

Лаборатория работа 4

Базовая настройка HTTP-сервера Apache

ПОДГОТОВИЛА: КИМ РЕАЧНА
ГРУППА: НПИБД-02-20

Цель работы:

Приобретение практических навыков по установке и базовому конфигурированию HTTP-сервера Apache.

Задание:

- Установка HTTP-сервера
- Базовое конфигурирование HTTP-сервера
- Анализ работы HTTP-сервера
- Настройка виртуального хостинга для HTTP-сервера
- Внесение изменений в настройки внутреннего окружения виртуальной машины

Установка HTTP-сервера

```
PS C:\work\kreachna\vagrant> vagrant up server
Bringing machine 'server' up with 'virtualbox' provider...
==> server: You assigned a static IP ending in ".1" to this machine.
==> server: This is very often used by the router and can cause the
==> server: network to not work properly. If the network doesn't work
==> server: properly, try changing this IP.
==> server: You assigned a static IP ending in ".1" to this machine.
==> server: This is very often used by the router and can cause the
==> server: network to not work properly. If the network doesn't work
==> server: properly, try changing this IP.
==> server: Clearing any previously set forwarded ports...
==> server: Clearing any previously set network interfaces...
```

```
[kreachna@server.kreachna.net ~]$ sudo -i
[sudo] password for kreachna:
[root@server.kreachna.net ~]# LANG=C yum grouplist
Rocky Linux 9 - BaseOS                5.2 kB/s | 3.6 kB    00:00
Rocky Linux 9 - AppStream             6.4 kB/s | 3.6 kB    00:00
Rocky Linux 9 - Extras                5.4 kB/s | 2.9 kB    00:00
Available Environment Groups:
  Server
  Minimal Install
  Workstation
  KDE Plasma Workspaces
  Custom Operating System
  Virtualization Host
Installed Environment Groups:
  Server with GUI
Installed Groups:
  Container Management
  Development Tools
  Headless Management
Available Groups:
  Fedora Packager
  Xfce
  Legacy UNIX Compatibility
  Console Internet Tools
  .NET Development
  Graphical Administration Tools
  Network Servers
  RPM Development Tools
  Scientific Support
  Security Tools
  Smart Card Support
  System Tools
[root@server.kreachna.net ~]# dnf -y groupinstall "Basic Web Server"
Last metadata expiration check: 0:01:03 ago on Thu 17 Nov 2022 09:48:25 AM UTC.
Dependencies resolved.
=====
Package                                Arch      Version                               Repository    Size
=====
Installing group/module packages:
httpd                                   x86_64    2.4.51-7.el9_0                       appstream    1.4 M
```

Базовое конфигурирование HTTP-сервера

mc [root@server.kreachna.net]:/etc/httpd/conf

Left	File	Command	Options	Right			
<-	/etc/httpd/conf			<- ~			
.n	Name	Size	Modify time	.n	Name	Size	Modify time
/..	UP--DIR	Nov 17 09:49	/..	UP--DIR	Nov 17 09:54		
httpd.conf	12005	May 16 2022	/.cache	71	Nov 17 11:20		
magic	13064	Jul 5 2019	/.config	44	Nov 17 11:20		
			/.local	19	Nov 12 18:05		

