

NixOS

NixOS template is available based on NixOS 17.03. NixOS allows declarative configuration management of the whole system and deployed services.

Configuration

Configuration is available at

```
/etc/nixos/configuration.nix
```

This can be altered to change container configuration on the fly or for next reboot. Try changing container hostname and running

```
nixos-rebuild switch
```

to build new configuration and directly switch to it. To switch to new configuration after reboot (set as a default boot profile) use

```
nixos-rebuild boot
```

Package installation

Packages can be installed system wide via configuration.nix or for local profile via

```
nix-env
```

To install vim use

```
nix-env -iA nixos.vim
```

To search for a package use

```
nix-env -qaP postgre
```

Manual

Consult NixOS manual for more <https://nixos.org/nixos/manual/>

Common issues

SSH public key deployment fails

This can occur on first boot of the template when there's no /root yet. Disable automatic key deployment and deploy key manually **after** the containers boot.

error: while setting up the build environment: unable to load seccomp BPF program: Invalid argument

Nix \geq 1.11.10 requires seccomp, which is not available on vpsFree. To fix this, pin Nix to 1.11.9 by adding the following option to configuration.nix and rebuilding the system:

```
nix.package = (import (pkgs.fetchFromGitHub {
  owner = "NixOS";
  repo = "nixpkgs";
  rev = "300fa462b31ad2106d37fcdb4b504ec60dfd62aa";
  sha256 = "1cbjmi34ll5xa2nafz0jlsclivj62mq78qr3zl4skgdk6scl328s";
}) {}).nix;
```

In the future, it will be possible to [disable seccomp usage](#).

systemd 233+ compatibility issues

Causes boot failures, workaround is pinning systemd to version 232:

```
nixpkgs.config.packageOverrides = super:
  let systemdGperfCompat = super.systemd.override { gperf =
super.gperf_3_0; };
  in {
    systemd = systemdGperfCompat.overrideAttrs ( oldAttrs: rec {
      version = "232";
      name = "systemd-${version}";
      src = pkgs.fetchFromGitHub {
        owner = "nixos";
        repo = "systemd";
        rev = "66e778e851440fde7f20cff0c24d23538144be8d";
        sha256 =
"1valz8v2q4cj0ipz2b6mh5p0rjxpy3m88gg9xa2rcc4gcmscndzk";
      };
    });
  };
```

Details

Log contents

```
Failed to canonicalize path /etc/systemd/system/local-fs.target.d: Too many
levels of symbolic links
```

```
$ journalctl -o verbose
```

```

_EXE=/nix/store/n5ksbh1hx275zfbqbalhghzpxplw73lf-
systemd-234/lib/systemd/systemd
_CMDLINE=/run/current-system/systemd/lib/systemd/systemd --system --
deserialize 19
CODE_FILE=src/shared/dropin.c
CODE_LINE=133
CODE_FUNC=unit_file_find_dir
ERRNO=40
MESSAGE=Failed to canonicalize path /etc/systemd/system/local-
fs.target.d: Too many levels of symbolic links

```

\$ # strace output

```

open("/etc/systemd/system/local-fs.target",
0_RDONLY|0_NOCTTY|0_NOFOLLOW|0_CLOEXEC) = -1 ELOOP (Too many levels of
symbolic links)
readlinkat(AT_FDCWD, "/etc/systemd/system/local-fs.target",
"/nix/store/n5ksbh1hx275zfbqbalhg"... , 99) = 94
open("/nix/store/n5ksbh1hx275zfbqbalhghzpxplw73lf-
systemd-234/example/systemd/system/local-fs.target",
0_RDONLY|0_NOCTTY|0_NOFOLLOW|0_CLOEXEC) = 12
fcntl(12, F_GETFL) = 0xa8000 (flags
0_RDONLY|0_LARGEFILE|0_NOFOLLOW|0_CLOEXEC)
fstat(12, {st_mode=S_IFREG|0444, st_size=507, ...}) = 0
fstat(12, {st_mode=S_IFREG|0444, st_size=507, ...}) = 0
getpid() = 1
fstat(12, {st_mode=S_IFREG|0444, st_size=507, ...}) = 0
read(12, "# This file is part of systemd."... , 512) = 507
open("/dev/urandom", 0_RDONLY|0_NOCTTY|0_CLOEXEC) = 13
read(13, "\26\265jV\260\276\7\3300\22J\264m~j\37", 16) = 16
close(13) = 0
read(12, "", 512) = 0
close(12) = 0
open("/", 0_RDONLY|0_NOFOLLOW|0_CLOEXEC|0x200000) = 12
openat(12, "etc", 0_RDONLY|0_NOFOLLOW|0_CLOEXEC|0x200000) = 13
fstat(13, {st_mode=S_IFDIR|0755, st_size=50, ...}) = 0
close(12) = 0
openat(13, "systemd", 0_RDONLY|0_NOFOLLOW|0_CLOEXEC|0x200000) = 12
fstat(12, {st_mode=S_IFDIR|0755, st_size=10, ...}) = 0
close(13) = 0
openat(12, "system", 0_RDONLY|0_NOFOLLOW|0_CLOEXEC|0x200000) = -1 ELOOP (Too
many levels of symbolic links)
close(12) = 0
writev(3, [{"Failed to canonicalize path /etc"... , 104}, {"\n", 1}], 2) =
105
open("/", 0_RDONLY|0_NOFOLLOW|0_CLOEXEC|0x200000) = 12
openat(12, "etc", 0_RDONLY|0_NOFOLLOW|0_CLOEXEC|0x200000) = 13
fstat(13, {st_mode=S_IFDIR|0755, st_size=50, ...}) = 0
close(12) = 0
openat(13, "systemd", 0_RDONLY|0_NOFOLLOW|0_CLOEXEC|0x200000) = 12
fstat(12, {st_mode=S_IFDIR|0755, st_size=10, ...}) = 0
close(13) = 0

```

```
openat(12, "system", O_RDONLY|O_NOFOLLOW|O_CLOEXEC|0x200000) = -1 ELOOP (Too many levels of symbolic links)
close(12) = 0
writev(3, [{"Failed to canonicalize path /etc"... , 100}, {"\n", 1}], 2) = 101
open("/etc/systemd/system/emergency.target", O_RDONLY|O_NOCTTY|O_NOFOLLOW|O_CLOEXEC) = -1 ELOOP (Too many levels of symbolic links)
readlinkat(AT_FDCWD, "/etc/systemd/system/emergency.target", "/nix/store/n5ksbh1hx275zfbqbalhg"... , 99) = 95
open("/nix/store/n5ksbh1hx275zfbqbalhghzpxplw73lf-systemd-234/example/systemd/system/emergency.target", O_RDONLY|O_NOCTTY|O_NOFOLLOW|O_CLOEXEC) = 12
fcntl(12, F_GETFL) = 0xa8000 (flags)
O_RDONLY|O_LARGEFILE|O_NOFOLLOW|O_CLOEXEC
```

From: <https://kb.vpsfree.cz/> - **Znalostní Báze**

Permanent link: <https://kb.vpsfree.cz/navody/distribuce/nixos?rev=1509439727>

Last update: **2017/10/31 09:48**