Live-sculpting a Genode-based operating system

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Outline

1. Base system
2. Storage, networking
3. Extending the system
4. Road Map for 2018

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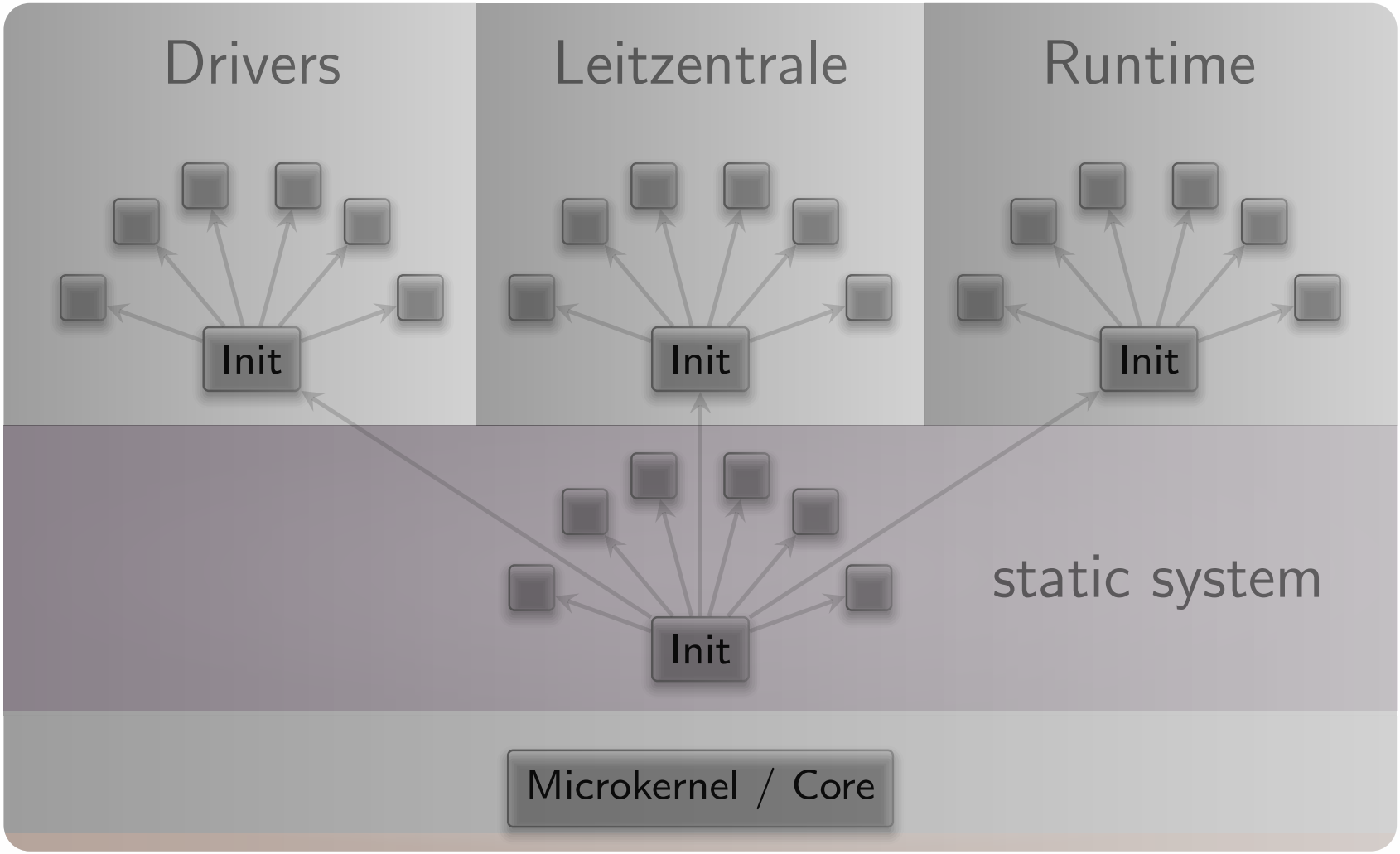
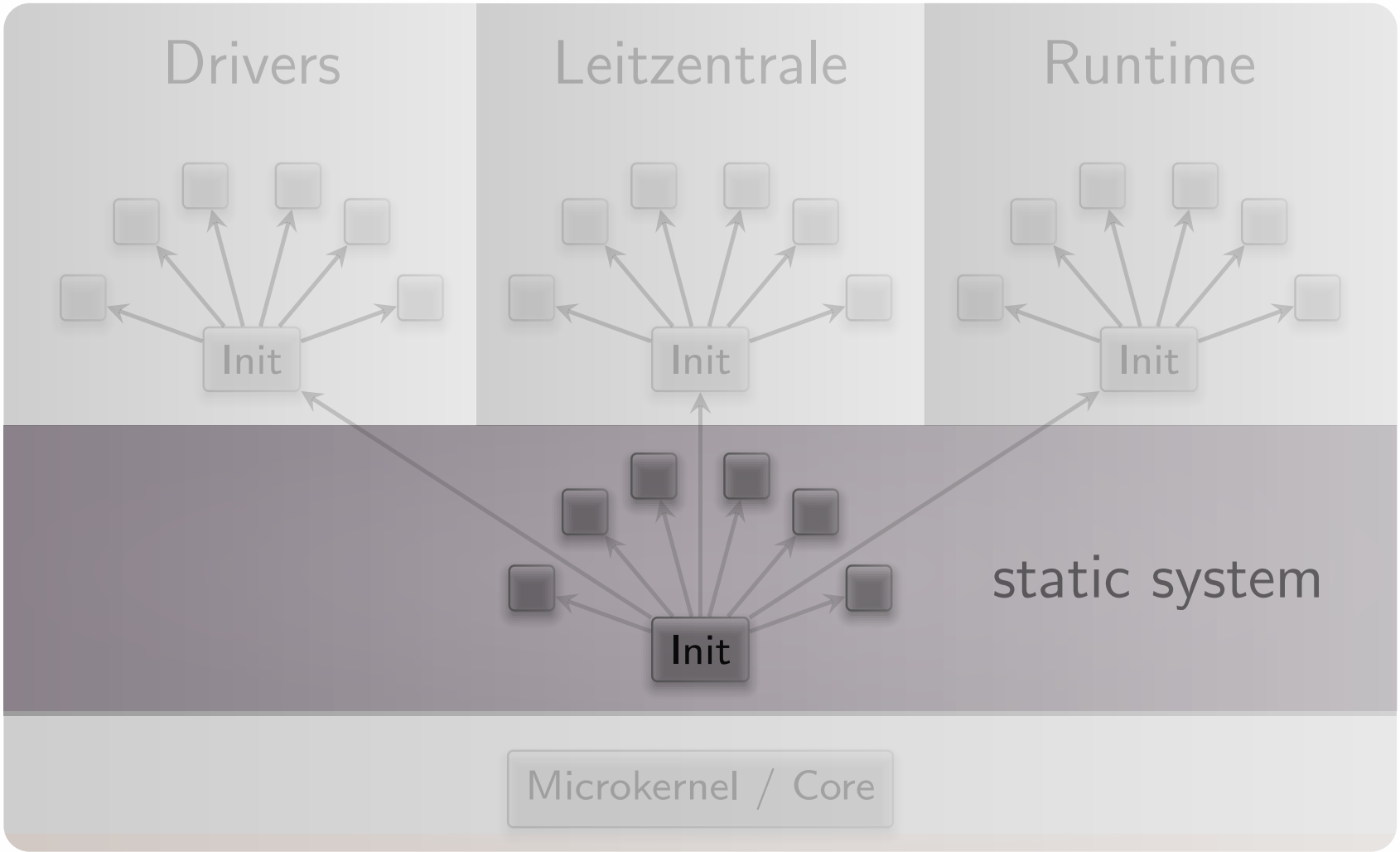
System overview