root@server:~ x mc [root@server.kre... x root@server:~ x root@server:/var

```
[kreachna@server.kreachna.net ~]$ sudo -i
[sudo] password for kreachna:
[root@server.kreachna.net ~]# journalctl -x -f
Nov 17 09:49:41 server.kreachna.net systemd[1]: Finished man-db-cache-update.service.
Subject: A start job for unit man-db-cache-update.service has finished successfully
Defined-By: systemd
Support: https://access.redhat.com/support

A start job for unit man-db-cache-update.service has finished successfully.
The job identifier is 2249.
17 09:54:19 server.kreachna.net systemd[1]: Finished One-time temporary TLS key generation for .service.
Subject: A start job for unit httpd-init.service has finished successfully
Defined-By: systemd
Support: https://access.redhat.com/support

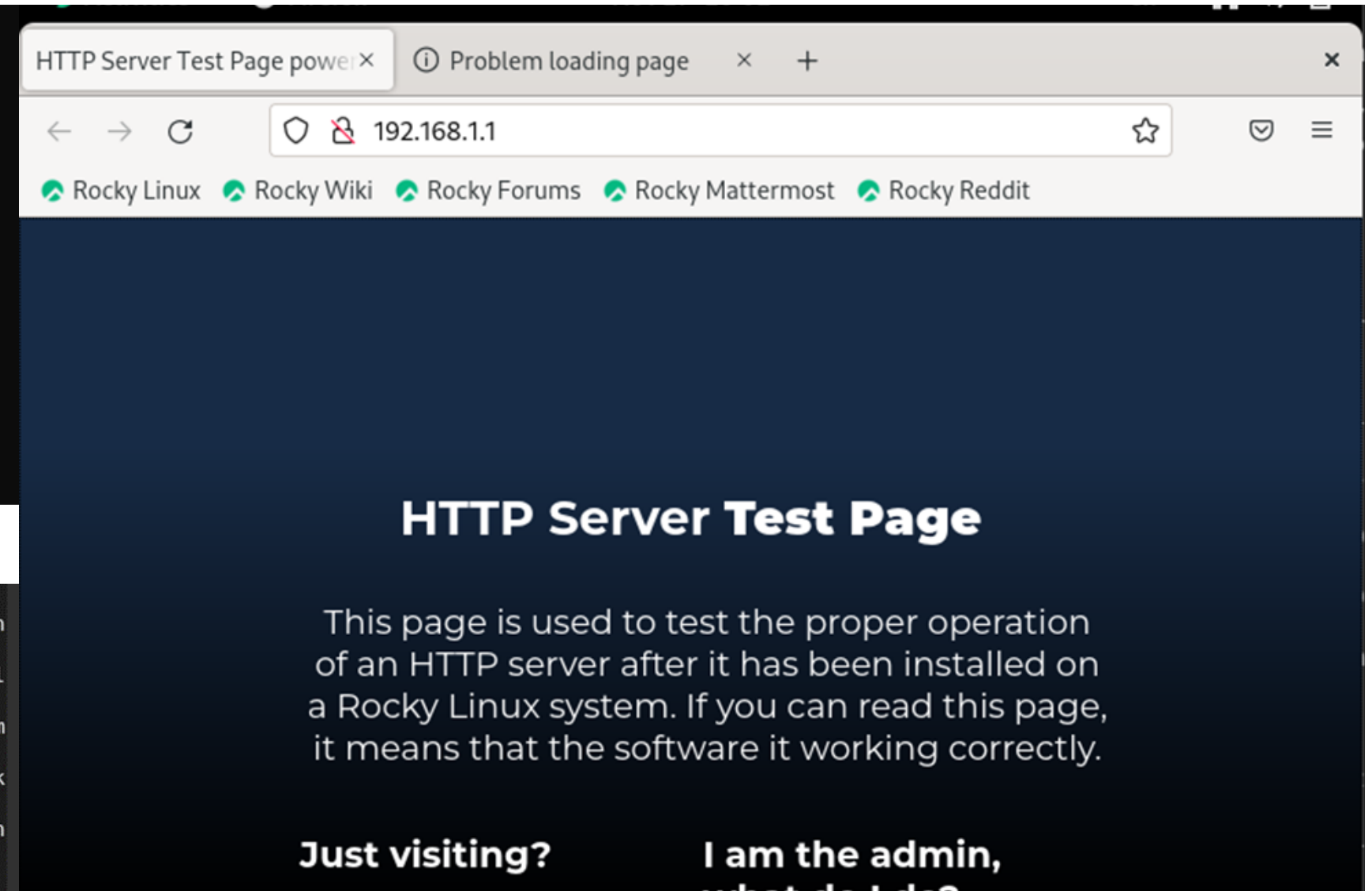
A start job for unit httpd-init.service has finished successfully.
The job identifier is 2457.
```

```
[root@server.kreachna.net ~]# firewall-cmd --list-services
cockpit dhcp dhcpv6-client dns ssh
[root@server.kreachna.net ~]# firewall-cmd --get-services
RH-Satellite-6 RH-Satellite-6-capsule amanda-client amanda-k5-client amqp am...
bacula-client bb bgp bitcoin bitcoin-rpc bitcoin-testnet bitcoin-testnet-rpc...
-mon cfengine cockpit collectd condor-collector ctdb dhcp dhcpv6 dhcpv6-clie...
