

# DNSBOX200

## ULTRA-SECURE, HIGH PERFORMANCE DNS CACHE

DNSBOX200 gives you advanced DNS slave, recursive resolver (DNS cache) and DHCP server options. It can be licenced as a dedicated DNS caching resolver offering premium levels of performance and security for business-critical needs.

Reliable DNS resolution is important in any DNS services but it becomes crucial when:

- You resolve a high volume of queries - you need high performance
- Your DNS service is business-critical - any disruption would be a crisis

Off-site DNS services, whether your own or outsourced, don't protect your network from security threats and cause latency for your users:

- Because your recursive resolver is not local, answering queries takes longer.
- Free DNS services, like OpenDNS or Google DNS, limit the maximum number of queries you make slowing the service down and affecting your users' experience.
- DNS is vulnerable to security threats and new security exploits are routinely reported. But free DNS services don't verify if the response received is spoofed, and where they do, it causes further delays.
- The services are unsupported - if any issues occur, you won't be able to solve them.

So, you need to put a local recursive resolver in your own network. But a general purpose DDI appliance would be overcomplicated and over-priced.

**DNSBOX200 is the solution. It is a fit for purpose recursive resolver that delivers fast and secure DNS caching. It runs advanced specialist software – Unbound - dedicated to recursive resolution, to give you:**

- Carrier grade recursive performance - with parallel processing of multiple queries resulting in 2.5x the performance of BIND
- Maximum security - with DNSSEC validation of responses, multiple features to protect against Denial of Service (DoS) attacks and cache poisoning

**DNSBOX200 is built on the ApplianSys server appliance platform: its intuitive GUI, smart server management, hardened operating system and sensible hardware design give you security, reliability and ease of use to make your life easier.**



### Key Benefits

#### High Performance

- Unbound - specialist software that delivers 2.5x more queries per second than BIND
- Local response caching
- Ability to query multiple external servers in parallel

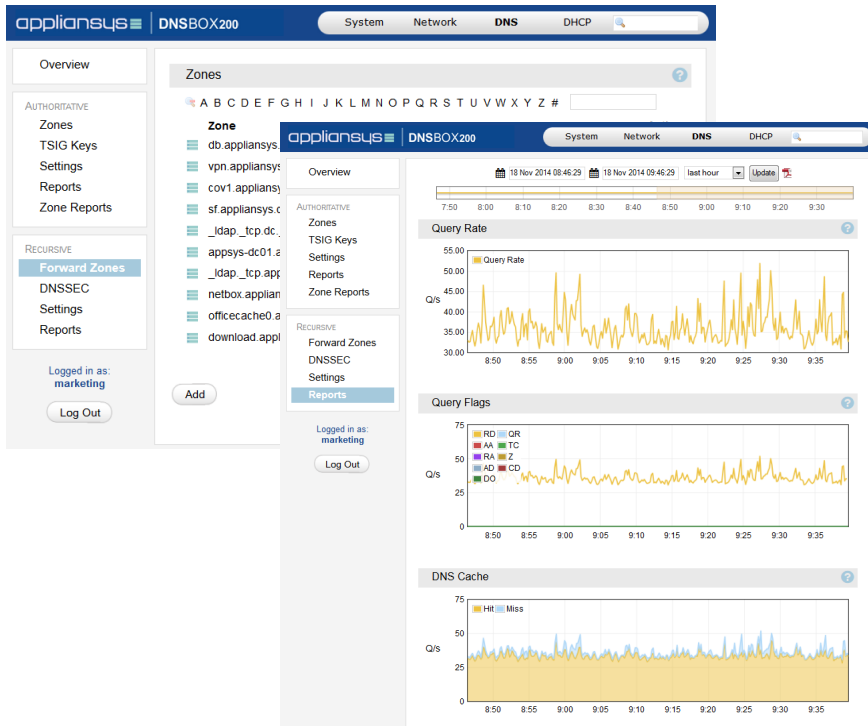
#### High Security

- Full DNSSEC support
  - Protection against spoofed DNS data
  - Ability to configure DNSSEC trust anchors
- DoS protection
  - Rate-limiter restricting amount of DNS traffic from individual or all IP addresses
  - Ability to block the IP address of the attacker using custom firewall rules
  - Automatic service restart if needed
- Cache poisoning protection
  - Max randomness for query ID and port
  - Case preservation
  - Response scrubbing
  - Access control
- Rapid-release updates in response to new security vulnerabilities

