**DNS (Master / Primary)**

1.Requirements:

1. Hostname(FQDN) : amit.di.com
2. Domain name: di.com
3. nameserver(IP address of router) : 192.168.1.1
4. Set IP address for DNS server manually:192.168.1.162
5. Run # Service iptables stops Command

1. Installation of DNS Server.

[root@sunil ~]# yum install bind\*

[root@sunil ~]# yum install caching-nameserver\*

2.Make sure that the host names are set properly.

[root@sunil ~]# vi /etc/hosts

127.0.0.1 localhost.localdomainlocalhost  
::1 localhost6.localdomain6 localhost6  
192.168.1.162 amit.di.com amit #(your ip address)

192.168.1.12 navin.di.com navin

192.168.1.192 avik.di.com avik

192.168.1.123 ashish.di.com ashish

192.168.1.57 sam.di.com santosh

[root@sunil ~]#vi /etc/sysconfig/network

NETWORKING=yes  
NETWORKING\_IPV6=no  
HOSTNAME=amit.di.com

Note: We set the hostname in this terminal and we already set the hostname in the files then also why we need to set the hostname again…? Because the changes for hostname is permanent only when we restart the system if we set the hostname in files.

3. Make the DNS(nameserver) entry.

[root@sunil ~]# vi /etc/resolv.conf

search di.com  
nameserver 192.168.1.162 # (your IP Address)

nameserver 192.168.1.1 # (getway IP Address)

4. Do the following configuration to setup DNS properly.

(a) Create the named.conf file in /var/named/chroot/etc/ directory.

[root@sunil ~]# vi /var/named/chroot/etc/named.conf

acl di.com { 192.168.1.0/24; 127.0/8; };

options {

directory “/var/named”;  
#dump-file “/var/named/data/cache\_dump.db”;  
#statistics-file “/var/named/data/named\_stats.txt”;  
#memstatistics-file “/var/named/data/named\_mem\_stats.txt”;  
#query-source port 53;

allow-query { di.com; }; #(your domain name)

forwarders {192.168.1.1; }; #(Getway IP)

forward only;  
};  
# Forward Entry

zone “di.com” IN {  
type master;  
file “di.com.forward”;  
#allow-update { none; };  
};

# Reverse Entry

zone “1.168.192.in-addr.arpa” IN {  
type master;  
file “di.com.reverse”;  
#allow-update { none; };  
}

(b) Create the forward and reverse zone files in the proper directory.

[root@sunil ~]# cd /var/named

[root@named]# cp named.localhost di.com.forward

[root@named]# cp named.loopback di.com.reverse

[root@sunil ~]# vi di.com.forward

$TTL 86400  
@ IN SOA di.com. root (  
 42 ;serial(d.adams)  
 3H ; refresh  
 15M ; retry  
 1W ; expiry  
 3D ) ; minimum

@ IN NS amit.di.com. #(Master DNS)

amit IN A 192.168.1.162

avih IN A 192.168.1.192

sam IN A 192.168.1.57

ashish IN A 192.168.1.123

navin IN A 192.168.1.12

[root@sunil ~]# vi di.com.reverse

$TTL 86400  
@ IN SOA di.com. root.amit.di.com. (  
 1997022700 ; Serial  
 28800 ; Ref resh  
 14400 ; Retrych  
 3600000 ; Expire  
 86400 ) ; minimum

@ IN NS amit.di.com. #(Master DNS)

162 IN PTR amit.di.com.

192 IN PTR avik.di.com.

57 IN PTR sam.di.com.

123 IN PTR ashish.di.com.

12 IN PTR navin.di.com.

(c) Give the appropriate permissions and owner/group to forward and reverse zone files.

[root@sunil ~]# chmod 644 di.com.forward

[root@sunil ~]# chmod 644 di.com.reverse

[root@sunil ~]# chown named:named di.com.forward

[root@sunil ~]# chown named:named di.com.reverse

(c) Restart the named service

[root@sunil ~]# service named restart

[root@sunil ~]# chkconfig named on #(forpermanent) service on

The DNS Server is ready now, it’s time to test.

[root@sunil ~]# dig amit.di.com

[root@sunil ~]# dig -x 192.168.1.162

**On each Client side:-**

Change the DNS Server (192.168.1.1)entry on **Windows** m/c

#vi /etc/resolv.conf

nameserver=192.168.1.162 # (DNS ip Address)

nameserver=192.168.1.1

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**PROTOCOLS**

ftp=20(data) & 21(control),

ssh=22,

telnet=23,

smtp=25,

dns=53,

dhcp =67,

http/httpd=80

pop3=110

sftp=115,

ntp-network time protocol=123

samba=139

imap=internet mssage access protocall=143

ssl/https=443

ftps=989(data) & 990 (Control),

nfs=2049,