

// List of Important Directories and Files

Apache2 /etc/apache2
Virtual Hosts - /etc/apache2/sites-available

bind9 /etc/bind
Where You Link to Zones - /etc/bind/named.conf.local
Cache, Forward to Other DNS - /etc/bind/named.conf/options

1. Install Ubuntu Server

// Update Ubuntu
2. sudo apt-get update
3. sudo apt-get upgrade

// Install Linux-Apache-MySQL-PHP
4. sudo apt-get install lamp-server^

// Set Static IP and Name Servers, and Restart Network

5. vim /etc/network/interfaces

```
-----  
auto eth0  
iface eth0 inet static  
    address 192.168.99.x  
    netmask 255.255.255.0  
    network 192.168.99.0  
    broadcast 192.168.99.255  
    gateway 192.168.99.1
```

6. vim /etc/resolv.conf

```
-----  
nameserver 168.156.192.42  
nameserver 168.156.192.44
```

7. sudo /etc/init.d/networking restart

// Install bind9 (DNS)

8. sudo apt-get install bind9

// Create Virtual Hosts (Apache2)

// Instructions: Copy the Default file in /etc/apache2/sites-available and name it whatever you want for your new site. Name doesn't matter, it just need to be unique. We used Site1. Repeat for each sites you want (i.e. Site2, Site3)

// Configure Site1. Do not edit anything below the second directory function. Basic Virtual Host syntax is as follows.

```
9. <VirtualHost *:80>
    ServerAdmin email@example.com
    ServerName www.example.com
    ServerAlias example.com

    DocumentRoot /var/www/site1
    <Directory />
        Options FollowSymLinks
        AllowOverride None
    </Directory>
    <Directory /var/www/site1>
        Options Indexs FollowSymLinks MultiViews
        AllowOverride None
        Order allow,deny
        allow from all
    </Directory>

    **rest of file**
</VirtualHost>
```

// Repeat for each virtual host file

// Now enable the sites and disable the default Site

```
10. a2ensite site1
11. a2ensite site2
12. a2ensite site3
13. a2dissite default
```

// Note*: You can also do - a2ensite site1 && a2ensite site2 && a2ensite site3 && a2dissite default for a single line command.

// Restart Apache2

```
14. /etc/init.d/apache2 restart
```

// Setup DNS Cache Server

```
15. vim /etc/bind/named.conf.options
```

// ONLY change the forwards part. This is used to forward DNS requests to our servers that are NOT defined. In this case, we are forwarding to the LWTC DNS servers.

```
16. forwarders {
    168.156.192.42;
    168.156.192.44;
}
```

// Setup local DNS conf with named.conf.local file. Main config file for all zones.

17. vim /etc/bind/named.conf.local

// Add each zone as follows

```
18. # example.com DNS Zone
    zone "example.com" {
        type master;
        file "/etc/bind/zones/db.example.com";
    };
```

// Add more zones for each domain, changing "example.com" to whatever your domain is for your other zones.

// Add a reverse zone at the end. This is for resolving hostnames to IPs. You only need one for your subnet. It uses reverse network id so our reverse zones network IP is 192.168.99.x. The "in-addr.arpa" will always be the same.

```
19. # Reverse DNS Zone
    zone "99.168.192.in-addr.arpa" {
        type master;
        file "/etc/bind/zones/db.192";
    };
```

// Now create the zones in the zones folder. Copy the default zone db.local to the zones folder. Do this for all of your zone files.

20. cp /etc/bind/db.local /etc/bind/zones/db.example.com

21. cp /etc/bind/db.local /etc/bind/zones/db.hippo.com

// Now modify the file for your needs.

```
21. vim /etc/bind/zones/db.example.com
22. ;
    ; BIND data file for example.com
    ;
    $TTL 604800
    @ IN SOA example.com. root.example.com. (
        20120531 ; Serial
        604800 ; Refresh
        86400 ; Retry
        2419200 ; Expire
        604800 ; Negative Cache TTL
    )

    @ IN NS example.com.

    www IN A 192.168.99.200
    example.com. IN A 192.168.99.200
```

// Repeat for each domain you wish to add.

```
// Add a reverse bind zone as follows
23. ;
    ; BIND reverse data file
    ;
    $TTL 604800
    @ IN SOA localhost.com. root.localhost.com. (
        20120531 ; Serial
        604800 ; Refresh
        86400 ; Retry
        2419200 ; Expire
        604800 ; Negative Cache TTL
    )

    @ IN NS localhost.

    221 IN PTR example.com.
    221 IN PTR hippo.com.
    221 IN PTR otherdomain.com.
```

```
// Restart bind
24. /etc/init.d/bind restart
```

// The bind zones find the individual domains listed by the "ServerName" we defined in the Virtual Host files we created for apache. Now someone is on the same network, and they use your name server IP, when they visit "example.com" it will go to your web site.