

Смотрим на ns01 (master):

systemctl status named

cat /etc/resolv.conf

ll /etc/named – файлы зон DNS

```
Last login: Sun May 26 19:58:30 2024 from 192.168.88.2
[root@ns01 ~]# systemctl status named
● named.service - Berkeley Internet Name Domain (DNS)
   Loaded: loaded (/usr/lib/systemd/system/named.service; enabled; vendor preset: disabled)
   Active: active (running) since Sun 2024-05-26 19:55:48 MSK; 6min ago
   Process: 2854 ExecStart=/usr/sbin/named -u named -c ${NAMEDCONF} $OPTIONS (code=exited, status=0/SUCCESS)
   Process: 2852 ExecStartPre=/bin/bash -c if [ ! "$DISABLE_ZONE_CHECKING" == "yes" ]; then /usr/sbin/named-checkconf
-z "${NAMEDCONF}"; else echo "Checking of zone files is disabled"; fi (code=exited, status=0/SUCCESS)
  Main PID: 2856 (named)
    CGroup: /system.slice/named.service
            └─2856 /usr/sbin/named -u named -c /etc/named.conf

May 26 19:55:51 ns01 named[2856]: client @0x7f1a99ca4aa0 10.100.11.135#41602/key zonetransfer.key (11.100.10...02401)
May 26 19:55:51 ns01 named[2856]: client @0x7f1a99ca4aa0 10.100.11.135#41602/key zonetransfer.key (11.100.10... ended
May 26 19:55:51 ns01 named[2856]: client @0x7f1a99cd6080 10.100.11.135#57493/key zonetransfer.key (11.100.10...02401)
May 26 19:55:51 ns01 named[2856]: client @0x7f1a99cd6080 10.100.11.135#57493/key zonetransfer.key (11.100.10... ended
May 26 19:55:51 ns01 named[2856]: client @0x7f1aa0041dd0 10.100.11.135#55265/key zonetransfer.key (newdns.la...02401)
May 26 19:55:51 ns01 named[2856]: client @0x7f1aa0041dd0 10.100.11.135#55265/key zonetransfer.key (newdns.la... ended
May 26 19:55:51 ns01 named[2856]: client @0x7f1a99ca4aa0 10.100.11.135#54040/key zonetransfer.key (ddns.lab)...02401)
May 26 19:55:51 ns01 named[2856]: client @0x7f1a99ca4aa0 10.100.11.135#54040/key zonetransfer.key (ddns.lab)... ended
May 26 19:55:51 ns01 named[2856]: client @0x7f1a99cf2ce0 10.100.11.135#40949/key zonetransfer.key (dns.lab)...02401)
May 26 19:55:51 ns01 named[2856]: client @0x7f1a99cf2ce0 10.100.11.135#40949/key zonetransfer.key (dns.lab)... ended
Hint: Some lines were ellipsized, use -l to show in full.
[root@ns01 ~]# cat /etc/resolv.conf
domain dns.lab
search dns.lab
nameserver 10.100.11.134

[root@ns01 ~]#
[root@ns01 ~]# cd /etc/named
[root@ns01 named]# ll
total 24
-rw-rw----. 1 root named 600 May 26 19:55 named.ddns.lab
-rw-rw----. 1 root named 698 May 26 19:55 named.dns.lab
-rw-rw----. 1 root named 651 May 26 19:55 named.dns.lab.client
-rw-rw----. 1 root named 625 May 26 19:55 named.dns.lab.rev
-rw-rw----. 1 root named 700 May 26 19:55 named.newdns.lab
-rw-rw----. 1 root named 91 May 26 19:55 named.zonetransfer.key
[root@ns01 named]#
```