Static part of the system



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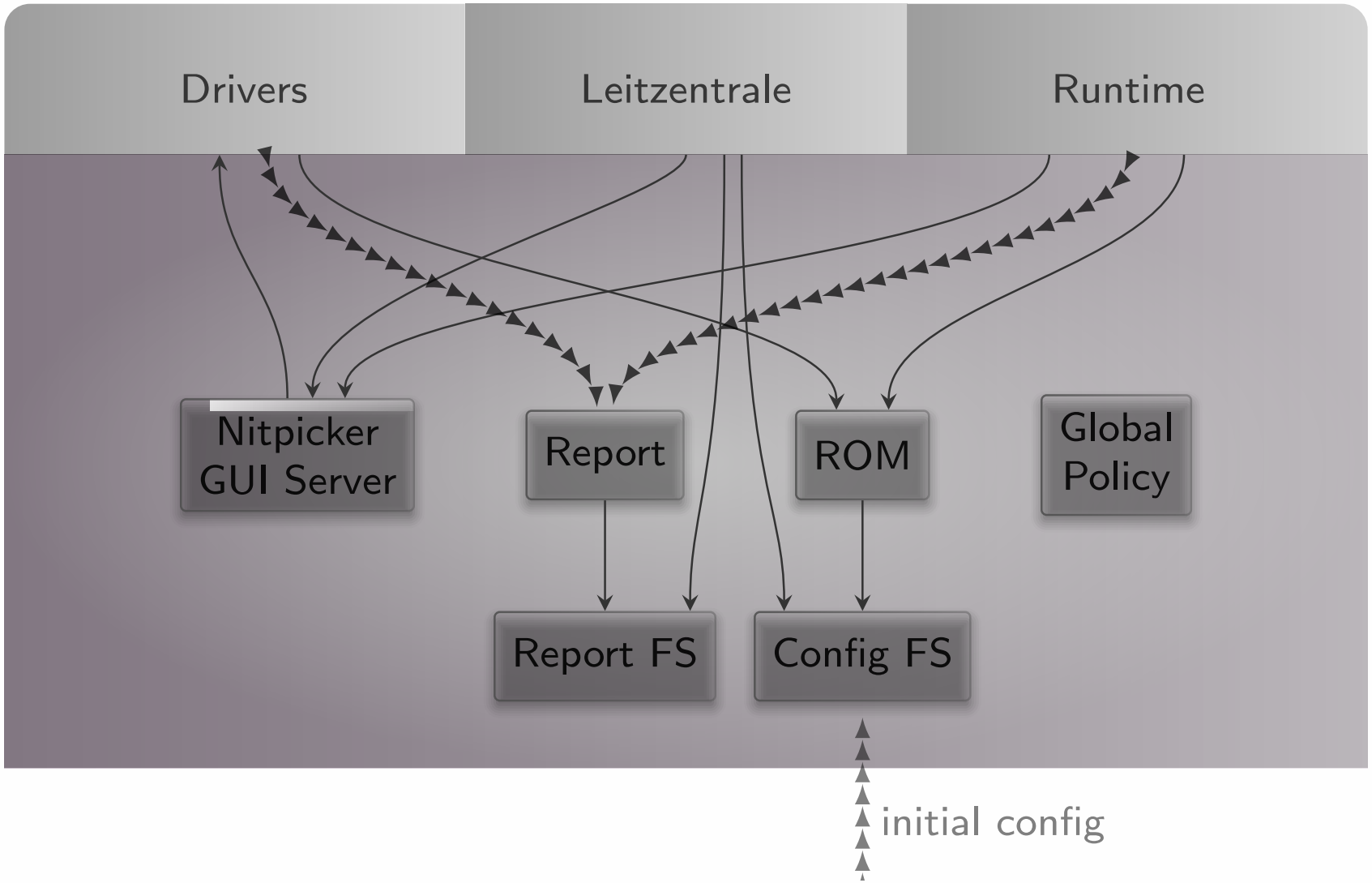
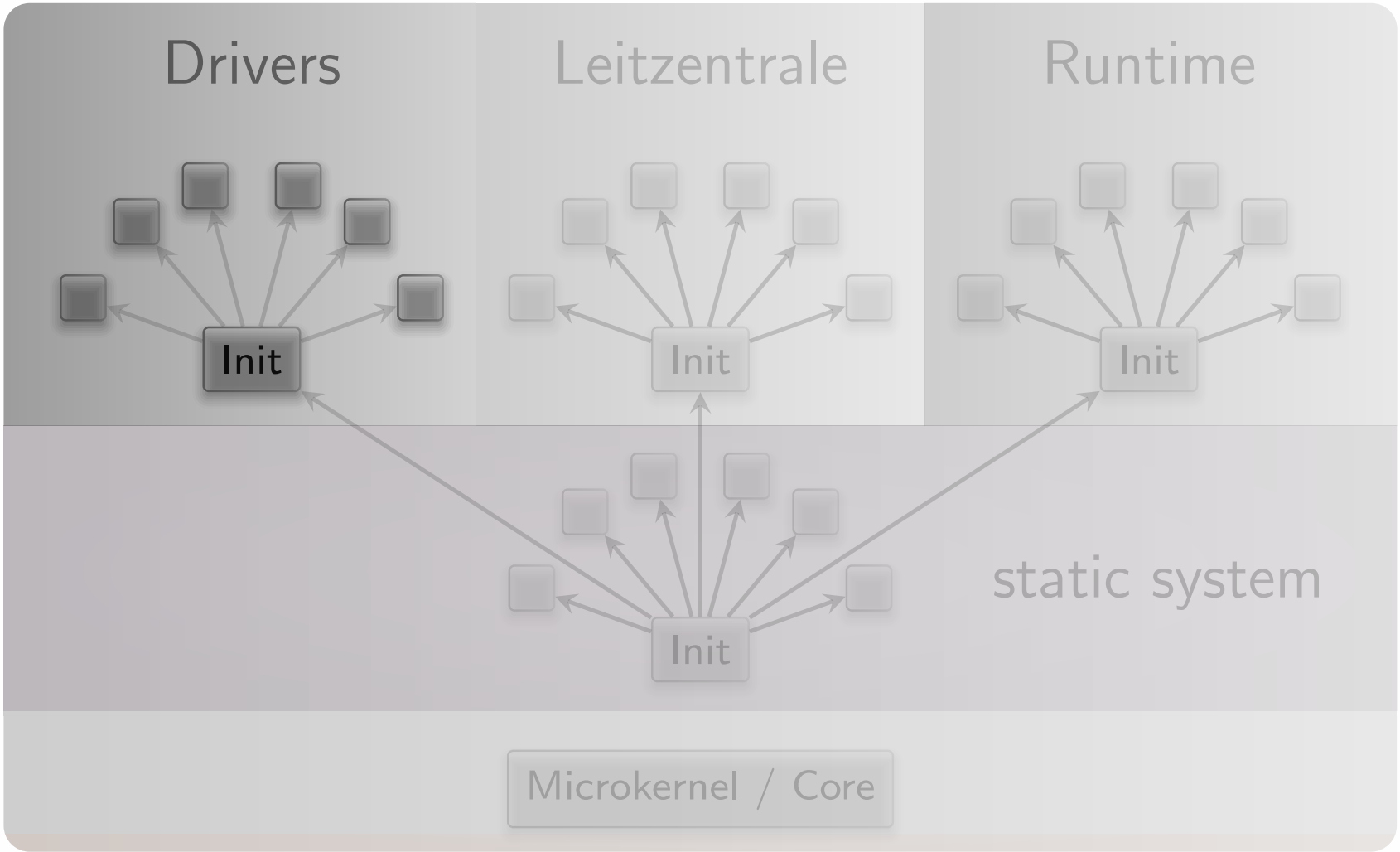


