

ELIOT Tailored OS Creation Document

OVERVIEW:

ELIOT Tailor OS is a customized and a light weight version of Minimal Cent OS. The purpose of tailored OS creation is to ensure that ELIOT Deployment supports lightweight OS of any kind.

PROCEDURE:



To ensure system/os stability, Please follow the below steps in a Ubuntu VM with moderate configurations created using any tools like VirtualBox, Qemu, etc
Please use root user to perform below steps

Download CentOS minimal iso from the below link / any other link. File size will be around 1 GB.

https://mirror.umd.edu/centos/7/isos/x86_64/CentOS-7-x86_64-Minimal-1908.iso

1. Mount the centos iso file

```
root@akraino-vm-001:~# mkdir -p /mnt/linux
root@akraino-vm-001:~# mount -o loop <downloaded_iso_path.iso> /mnt/linux
```

2. Mounted centos iso is readonly and so change the files with write access

```
root@akraino-vm-001:~# cd /mnt/
root@akraino-vm-001:~# tar -cvf - linux | (cd /var/tmp/ && tar -xf - )
```

3. Removing unnecessary packages:

```
root@akraino-vm-001:~# cd /var/tmp/linux
root@akraino-vm-001:~# rm -rf Packages/<package.rpm>
```

Note:

Removable Packages list

```
1.bluez.rpm
2.dejavu-fonts-common.rpm
3.dejavu-sans.rpm
4.screen.rpm
5.mozillafilesystem.rpm
6.shim.rpm
7.zip.rpm
8.startup-notification.rpm
9.ModemManager.rpm
10.libreport.rpm
11.hicolor.rpm
12.fontconfig.rpm
13.pango.rpm
14.pixman.rpm
15.cairo.rpm
```

4. Create Bootable iso:

```
root@akraino-vm-001:~# cd /var/tmp/linux
root@akraino-vm-001:~# mkisofs -r -T -J -V "<name>" -b isolinux/isolinux.bin -c isolinux/boot.cat -no-emul-boot -
boot-load-size 4 -boot-info-table -o ../newimage.iso .
```



-V <name> --> must match with isolinux/isolinux.cfg file's label attribute

In isolinux.cfg LABEL=CentOS\x207\x20x86_64 --> \x20 represents space character.
So, in -V <name> --> we can represent space instead of \x20

Example cmd:

```
mkisofs -r -T -J -V "CentOS 7 x86_64" -b isolinux/isolinux.bin -c isolinux/boot.cat -no-emul-boot -boot-load-size 4 -boot-info-table -o ../newimage.iso .
```

Once Bootable iso created, we can create Virtual Machine using that bootable iso. We can deploy our ELIOT topology on top of that.