# Rozdział 2: Konfiguracja Linuxa

**2.1.**
https://www.virtualbox.org/
https://www.virtualbox.org/wiki/Downloads

**2.3.**
```
sudo nano /etc/network/interfaces
wpisać:{
      # iface eth0 inet dhcp
      iface eth0 inet static
      address 192.168.1.115
      gateway 192.168.1.1
      netmask 255.255.255.0
      dns-search dns.tpsa.pl
      dns-nameservers 194.204.159.1 194.204.152.34
}

/etc/init.d/networking restart
/etc/init.d/networking stop
/etc/init.d/networking start
```

**2.4.**
```
po sklonowaniu
sudo nano /etc/network/interfaces
zmienić:{
      # iface eth0 inet dhcp
      iface eth0 inet static
      address 192.168.1.120
      gateway 192.168.1.1
      netmask 255.255.255.0
      dns-search dns.tpsa.pl
      dns-nameservers 194.204.159.1 194.204.152.34
}
/etc/init.d/networking restart

sudo ifdown eth0
sudo ifup eth0
```

**2.5**
```
hostname
hostname tomek
sudo nano /ect/hostname
sudo nano /ect/hosts
sudo reboot
```

**2.6**
```
setfont Uni2-Terminus20x10
```

**2.7**
```
sudo apt-get install ntpdate
sudo nano /etc/cron.daily/ntpdate

 #!/bin/sh
 ntpdate ntp.ubuntu.com

ll /etc/cron.daily/ntpdate

sudo chmod 755 /etc/cron.daily/ntpdate

ll /etc/cron.daily/ntpdate

sudo apt-get install ntp

strona: http://www.pool.ntp.org/pl/

sudo nano /etc/ntp.conf
```

**2.8**
```
sudo apt-get install ntpdade

sudo nano /etc/cron.daily/ntpdate

wpisać:
     {
           #!/bin/sh
           ntpdate ntp.ubuntu.com
     }

sudo chmod 755 /etc/cron.daily/ntpdate
ll /etc/cron.daily/ntpdate

sudo apt-get install ntp

http://www.pool.ntp.org/zone/pl

sudo nano /etc/ntp.conf
```

**2.9.**
```
sudo nano /etc/bind/named.conf.local
zone "ubuntu.kubisztal.pl" {
       type master;
       file "/etc/bind/db.kubisztal";
};

sudo nano /etc/bind/db.kubisztalkubis
```

```
$TTL    604800
@       IN      SOA     ubuntu.kubisztal.pl (
                              1         ; Serial
                         604800         ; Refresh
                          86400         ; Retry
                        2419200         ; Expire
                         604800 )       ; Negative Cache TTL
;
@       IN      NS      ns.example.com.
ns      IN      A       192.168.1.115

;inne komputery
klient.kubisztal.pl     IN      A       192.168.1.120

----------------------------
$ttl 38400
kubisztal.pl. IN SOA ubuntu.kubisztal.pl. admin.kubisztal.pl. (
      1420202452
      10800
      3600
      604800
      38400 )
kubisztal.pl.    IN   NS   ubuntu.kubisztal.pl.
kubisztal.pl.    IN   A    192.168.1.115
ubuntu.kubisztal.pl.  IN   A    192.168.1.115
```

**2.10**
```
sudo apt-get install isc-dhcp-server
sudo nano /etc/default/isc-dhcp-server
wpisać:{
     INTERFACES="eth0"
}

sudo nano /etc/dhcp/dhcpd.conf
wpisać(np):{
     subnet 192.168.1.0 netmask 255.255.255.0{
          range 192.168.1.100 192.168.1.109;
          option routers 192.168.1.1;
     }
}

sudo service isc-dhcp-server start
sudo service isc-dhcp-server stop
sudo service isc-dhcp-server restart
```

**2.11.**
```
     sudo service ssh status
     sudo apt-get install openssh-server
     sudo nano /etc/ssh/sshd_config
     sudo service ssh restart

sudo service ssh stop
sudo service ssh start

ssh -p22 tomek@192.168.1.115
```
http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

**2.12.**
```
ll
cat > serwer.txt
     {to jest plik z serwera}

cat > klient.txt
     {to jest plik ze stacji klienta}

sftp tomek@192.168.1.115

ls -a

lls

put klient.txt

get serwer.txt

mkdir zdalny

cd zdalny

sudo poweroff
```

**2.13.**
```
sudo nano /etc/apt/sources.list
```

deb http://download.webmin.com/download/repository sarge contrib
deb http://webmin.mirror.somersettechsolutions.co.uk HYPERLINK
"http://webmin.mirror.somersettechsolutions.co.uk/repository"/repository sarge contrib

wget http://www.webmin.com/jcameron-key.asc
```
sudo apt-key add jcameron-key.asc

sudo apt-get update
sudo apt-get install webmin
```

https://192.168.1.115:10000

**2.14.**
```
netstat -lp
sudo ufw enable
sudo ufw disable
sudo ufw reset

sudo ufw status
sudo ufw status verbose

sudo ufw allow 22
sudo ufw deny 80
sudo ufw delete deny 80
sudo ufw allow from 192.168.1.120
sudo ufw allow from 192.168.1.0/24
```