Drivers subsystem



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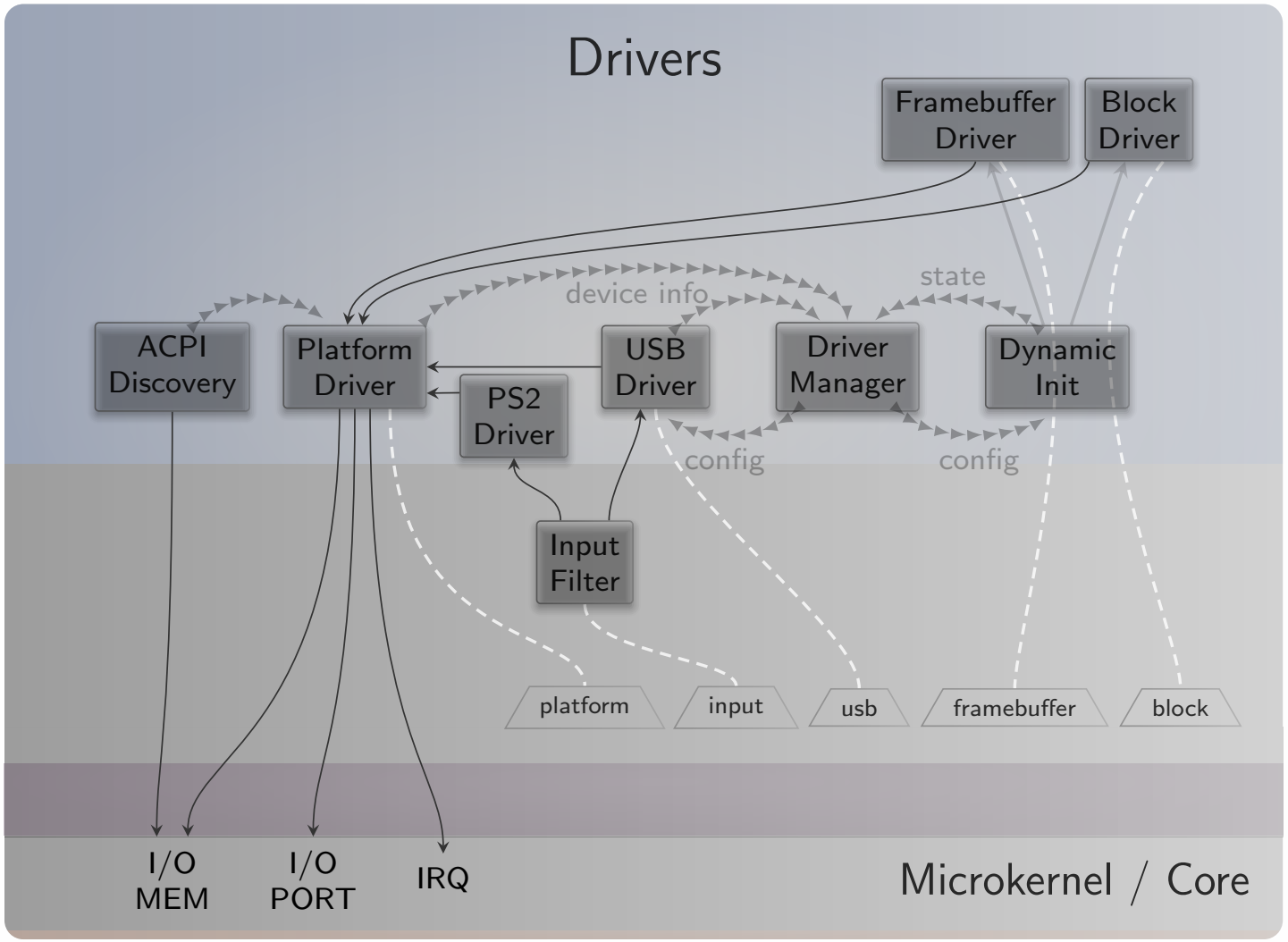
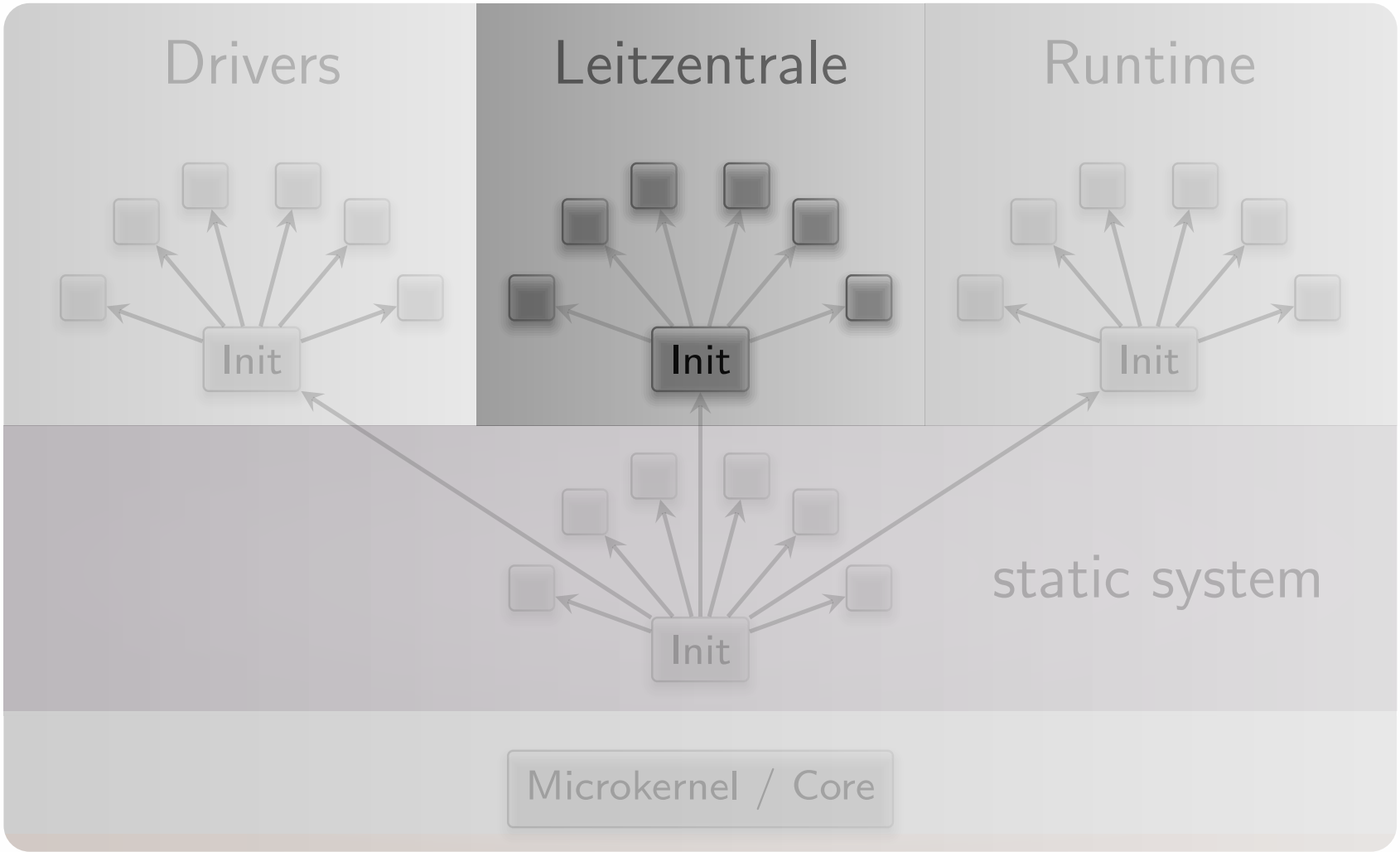
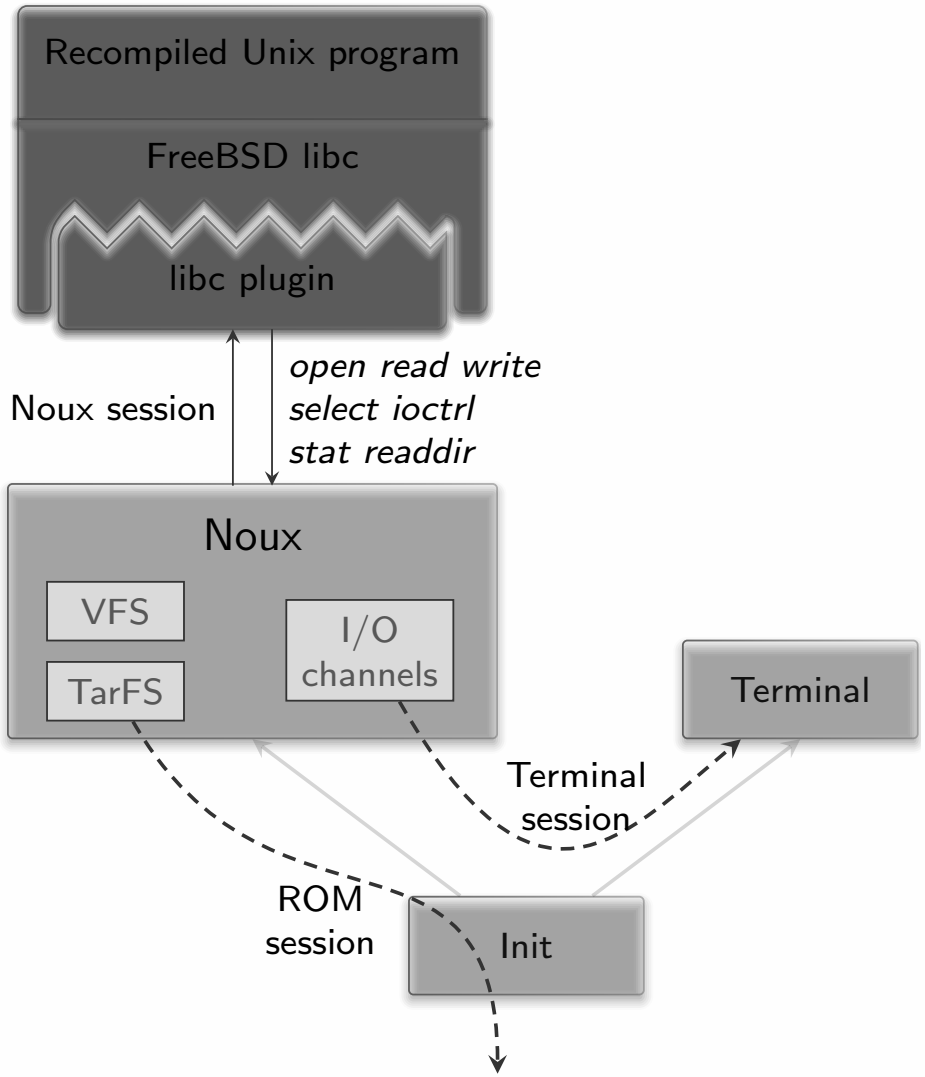


