

Защита лабораторной работы №4

дисциплина: администрирование сетевых подсистем

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Постановка задачи

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

Установка HTTP-сервера

```
root@server.yassine.net ~]# dnf -y groupinstall "Basic Web Server"
Last metadata expiration check: 0:00:28 ago on Mon 28 Nov 2022 10:51:08 AM UTC.
Dependencies resolved.
=====
Package                Arch      Version              Repository           Size
=====
Installing group/module packages:
httpd                  x86_64    2.4.53-7.el9         appstream            48 k
httpd-manual           noarch    2.4.53-7.el9         appstream            2.2 M
mod_fcgid              x86_64    2.3.9-28.el9         appstream            74 k
mod_ssl                x86_64    1:2.4.53-7.el9       appstream            111 k
Installing dependencies:
apr                    x86_64    1.7.0-11.el9         appstream            123 k
apr-util               x86_64    1.6.1-20.el9         appstream            94 k
apr-util-bdb           x86_64    1.6.1-20.el9         appstream            13 k
httpd-core             x86_64    2.4.53-7.el9         appstream            1.4 M
httpd-filesystem       noarch    2.4.53-7.el9         appstream            15 k
httpd-tools            x86_64    2.4.53-7.el9         appstream            82 k
rocky-logos-httpd      noarch    90.13-1.el9          appstream            24 k
Installing weak dependencies:
apr-util-openssl       x86_64    1.6.1-20.el9         appstream            15 k
```

Базовое конфигурирование HTTP-сервера

- Вносим изменения в настройки межсетевого экрана узла server, разрешив работу с http

```
[root@server.yassine.net ~]# firewall-cmd --list-services
cockpit dhcpv6-client ssh
[root@server.yassine.net ~]# firewall-cmd --get-services
RH-Satellite-6 RH-Satellite-6-capsule amanda-client amanda-k5-client amqp amqps
apcupsd audit bacula bacula-client bb bgp bitcoin bitcoin-rpc bitcoin-testnet bi
tcoin-testnet-rpc bittorrent-lsd ceph ceph-mon cfengine cockpit collectd condor-
collector ctdb dhcp dhcpv6 dhcpv6-client distcc dns dns-over-tls docker-registry
docker-swarm dropbox-lansync elasticsearch etcd-client etcd-server finger foren
an foreman-proxy freeipa-4 freeipa-ldap freeipa-ldaps freeipa-replication freeip
a-trust ftp galera ganglia-client ganglia-master git grafana gre high-availabili
ty http https imap imaps ipp ipp-client ipsec irc ircs iscsi-target isns jenkins
kadmin kdeconnect kerberos kibana klogin kpasswd kprop kshell kube-api kube-api
server kube-control-plane kube-controller-manager kube-scheduler kubelet-worker
ldap ldaps libvirt libvirt-tls lightning-network llmnr managesieve matrix mdns m
emcache minidlna mongodb mosh mountd mqtt mqtt-tls ms-wbt mssql murmur mysql nbd
netbios-ns nfs nfs3 nmea-0183 nrpe ntp nut openvpn ovirt-imageio ovirt-storagec
onsole ovirt-vmconsole plex pmcd pmproxy pmwebapi pmwebapis pop3 pop3s postgresc
l privoxy prometheus proxy-dhcp ptp pulseaudio puppetmaster quassel radius rdp r
edis redis-sentinel rpc-bind rquotad rsh rsyncd rtsp salt-master samba samba-cl
ent samba-dc sane sip sips slp smtp smtp-submission smtps snmp snmptrap spideroa
```

