Domain Name System

Name to IP resolution

dnsclient

dig, nslookup

.

com

google

ns1 ns2

SOA - Start Of Authority

NS

A

CNAME

MX

package – bind bind-utils

service - named

*/ etc/named.conf*

[*www.example.com*](http://www.example.com/)

*dig* [*www.google.com*](http://www.google.com/)

*listen-on port 53 { 127.0.0.1; 192.168.1.120; };*

*# listen-on-v6 port 53 { ::1; };*

*allow-transfer { 192.168.1.120; }; # disable zone transfers by default*

*...*

*allow-query { 192.168.1.0/24; }; # allows queries only from 192.168.1.0/24*

*zone "example.com" {*

*type master;*

*file "/var/named/example.com"; # zone file path*

*};*

*zone "1.168.192.in-addr.arpa" {*

*type master;*

*file "/var/named/example.com.rev"; # 192.168.1.0/24 subnet*

*};*

*@ IN SOA server1.example.com. admin.server1.example.com. (*

*2023042801 ; Serial*

*1D ; Refresh*

*1D ; Retry*

*1W ; Expire*

*1W ) ; TTL*

*; name servers - NS records*

*IN NS server1.example.com.*

*server1 IN A 192.168.1.120*

*station1 IN A 192.168.1.121*

*www1 IN CNAME station1*

*@ IN SOA server1.example.com. admin.server1.example.com. (*

*2023042801 ; Serial*

*1D ; Refresh*

*1D ; Retry*

*1W ; Expire*

*1W ) ; TTL*

*; name servers - NS records*

*IN NS server1.example.com.*

*120 IN PTR server1.example.com.*

*dig -x 192.168.1.120*

*1.168.192.in-addr.arpa*

*iptables*

*systemctl stop firewalld*

*systemctl disable firewalld*

*yum install iptables-services iptables*

*Filter NAT Mangle*

*INPUT ALL*

*OUTPUT*

*FORWARD*

*PREROUTING*

*POSTROUTING*

*Linux 56.12.13.10 internet*

*A public ip*

*192.168.1.1*

*Network 192.168.1.0/24*

*iptables -A INPUT -p tcp –dport 22 -j REJECT*

*iptables -A INPUT -m state –state ESTABLISHED,RELATED -j ACCEPT*

*LDAP – store information in centralised location*

*openldap-servers*

*openldap-clients*

*Top Level DN*

*OU=People*

*cn=bob*

*dn: dc=example,dc=com*

*dn: ou=People,dc=example,dc=com*

*dn: cn=bob,ou=People,dc=example,dc=com*

*LDAP Data Interchange Format ( LDIF)*

*Attributes of LDIF are decided by pre defined schemas*

*openldap server (stores user information)*

*Clients*