

SOLUTION NOTE

Five Reasons for Deploying Subscriber Services Using a DNS-based Approach

SUMMARY

Historically, many services providers have built value-added subscriber services using legacy approaches such as deep packet inspection tools and proxies. While these approaches can support subscriber services, there are major challenge—including limited scalability, extensive performance impacts, and blind spots into details about individual users.

Today, there is a more powerful and cost-effective way to provide subscriber services—using a DNS-based approach that provides several key benefits when compared to traditional approaches such as deep packet inspection. This paper covers five key reasons why a DNS-based approach for subscriber services can allow service providers to offer the most cost-effective, scalable platform for delivering value-added offers.

More Cost-effectiveness by Leveraging Existing Infrastructure

In contrast to standalone solutions such as deep packet inspection tools or proxies for subscriber services, a DNS-based approach leverages existing core networking infrastructure to provide the extended visibility, content control, and security to end users. This greatly reduces the additional up-front investment needed to provide value-added offers by eliminating costly, standalone tools.

Higher Scalability by Limiting Required Footprint

As the number of subscribers increases and resources move closer to the end user, service providers cannot just throw a linear number of legacy boxes at the problem. In general, a DNS-based approach is 10 to 100 times more scalable than deep packet inspection approaches because it is more flexible and has less demanding deployment options. Since it acts on the DNS signaling path and only redirects a small portion of traffic instead of all user traffic, scalability is greatly improved over traditional approaches that analyze all in-line traffic.

Less Performance Impact via Targeted Analysis

With traditional approaches, the overall quality of experience (QoE) is negatively impacted because all traffic is analyzed regardless of whether the user is a paid subscriber or not. Processing unnecessary traffic creates an impact that is felt by all users. With a DNS-based approach, service providers can leverage powerful DNS-caching capabilities and can provide a much better first connection experience because only the traffic from specific customers is analyzed, reducing the overall impact. In addition, DNS-based services improve performance by filtering encrypted traffic without the need for decryption of user-plane traffic.

Improved Intelligence with Enhanced Visibility

With over 80 percent of web traffic being HTTPS, traditional approaches lack visibility due to encryption, and they cannot identify individual users. This is common when multiple users are connected via in-home WiFi. With the DNS-based approach, service providers have complete visibility since DNS is universal and eliminates the need for decryption. Service providers can identify users, regardless of whether they are behind WiFi routers or in-home hotspots.

Unified Services for Fixed and Mobile Access

With legacy approaches, service providers typically focus on mobile users only and ignore fixed-access subscribers for value-added services because the bandwidth requires an exorbitant number of proxies. Since the DNS-based approach has better scalability and segmentation of subscribers and non-subscribers, providers can now offer convergent subscriber services for fixed and mobile access. This greatly improves revenue potential and provides differentiation against competitors.

Why Infoblox for Subscriber Services

Infoblox is the market leader in service provider-grade secure DNS, DHCP, and IP address management (DDI) solutions. With our pre-packaged subscriber service capabilities, service providers can quickly deploy new services, taking advantage of the five reasons listed above. In addition to those key capabilities, service providers can now cost-effectively offer value-added services for both wireless and fixed customers on a single platform.

Infoblox provides the most scalable DDI infrastructure that supports on-premises, virtual, private/public cloud, software-defined networking (SDN), and network functions virtualization (NFV) on a single platform. In addition, Infoblox provides a faster return on investment (ROI) by reducing the upfront capital requirements with a pay-as-you-grow or subscription model.

Service providers can take advantage of Infoblox's market leadership and create more powerful subscriber services in a more cost-effective, scalable approach.

To learn more, visit www.infoblox.com/sp or contact your local Infoblox representative today.



Infoblox is leading the way to next-level DDI with its Secure Cloud-Managed Network Services. Infoblox brings next-level security, reliability and automation to on-premises, cloud and hybrid networks, setting customers on a path to a single pane of glass for network management. Infoblox is a recognized leader with 50 percent market share comprised of 8,000 customers, including 350 of the Fortune 500.

Corporate Headquarters | 3111 Coronado Dr. | Santa Clara, CA | 95054
+1.408.986.4000 | 1.866.463.6256 (toll-free, U.S. and Canada) | info@infoblox.com | www.infoblox.com



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