# Rozdział 3: Instalacja usług serwerowych

**3.1.**
```
sudo apt-get update
sudo apt-get install apache2
```

**3.2.**
```
sudo apt-get install lynx
lynx www.onet.pl
```

**3.3.**
```
sudo mkdir -p /var/www/tomek.kubisztal.pl/html
sudo chown -R $USER:$USER /var/www/tomek.kubisztal.pl/html

sudo chmod -R 755 /var/www

nano /var/www/tomek.kubisztal.pl/html/index.html

<p>kubisztal.eu</p>

sudo cp /etc/apache2/sites-available/000-default.conf
/etc/apache2/sites-available/tomek.kubisztal.pl.conf


sudo nano /etc/apache2/sites-available/tomek.kubisztal.pl.conf

<VirtualHost *:80>
    ServerAdmin admin@tomek.kubisztal.pl
    ServerName tomek.kubisztal.pl
    ServerAlias www.kubisztal.pl
    DocumentRoot /var/www/tomek.kubisztal.pl/html
    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>

sudo a2ensite tomek.kubisztal.pl.conf
sudo service apache2 restart
sudo nano /etc/hosts

192.168.1.115 tomek.kubisztal.pl
```

**3.4.**
```
sudo apt-get install php5
cd /var/www/html
sudo nano info.php
        {
            <?php
                phpinfo();
            ?>
        }
```

**3.5.**
```
sudo apt-get install mysql-server libapache2-mod-auth-mysql php5-mysql
mysql -u root -p
show databases;
use mysql;
show tables;

sudo apt-get install phpmyadmin
```

**3.6.**
```
mysql -u root -p

CREATE DATABASE 'tomekblog' char set='utf8';

CREATE USER adminblog@localhost IDENTIFIED BY '123456';

GRANT ALL PRIVILEGES ON tomekblog.* TO adminblog@localhost;

FLUSH PRIVILEGES;
```

https://wordpress.org/download/

```
cd ~
sudo wget https://pl.wordpress.org/wordpress-4.1-pl_PL.tar.g HYPERLINK
"https://pl.wordpress.org/wordpress-4.1-pl_PL.tar.gz"z
lub
sudo wget http://wordpress.org/latest.tar.gz
```

**3.7.**
```
tar xzvf wordpress-4.1-pl_PL.tar.gz
lub
tar xzvf latest.tar.gz

cd ~/wordpress
nano wp-config-sample.php
sudo rsync -avP ~/wordpress/ /var/www/html/blog/
sudo chown -R tomek:www-data *
mkdir /var/www/html/blog/wp-content/uploads
sudo chown -R :www-data /var/www/html/blog/wp-content/uploads
```

**3.8.**
```
FTP
sudo apt-get update

sudo apt-get install vsftpd
sudo nano /etc/passwd
sudo nano /etc/vsftpd.conf
write_enable=YES
local_umask=022

chroot_local_user=YES

dopisać:
     allow_writeable_chroot=YES

sudo service vsftpd restart
```

**3.9.**
```
mkdir www

sudo mount --bind /var/www/tomek.kubisztal.pl/html/ /home/tomek/www/

sudo chown -R tomek:tomek html/

cd /user/share/doc/openvpn/
```

# Rozdział 4: Własny serwer pocztowy

**4.1.**
```
sudo apt-get update
sudo apt-get install postfix

strona internetowa

sudo dpkg-reconfigure postfix
/etc/init.d/postfix reload
sudo nans /etc/postfix/main.cf
home_mailbox = Maildir/

telnet localhost 25
ehlo ubuntu.kubisztal.pl
mail from root:
rcpt to: tomek
data

to jest testowa wiadomosc
.
quit
cd ~
cd Maildir
cd new
```

**4.2.**
```
cd /etc/bind
sudo nano db.kubisztal
ubuntu.kubisztal.pl.   IN    MX    1 kubisztal.pl.

sudo apt-get install dovecot-imapd
sudo apt-get install dovecot-pop3d

cd /etc/dovecot
ll
cd conf.d/
ls

sudo nano 10-auth.conf
clear
disable_plaintext_auth = no
auth_mehanisms = plain login

sudo nano 10-mail.conf
odremowac
```

```
 # mail_location = maildir:~/Maildir

sudo nano 10-master.conf
unix_listener auth-userdb{
     #mode = 0666
     #user = postfix
     #group = postfix
}

sudo service dovecot restart
telnet localhost pop3

user XXXXXXXX
pass XXXXXXXXXXX

list
retr 1

quit
```