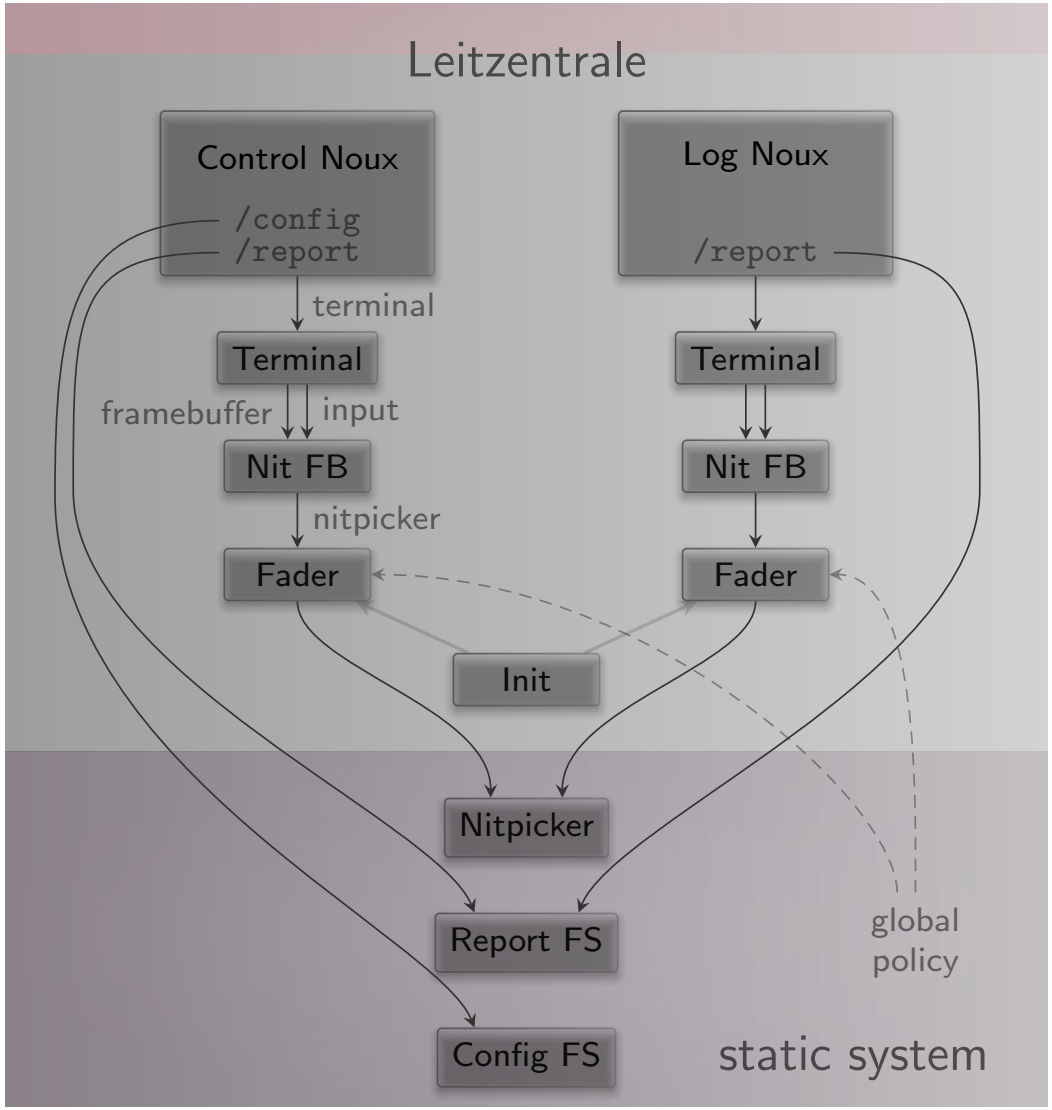
Leitzentrale subsystem



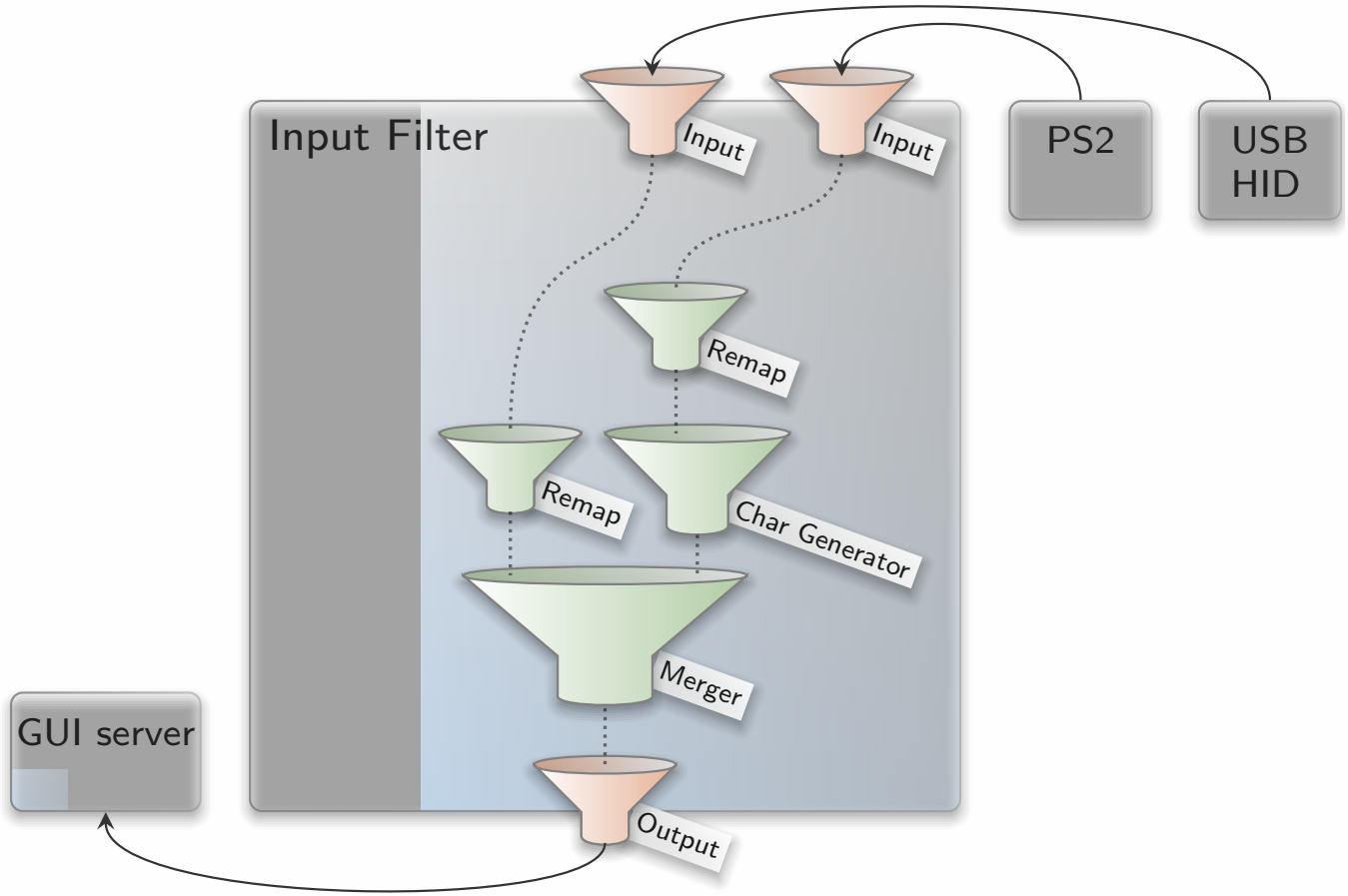
Leitzentrale subsystem



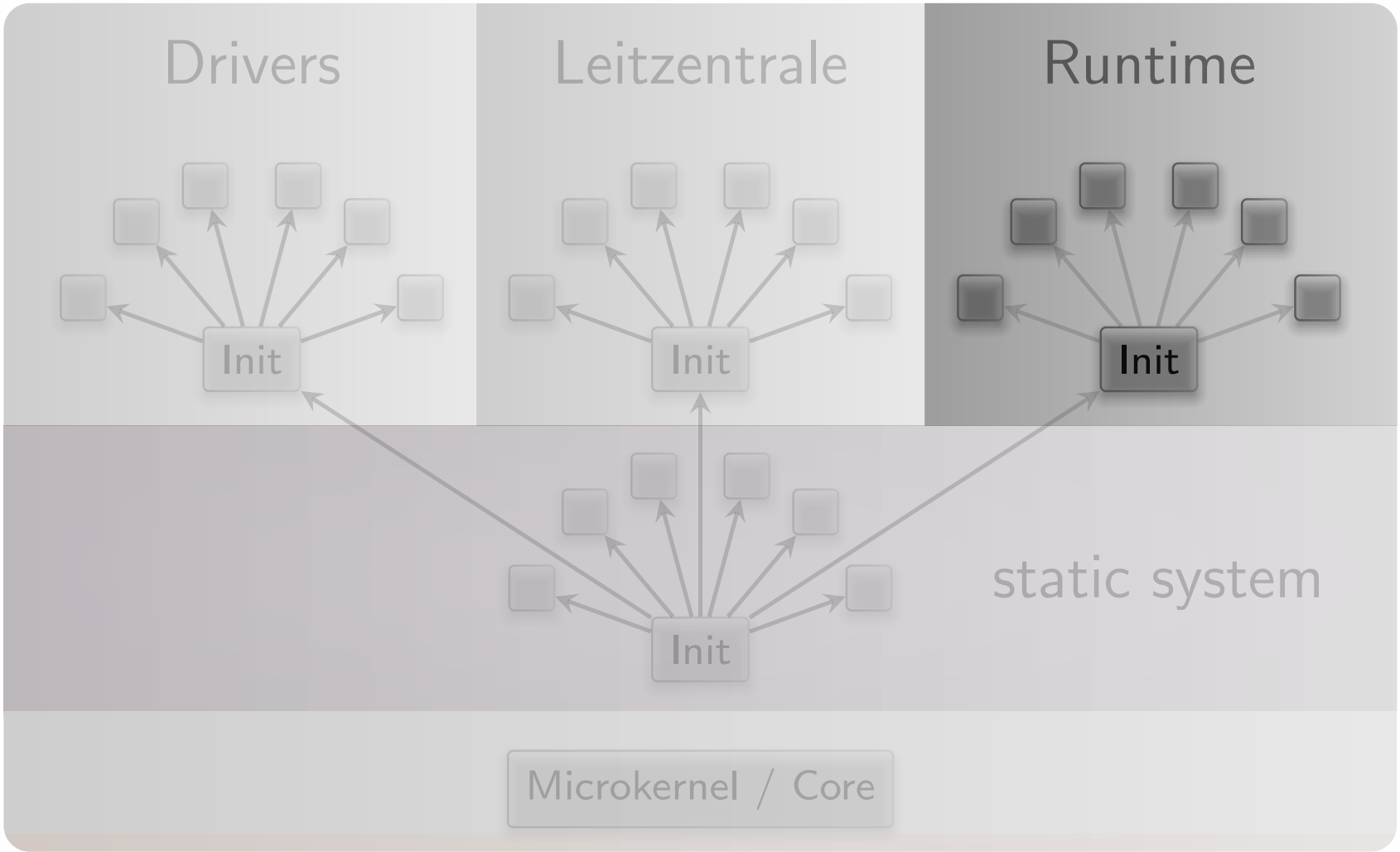
Leitzentrale subsystem



Tweaking and inspecting the system



Runtime subsystem



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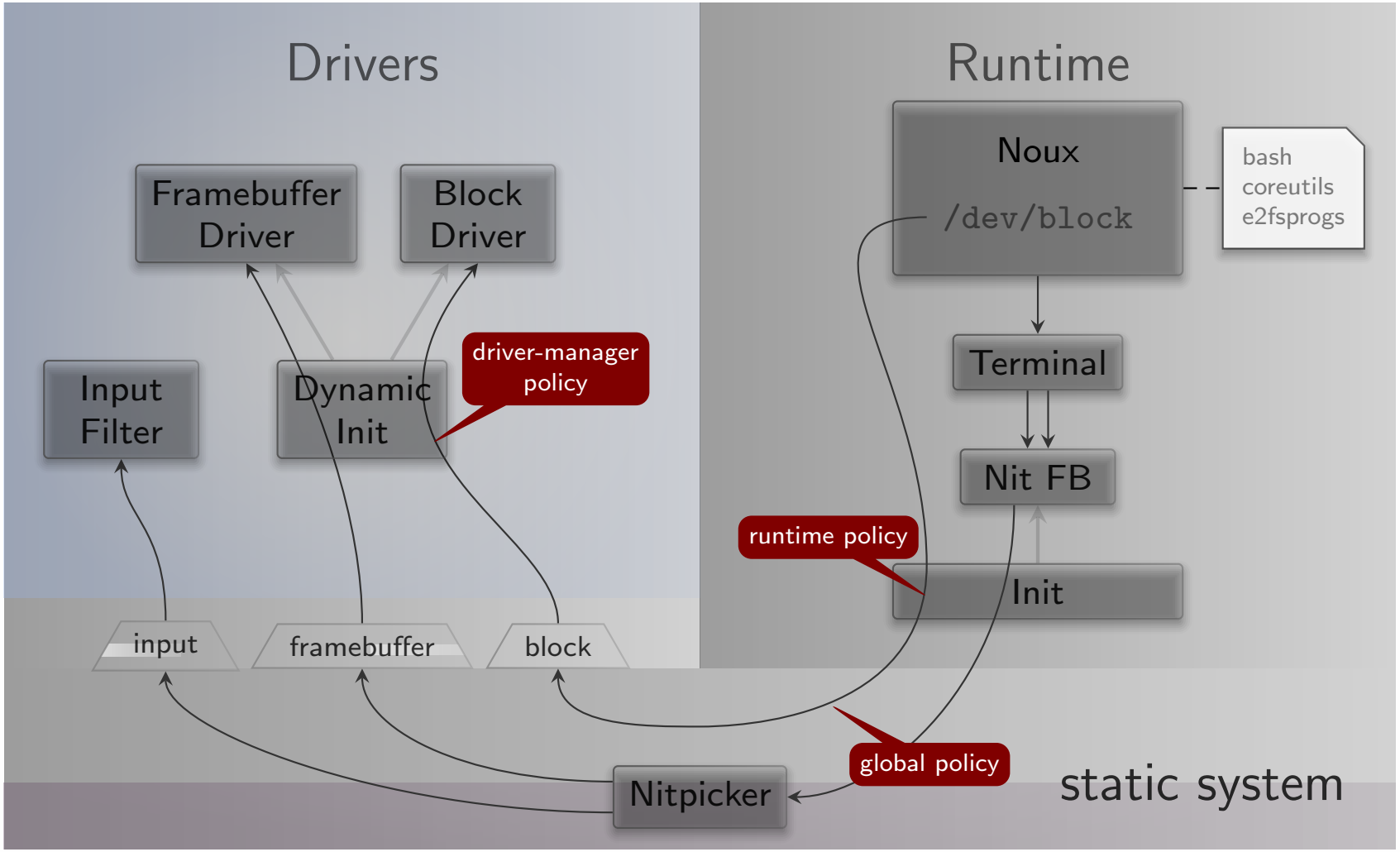
