vagrant up

```
[root@selinux ~]# systemctl status nginx.service
● nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; vendor preset: disabled)
   Active: failed (Result: exit-code) since Sun 2022-03-06 18:08:48 UTC; 2min 24s ago
  Process: 2119 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=1/FAILURE)
  Process: 2118 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=0/SUCCESS)
Mar 06 18:08:48 selinux systemd[1]: Starting The nginx HTTP and reverse proxy server...
Mar 06 18:08:48 selinux nginx[2119]: nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
Mar 06 18:08:48 selinux nginx[2119]: nginx: [emerg] bind() to [::]:4881 failed (13: Permission denied)
Mar 06 18:08:48 selinux nginx[2119]: nginx: configuration file /etc/nginx/nginx.conf test failed
Mar 06 18:08:48 selinux systemd[1]: nginx.service: control process exited, code=exited status=1
Mar 06 18:08:48 selinux systemd[1]: Failed to start The nginx HTTP and reverse proxy server.
Mar 06 18:08:48 selinux systemd[1]: Unit nginx.service entered failed state.
Mar 06 18:08:48 selinux systemd[1]: nginx.service failed.

[root@selinux ~]# nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful

[root@selinux ~]# getenforce
Enforcing
```

Вариант решения № 1
```
[root@selinux ~]# setenforce 0
[root@selinux ~]# systemctl start nginx.service
[root@selinux ~]# systemctl status nginx.service
● nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; vendor preset: disabled)
   Active: active (running) since Sun 2022-03-06 18:15:17 UTC; 3s ago
  Process: 2141 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
  Process: 2139 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=0/SUCCESS)
  Process: 2138 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=0/SUCCESS)
 Main PID: 2143 (nginx)
   CGroup: /system.slice/nginx.service
           ├─2143 nginx: master process /usr/sbin/nginx
           └─2145 nginx: worker process
Mar 06 18:15:17 selinux systemd[1]: Starting The nginx HTTP and reverse proxy server...
Mar 06 18:15:17 selinux nginx[2139]: nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
Mar 06 18:15:17 selinux nginx[2139]: nginx: configuration file /etc/nginx/nginx.conf test is successful
Mar 06 18:15:17 selinux systemd[1]: Started The nginx HTTP and reverse proxy server.
```

Вариант решения № 2

```
[root@selinux ~]# grep "AVC" /var/log/audit/audit.log
type=AVC msg=audit(1646590517.449:590): avc:  denied  { name_bind } for  pid=2139 comm="nginx" src=4881 scontext=system_u:system_r:httpd_t:s0
tcontext=system_u:object_r:unreserved_port_t:s0 tclass=tcp_socket permissive=1
type=USER_AVC msg=audit(1646590574.658:593): pid=368 uid=81 auid=4294967295 ses=4294967295 subj=system_u:system_r:system_dbusd_t:s0-s0:c0.c1023
msg='avc:  received setenforce notice (enforcing=1)  exe="/usr/bin/dbus-daemon" sauid=81 hostname=? addr=? terminal=?'
type=AVC msg=audit(1646590582.638:595): avc:  denied  { name_bind } for  pid=2159 comm="nginx" src=4881 scontext=system_u:system_r:httpd_t:s0
tcontext=system_u:object_r:unreserved_port_t:s0 tclass=tcp_socket permissive=0
[root@selinux ~]# grep "SELinux is preventing" /var/log/messages
```

yum install policycoreutils policycoreutils-python setools setools-console setroubleshoot

```
[root@selinux ~]# semanage permissive -a httpd_t
[root@selinux ~]# systemctl start nginx.service
[root@selinux ~]# systemctl status nginx.service
● nginx.service - The nginx HTTP and reverse proxy server
  Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; vendor preset: disabled)
  Active: active (running) since Sun 2022-03-06 18:27:53 UTC; 1s ago
 Process: 21389 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
 Process: 21386 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=0/SUCCESS)
 Process: 21385 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=0/SUCCESS)
 Main PID: 21390 (nginx)
  CGroup: /system.slice/nginx.service
      ├─21390 nginx: master process /usr/sbin/nginx
      └─21394 nginx: worker process
Mar 06 18:27:53 selinux systemd[1]: Starting The nginx HTTP and reverse proxy server...
Mar 06 18:27:53 selinux nginx[21386]: nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
Mar 06 18:27:53 selinux nginx[21386]: nginx: configuration file /etc/nginx/nginx.conf test is successful
Mar 06 18:27:53 selinux systemd[1]: Started The nginx HTTP and reverse proxy server.
```