Смотрим на ns02 (slave):

systemctl status named

cat /etc/resolv.conf

ll /etc/named – файлы зон DNS

```
Last failed login: Sun May 26 20:03:35 MSK 2024 from 192.168.88.2 on ssh:notty
There was 1 failed login attempt since the last successful login.
Last login: Sun May 26 19:55:51 2024 from 10.100.11.30
[root@ns02 ~]# systemctl status named
● named.service - Berkeley Internet Name Domain (DNS)
   Loaded: loaded (/usr/lib/systemd/system/named.service; enabled; vendor preset: disabled)
   Active: active (running) since Sun 2024-05-26 19:55:51 MSK; 8min ago
     Process: 2201 ExecStart=/usr/sbin/named -u named -c ${NAMEDCONF} $OPTIONS (code=exited, status=0/SUCCESS)
     Process: 2199 ExecStartPre=/bin/bash -c if [ ! "$DISABLE_ZONE_CHECKING" == "yes" ]; then /usr/sbin/named-checkconf -z "${NAMEDCONF}"; else echo "Checking of zone files is disabled"; fi (code=exited, status=0/SUCCESS)
    Main PID: 2203 (named)
      CGroup: /system.slice/named.service
              └─2203 /usr/sbin/named -u named -c /etc/named.conf

May 26 19:55:52 ns02 named[2203]: transfer of 'dns.lab/IN/default' from 10.100.11.134#53: connected using 10...er.key
May 26 19:55:52 ns02 named[2203]: zone newdns.lab/IN/default: sending notifies (serial 1905202401)
May 26 19:55:52 ns02 named[2203]: zone ddns.lab/IN/default: transferred serial 1905202401: TSIG 'zonetransfer.key'
May 26 19:55:52 ns02 named[2203]: transfer of 'ddns.lab/IN/default' from 10.100.11.134#53: Transfer status: success
May 26 19:55:52 ns02 named[2203]: transfer of 'ddns.lab/IN/default' from 10.100.11.134#53: Transfer complete...s/sec)
May 26 19:55:52 ns02 named[2203]: zone dns.lab/IN/default: transferred serial 1905202401: TSIG 'zonetransfer.key'
May 26 19:55:52 ns02 named[2203]: transfer of 'dns.lab/IN/default' from 10.100.11.134#53: Transfer status: success
May 26 19:55:52 ns02 named[2203]: transfer of 'dns.lab/IN/default' from 10.100.11.134#53: Transfer completed...s/sec)
May 26 19:55:52 ns02 named[2203]: zone ddns.lab/IN/default: sending notifies (serial 1905202401)
May 26 19:55:52 ns02 named[2203]: zone dns.lab/IN/default: sending notifies (serial 1905202401)
Hint: Some lines were ellipsized, use -l to show in full.
[root@ns02 ~]# cat /etc/resolv.conf
domain dns.lab
search dns.lab
nameserver 10.100.11.135

[root@ns02 ~]# cd /etc/named
[root@ns02 named]# ll
total 20
-rw-r--r-- 1 named named 248 May 26 19:55 named.ddns.lab
-rw-r--r-- 1 named named 324 May 26 19:55 named.dns.lab
-rw-r--r-- 1 named named 324 May 26 19:55 named.dns.lab.client
-rw-r--r-- 1 named named 322 May 26 19:55 named.dns.lab.rev
-rw-r--r-- 1 named named 304 May 26 19:55 named.newdns.lab
```

Замечаем, что файлы зон

named.dns.lab и named.dns.lab.client, переданные с master,

одного размера.

На master разные.

Проверяем работу Split-DNS на client1.

