

**20200722SE16 ( 6)**

```
fly-astra-update astra-update - .
```

"Astra Linux Special Edition" .10015-01 ( 1.6).

0.

$$\vdots$$

- 20200526SE16MD
- 20200327SE16 - 5
- 20191029SE16 - 4
- 20190912SE16 - 3
- 20190712SE16MD
- 20190621SE16MD
- 20190529SE16MD
- 20190222SE16 - 2
- 20181229SE16 - 1

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• ;  
• , ( . ) .

Astra Linux -.

, Astra Linux .

Astra Linux Special Edition

“ ” , “ ”

9 9 •

astra-update , :

1. :
2. iso- /mnt , :

```
gostsum -d /mnt/20200722SE16.iso
```

$$\vdots$$

041b3c056e1f6e77e652dda37ee66594da440a797d0fd1d1c61bb4504adf49ba

"\_".

"Astra Linux Special Edition" .10015-01 ( 1.6)

3.  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  
- ( ) :

```
sudo apt-cdrom add
```

4. ISO- , -.
5. ISO- , , , :

```
sudo mount /mnt/20200722SE16.iso /media/cdrom
sudo apt-cdrom -m add
sudo umount /media/cdrom
```

"20200722SE16".

```
-m, apt-cdrom      , , - .
apt-cdrom      .
```



- , , .



/, .  
, Enter.

- Astra Linux Special Edition .10015-01 ( 1.6) - .

- -, /media/cdrom , :

```
sudo mount /mnt/20200722SE16.iso /media/cdrom
```

6. (sudo -s) , sudo:



```
sudo -s
... ..
exit
```

7. - " " ( , -s apt), , :

```
sudo -s
apt update
apt -s dist-upgrade
exit
```

- .

8. :

```
sudo -s
apt update
apt dist-upgrade
apt -f install
exit
```

- .



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fly-admin-int-check gostsums.txt, .



, ccnri \_ . ccnri , , , ( ).

## /boot



:

```
lsblk
```

LVM, ( - /boot 512, 234),:

1. /boot 512:
2. , /boot 512 :

a. hardened :

```
sudo apt remove linux-image-4.15.3-1-hardened
```

- b. .
- c. , 4.15.3-2-generic
- d. hardened, hardened :

```
sudo apt install linux-image-4.15.3-2-hardened linux-astra-modules-4.15.3-2-hardened
```

hardened

boot LVM.

, , :

```
uname -r
```

, , :

```
#!/bin/bash
```

```
set -e
```

```
pkgs=`dpkg -l \  
linux-image-4.15.3-1-generic \  
linux-image-4.15.3-1-hardened \  
linux-image-4.15.3-2-generic \  
linux-image-4.15.3-2-hardened \  
linux-image-4.15.3-3-generic \  
linux-image-4.15.3-3-hardened \  
linux-image-5.4.0-54-generic \  
linux-image-5.4.0-54-hardened \  
2> /dev/null | grep "^ii" | cut -d " " -f3 | \  
grep -v ^linux-image-$(uname -r | cut -d '-' -f1-2)`
```

```
[ -n "$pkgs" ] && apt remove $pkgs  
rm -f /boot/old-*
```

apt remove.

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