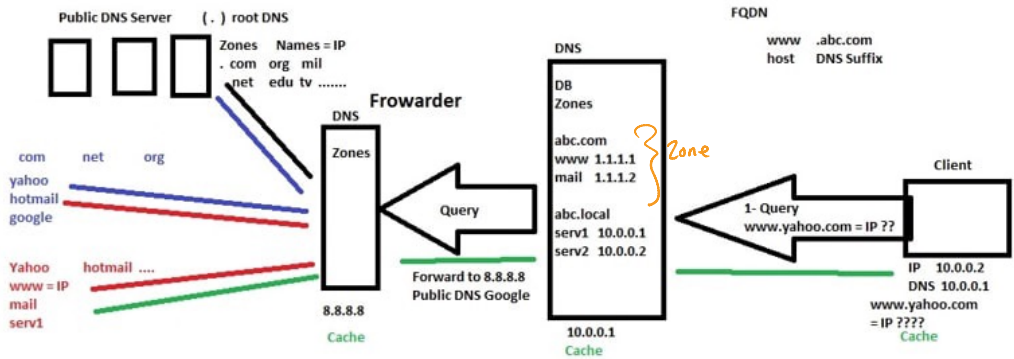


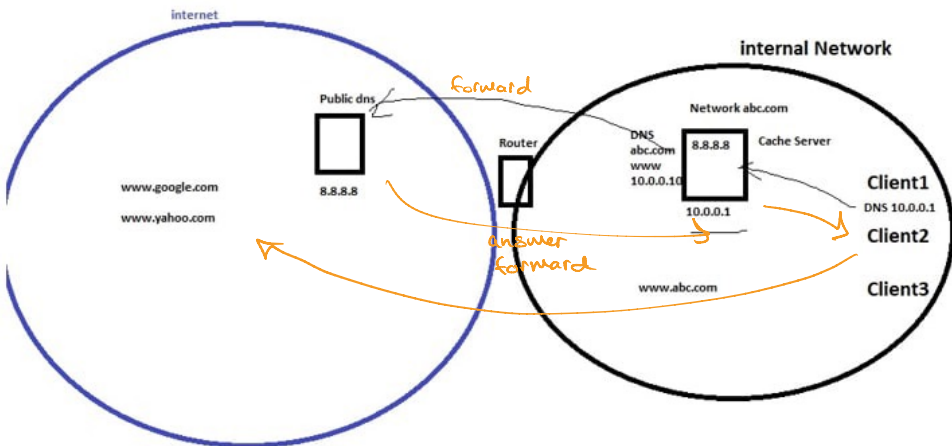
# DNS

Simple DN is pointing to difficult DN



DNS TCP/IP 53

abc.com	Zone Name	
www	A	192.168.1.1
www	AAAA	2000::1234:12354
mail1	CNAME	www.abc.com
192.168.1.1	PTR	www.abc.com



System admin  
Network engineer

Jobs

```
Configure DNS Server
DNS Domain Name System ( Service Locator )
Mapping Computer To IP
```

- ① install package bind\*
- ② edit the config files
- ③

-----  
How DNS Works ?

Package bind ( Bekely Internet Naming Domain ) .rpm  
Configuration Files /etc/named.conf dns configuration  
Data Files /var dns zone files records  
service systemctl enable | start | status named.service  
Firewall Configuration to allow traffic

-----  
DNS Server Configuration

```
# yum install bind*
# vim /etc/named.conf Edit the following lines
listen-on port 53 { 127.0.0.1; any; };
allow-query { localhost; any; };
forwarders { 8.8.8.8; };
zone "abc.com" IN {
    type master;
    file "abc.com.db";
};
```

← DNS configuration file.

allow traffic from any NIC interface for DNS Server  
allow queries from any client 10.0.0.0/8; 192.168.1.0/24; any

← pc ask for ip, forward it to server xy  
and current DNS server will cache the info, so if pc ask again  
the current DNS server will answer, no forward.

← does not take any update, in it records are created.

add zone informations

```
# named-checkconf
```

← Check for errors in the named file.

```
# cp /var/named/named.empty /var/named/abc.com.db
# chgrp named /var/named/abc.com.db
```

copy sample file  
change group ownership to named

← Change permissions to named,  
so that user can access that file.

```
# vim /var/named/abc.com.db
```

```
$TTL 3H
```

```
@      IN SOA  abc.com. rname.invalid. (
                                0      ; serial
                                1D     ; refresh
                                1H     ; retry
                                1W     ; expire
                                3H )  ; minimum

      NS      DNS1.abc.com.
      A       127.0.0.1
      AAAA    ::1
DNS1  IN      A       10.0.0.1
Web1  IN      A       10.0.0.2
www   IN      CNAME   web1.abc.com
mail  IN      A       10.0.0.3
```

↑ Internet Name

Enable and Start DNS Service :-

```
# systemctl enable named.service
# systemctl start named.service
# systemctl status named.service
```

allow firewall traffic :-

```
# firewall-cmd --add-service=dns --permanent
# firewall-cmd --reload
# firewall-cmd --list-services
```

-----  
Configure DNS Client

```
# vim /etc/resolv.conf
nameserver 10.0.0.1
```

```
# nslookup www.abc.com
# nslookup mail.abc.com
# nslookup DNS1.abc.com
```

