

## GNU/Linux Administration - Support #696

### Install a Forwarding DNS Server With Unbound on Arch

11/15/2015 01:01 PM - Daniel Curtis

<b>Status:</b>	Closed	<b>Start date:</b>	11/15/2015
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Daniel Curtis	<b>% Done:</b>	100%
<b>Category:</b>	Domain Name Server	<b>Estimated time:</b>	0.50 hour
<b>Target version:</b>	Arch Linux	<b>Spent time:</b>	2.00 hours

#### Description

This is a guide on installing a forwarding DNS server using the Unbound on Arch Linux.

### Prepare the Environment

- Make sure the system is up to date:

```
pacman -Syu
```

### Install Unbound

- Install unbound:

```
pacman -S unbound
```

- Make a config directory for the various domains served by unbound:

```
mkdir /etc/unbound/conf.d
```

- Create a log file for unbound:

```
touch /var/log/unbound.log  
chown unbound:unbound /var/log/unbound.log
```

- Set the unbound config files ownership to the unbound user:

```
chown -R unbound:unbound /etc/unbound
```

- Edit the unbound config:

```
vi /etc/unbound/unbound.conf
```

- And add the following:

```
## Forwarding, validating, recursive caching DNS  
server:  
  verbosity: 1  
  logfile: "/var/log/unbound.log"  
  use-syslog: no  
  username: "unbound"
```

```
trust-anchor-file: trusted-key.key
```

```
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
```

```
local-zone: "localhost." static  
local-data: "localhost. 10800 IN NS localhost."  
local-data: "localhost. 10800 IN A 127.0.0.1"  
local-zone: "127.in-addr.arpa." static  
local-data: "127.in-addr.arpa. 10800 IN NS localhost."  
local-data: "1.0.0.127.in-addr.arpa. 10800 IN PTR localhost."
```

```
include: "/etc/unbound/conf.d/*.conf"
```

```
chroot: ""
```

```
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 /etc/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:

```
systemctl enable unbound
```

```
systemctl start unbound
```

- With unbound configured and running edit the interface netctl config file:

```
vi /etc/netctl/wired
```

- And change the nameserver to the localhost and the search domain to example.com:

```
DNS=('127.0.0.1')  
DNSSearch='example.com'
```

## Resources

- <https://wiki.archlinux.org/index.php/Unbound>

## History

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### #1 - 11/15/2015 01:04 PM - Daniel Curtis

- Description updated
- Status changed from New to In Progress
- % Done changed from 0 to 50

### #2 - 11/15/2015 01:06 PM - Daniel Curtis

- Description updated

### #3 - 11/16/2015 01:49 PM - Daniel Curtis

- Description updated

### #4 - 11/16/2015 02:15 PM - Daniel Curtis

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

### #5 - 11/16/2015 02:58 PM - Daniel Curtis

- Description updated

### #6 - 11/27/2015 03:48 PM - Daniel Curtis

- Status changed from Resolved to Closed

### #7 - 12/16/2015 01:54 PM - Daniel Curtis

- Description updated