s docker-registry docker-swarm dropbox-lansync elasticsearch etcd-client etcd...
oreman-proxy freeipa-4 freeipa-ldap freeipa-ldaps freeipa-replication freeipa...
a-client ganglia-master git grafana gre high-availability http https imap ima...
irc ircs iscsi-target isns jenkins kadmin kdeconnect kerberos kibana klogin k...
-api kube-apiserver kube-control-plane kube-controller-manager kube-scheduler...
ps libvirt libvirt-tls lightning-network llmnr managesieve matrix mdns memcad...
mountd mqtt mqtt-tls ms-wbt mssql murmur mysql nbd netbios-ns nfs nfs3 nmea...
n ovirt-imageio ovirt-storageconsole ovirt-vmconsole plex pmcd pmproxy pmweba...
postgresql privoxy prometheus proxy-dhcp ptp pulseaudio puppetmaster quassel...
entinel rpc-bind rquotad rsh rsyncd rtsp salt-master samba samba-client samba...
tp smtp-submission smtps snmp snmptrap spideroak-lansync spotify-sync squid s...
svdrp svn syncthing syncthing-gui synergy syslog syslog-tls telnet tentacle t...
s transmission-client upnp-client vdsd vnc-server wbem-http wbem-https wiregu...
mpp-bosh xmpp-client xmpp-local xmpp-server zabbix-agent zabbix-server
[root@server.kreachna.net ~]# firewall-cmd --add-service=http
success
[root@server.kreachna.net ~]# firewall-cmd --add-service=http --permanent
success
```