**4.3.**
```
sudo apt-get install squirrelmail
sudo squirrelmail-configure
sudo cp /etc/squirrelmail/apache.conf /etc/apache2/sites-
available/squirrelmail.conf
sudo a2ensite squirrelmail
sudo service apache2 restart
```

http://192.168.1.115/squirrelmail

```
cd /var/www/html
sudo mkdir blog
```

http://core.svn.wordpress.org/tags/

# Rozdział 5: Virtual Private Network

**5.1.**

```
sudo apt-get install openvpn easy-rsa
mkdir /etc/openvpn/easy-rsa/
cp -r /usr/share/easy-rsa/* /etc/openvpn/easy-rsa/

nano /etc/openvpn/easy-rsa/vars

export KEY_COUNTRY="US"
export KEY_PROVINCE="NC"
export KEY_CITY="Winston-Salem"
export KEY_ORG="Example Company"
export KEY_EMAIL="steve@example.com"
export KEY_CN=MyVPN
export KEY_NAME=MyVPN
export KEY_OU=MyVPN

export KEY_ALTNAMES="kanalVPN"


cd /etc/openvpn/easy-rsa/
source vars
./clean-all
./build-ca



./build-key-server ubuntu.kubisztal.pl
./build-dh


cd keys/
cp ubuntu.kubisztal.pl.crt ubuntu.kubisztal.pl.key ca.crt dh2048.pem
/etc/openvpn/

----------------------------------------------apt-get

cd /etc/openvpn/easy-rsa/
source vars
./build-key client1


/etc/openvpn/ca.crt

/etc/openvpn/easy-rsa/keys/client1.crt

/etc/openvpn/easy-rsa/keys/client1.key


zip <name of your archive> <file1_to_zip> <file2_to_zip> <file3_to_zip>
```

**5.2.**
```
ls -l /usr/share/doc/openvpn/examples/sample-config-files/

sudo cp /usr/share/doc/openvpn/examples/sample-config-
files/server.conf.gz /etc/openvpn/

sudo gzip -d /etc/openvpn/server.conf.gz

cd /etc/openvpn/

nano server.conf
    {
            ca.crt
            cert ubuntu.kubiszta.pl.crt
            key  ubuntu.kubiszta.pl.key

            dh dh2048.pem
    }

ifconfig

ifconfig tun0
```

**5.3**
```
sudo apt-get install openvpn

ll /usr/share/doc/openvpn/examples/sample-config-files/

sudo cp /usr/share/doc/openvpn/examples/sample-config-files/client.conf
/etc/openvpn/

cd nano /etc/openvpn/client.conf

    {
            remote ubuntu.kubisztal.pl 1194
            ca.crt
            cert klient1.crt
            key  klient1.key

    }

sudo apt-get install mc

sudo apt-get install usbmount

service openvpn start

ping 10.8.0.1
netstat -rn
```

**6.2**
```
rpm -ivh http://dl.fedoraproject.org/pub/epel/beta/7/x86_64/epel-release-7-0.2.noarch.rpm

yum -y install mariadb-server mariadb

systemctl start mariadb.service
systemctl enable mariadb.service

mysql_secure_installation
```

**6.3**
```
yum -y install httpd
systemctl start httpd.service
systemctl enable httpd.service
```

**6.4**
```
firewall-cmd --permanent --zone=public --add-service=http
firewall-cmd --permanent --zone=public --add-service=https
firewall-cmd --reload
```

**6.5**
```
yum -y install php
systemctl restart httpd.service

nano /var/www/html/info.php


<?php
phpinfo();
?>

yum -y install php-mysql

yum -y install php-gd php-ldap php-odbc php-pear php-xml php-xmlrpc
php-mbstring php-snmp php-soap curl curl-devel

systemctl restart httpd.service
```

**6.6**

```
rpm -ivh http://dl.fedoraproject.org/pub/epel/beta/7/x86_64/epel-
release-7-0.2.noarch.rpm

yum install phpMyAdmin

nano /etc/httpd/conf.d/phpMyAdmin.conf

{
      Alias /pm /usr/share/phpMyAdmin

      #<Directory /usr/share/phpMyAdmin/>
      #    <IfModule mod_authz_core.c>
           # Apache 2.4
      #      <RequireAny>
      #        Require ip 127.0.0.1
      #        Require ip ::1
      #      </RequireAny>
      #    </IfModule>
      #    <IfModule !mod_authz_core.c>
           # Apache 2.2
      #      Order Deny,Allow
      #      Deny from All
      #      Allow from 127.0.0.1
      #      Allow from ::1
      #    </IfModule>
      #</Directory>


      <Directory /usr/share/phpMyAdmin/>
             Options none
             AllowOverride Limit
             Require all granted
      </Directory>
}

systemctl restart  httpd.service
```

**6.7**

```
nano /etc/sudoers
{
      tomek ALL=(ALL)   ALL
}

sudo yum -y install vsftpd


sudo nano /etc/vsftpd/vsftpd.conf

{
      anonymous_enable = No
      local_enable=Yes
      chroot_local_user=Yes
}

sudo systemctl restart vsftpd.service
sudo systemctl enable vsftpd.service
sudo firewall-cmd --permanent --zone=public --add-service=ftp
```

**6.8**

```
mkdir /home/tomek/www

mkdir /var/www/html/blog/

sudo chown -R tomek:tomek html/

sudo mount --bind /var/www/html/blog/ /home/tomek/www/
```