AnswerX Licensed

Intelligent recursive DNS software for network operators delivers a fast, secure, and personalized end-user experience

Akamai

DNS has moved beyond its traditional role as the "Internet Phonebook" and is increasingly viewed by Internet Service Providers (ISPs) and network operators as a strategic asset:

- DNS performance and resilience can affect Internet response times and service availability — key factors in determining end-user quality of experience

- ISPs can leverage recursive DNS (rDNS) as a control point for value-add services ranging from parental controls and anti-malware to services enabled through DNS analytics

- Existing DNS solutions provide good basic functionality, however technology advances are providing additional opportunities for ISPs and operators to benefit from DNS

These and other factors are causing some operators and ISPs to look beyond "free" DNS models that may not be well-positioned to address emerging and future Internet technical requirements and business models. Instead, they are now considering DNS as a potential contributor to increased customer satisfaction, lower costs, and additional revenue.

AnswerX Overview

AnswerX is Akamai's carrier-grade recursive DNS resolver that doubles as a highly flexible and extensible services platform. Featuring subscriber awareness, a high-performance policy engine and extensible language, a resilient architecture, and the ability to process millions of transactions per second on standard hardware, AnswerX can help lower network costs and secure critical DNS infrastructure. AnswerX also makes DNS a monetizable asset by enhancing end-user experience and enabling add-on service functionality through its portfolio of value-add software options.

In order to provide the flexibility to deploy and use AnswerX in a way that best matches cost and operational needs, Akamai offers a choice of AnswerX deployment models: Licensed, Managed, and Cloud. Key distinctions are summarized in the table below.

BENEFITS TO YOUR BUSINESS

- **Better user experience control,** given that all Internet experiences begin with a DNS operation

- **More cost effective —** network policy control at the name address level

- **Greater service differentiation** with consumer-controlled web safety features

- **More reliability** and faster browsing

	AnswerX Licensed	AnswerX Managed	AnswerX Cloud
Usage Model	Operator owns, deploys, and operates AnswerX	Akamai deploys and operates AnswerX as a service	Akamai deploys and operates AnswerX as a service
Deployment Location	On-net, operator network	On-net, operator network	Akamai Intelligent Platform™
DNS Policy Ownership	Operator	Operator	Operator
DNS Capacity	Dedicated	Dedicated	Shared

AnswerX Licensed

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Akamai AnswerX Licensed is the right choice for network operators and Internet Service Providers looking to deploy and manage an intelligent recursive DNS solution built to make the online experience safer, faster, and more secure for their customers. Supporting millions of transactions per second on standard hardware with best-in-class total cost of ownership, AnswerX accelerates each request and response on any network with patented smart-cache technology. With AnswerX, DNS queries and responses are aligned with reputation, preference, and policy values defined by the offered service. With its powerful policy engine, operators can use AnswerX to inspect DNS transactions and conditionally branch to logic trees and directives that control DNS.

AnswerX Licensed Value-Add Software Options

AnswerX Name Controls

AnswerX Name Controls allows primary account owners to control which content can be viewed by which end users within a location — a service that can be offered as a premium option for consumer or small-businesses Internet services. Intuitive ratings categories are used to determine the types of websites to allow or disallow. When a user attempts to view disallowed content, Name Controls presents a notification page and PIN override should the subscriber opt to ignore the notification and view the content. Name Controls is also designed to protect subscribers from unwanted visits to websites that risk exposing personal information.
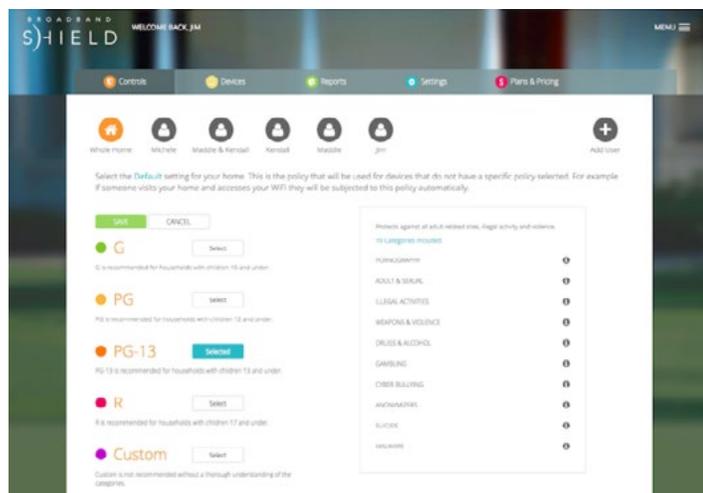

