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- Astra Linux Special Edition .10015-01 (1.7), .10015-10
 - Astra Linux Special Edition .10015-17
 - Astra Linux Special Edition .10015-37 (7.7)
 - Astra Linux Special Edition .10015-03 (7.6)
 - Astra Linux Special Edition .10152-02 (4.7)
 - Astra Linux Special Edition .10015-01 (1.6)
 - Astra Linux Special Edition .10015-16 . 1
 - Astra Linux Special Edition .10015-16 . 2
 - Astra Linux Special Edition .10265-01 (8.1)
 - Astra Linux Common Edition 2.12.43

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- (- +) Astra Linux. + . + consultant (+)., , (Astra Linux Special Edition -).

offline-

, + () , .

1. consultant (/home/consultant). :

```
sudo useradd -m consultant
```

2. OFFLINE :

```
sudo cp - fR /OFFLINE /home/consultant/
```



:

/home/consultant/OFFLINE/CONSBASE/

ADM/
BASE/
DISTR/
RECEIVE/
SEND/
SYSTEM/
USERS/

3. OFFLINE:

```
sudo chown -R user:user /home/consultant/OFFLINE/  
sudo chmod -R 775 /home/consultant/OFFLINE/
```

4. Astra Linux Special Edition () :

- a. SERVICE :

```
sudo cp "/SERVICE/PublicKey/consultant-plus_pub.key" "/etc/digsig  
/keys/"  
sudo chown root:root "/etc/digsig/keys/consultant-plus_pub.key"  
sudo update-initramfs -u -k all
```

b. :

```
sudo systemctl reboot
```

offline-

1. :

a. licons (liconsXXXXXX, XXXXXX - . licons):

```
sudo /home/consultant/OFFLINE/CONSBASE/licons --reg
```

/home/consultant/OFFLINE/CONSBASE/SEND (*.QR);

b. "" *.AR;

c. /home/consultant/OFFLINE/CONSBASE/RECEIVE, :

```
sudo /home/consultant/OFFLINE/CONSBASE/licons --reg
```

:

```
Licons tool 4021.00.20.534713
Copyright (C) 1992-2021
```

```
-----  
1030387
```

2. licons --adm:

```
sudo /home/consultant/OFFLINE/CONSBASE/licons --adm
```

,, licons. . . :

```
Licons tool 4020.00.00.443440
Copyright (C) ConsultantPlus 2020. All rights reserved.
BASE path: /home/consultant/OFFLINE/CONSBASE/BASE/
pwd: /home/consultant
-----
```

```
-----  
: 51113
```

1. Astra Linux - ():

a. Web- apache2 :

```
sudo apt install libpng16-16 librsvg2-2 apache2
```

b. :

```
sudo apt install haproxy
```

c. :

```
sudo apt install fonts-dejavu
```

:

```
sudo fc-cache -r -f -v
```

d. :

```
sudo apt install odbc-postgresql
```

2. -:

a. :

```
sudo cp -fR ~/ONLINE /home/consultant/ONLINE/
```



:

/home/consultant/ONLINE/cons/

CGI/
help/

querylog/

static4020_00_20_483774/

SYSTEM/
TEMP/

b. /home/consultant/ONLINE/cons/CGI/START.KEY, -:

```
--CACHEDIR=/home/consultant/ONLINE/cons/TEMP
```

c. /home/consultant/ONLINE/cons/CGI/START.KEY - -:

```
cp -fR /home/consultant/ONLINE/cons/CGI/START.KEY /home/consultant  
/OFFLINE/CONSCACHE/
```

d. /home/consultant/ONLINE/cons/CGI/BASE.DIR - :

```
/home/consultant/OFFLINE/CONSCACHE/
```

e. /home/consultant/ONLINE/cons/TEMP CONSCACHE/RTFCACHE:

```
mkdir -p /home/consultant/ONLINE/cons/TEMP/CONSCACHE/RTFCACHE
```

f. /home/consultant/ONLINE/cons/TEMP/CONSCACHE/RTFCACHE cons:

```
sudo ln -s /home/consultant/ONLINE/cons/TEMP/CONSCACHE/RTFCACHE  
/home/consultant/ONLINE/cons/
```

g. :

```
sudo chown -R consultant:consultant /home/consultant/
sudo chmod 775 -R /home/consultant/
```

3. -:

- a. + () . . .
i. /home/consultant/ONLINE/cons/SYSTEM/conssrv2.service:

```
[Unit]
Description=ConsultantPlus service

[Service]
Type=simple
PIDFile=/tmp/conssrv2.pid
WorkingDirectory=/home/consultant/ONLINE/cons/SYSTEM

User=consultant
Group=consultant

ExecStart=/home/consultant/ONLINE/cons/SYSTEM/conssrv2
TimeoutSec=15
Restart=always

[Install]
WantedBy=multi-user.target
```

