SD-WAN technology makes it possible to extend flexible, cost-efficient and centrally managed connectivity to distributed data centers, branch locations and cloud-based applications. However, to fully deliver on its potential, SD-WAN requires secure and reliable network services—DNS, DHCP and IP address management (aka DDI). Infoblox solutions for SD-WAN simplify deployments by empowering you to centrally manage DDI from the cloud across all remote and branch locations with unprecedented cost efficiency, while bolstering security for users wherever they happen to be.

**Solution Benefits**

- **Improve SD-WAN Branch Experiences:** Enhance user experiences and ensure high availability for cloud-based SaaS applications in branch offices and remote locations.

- **Bolster Security:** Fortify SD-WAN branches against pervasive malware, network intrusion and data exfiltration.

- **Increase Your Agility:** Automate DDI provisioning and management of SD-WAN branches from the cloud.

- **Lower Your Total Cost of Ownership:** Deploy flexibly and for less cost using virtual form factors and commodity hardware.

**Business Challenges**

SD-WANs are powering digital transformation, enabling cloud migration and elevating business efficiency. This redefinition of the network can deliver more bandwidth and create a flexible network perimeter. To attain the benefits of SD-WAN, it must be coupled with comprehensive and robust DDI services, particularly DNS. Conventional backhaul DDI solutions are not optimized for the direct branch-to-cloud access of SD-WAN, and server-based DDI solutions are challenging to scale and manage across multiple sites. In addition, direct branch-to-cloud connections require specialized security safeguards lacking from most networking solutions.

**Key Features**

**Cloud-Managed DDI**

Infoblox simplifies SD-WAN by moving DDI control and management to the cloud using cloud-native principles, including microservices and containerization. Delivered as a cloud-managed SaaS application, **BloxOne® DDI** from Infoblox is built with elastic scalability in mind. It can cost-effectively scale to accommodate everything from small deployments to up to thousands of remote and branch office locations.

**Enhanced Network Visibility**

Infoblox visibility tools provide granular insight to connected devices and to the network itself, including wired, wireless, cloud, VLAN and SD-WAN. Infoblox Network Insight monitors and maintains the network and security infrastructure based on Common Vulnerabilities and Exposures (CVEs) and vendor product lifecycle announcements. These combined capabilities help make migration and management across networks simpler and more efficient.
Direct-to-Cloud Application Access
In delivering cloud-based application access, conventional DDI solutions rely on inefficient hub-and-spoke models or on DNS backhauling, both of which can introduce latency and disrupt productivity. In contrast, BloxOne DDI directs user traffic from remote locations and branch offices to the nearest point of entry in the cloud for cloud-based SaaS applications. Local resolution of DNS for SaaS endpoints helps ensure a faster, more reliable cloud experience.

SD-WAN Security
Infoblox protects at the DNS layer. This is a critical capability for SD-WAN branches because they connect directly to the Internet, but without access to the complete security controls available through the corporate network. Infoblox BloxOne® Threat Defense provides a solid first line of defense for SD-WAN branches. It works with your existing defenses to centralize, automate and orchestrate security across on-premises, virtual and hybrid multi-cloud network environments without the need for additional infrastructure.

High Availability
On-premises BloxOne DDI appliances and virtual and containerized instances provide local DNS resolution and DHCP services. As a result, business operations can continue with minimal or no downtime should WAN services between headquarters and branch locations become disrupted.

Simplified IT and Lower Costs
Our cloud-managed SD-WAN solutions eliminate the complexity and manual effort of traditional server-based DDI while centralizing policy control. They also slash TCO by enabling you to take advantage of low-cost commodity hardware, virtual appliances and license pooling and portability.

SD-WAN for Service Providers
Service providers are eager to furnish differentiated value-added services for their SD-WAN offerings. Infoblox provides a complete DNS-based platform for subscriber services that helps operators reduce cost and complexity, expand revenue through value-added residential and commercial product offerings and make the subscriber experience better and safer.

Conclusion
Secure and efficient SD-WAN management is crucial to your competitive advantage in a cloud-first world. Infoblox solutions for SD-WAN, including BloxOne DDI and BloxOne Threat Defense, provide the agility, advanced security, deployment flexibility and cost savings you require to reap the full benefits of your SD-WAN deployments today and down the road.