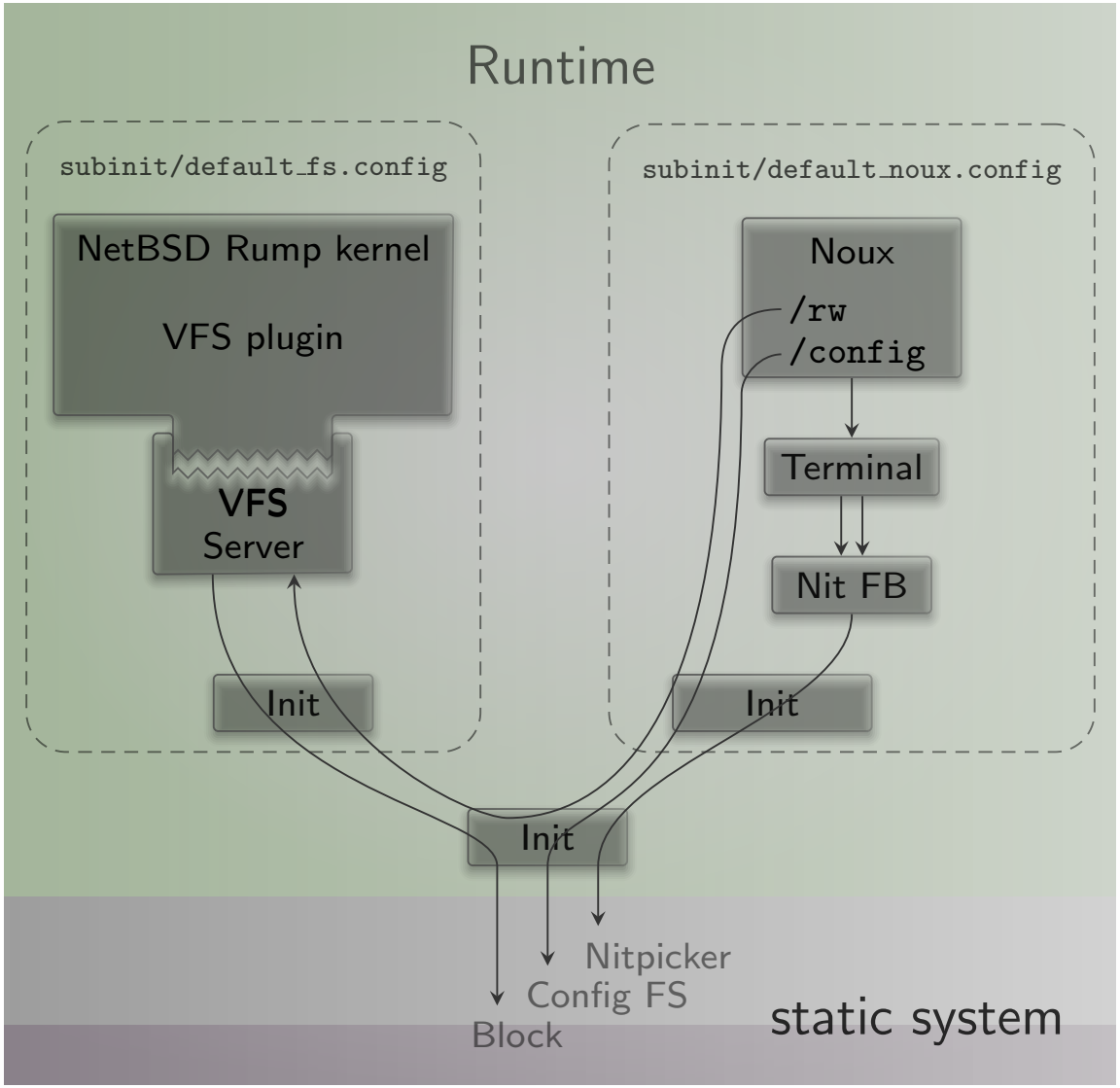
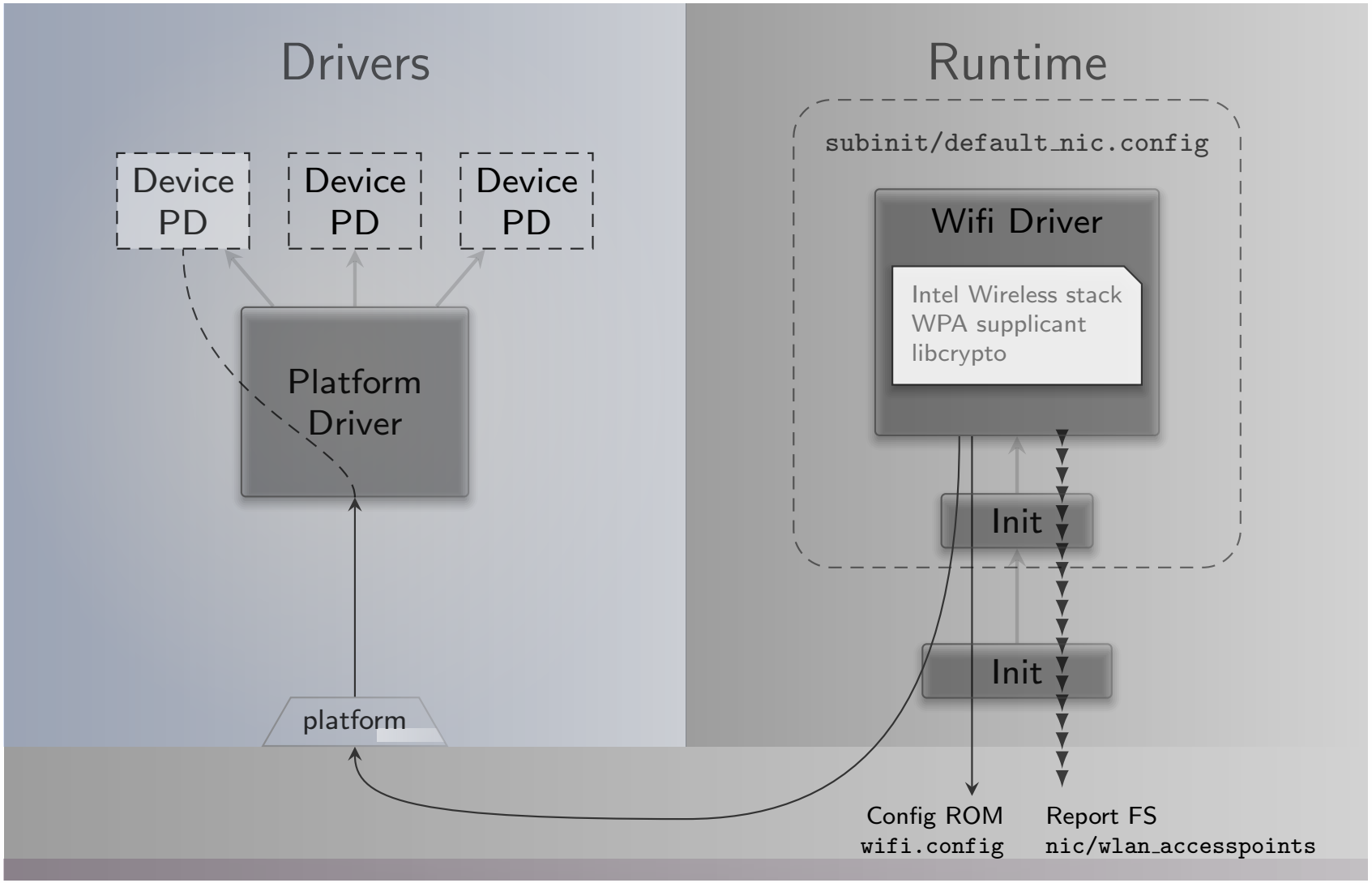
Preparing the disk



File-system access



Connecting to a wireless network



Making customizations permanent

Noux with mounted config FS and default FS

```
cp /config/<customized>.config          /rw/config/
cp /config/runtime/<customized>.config  /rw/config/runtime/
cp /config/subinit/<customized>.config  /rw/config/subinit/
```

Config FS

Default FS

Restoring customizations after boot

Noux with mounted config FS and default FS

```
cp /rw/config/*                  /config/
cp /rw/config/runtime/*.config   /config/runtime/
cp /rw/config/subinit/*.config   /config/subinit/
```