Базовое конфигурирование HTTP-сервера

```
success
```

```
[root@server.yassine.net ~]# systemctl enable httpd
```

```
[root@server.yassine.net ~]# systemctl start httpd
```

```
[root@server.yassine.net ~]#
```

```
[root@server.yassine.net ~]# systemctl start httpd
```

```
[root@server.yassine.net ~]# tail -f /var/log/httpd/error_log
```

```
[Mon Nov 28 10:56:03.059547 2022] [core:notice] [pid 3163:tid 3163] SELinux policy enabled; httpd running as context system_u:system_r:httpd_t:s0
```

```
[Mon Nov 28 10:56:03.063285 2022] [suexec:notice] [pid 3163:tid 3163] AH01232: suEXEC mechanism enabled (wrapper: /usr/sbin/suexec)
```

```
[Mon Nov 28 10:56:03.114557 2022] [lbmethod_heartbeat:notice] [pid 3163:tid 3163] AH02282: No slotmem from mod_heartmonitor
```

```
[Mon Nov 28 10:56:03.147354 2022] [mpm_event:notice] [pid 3163:tid 3163] AH00489: Apache/2.4.53 (Rocky Linux) OpenSSL/3.0.1 mod_fcgid/2.3.9 configured -- resuming normal operations
```

```
[Mon Nov 28 10:56:03.147393 2022] [core:notice] [pid 3163:tid 3163] AH00094: Command line: '/usr/sbin/httpd -D FOREGROUND'
```

Анализ работы HTTP-сервера

```
[root@server.yassine.net ~]# tail -f /var/log/httpd/access_log
```

```
192.168.1.30 - - [28/Nov/2022:11:03:29 +0000] "GET / HTTP/1.1" 403 7620 "-" "Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0"
```

```
192.168.1.30 - - [28/Nov/2022:11:03:31 +0000] "GET /icons/poweredby.png HTTP/1.1" 200 15443 "http://192.168.1.1/" "Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0"
```

```
192.168.1.30 - - [28/Nov/2022:11:03:31 +0000] "GET /poweredby.png HTTP/1.1" 200 5714 "http://192.168.1.1/" "Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0"
```

```
192.168.1.30 - - [28/Nov/2022:11:03:32 +0000] "GET /favicon.ico HTTP/1.1" 404 196 "http://192.168.1.1/" "Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0"
```

Настройка виртуального хостинга для HTTP-сервера

Вносим изменений в файлы описания DNS зон:

```
root@server:~  
$ cat /var/named/master/fz/yassine.net  
$TTL 1D  
@ IN SOA @ server.yassine.net. (  
    2022112700; serial  
    1D      ; refresh  
    1H      ; retry  
    1W      ; expire  
    3H      ; minimum  
    NS      @  
    A       192.168.1.1  
$ORIGIN yassine.net.  
server A      192.168.1.1  
ns     A      192.168.1.1  
dhcp   A      192.168.1.1  
www     A      192.168.1.1  
- - INSERT - -  
"/var/named/master/fz/yassine.net" 15L, 264B 14,18-35
```

```
root@server:~  
$ cat /var/named/master/fz/yassine.net  
$TTL 1D  
@ IN SOA @ server.yassine.net. (  
    2022112700 ; serial  
    1D      ; refresh  
    1H      ; retry  
    1W      ; expire  
    3H      ; minimum  
    NS      @  
    A       192.168.1.1  
    PTR     server.yassine.net.  
$ORIGIN 1.168.192.in-addr.arpa.  
PTR     server.yassine.net.  
PTR     ns.yassine.net.  
PTR     dhcp.yassine.net.  
PTR     www.yassine.net.  
- - INSERT - -  
15,23-29 All
```

Настройка виртуального хостинга для HTTP-сервера

- Создание файлов конфигурации

```
root@server:/etc/httpd/conf.d
Virtualhost *:80>
ServerAdmin webmaster@yassine.net
DocumentRoot /var/www/html/server.yassine.net
ServerName server.yassine.net
ErrorLog logs/server.yassine.net-error_log
CustomLog logs/server.yassine.net-access_log common
/VirtualHost>
```

```
root@server:/etc/httpd/conf.d
<VirtualHost *:80>
ServerAdmin webmaster@yassine.net
DocumentRoot /var/www/html/www.yassine.net
ServerName www.yassine.net
ErrorLog logs/www.yassine.net-error_log
CustomLog logs/www.yassine.net-access_log common
</VirtualHost>
```

