

FreeBSD Administration - Support #677

Install an Authoritative DNS Server With Unbound on FreeBSD 10

10/17/2015 05:43 PM - Daniel Curtis

Status:	Closed	Start date:	10/18/2015
Priority:	Normal	Due date:	
Assignee:	Daniel Curtis	% Done:	100%
Category:	Domain Name Server	Estimated time:	1.00 hour
Target version:	FreeBSD 10	Spent time:	1.00 hour

Description

This is a guide on installing an authoritative DNS server using the Unbound on FreeBSD 10.

Prepare the Environment

- Make sure the system is up to date:

```
pkg update && pkg upgrade
```

Install Unbound

NOTE: Unbound is a part of the FreeBSD base system as of 10.1

- Fetch the named.cache from internic:

```
cd /var/unbound
fetch ftp://ftp.internic.net/domain/named.cache
```

- Get the root.key from IANA to verify DNSSEC extensions

```
unbound-anchor -a "/var/unbound/root.key"
```

- Fetch the dlv.isc.org.key from ISC to verify DNSSEC extensions

```
fetch http://ftp.isc.org/www/dlv/dlv.isc.org.key
```

- Generate the keys Unbound needs to be safely controlled via unbound-control:

```
unbound-control-setup
```

- Create a config file for unbound:

```
vi /var/unbound/unbound.conf
```

- And add the following:

```
## Authoritative, validating, recursive caching DNS
server:
  verbosity: 1
  logfile: "/var/log/unbound.log"
```

```

interface: 0.0.0.0

port: 53

do-ip4: yes
do-udp: yes
do-tcp: yes

access-control: 127.0.0.0/8 allow
access-control: 10.0.0.0/16 allow

include: "/var/unbound/conf.d/*.conf"

root-hints: "/var/unbound/named.cache"

hide-identity: yes
hide-version: yes
harden-glue: yes
harden-dnssec-stripped: yes
use-caps-for-id: yes
prefetch: yes

forward-zone:
  name: "."
  forward-addr: 208.67.222.222

```

- Create an unbound config for the example.com domain:

```
vi /var/unbound/conf.d/example.com.conf
```

- And add the following:

```

# example.com domain
local-zone: "example.com." static

local-data: "gateway.example.com. IN A 192.168.55.1"
local-data: "nas.example.com. IN A 192.168.55.2"
local-data: "pc1.example.com. IN A 192.168.55.3"
local-data: "pc2.example.com. IN A 192.168.55.4"
local-data: "wap1.example.com. IN A 192.168.55.5"
local-data: "dhcp1.example.com. IN A 192.168.55.6"
local-data: "dhcp2.example.com. IN A 192.168.55.7"

local-data-ptr: "192.168.55.1 gateway.example.com"
local-data-ptr: "192.168.55.2 nas.example.com"
local-data-ptr: "192.168.55.3 pc1.example.com"
local-data-ptr: "192.168.55.4 pc2.example.com"
local-data-ptr: "192.168.55.5 wap1.example.com"
local-data-ptr: "192.168.55.6 dhcp1.example.com"
local-data-ptr: "192.168.55.7 dhcp2.example.com"

```

- Start and enable unbound at boot:

```

echo 'local_unbound_enable="YES"' >> /etc/rc.conf
service local_unbound start

```

NOTE: I needed to edit the local_unbound init script

```
vi /etc/rc.d/local_unbound
```

- And set the correct pid file:

```
pidfile="/var/unbound/unbound.pid"
```

- With unbound configured and running edit the resolve config file:

```
vi /etc/resolv.conf
```

- And change the nameserver to the localhost:

```
nameserver 127.0.0.1
```

Resources

- https://calomel.org/unbound_dns.html
- <https://www.digitalocean.com/community/tutorials/how-to-set-up-the-unbound-caching-dns-resolver-on-freebsd-10-1>
- <http://www.prado.it/2012/04/23/how-to-configure-unbound-with-dnssec-validation-on-freebsd-9-0/>

Related issues:

Copied to FreeBSD Administration - Support #694: Install a Forwarding DNS Ser...

Closed

10/18/2015

History

#1 - 10/17/2015 05:44 PM - Daniel Curtis

- Tracker changed from Bug to Support
- Status changed from New to In Progress
- % Done changed from 0 to 50

#2 - 10/17/2015 05:47 PM - Daniel Curtis

- Description updated
- Status changed from In Progress to Resolved
- % Done changed from 50 to 100

#3 - 11/11/2015 11:27 AM - Daniel Curtis

- Subject changed from Install an Authoritative DNS Server With Unbound on FreeBSD to Install an Authoritative DNS Server With Unbound on FreeBSD 10

#4 - 11/11/2015 12:10 PM - Daniel Curtis

- Copied to Support #694: Install a Forwarding DNS Server With Unbound on FreeBSD 9 added

#5 - 11/27/2015 03:54 PM - Daniel Curtis

- Status changed from Resolved to Closed