- ii. /home/consultant/ONLINE/cons/SYSTEM/online-worker@.service:

```
[Unit]
Description=ConsultantPlus service

[Service]
Type=simple
PIDFile=/tmp/conssrv2.pid
WorkingDirectory=/home/consultant/ONLINE/cons/SYSTEM

User=consultant
Group=consultant

ExecStart=/home/consultant/ONLINE/cons/SYSTEM/conssrv2
TimeoutSec=15
Restart=always

[Install]
WantedBy=multi-user.target
le@sel6:~$ cat /home/consultant/ONLINE/cons/SYSTEM/online-worker@.service
[Unit]
Description=ConsultantPlus worker on port %I
PartOf=online-pool.target

[Service]
Type=simple
PIDFile=/tmp/online-worker%I.pid
WorkingDirectory=/home/consultant/ONLINE/cons/TEMP/CONSCACHE

User=consultant
Group=consultant

ExecStart=/home/consultant/ONLINE/cons/CGI/online.cgi --port %I --conssrv standalone
TimeoutSec=15
Restart=always

[Install]
WantedBy=multi-user.target
```

iii. /home/consultant/ONLINE/cons/SYSTEM/online-pool.target Wants [Unit] online-worker@.service. , .
8006 8007:

```
[Unit]
Wants=conssrv2.service online-worker@8006.service online-worker@8007.service
```

b. :

```
sudo chmod -x /home/consultant//ONLINE/cons/SYSTEM/online-worker@.service
sudo chmod -x /home/consultant//ONLINE/cons/SYSTEM/online-pool.target
sudo chmod -x /home/consultant//ONLINE/cons/SYSTEM/conssrv2.service
```

c. /etc/systemd/system:

```
sudo ln -s /home/consultant/ONLINE/cons/SYSTEM/conssrv2.service
/etc/systemd/system
sudo ln -s /home/consultant/ONLINE/cons/SYSTEM/online-worker@.service
/etc/systemd/system
sudo ln -s /home/consultant/ONLINE/cons/SYSTEM/online-pool.target
/etc/systemd/system
```

d. systemd:

```
sudo systemctl daemon-reload
```

e. :

```
sudo systemctl enable online-pool.target
```

f. :

```
sudo systemctl start online-pool.target
```

g. , . :

```
ps aux | grep online.cgi
```

:

```
consultant 688 6.1 6.5 502680 262928 ? Ssl 17:33 0:04 /home/consultant/ONLINE/cons/CGI/online.cgi --port 8007 --conssrv standalone
consultant 691 6.2 6.5 502680 263068 ? Ssl 17:33 0:05 /home/consultant/ONLINE/cons/CGI/online.cgi --port 8006 --conssrv standalone
```

, , ();

h. web-apache2:

i. Apache2 (Astra Linux Special Edition): /etc/apache2/apache2.conf AstraMode off:

```
AstraMode off
```

ii. apache2 :

```
sudo a2enmod proxy proxy_balancer proxy_http
```

iii. apache2:

```
sudo systemctl restart apache2
```

i. «» . /etc/apache2/ports.conf , (8080):

```
Listen 8080
```

j. , . /home/consultant/ONLINE/cons/SYSTEM/online.conf:

i. <VirtualHost*:8080> , (8080):

```
<VirtualHost *:8080>
ServerAdmin vpibot@consultant.ru
...
```

ii. ():

```
DocumentRoot /home/consultant/ONLINE/cons
<Directory "/home/consultant/ONLINE/cons">
```

k. /home/consultant/ONLINE/cons/SYSTEM/online.conf /etc/apache2/sites-available /etc/apache2/sites-enabled :

```
sudo cp -fR /home/consultant/ONLINE/cons/SYSTEM/online.conf /etc
/apache2/sites-available
sudo ln -s /etc/apache2/sites-available/online.conf /etc/apache2
/sites-enabled/online.conf
```

l. apache2 :

```
sudo apache2ctl -t
```

```
;
```

m. , - :

```
ps aux | grep online.cgi
```

```
, :
```

```
sudo systemctl daemon-reload
sudo systemctl restart online-pool.target
```

, apache2:

```
sudo systemctl restart apache2
```

4. . - haproxy. haproxy /etc/haproxy/haproxy.cfg:

a. , :

```
frontend online
bind 127.0.0.1:8081
default_backend servers
backend servers
timeout queue 30s
server s1 127.0.0.1:8006 check maxconn 1
server s2 127.0.0.1:8007 check maxconn 1
```

b. haproxy:

```
sudo systemctl restart haproxy
```

c. -:

```
systemctl list-units | grep -E "conssrv|online-|apache|haproxy"
```

"loaded active running":

```
apache2.service
loaded active running    The Apache HTTP Server
conssrv2.service
loaded active running    ConsultantPlus service
haproxy.service
loaded active running    HAProxy Load Balancer
online-worker@8006.service
loaded active running    ConsultantPlus worker on port 8006
online-worker@8007.service
loaded active running    ConsultantPlus worker on port 8007
online-pool.target
loaded active active     ConsultantPlus starting worker pool
```

-.. Firefox <http://127.0.0.1:8080>

1. online.cgi:

a. :

```
sudo systemctl stop online-pool.target
```

b. (/home/consultant/ONLINE/CGI/online.cgi /home/consultant/ONLINE/staticXXXX_XX_XX_XXXXXX);

c. :

```
sudo systemctl start online-pool.target
```

2. conssrv2:

a. :

```
sudo systemctl stop conssrv2.service
```

b. (/home/consultant/ONLINE/SYSTEM/conssrv2);

c. :

```
sudo systemctl start conssrv2.service
```

, :

- /var/log/apache2/error.log
- /home/consultant/ONLINE/cons/TEMP/CONSCACHE/CONS_ERR.TXT
- /home/consultant/ONLINE/cons/TEMP/CONSCACHE/LOG.TXT
- /home/consultant/ONLINE/cons/SYSTEM/CONS_ERR.TXT
- /home/consultant/OFFLINE/CONSBASE/CONS_ERR.TXT

```
systemctl list-units | grep -E "conssrv|online-|apache|haproxy"
systemctl status online-pool.target
systemctl status online-worker@800*
systemctl status apache2.service
systemctl status haproxy
```