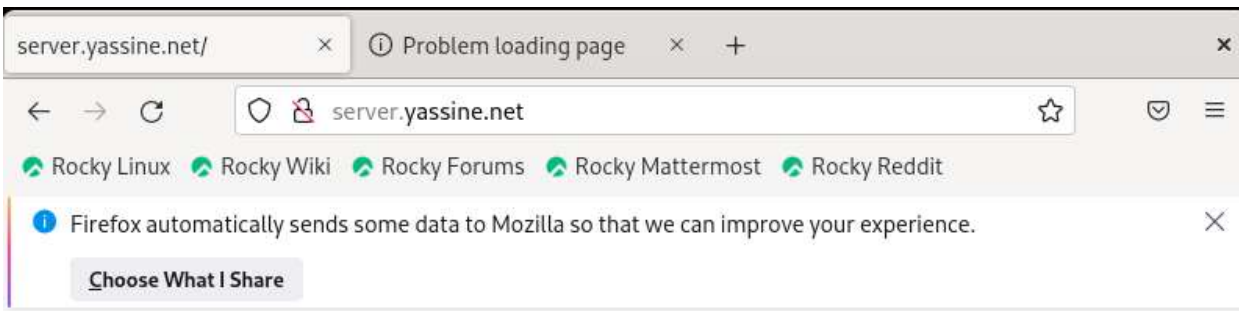

Настройка виртуального хостинга для HTTP-сервера

```
root@server:/var/www/html/server.yassine.net

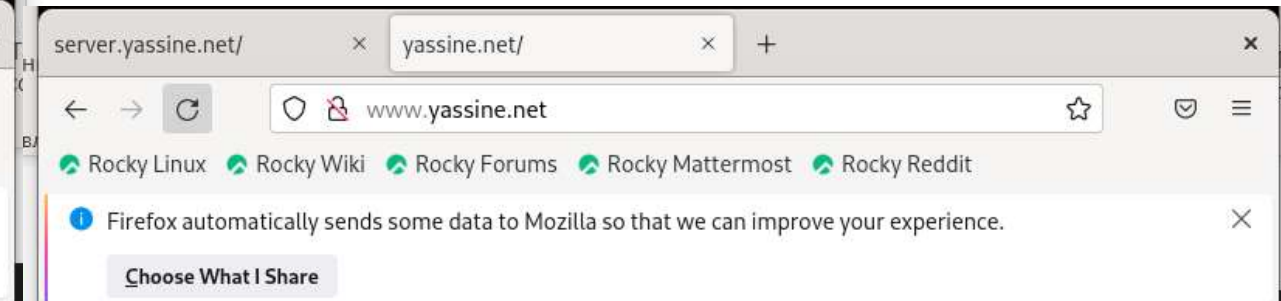
root@server:/var/www/html/server.yassine.net x root@server:~ x
welcome to the server.yassine.net server.
```

```
root@server:/var/www/html/www.yassine.net

root@server:/var/www/html/www.yassine.net x root@server:~ x
Welcome to the www.yassine.net server.
```



welcome to the server.yassine.net server.



Welcome to the www.yassine.net server.

Внесение изменений в настройки внутреннего окружения виртуальной машины

```
root@server:/vagrant/provision/server
root@server:/vagrant/provision/server x root@server:~ x
#!/bin/bash
echo "Provisioning script $0"
echo "Install needed packages"
dnf -y groupinstall "Basic Web Server "
echo "Copy configurattion files"
cp -R /vagrant/provision/server/http/etc/httpd/* /etc/httpd
cp -R /vagrant/provision/server/http/var/www/* /var/www
chown -R apache:apache /var/www
restorecon -vR /etc
restorecon -vR /var/www
echo "Configure firewall"
firewall-cmd --add-service=http
firewall-cmd --add-service=http --permanent
echo "Start http service"
systemctl enable httpd
systemctl start httpd
-- REPLACE --
```

```
path: "provision/server/http.sh"
server.vm.provision "server http",
type: "shell",
preserve_order: true,
path: "provision/server/http.sh"
```

Вывод

- Приобрел практические навыки по установке и базовому конфигурированию HTTP-сервера Apache.