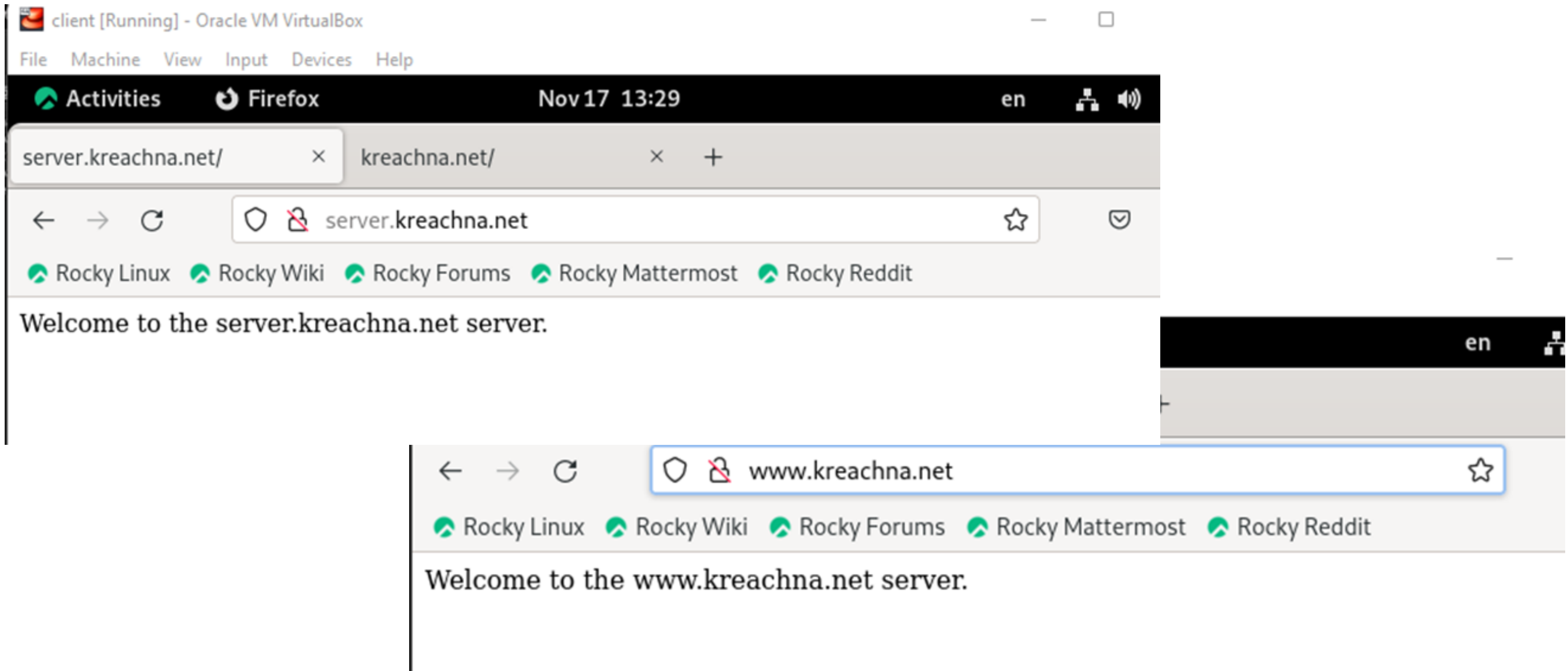

Анализ работы HTTP-сервера

```
PS C:\work\kreachna\vagrant> vagrant up client
Bringing machine 'client' up with 'virtualbox' provider...
==> client: Clearing any previously set forwarded ports...
==> client: Fixed port collision for 22 => 2222. Now on port 2200.
==> client: Clearing any previously set network interfaces...
==> client: Preparing network interfaces based on configuration...
    client: Adapter 1: nat
    client: Adapter 2: intnet
==> client: Forwarding ports...
    client: 22 (guest) => 2200 (host) (adapter 1)
==> client: Running 'pre-boot' VM customizations...
==> client: Booting VM...
```

```
[root@server.kreachna.net ~]# tail -f /var/log/httpd/error_log
[Thu Nov 17 09:54:19.236755 2022] [core:notice] [pid 6380:tid 6380] SELinux policy enabled; httpd running as context system_u:system_r:httpd_t:s0
[Thu Nov 17 09:54:19.239303 2022] [suexec:notice] [pid 6380:tid 6380] AH01232: suEXEC mechanism enabled (wrapper: /usr/sbin/suexec)
[Thu Nov 17 09:54:19.266618 2022] [lbmethod_heartbeat:notice] [pid 6380:tid 6380] AH02282: No slotmem from mod_heartbeat
[Thu Nov 17 09:54:19.274641 2022] [mpm_event:notice] [pid 6380:tid 6380] AH00489: Apache/2.4.51 (Rocky Linux) OpenSSL/3.0.1 mod_fcgid/2.3.9 configured -- resuming normal operations
[Thu Nov 17 09:54:19.274663 2022] [core:notice] [pid 6380:tid 6380] AH00094: Command line: '/usr/sbin/httpd -D FOREGROUND'
^C
```



Настройка виртуального хостинга для HTTP-сервера



Внесение изменений в настройки внутреннего окружения виртуальной машины

```
1  #!/bin/bash
2
3  echo "Provisioning script $0"
4
5  echo "Install needed packages"
6  dnf -y groupinstall "Basic Web Server"
7
8  echo "Copy configuration files"
9  cp -R /vagrant/provision/server/http/etc/httpd/* /etc/httpd
10 cp -R /vagrant/provision/server/http/var/www/* /var/www
11
12 chown -R apache:apache /var/www
13
14 restorecon -vR /etc
15 restorecon -vR /var/www
16
17 echo "Configure firewall"
18 firewall-cmd --add-service=http
19 firewall-cmd --add-service=http --permanent
20
21 echo "Start http service"
22 systemctl enable httpd
23 systemctl start httpd
```

```
46     type: "shell",
47     preserve_order: true,
48     path: "provision/server/dhcp.sh"
49
50     server.vm.provision "server http",
51     type: "shell",
52     preserve_order: true,
53     path: "provision/server/http.sh"
```

Вывод

Получила приобретение практических навыков по установке и базовому конфигурированию HTTP-сервера Apache.

Спасибо за внимание!