## Вариант 1

Задание 1 (до 20 мин). Настройка локального DNS-сервера и проверка разрешения имён

1. Установите bind9 и dnsutils на сервере Astra Linux с IP 192.168.32.211.
2. Настройте прямую зону для домена astradomain.ru.
3. Проверьте конфигурацию и перезапустите bind9.
4. С клиента проверьте разрешение имён командой dig.

Задание 2 (до 15 мин). Проверка сетевого соединения и базовая диагностика

1. Проверьте пинг и nslookup для серверов и клиентов.
2. Проверьте синхронизацию времени с помощью timedatectl или ntpstat.

**НА СЕРВЕРЕ:**

systemctl stop NetworkManager

systemctl --now mask  NetworkManager

systemctl status NetworkManager

nano /etc/network/interfaces

auto enp0s3   
iface enp0s3 inet dhcp   
  
  
auto enp0s8   
iface enp0s8 inet static   
address 192.168.32.211/24

systemctl restart networking

apt install bind9 dnsutils

nano /etc/bind/named.conf.options

options {   
       directory "/var/cache/bind";   
  
       // If there is a firewall between you and nameservers you want   
       // to talk to, you may need to fix the firewall to allow multiple   
       // ports to talk.  See http://www.kb.cert.org/vuls/id/800113   
  
       // If your ISP provided one or more IP addresses for stable   
       // nameservers, you probably want to use them as forwarders.   
       // Uncomment the following block, and insert the addresses replacing   
       // the all-0's placeholder.   
  
        forwarders {   
               192.168.32.1;   
               77.88.8.8;   
               77.88.8.1;   
        };   
  
       //========================================================================   
       // If BIND logs error messages about the root key being expired,   
       // you will need to update your keys.  See https://www.isc.org/bind-keys   
       //========================================================================   
       dnssec-validation auto;   
       listen-on { 192.168.32.211; };   
       listen-on-v6 { any; };   
};

nano /etc/bind/named.conf.local  
  
//   
// Do any local configuration here   
//   
  
// Consider adding the 1918 zones here, if they are not used in your   
// organization   
//include "/etc/bind/zones.rfc1918";   
  
zone "astradomain.ru" {   
       type master;   
       file "/etc/bind/db.astradomain.ru";   
};   
  
zone "32.168.192.in-addr.arpa" {   
       type master;   
       file "/etc/bind/db.32.168.192";   
};

cp /etc/bind/db.local /etc/bind/db.astradomain.ru   
cp /etc/bind/db.127 /etc/bind/db.32.168.192

nano /etc/bind/db.astradomain.ru

;   
; BIND data file for local loopback interface   
;   
$TTL    604800   
@       IN      SOA     ns1.astradomain.ru. admin.astradomain.ru (   
                             2         ; Serial   
                        604800         ; Refresh   
                         86400         ; Retry   
                       2419200         ; Expire   
                        604800 )       ; Negative Cache TTL   
;   
@       IN      NS      ns1.astradomain.ru.   
ns1     IN      A       192.168.32.211   
www     IN      A       192.168.32.211   
mail     IN      A       192.168.32.211   
;

nano /etc/bind/db.32.168.192

;   
; BIND data file for local loopback interface   
;   
$TTL    604800   
@       IN      SOA     ns1.astradomain.ru. admin.astradomain.ru (   
                             2         ; Serial   
                        604800         ; Refresh   
                         86400         ; Retry   
                       2419200         ; Expire   
                        604800 )       ; Negative Cache TTL   
;   
@       IN      NS      ns1.astradomain.ru.   
211     IN      PTR     ns1.astradomain.ru.   
211     IN      PTR     www.astradomain.ru.   
211     IN      PTR     mail.astradomain.ru.       
;

nano /etc/resolv.conf

nameserver 192.168.32.211

named-checkconf

named-checkzone astradomain.ru /etc/bind/db.astradomain.ru   
named-checkzone 32.168.192.in-addr.arpa /etc/bind/db.32.168.19

systemctl restart bind9   
systemctl status bind9

dig www.astradomain.ru   
dig astradomain.ru   
dig -x 192.168.32.211

timedatectl status   
timedatectl set-ntp true   
timedatectl status

**НА КЛИЕНТЕ:**

systemctl stop NetworkManager

systemctl --now mask  NetworkManager

systemctl status NetworkManager

nano /etc/network/interfaces

auto enp0s3   
iface enp0s3 inet dhcp   
  
auto enp0s8   
iface enp0s8 inet static   
address 192.168.32.96/24

systemctl restart networking

nano /etc/resolv.conf

nameserver 192.168.32.211  
apt install dnsutils   
  dig www.astradomain.ru   
  dig -x 192.168.32.211   
  ping 192.168.32.211   
  ping www.astradomain.ru   
  nslookup www.astradomain.ru 192.168.32.211   
  nslookup www.astradomain.ru    
  nslookup 192.168.32.211 192.168.32.211   
  timedatectl status   
  timedatectl set-ntp true   
  timedatectl status