nameserver 10.100.11.134 (ns01) master

```
Last login: Sun May 26 19:55:53 2024 from 10.100.11.30
### Welcome to the DNS lab! ###

- Use this client to test the enviroment, with dig or nslookup.
  dig @10.100.11.134 ns01.dns.lab
  dig @10.100.11.135 -x 10.100.11.134

- nsupdate is available in the ddns.lab zone. Ex:
  nsupdate -k /etc/named.zonetransfer.key
  server 10.100.11.134
  zone ddns.lab
  update add www.ddns.lab. 60 A 10.100.11.136
  send

- rndc is also available to manage the servers
  rndc -c ~/rndc.conf reload

Enjoy!
[root@client1 ~]# cat /etc/resolv.conf
nameserver 10.100.11.134

[root@client1 ~]# ping web1.dns.lab
PING web1.dns.lab (10.100.11.136) 56(84) bytes of data.
64 bytes from client1 (10.100.11.136): icmp_seq=1 ttl=64 time=0.016 ms
64 bytes from client1 (10.100.11.136): icmp_seq=2 ttl=64 time=0.020 ms
^C
--- web1.dns.lab ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.016/0.018/0.020/0.002 ms
[root@client1 ~]#
[root@client1 ~]# ping web2.dns.lab
ping: web2.dns.lab: Name or service not known
[root@client1 ~]#
[root@client1 ~]# ping www.newdns.lab
PING www.newdns.lab (10.100.11.136) 56(84) bytes of data.
64 bytes from client1 (10.100.11.136): icmp_seq=1 ttl=64 time=0.008 ms
64 bytes from client1 (10.100.11.136): icmp_seq=2 ttl=64 time=0.019 ms
^C
--- www.newdns.lab ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.008/0.013/0.019/0.006 ms
[root@client1 ~]#
```

как и задавалось, узел web2.dns.lab недоступен

Проверяем работу Split-DNS на client2

nameserver 10.100.11.134 (ns01) master

```
Last login: Sun May 26 19:55:53 2024 from 10.100.11.30
### Welcome to the DNS lab! ###

- Use this client to test the enviroment, with dig or nslookup.
  dig @10.100.11.134 ns01.dns.lab
  dig @10.100.11.135 -x 10.100.11.134

- nsupdate is available in the ddns.lab zone. Ex:
  nsupdate -k /etc/named.zonetransfer.key
  server 10.100.11.134
  zone ddns.lab
  update add www.ddns.lab. 60 A 10.100.11.136
  send

- rndc is also available to manage the servers
  rndc -c ~/rndc.conf reload

Enjoy!
[root@client2 ~]# cat /etc/resolv.conf
nameserver 10.100.11.134

[root@client2 ~]# ping web1.dns.lab
PING web1.dns.lab (10.100.11.136) 56(84) bytes of data.
64 bytes from 10.100.11.136 (10.100.11.136): icmp_seq=1 ttl=64 time=0.325 ms
^C
--- web1.dns.lab ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 0.325/0.325/0.325/0.000 ms
[root@client2 ~]#
[root@client2 ~]# ping web2.dns.lab
PING web2.dns.lab (10.100.11.137) 56(84) bytes of data.
64 bytes from client2 (10.100.11.137): icmp_seq=1 ttl=64 time=0.009 ms
^C
--- web2.dns.lab ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 0.009/0.009/0.009/0.000 ms
[root@client2 ~]#
[root@client2 ~]# ping www.newdns.lab
ping: www.newdns.lab: Name or service not known
[root@client2 ~]#
```

как и задавалось, узел www.newdns.lab недоступен

Проверяем работу Split-DNS на client1

nameserver 10.100.11.135 (ns02) slave

```
23. ubuntu1 31. ns01 32. ns02 33. client1
[root@client1 ~]# echo 'nameserver 10.100.11.135' > /etc/resolv.conf
[root@client1 ~]# cat /etc/resolv.conf
nameserver 10.100.11.135
[root@client1 ~]#
[root@client1 ~]# ping web1.dns.lab
PING web1.dns.lab (10.100.11.136) 56(84) bytes of data.
64 bytes from client1 (10.100.11.136): icmp_seq=1 ttl=64 time=0.024 ms
64 bytes from client1 (10.100.11.136): icmp_seq=2 ttl=64 time=0.018 ms
^C
--- web1.dns.lab ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.018/0.021/0.024/0.003 ms
[root@client1 ~]#
[root@client1 ~]# ping web2.dns.lab
PING web2.dns.lab (10.100.11.137) 56(84) bytes of data.
64 bytes from 10.100.11.137 (10.100.11.137): icmp_seq=1 ttl=64 time=0.099 ms
64 bytes from 10.100.11.137 (10.100.11.137): icmp_seq=2 ttl=64 time=0.124 ms
^C
--- web2.dns.lab ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.099/0.111/0.124/0.016 ms
[root@client1 ~]# ping www.newdns.lab
PING www.newdns.lab (10.100.11.136) 56(84) bytes of data.
64 bytes from client1 (10.100.11.136): icmp_seq=1 ttl=64 time=0.017 ms
64 bytes from client1 (10.100.11.136): icmp_seq=2 ttl=64 time=0.019 ms
^C
--- www.newdns.lab ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.017/0.018/0.019/0.001 ms
[root@client1 ~]#
```