Figure 1 – Example of AnswerX Name Controls Ratings Categories

AnswerX Protect

AnswerX Protect, a subset of Name Controls that is available as a stand-alone option for AnswerX Licensed, protects end users from domains that are known or suspected to host malware or are used to carry out phishing attacks. By partnering closely both with Akamai's own Internet security team as well as the broader Internet security community, real-time updates are applied to the AnswerX Reputation Knowledge Server (RKS) and instantly disseminated to all AnswerX Licensed service nodes, enabling your end users to safely and securely use the Internet.

AnswerX Search Guide

AnswerX Search Guide allows DNS to become the foundation for a premium service simply by providing search flexibility and subscriber choice. Using relevant search experience and suggestions, Search Guide simplifies and secures web navigation, even in cases of address-bar typos or manually entered web addresses. It also includes DNS policy control, end-user landing experiences, and analytics and monitoring. With partner support, Search Guide can also complement Name Controls to enable searches that compensate for typos and name errors while ensuring safer search experiences.

AnswerX AnalytX

AnswerX AnalytX is a powerful data collection engine and usage monitor that enables operators to capture and visualize information from DNS activity to gain real-time and historical intelligence about security trends and attacks as well as growth trends and web performance. With a flexible implementation model and visualization tools, AnalytX adapts to existing network environments, providing an effective means for leveraging valuable DNS data — whether to enforce acceptable use policies, rapidly identify security threats, or gain additional insight into Internet usage.

Feature/Functionality

- **Smart, subscriber-aware, and preference-driven –** AnswerX processes DNS requests/responses at high speed according to preferences and network policies to block particular network connections. These dynamic settings can be modified without performance degradation or system restart.

- **Dynamic policy controls –** AnswerX Policy controls can be centrally configured or derived automatically based on policy engine feedback. Each node shares data with other nodes in a meshed configuration for consistent, system-wide functionality. Responses are also dynamic.

- **EDNS0 Client Subnet (ECS) –** For content delivered via the Akamai Intelligent Platform™ or other CDNs, AnswerX helps map content to the CDN cache located closest to the end user, rather than the cache located closest to the recursive resolver. The result is even faster delivery of video, web pages, and other content that already leverages CDN performance benefits.

- **Secure Resiliency and Protection –** The policy engine mitigates phishing and malware attempts as well as amplification attacks that steal subscriber capacity. Its real-time rate limiter continuously monitors usage, allocating capacity to legitimate users and away from unwanted systems.

- **Useful Analytics –** AnswerX features a Top-N query engine that allows operators to recognize Top-N destinations within a given time period and a dashboard that allows cross-functional views of metrics that define DNS platform health.

- **Cloud Services –** Whether an administrative portal for Name Controls, a landing page for Search Guide, or a walled garden for network notifications, Akamai provides turnkey brand-able cloud services that augment Answer X to deliver 100% uptime and fast time to market

AnswerX Licensed

The Akamai AnswerX Licensed Solution

Akamai makes the Internet fast, reliable, and secure and has relationships with hundreds of network operators to optimize the delivery of Internet services to subscribers. AnswerX Licensed is best-in-class intelligent recursive resolver software specifically designed for operators/ISPs to manage DNS traffic and make web services fast, safe, and uniquely personal for each subscriber.

The Akamai Ecosystem

Akamai makes the Internet fast, reliable and secure. Our comprehensive solutions are built on the globally distributed Akamai Intelligent Platform™, managed through the unified, customizable Luna Control Center for visibility and control, and supported by Professional Services experts who get you up and running easily and inspire innovation as your strategies evolve.