

NixOS:nixos-rebuild build-vm

From NixOS Wiki

Jump to: navigation, search

A virtual machine can be created, it will use your `/etc/nixos/configuration.nix` to make a 'clone' of your system. Useful for testing new configurations.

```
nixos-rebuild build-vm
```

```
nixos-rebuild build-vm -I nixos-config=./configuration.nix -I nix_path='<nixpkgs/nixos>' --max-jobs 4 --show-trace # e.g. to specify the environment variables / cores used
```

You can also use `build-vm-with-bootloader`. From the man page: this boots using the regular boot loader of your configuration rather than booting directly into the kernel and initial ramdisk of the system.

You will not be able to login to this virtual machine, as the passwords are not carried over to the virtual machine you build.

You should have user `nixosvmtest` (`isSystemUser` or `isNormalUser`)

```
users.users.nixosvmtest.isSystemUser = true ;
users.users.nixosvmtest.initialPassword = "test";
```

If you have a user called `nixosvmtest` for example, you can add

```
users.users.nixosvmtest.group = "nixosvmtest";
users.groups.nixosvmtest = {};
```

to your `/etc/nixos/configuration.nix`

you should now be able to login and test your system with this user and password.

<https://discourse.nixos.org/t/default-login-and-password-for-nixos/4683/2> (<https://discourse.nixos.org/t/default-login-and-password-for-nixos/4683/2>)

By default, the virtual machine is configured to have 1 CPU and 1024MiB memory. It may be too small for testing with desktop environment enabled inside. You can set options

`virtualisation.vmVariant.virtualisation.cores` and `virtualisation.vmVariant.virtualisation.memorySize` to enlarge the CPU cores and memory size for the virtual machine.

```
{
  virtualisation.vmVariant = {
    # following configuration is added only when building VM with build-vm
    virtualisation = {
      memorySize = 2048; # Use 2048MiB memory.
      cores = 3;
    };
  }
}
```

Use `virtualisation.vmVariantWithBootLoader` option if you used ``build-vm-with-bootloader`` earlier.

Troubleshooting

Still can't login after updating configuration

When running a virtual machine a file called `$hostname.qcow2` is created in your current working directory. After changing your `/etc/nixos/configuration.nix` delete this file, rebuild and then start the new virtual machine. Now you should be able to login.

Alternatives

Bootable ISO

Build it as a bootable ISO image (<https://nix.dev/tutorials/nixos/building-bootable-iso-image>):

VM

```
{
  ...
  imports = [
    <nixos/nixos/modules/virtualisation/virtualbox-image.nix> ]
  ...
}
```

```
nix build -f '<nixpkgs/nixos>' -I nixos-config=./configuration.nix
config.system.build.virtualBoxOVA
```

 Source (<https://discourse.nixos.org/t/nixos-rebuild-build-vm-not-portable-across-linux-distributions/28564/4>)

Retrieved from "https://nixos.wiki/index.php?title=NixOS:nixos-rebuild_build-vm&oldid=12667 (https://nixos.wiki/index.php?title=NixOS:nixos-rebuild_build-vm&oldid=12667)"