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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

4021.

- (-+) 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
```

, .

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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/

querylog/

CGI/  
help/

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/CONSBASE/
```

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

```
/home/consultant/OFFLINE/CONSBASE/
```

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/consrv2.service:

```
[Unit]  
Description=ConsultantPlus service  
  
[Service]  
Type=simple  
PIDFile=/tmp/consrv2.pid  
WorkingDirectory=/home/consultant/ONLINE/cons/SYSTEM  
  
User=consultant  
Group=consultant  
  
ExecStart=/home/consultant/ONLINE/cons/SYSTEM/consrv2  
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/consrv2.pid  
WorkingDirectory=/home/consultant/ONLINE/cons/SYSTEM  
  
User=consultant  
Group=consultant  
  
ExecStart=/home/consultant/ONLINE/cons/SYSTEM/consrv2  
TimeoutSec=15  
Restart=always  
  
[Install]  
WantedBy=multi-user.target  
le@se16:~$ 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 --consrv 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
```