узел web2.dns.lab доступен

условие, заданное в view "client1", не выполняется

Проверяем работу Split-DNS на client2

nameserver 10.100.11.135 (ns02) slave

```
[root@client2 ~]# echo 'nameserver 10.100.11.135' > /etc/resolv.conf
[root@client2 ~]# cat /etc/resolv.conf
nameserver 10.100.11.135
[root@client2 ~]#
[root@client2 ~]# ping web1.dns.lab
PING web1.dns.lab (10.100.11.136) 56(84) bytes of data.
64 bytes from 10.100.11.136 (10.100.11.136): icmp_seq=1 ttl=64 time=0.074 ms
^C
--- web1.dns.lab ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 0.074/0.074/0.074/0.000 ms
[root@client2 ~]#
[root@client2 ~]# ping web2.dns.lab
PING web2.dns.lab (10.100.11.137) 56(84) bytes of data.
64 bytes from client2 (10.100.11.137): icmp_seq=1 ttl=64 time=0.014 ms
64 bytes from client2 (10.100.11.137): icmp_seq=2 ttl=64 time=0.020 ms
^C
--- web2.dns.lab ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.014/0.017/0.020/0.003 ms
[root@client2 ~]#
[root@client2 ~]# ping www.newdns.lab
ping: www.newdns.lab: Name or service not known
[root@client2 ~]#
```

как и задавалось, узел www.newdns.lab недоступен

Исправляем для view "client1"

Смотрим файл зоны named.dns.lab.client

Left	File	Command	Options	Right
<-	/etc/named			.[^]>
'n	Name	Size	Modify	time
/..		UP--DIR	May 26	19:55
named.ddns.lab		248	May 26	19:55
named.dns.lab		324	May 26	19:55
named.dns.lab.client		324	May 26	19:55
named.dns.lab.rev		322	May 26	19:55
named.newdns.lab		304	May 26	19:55

файл зоны named.dns.lab.client такой же , как named.dns.lab

содержит узел web2, а в файле зоны на master, нет

```
/etc/named/named.dns.lab.client 324/324 100%
.....fSi.....0.....dns.lab..0.ns01.dns.lab..root.dns.lab.q.....X..Q....X...=.
.....dns.lab...ns01.dns.lab...ns02.dns.lab....(.....ns01.dns.lab...
d.....(.....ns02.dns.lab...
d.....(.....web1.dns.lab...
d.....(.....web2.dns.lab...
d..
```