Вариант решения № 3

```
[root@selinux ~]# semanage port -l | grep http_port_t
http_port_t             tcp     80, 81, 443, 488, 8008, 8009, 8443, 9000
pegasus_http_port_t     tcp     5988

[root@selinux ~]# semanage port -a -t http_port_t -p tcp 4881
[root@selinux ~]# semanage port -l | grep http_port_t
http_port_t             tcp     4881, 80, 81, 443, 488, 8008, 8009, 8443, 9000
pegasus_http_port_t     tcp     5988
```

Вариант решения № 4

[root@selinux ~]# tail /var/log/audit/audit.log

type=SERVICE_START msg=audit(1646592972.643:732): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init_t:s0 msg='unit=nginx comm="systemd" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=success'

type=MAC_POLICY_LOAD msg=audit(1646592994.342:733): policy loaded auid=1000 ses=3

type=SYSCALL msg=audit(1646592994.342:733): arch=c000003e syscall=1 success=yes exit=3882036 a0=4 a1=7f7c62981000 a2=3b3c34 a3=7ffe82654fe0 items=0 ppid=21504 pid=21508 auid=1000 uid=0 gid=0 euid=0 suid=0 fsuid=0 egid=0 sgid=0 fsgid=0 tty=pts0 ses=3 comm="load_policy" exe="/usr/sbin/load_policy" subj=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023 key=(null)

type=PROCTITLE msg=audit(1646592994.342:733): proctitle="/sbin/load_policy"

type=USER_AVC msg=audit(1646592995.976:734): pid=368 uid=81 auid=4294967295 ses=4294967295 subj=system_u:system_r:system_dbusd_t:s0-s0:c0.c1023 msg='avc: received policyload notice (seqno=5) exe="/usr/bin/dbus-daemon" sauid=81 hostname=? addr=? terminal=?'

type=SERVICE_STOP msg=audit(1646592999.807:735): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init_t:s0 msg='unit=nginx comm="systemd" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=success'

type=AVC msg=audit(1646593001.944:736): avc: denied { name_bind } for pid=21525 comm="nginx" src=4881 scontext=system_u:system_r:httpd_t:s0 tcontext=system_u:object_r:unreserved_port_t:s0 tclass=tcp_socket permissive=0

type=SYSCALL msg=audit(1646593001.944:736): arch=c000003e syscall=49 success=no exit=-13 a0=7 a1=563903dc78a8 a2=1c a3=7ffce3c56744 items=0 ppid=1 pid=21525 auid=4294967295 uid=0 gid=0 euid=0 suid=0 fsuid=0 egid=0 sgid=0 fsgid=0 tty=(none) ses=4294967295 comm="nginx" exe="/usr/sbin/nginx" subj=system_u:system_r:httpd_t:s0 key=(null)

type=PROCTITLE msg=audit(1646593001.944:736): proctitle=2F7573722F7362696E2F6E67696E78002D74

type=SERVICE_START msg=audit(1646593001.944:737): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init_t:s0 msg='unit=nginx comm="systemd" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=failed'

[root@selinux ~]# grep 1646593001.944:736 /var/log/audit/audit.log | audit2why
type=AVC msg=audit(1646593001.944:736): avc: denied { name_bind } for pid=21525 comm="nginx" src=4881
scontext=system_u:system_r:httpd_t:s0 tcontext=system_u:object_r:unreserved_port_t:s0 tclass=tcp_socket permissive=0

    Was caused by:
    The boolean nis_enabled was set incorrectly.
    Description:
    Allow nis to enabled

    Allow access by executing:
    # setsebool -P nis_enabled 1

[root@selinux ~]# setsebool -P nis_enabled 1
[root@selinux ~]# systemctl start nginx.service
[root@selinux ~]# systemctl status nginx.service
● nginx.service - The nginx HTTP and reverse proxy server
  Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; vendor preset: disabled)
  Active: active (running) since Sun 2022-03-06 19:01:11 UTC; 7s ago
 Process: 21581 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
 Process: 21579 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=0/SUCCESS)
 Process: 21578 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=0/SUCCESS)
 Main PID: 21583 (nginx)
  CGroup: /system.slice/nginx.service
      ├─21583 nginx: master process /usr/sbin/nginx
      └─21585 nginx: worker process

Mar 06 19:01:11 selinux systemd[1]: Starting The nginx HTTP and reverse proxy server...
Mar 06 19:01:11 selinux nginx[21579]: nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
Mar 06 19:01:11 selinux nginx[21579]: nginx: configuration file /etc/nginx/nginx.conf test is successful
Mar 06 19:01:11 selinux systemd[1]: Started The nginx HTTP and reverse proxy server.