

Device access

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serial port

privileged LXC

Only need to bind mount device node.

Example PCT config:

[100.conf](#)

```
lxc.cgroup.devices.allow = c 188:0 rwm
lxc.mount.entry: /dev/ttyUSB0 dev/ttyUSB0 none
bind,optional,create=file
```

Device major 188 is for ttyUSBx devices

unprivileged LXC

Unprivileged LXC has UIDs and GIDs mapped to defines subid and subgids ranges.

To get access to ttyUSB0 as dialout group (GID=20) host needs to give permissions to access ttyUSB0 for GID=100020.

Simple but dirty method is to

```
chown 100000:100020 /dev/ttyUSB0
```

(TODO: consider using setfacl)

Another method mentioned in [Setup deCONZ on unprivileged Proxmox container](#) is to do not touch /dev/ttyUSB0 but create another device node with the same device major:minor. Then change owner of new device node and use it to bind mount into container.

References

- [USB passthrough to a container LXC](#)
- [Passing iGPU through to unprivileged LXC \[HELP\]](#)

- [Passing USB device on LXC not working after upgrade to 7.0](#)
- Zigbee2MQTT automated LXC setup scripts (privileged containers):
 - [build.func](#)

DRI forward

Host system (Proxmox):

```
$ls -ln /dev/dri

crw-rw---- 1 0 44 226, 0 03-26 11:53 card0
crw-rw---- 1 0 103 226, 128 03-26 11:53 renderD128
```

In unprivileged PCT GIDs and UIDs are shifted +100000, so if guest wants to access device with GID=44, from host point of view it is accessing it as GID=100044. So now is needed to do shift GID 44 and GID 103. Idea is to define ranges of GID mappings to map all other GID to be shifted by +100000:

Container GID	Host GID	count
0..43	100000..100043	44
44	44	1
45..102	100045..100102	58
103	103	1
104..65535	100104..165535	65431

Here is a tool [Proxmox unprivileged container/host uid/gid mapping syntax tool](#)

Allow LXC (running as root) to map GID 44 and 103 to new ones:

```
root:100000:65536
root:44:1
root:103:1
```

PCT config file:

[/etc/pve/lxc/303.conf](#)

```
lxc.cgroup2.devices.allow: a
lxc.cap.drop:
lxc.cgroup2.devices.allow: c 226:0 rwm
lxc.cgroup2.devices.allow: c 226:128 rwm
lxc.mount.entry: /dev/dri dev/dri none bind,optional,create=dir
lxc.mount.entry: /dev/dri/renderD128 dev/dri/renderD128 none
bind,optional,create=file
lxc.mount.entry: /dev/dri/card0 dev/dri/card0 none
bind,optional,create=file
lxc.idmap: u 0 100000 65536
lxc.idmap: g 0 100000 44
lxc.idmap: g 44 44 1
```

```
lxc.idmap: g 45 100045 58  
lxc.idmap: g 103 103 1  
lxc.idmap: g 104 100104 65431
```

Guest system:

```
usermod -aG 44 user  
usermod -aG 103 user  
apt install drm-info  
drm_info
```

TODO - check

- <https://forum.proxmox.com/threads/terramaster-f2-423-proxmox-n5095-igpu-passthrough-issue.123144/#post-536224>
- <https://forum.proxmox.com/threads/plex-hw-transcoding-lxc-and-jasper-lake-igpu-passthru.116163/#post-556945>

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