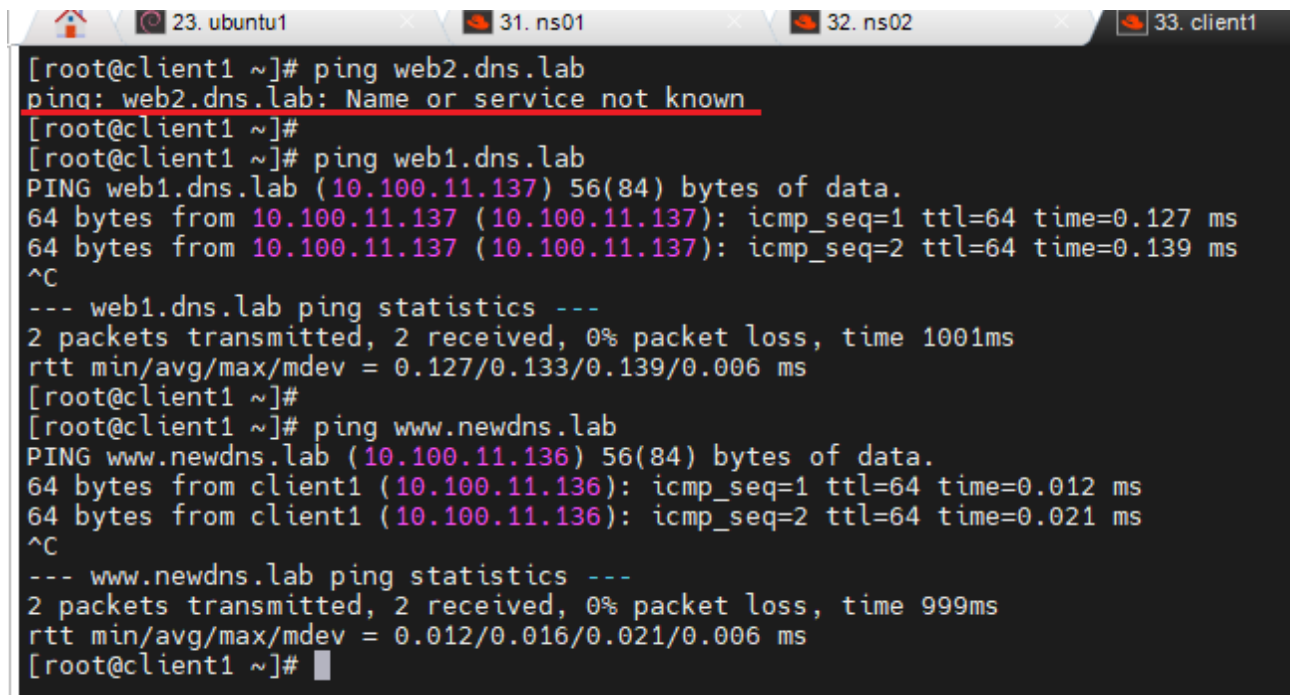
Редактируем файл зоны named.dns.lab.client

```
/etc/named/named.dns.lab.client 284/284 100%
.....fSi.....0.....dns.lab..0.ns01.dns.lab..root.dns.lab.q.....X..Q....X...=.
.....dns.lab...ns01.dns.lab...ns02.dns.lab....(.....ns01.dns.lab...
d.....(.....ns02.dns.lab...
d.....(.....web1.dns.lab...
d..
```


На slave

Systemctl restart named

Проверяем на client1:



```
[root@client1 ~]# ping web2.dns.lab
ping: web2.dns.lab: Name or service not known
[root@client1 ~]#
[root@client1 ~]# ping web1.dns.lab
PING web1.dns.lab (10.100.11.137) 56(84) bytes of data.
64 bytes from 10.100.11.137 (10.100.11.137): icmp_seq=1 ttl=64 time=0.127 ms
64 bytes from 10.100.11.137 (10.100.11.137): icmp_seq=2 ttl=64 time=0.139 ms
^C
--- web1.dns.lab ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.127/0.133/0.139/0.006 ms
[root@client1 ~]#
[root@client1 ~]# ping www.newdns.lab
PING www.newdns.lab (10.100.11.136) 56(84) bytes of data.
64 bytes from client1 (10.100.11.136): icmp_seq=1 ttl=64 time=0.012 ms
64 bytes from client1 (10.100.11.136): icmp_seq=2 ttl=64 time=0.021 ms
^C
--- www.newdns.lab ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.012/0.016/0.021/0.006 ms
[root@client1 ~]#
```

Условие выполняется, узел web2.dns.lab недоступен

При работе с DNS серверами на Centos 8 результат с web2.dns.lab на slave такой же.

Кроме того, на Centos 8

Если в файле конфигурации /etc/named.conf в разных view одинаковые имена файлов,

То **systemctl restart named** выдаёт ошибку дублирования файлов

Для устранения создавались копии файлов зон с другими именами.