### Appliance Format

- Dedicated server: better performance and security
- Faster and more secure than a general purpose server
- Easy to configure and use
- High level of resilience and availability
- Slashes cost of ownership, high ROI

## Simple to use, web-based DNS administration interface



View real time and historical graphs showing queries by number, rate and caching hit-miss ratio; see query flags; monitor service peaks, latency, memory use and unwanted transactions; generate PDF reports; view query logs; add, edit and delete forward zones and DNSSEC Trust Anchors.

## Why Unbound

DNSBOX200 recursive cache uses Unbound - software designed and optimised for recursive resolution. There are a number of features that contribute to the server's security and performance, making it the best tool for the job:

- **High performance** - 2.5x the performance of BIND
  - Many DNS servers, including BIND, have been developed to handle both authoritative and recursive DNS. As a single-purpose server Unbound doesn't suffer from over-complication. Its design is minimalistic and its code simple and lightweight. This increases the server's performance.
  - If you also require authoritative DNS, running a separate server for recursive resolution lets you spread the load. This is particularly important where there are high loads for both authoritative and cached lookups.
  - The DNSSEC validation code was designed integral to Unbound at its inception and optimised for high performance. Many other DNS servers implement DNSSEC as a plug-in or bolt-on, which slows down the speed of resolution.
- **High security**
  - Protection against cache poisoning reduces the threat of a computer hacking attack where traffic is diverted to an incorrect IP address.
  - Recursive resolvers are vulnerable to Denial of Service (DoS) attacks where phony requests overwhelm the IP address with a large volume of traffic. DoS protection gives you peace of mind - the devices or services are always available to users.
  - Information is protected during transmission from the client to the server by using a Secure Sockets Layer (SSL) connection.
  - By running a dedicated DNS caching server you follow the best practice approach of separating the DNS cache from the authoritative server. DNS caches are inherently vulnerable to security risks - separating the services reduces the chance of poisoned DNS lookups stored in the cache finding a route to the authoritative records.

## Key Features

### Ease of Use

- Plug-and-play
- Configure from any browser, anywhere
- Simple, intuitive interface
- Graphical reports
- Automated SMS and email alerts
- Copy changes between server
- Import/export option for easy backups
- One click upgrade with rollback functionality

### Advanced DNS Administration

- Ability to display, filter, add, delete and search for forward zones
- Automatic forward zones creation for local zones
- Real-time and historical graphs showing recursive DNS performance
- Logging recursive queries to local and remote logs
- Unlimited simultaneous administrators
- Extended command line interface (CLI)

### Appliance Security & Reliability

- Industrial grade, security-hardened Linux OS with read only, compressed firmware
- 10x more reliable with solid state storage
- Dual CFast cards - program and data
  - Faster boot times
  - Easy swap to replacement hardware
- Integrated firewall
- TSIG secured transfers to 3rd party DNS servers

### Expandable Solution

- Ability to add more DNS caches and deploy them in highly available load-balanced (HALB) clusters as your network grows
- Easily upgrade to include other services:
  - Authoritative DNS
  - DHCP
- Seamless integration with **DNSBOX300** or **DNSBOX400** for a complete solution
- IPv6 support

## Technical Specifications

	DNSBOX210	DNSBOX220	DNSBOX230
<b>Recursive Performance</b>	7,500 QpS	60,000 QpS	95,000 QpS
<b>Ethernet (NICs)</b>	2 x 10/100/1000		
<b>Flash Storage</b>	1 x OS, 1 x data		
<b>DHCP Storage</b>	SSD		
<b>Dimensions</b>	19" (482.6mm) x 1.75" (44.45mm) x 10" (254mm)	19" (482.6mm) x 1.75" (44.45mm) x 17" (432mm)	