter for reliable, simplified, core networking, security and value-added cloud services. BloxOne™ DDI was then deployed for centralized visibility, administration and control. It also delivered SaaS application and services optimization, and local site survivability through hundreds of small, medium and large virtual appliances across corporate datacenters, subsidiary and remote sites. BloxOne™ Threat Defense was also included to deliver DNS-based global protection, real-time analytics, ecosystem integrations, and contextual insights to drive big data analytics.

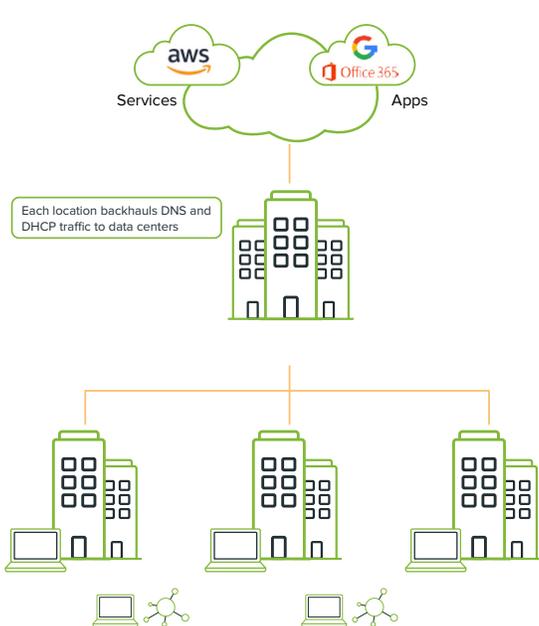


Figure 7: Before – Traditional DDI Backhaul Model

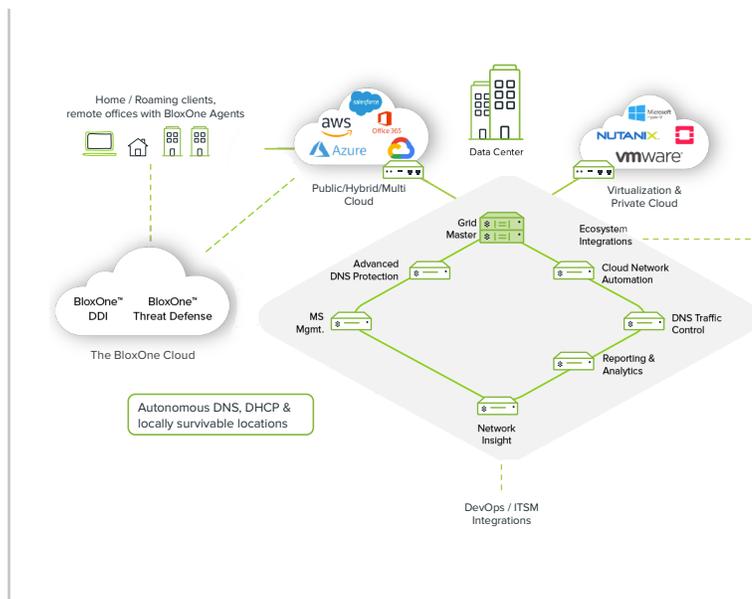


Figure 8: After – Hybrid DDI Cloud-Managed Model

Infoblox offers marketing-leading hybrid solutions for on-premises and cloud-managed core network services. If the time is right for you to simplify and improve control, automation, and security across your enterprise environments, contact our account team for more information. Or [try DDI for a free evaluation.](#)



Infoblox is the leader in modern, cloud-first networking and security services. Through extensive integrations, its solutions empower organizations to realize the full advantages of cloud networking today, while maximizing their existing infrastructure investments. Infoblox has over 12,000 customers, including 70% of the Fortune 500.

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