Default FS | Config FS

for convenience → config/runtime/load.config

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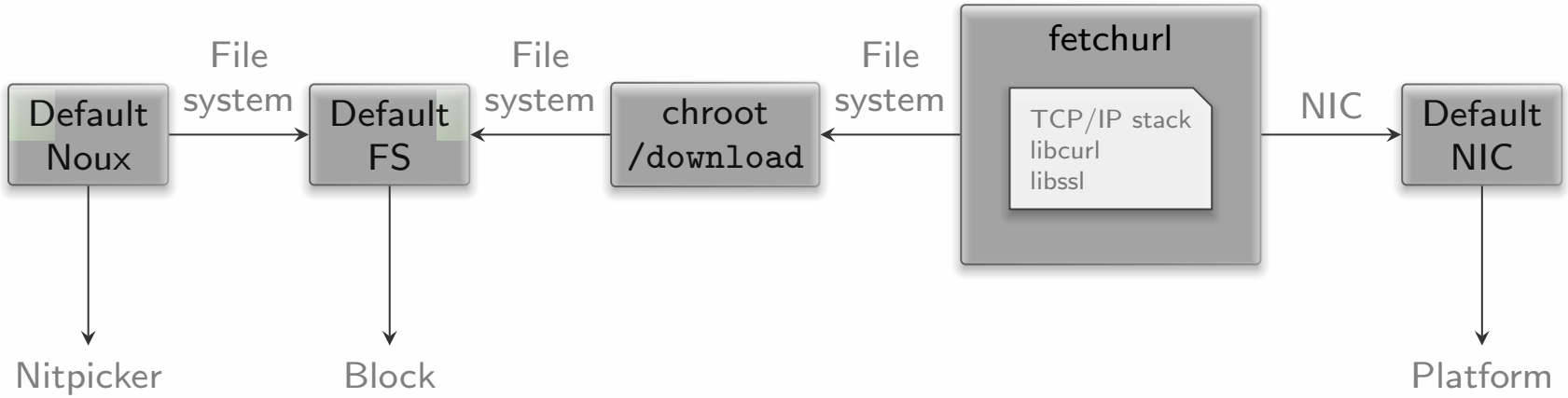
Downloading files

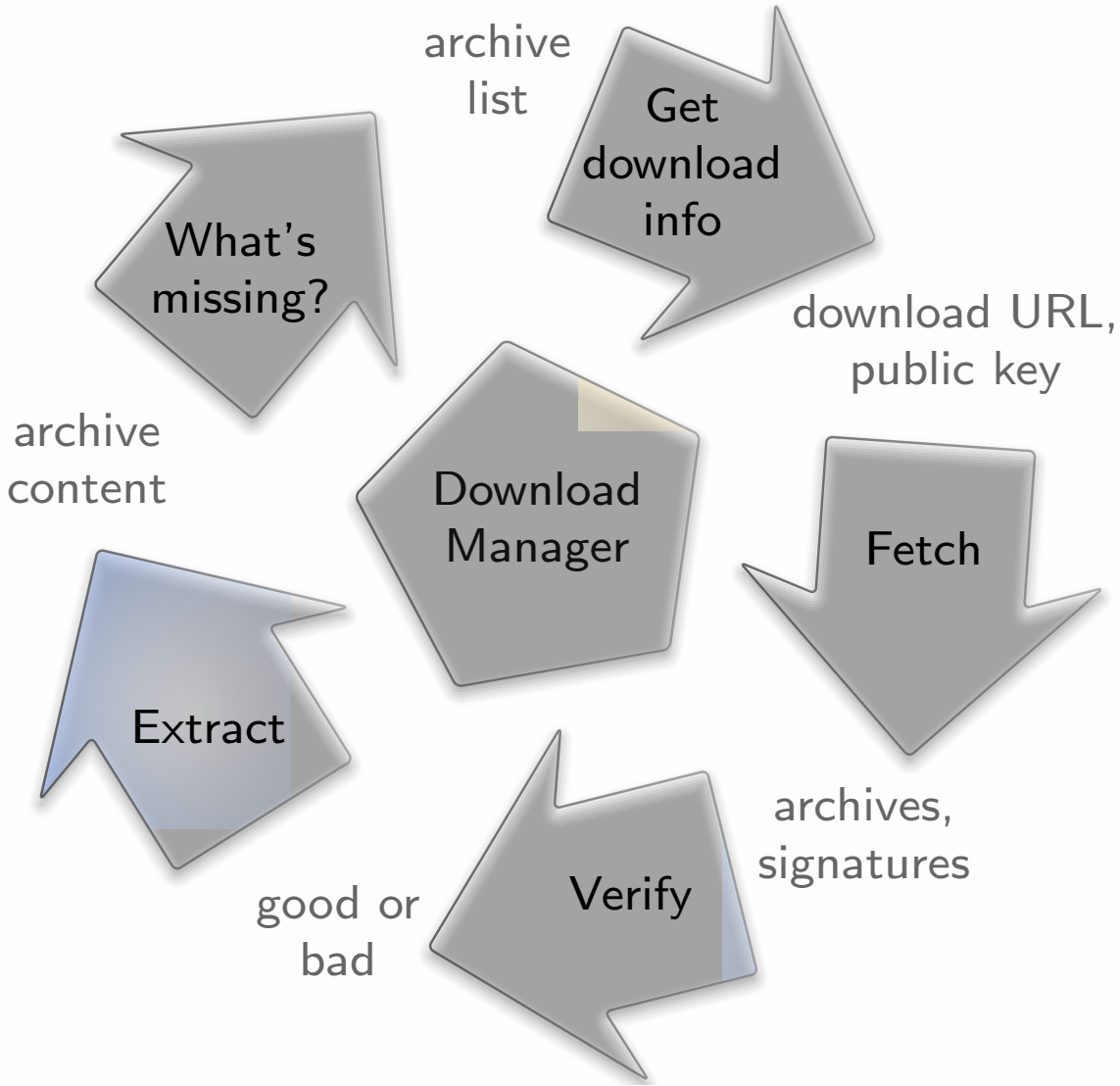


Installing software

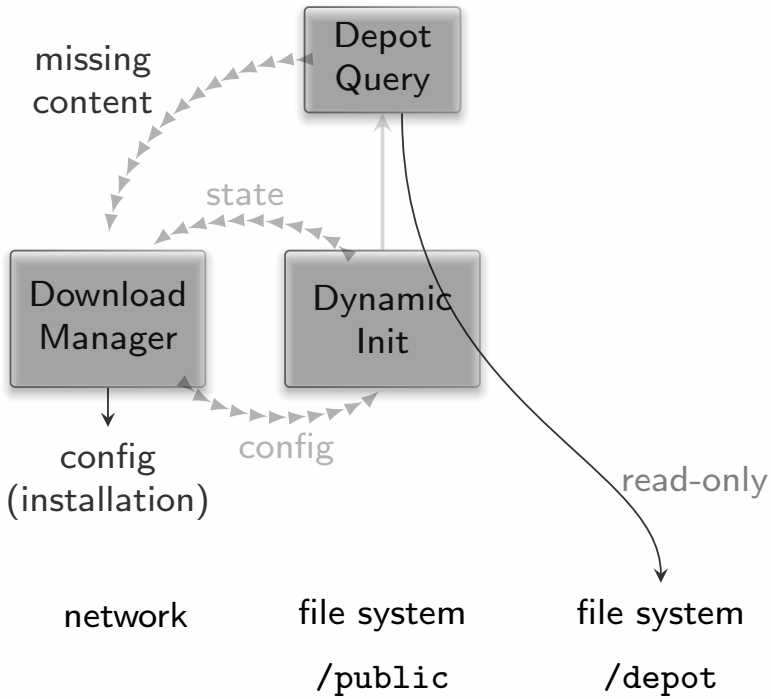
Prerequisites

- Storage location for downloads
- Storage location for installed software
- Download URL
- Public key of software producer

