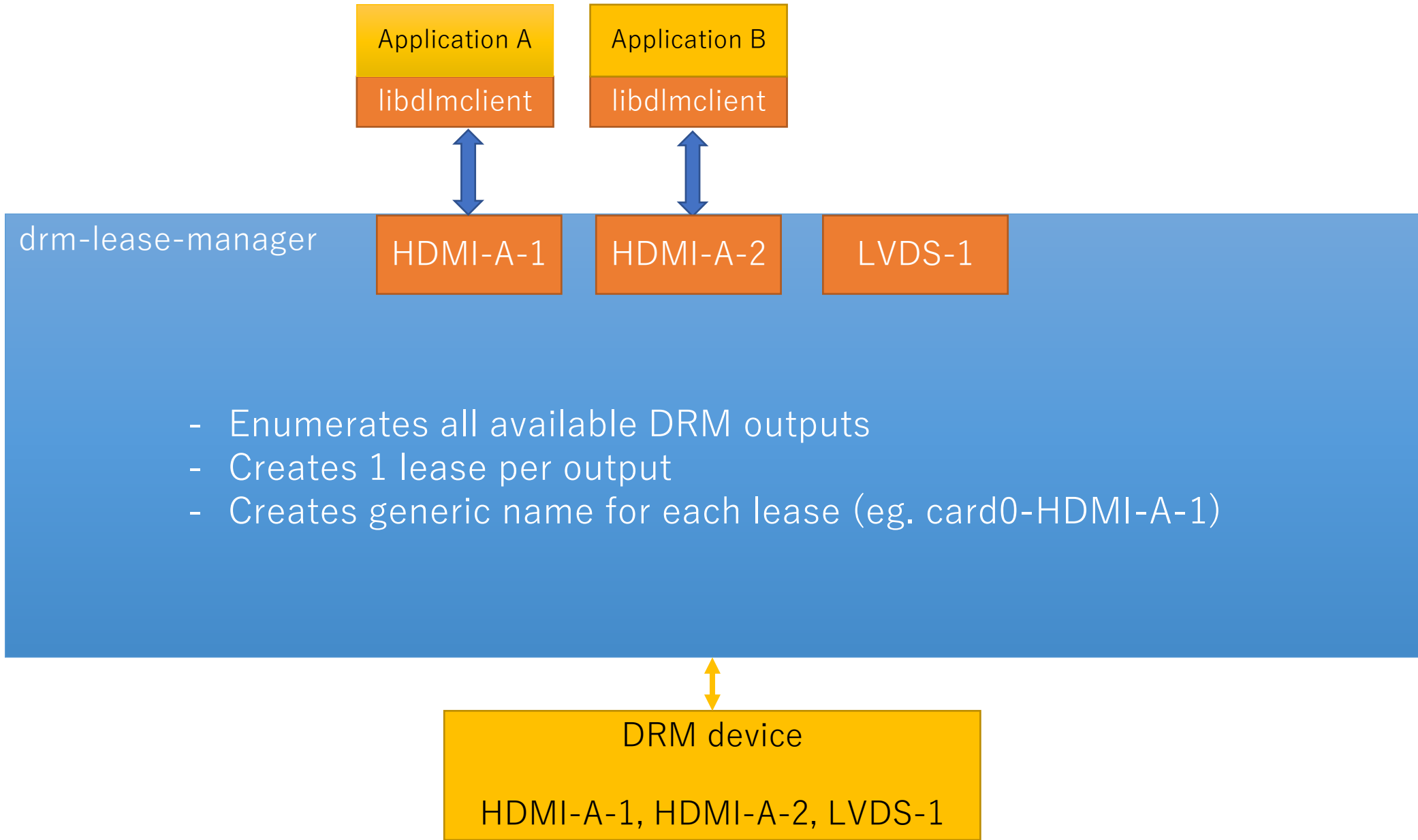


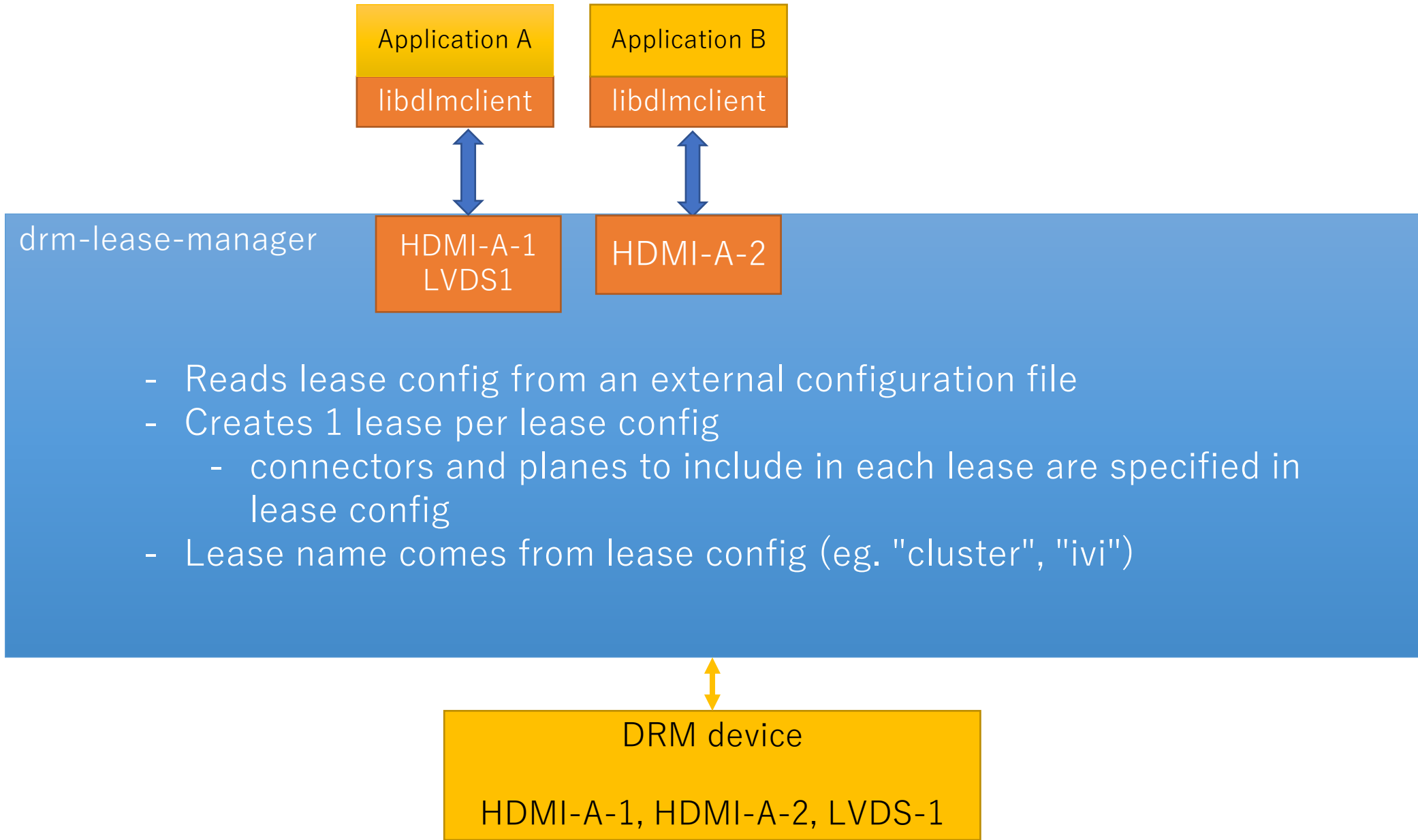
DRM Lease manager

Lease configuration update
April 2022

Current Operation



Updated Operation



Configuration file

lease configuration

```
[[lease]]  
name = <string> (eg. "cluster")  
connectors = <array of strings> (eg, ["HDMI-A-1", "LVDS-1"])  
planes = <array of plane ids> (eg, [23, 24, 28])
```

```
[[lease]]  
name = ...  
connectors = ...
```

connector configuration

```
[HDMI-A-1]  
optional = true
```

Current status

- Complete
 - Lease configuration parsing from configuration file
 - Adding multiple connectors to a lease based on above settings
 - Verified on Renesas R-Car, qemu
 - Pushed to sandbox:
 - <https://gerrit.automotivelinux.org/gerrit/src/drm-lease-manager.git>
 - branch: [sandbox/dhobsong/named-lease-and-config](#)
 - will push to gerrit this week
- To do
 - Add DRM planes to leases based on configuration
 - Per connector configuration (ie. optional / mandatory connectors)

Issues

wayland egl applications don't work with leases on Raspberry Pi (SPEC-4317)

- Applications that only use the wl_shm protocol (i.e. no GPU) are ok.
- Reason
 - DRM authentication doesn't work with DRM leases
 - DRM authentication is required by the mesa wl_drm protocol (used to enable buffer importing / exporting in the kernel so clients can share buffers with the server/compositor)

Issues (cont)

wayland egl applications don't work with leases on Raspberry Pi (SPEC-4317)

- Workaround
 - Kernel no longer requires DRM Authentication for buffer import/export (as of Linux 5.6)
 - So just disable authentication in wl_drm
 - And backport DRM Auth patch from Linux 5.6 (Rpi kernel is 5.4 on yocto "dunfell")
- Other options
 - Make DRM authentication work for DRM leases
 - Use render nodes in mesa / libweston to bypass authentication