

# Отчёт по лабораторной работе 1

## Подготовка лабораторного стенда

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### Содержание

#### 1 Цель работы

Целью данной работы является приобретение практических навыков установки Rocky Linux на виртуальную машину с помощью инструмента Vagrant.

#### 2 Ход работы

Мы скачиваем заранее заготовленные файлы и помещаем их в каталоги vagrant и packer. В файлы hostname и user вписываем имя пользователя - sacvelev.

```
1  #!/bin/bash
2
3  echo "Provisioning script $0"
4
5  username=sacvelev
6  userpassword=123456
7
8  encpassword=`openssl passwd -1 ${userpassword}`
9
10 id -u $username
11 if [[ $? ]]
12 then
13     adduser -G wheel -p ${encpassword} ${username}
14     homedir=`getent passwd ${username} | cut -d: -f6`
15     echo "export PS1='[\u@\H \W]\\$ '" >> ${homedir}/.bashrc
16 fi
17
18
19
```

С помощью packer начинаем автоматическую установку ОС на виртуальную машину.

```
Far Manager, version 3.0.6364.0 x86
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C:\work\sacvelev\packers>packer.exe
Usage: packer [-version] [-help] <command> [<args>]

Available commands are:
  build      build image(s) from templates
  console    creates a console for testing variable interpolation
  fix        fixes templates from old versions of packer
  fat        Rewrites HCL2 config files to canonical format
  hcl2upgrade transform a JSON template into an HCL2 configuration
  init       Install missing plugins or upgrade plugins
  inspect    see components of a template
  plugins    Interact with Packer plugins and catalog
  validate   check that a template is valid
  version    Prints the Packer version

C:\work\sacvelev\packers>packer.exe build vagrant-rocky.pkr.hcl
Error: Missing plugins

The following plugins are required, but not installed:
  * github.com/hashicorp/virtualbox -> 1
  * github.com/hashicorp/vagrant -> 1

Did you run packer init for this project ?

C:\work\sacvelev\packers>packer.exe init vagrant-rocky.pkr.hcl
Installed plugin github.com/hashicorp/virtualbox v1.1.1 in "C:/Users/Sergey/AppData/Roaming/packer.d/plugins/github.com/hashicorp/virtualbox/packer-plugin-virtualbox_v1.1.1_x5_0_windows_amd64.exe"
Installed plugin github.com/hashicorp/vagrant v1.1.5 in "C:/Users/Sergey/AppData/Roaming/packer.d/plugins/github.com/hashicorp/vagrant/packer-plugin-vagrant_v1.1.5_x5_0_windows_amd64.exe"

C:\work\sacvelev\packers>packer.exe build vagrant-rocky.pkr.hcl
virtualbox-iso.virtualbox: output will be in this color.
=>> virtualbox-iso.virtualbox: Retrieving Guest additions
=>> virtualbox-iso.virtualbox: Trying C:/Program Files/Oracle/VirtualBox/VBoxGuestAdditions.iso
=>> virtualbox-iso.virtualbox: Trying file://C:/Program20Files/Oracle/VirtualBox/VBoxGuestAdditions.iso
=>> virtualbox-iso.virtualbox: file://C:/Program20Files/Oracle/VirtualBox/VBoxGuestAdditions.iso -> C:/Program Files/Oracle/VirtualBox/VBoxGuestAdditions.iso
=>> virtualbox-iso.virtualbox: Retrieving ISO
=>> virtualbox-iso.virtualbox: Trying Rocky-9.4-x86_64-minimal.iso
=>> virtualbox-iso.virtualbox: Trying Rocky-9.4-x86_64-minimal.iso?checksum=sha2563Aee3ac97fdffab58652421941599902012179c37535aece76824673105169c4a2
=>> virtualbox-iso.virtualbox: Rocky-9.4-x86_64-minimal.iso?checksum=sha2563Aee3ac97fdffab58652421941599902012179c37535aece76824673105169c4a2 -> C:/work/sacvelev/packer/Rocky-9.4-x86_64-minimal.iso
=>> virtualbox-iso.virtualbox: Starting HTTP server on port 8399
=>> virtualbox-iso.virtualbox: Creating virtual machine...
=>> virtualbox-iso.virtualbox: Creating hard drive builds/packer-rocky-virtualbox-vm.vdi with size 61440 MIB...
=>> virtualbox-iso.virtualbox: Mounting ISOs...
=>> virtualbox-iso.virtualbox: Mounting boot ISO...
=>> virtualbox-iso.virtualbox: Creating forwarded port mapping for communicator (SSH, WinRM, etc) (host port 4068)
=>> virtualbox-iso.virtualbox: Executing custom VBoxManage commands...
=>> virtualbox-iso.virtualbox: Executing: modifyvm packer-rocky-virtualbox-vm --memory 2048
=>> virtualbox-iso.virtualbox: Executing: modifyvm packer-rocky-virtualbox-vm --cpus 2
=>> virtualbox-iso.virtualbox: Executing: modifyvm packer-rocky-virtualbox-vm --nat-localhostreachabel on
=>> virtualbox-iso.virtualbox: Starting the virtual machine...
=>> virtualbox-iso.virtualbox: Waiting 30s for boot...
=>> virtualbox-iso.virtualbox: Typing the boot command...
=>> virtualbox-iso.virtualbox: Using SSH communicator to connect: 127.0.0.1
=>> virtualbox-iso.virtualbox: Waiting for SSH to become available...
```

После полностью автоматического процесса установки нам нужно будет зарегистрировать образ машины в vagrant. После этого вводим vagrant up для запуска сервера и клиента.

```
Far Manager, version 3.0.6364.0 x86
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C:\work\sacvelev\packers>vagrant box add rocky9 vagrant-virtualbox-rocky-9-x86_64.box
=>> box: Box file was not detected as metadata. Adding it directly...
=>> box: Adding box 'rocky9' (v0) for provider:
  box: Unpacking necessary files from: file://C:/work/sacvelev/packer/vagrant-virtualbox-rocky-9-x86_64.box
  box:
=>> box: Successfully added box 'rocky9' (v0) for ''

C:\work\sacvelev\packers>vagrant up server
A Vagrant environment or target machine is required to run this
command. Run 'vagrant init' to create a new Vagrant environment. Or,
get an ID of a target machine from 'vagrant global-status' to run
this command on. A final option is to change to a directory with a
Vagrantfile and to try again.

C:\work\sacvelev\packers>vagrant up client
A Vagrant environment or target machine is required to run this
command. Run 'vagrant init' to create a new Vagrant environment. Or,
get an ID of a target machine from 'vagrant global-status' to run
this command on. A final option is to change to a directory with a
Vagrantfile and to try again.

C:\work\sacvelev\packers>vagrant up server
```

Попробуем войти под пользователем vagrant.



Затем, нам нужно обновить настройки. С помощью `ansible` мы сделаем это, а затем зайдём под нашим пользователем - `sacvelev` с паролем `123456`.



### 3 Вывод

Мы приобрели навыки установки Rocky Linux на виртуальную машину с помощью инструмента Vagrant. Также меняем имя пользователя в файлах на `sacvelev`.