Installing software



Installing software



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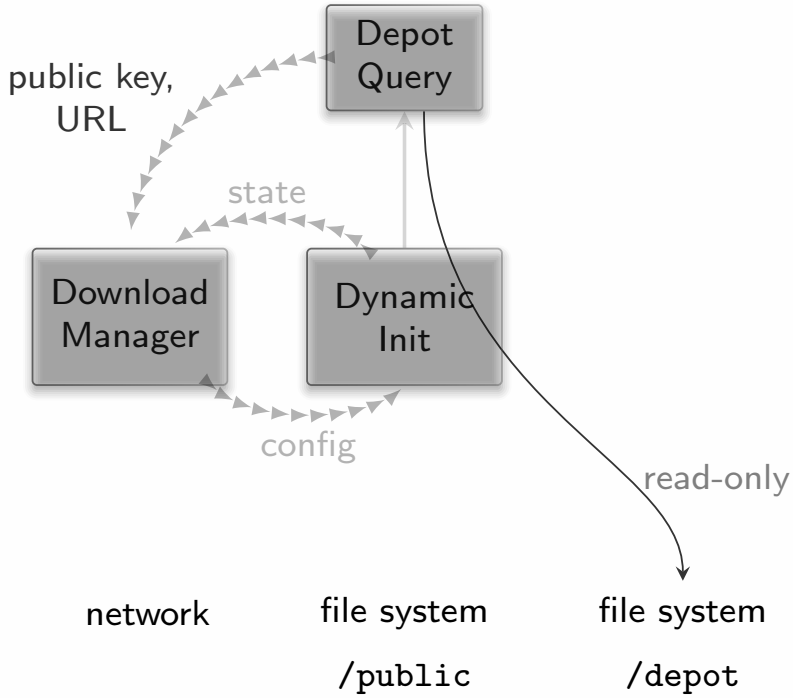
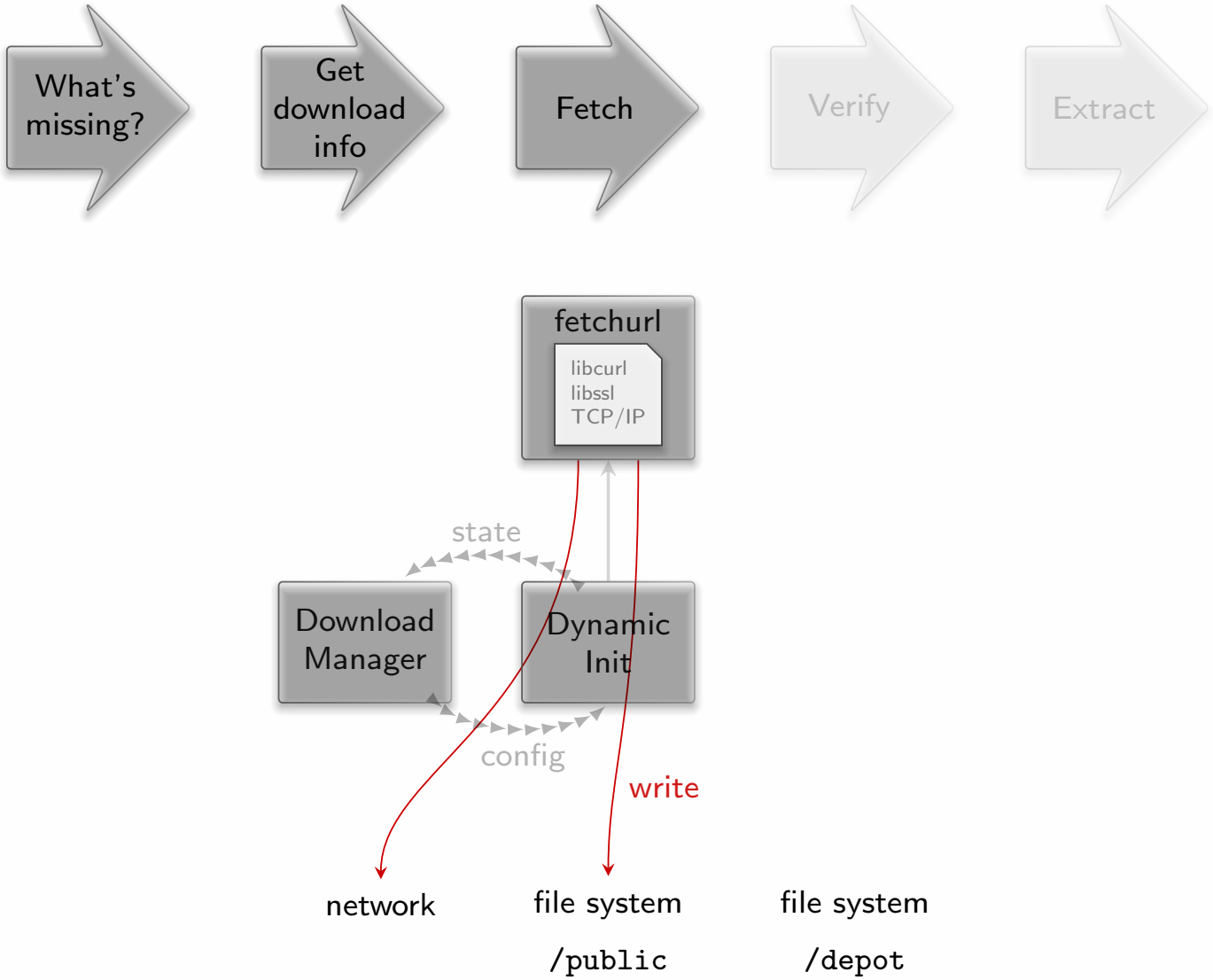


Installing software



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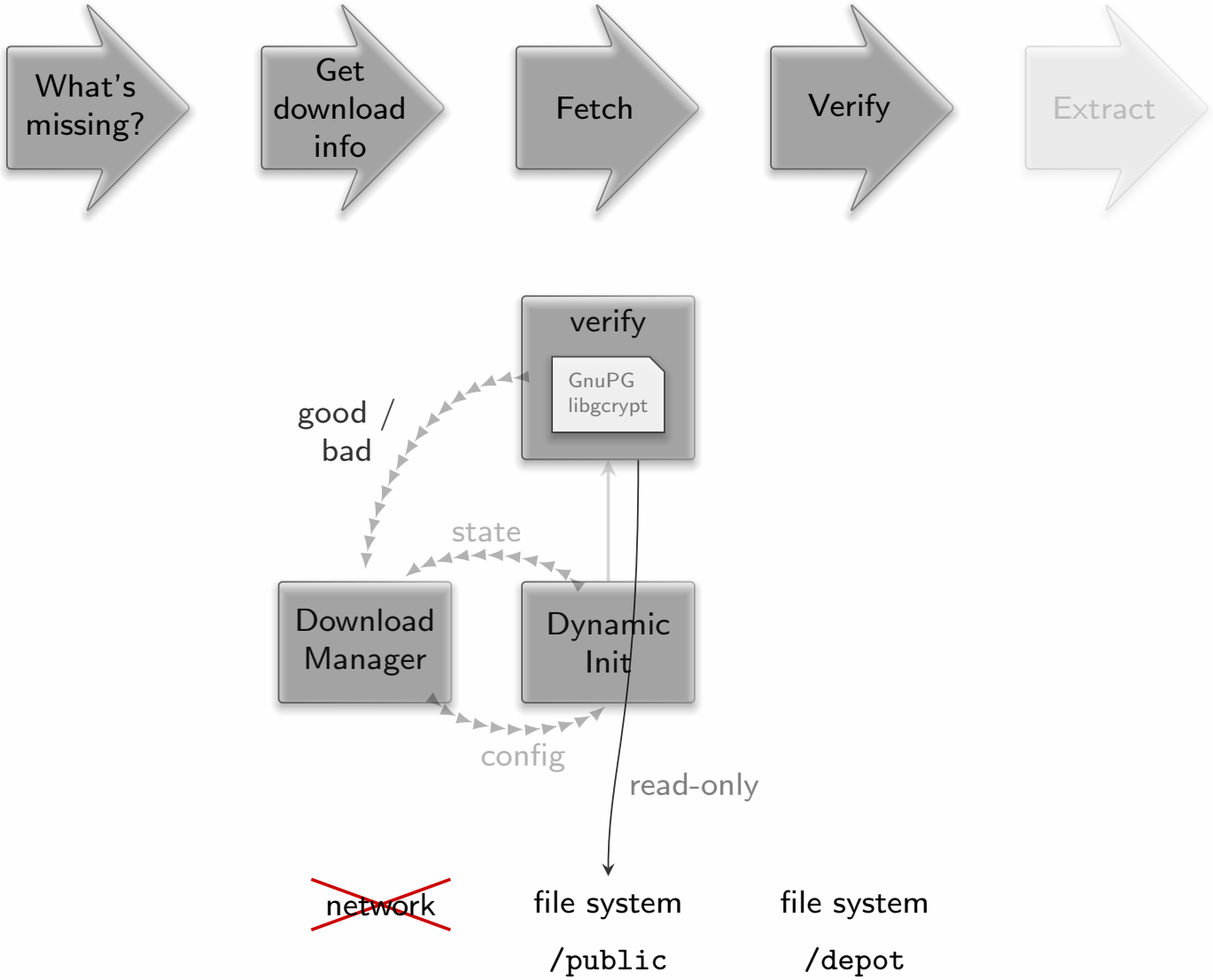

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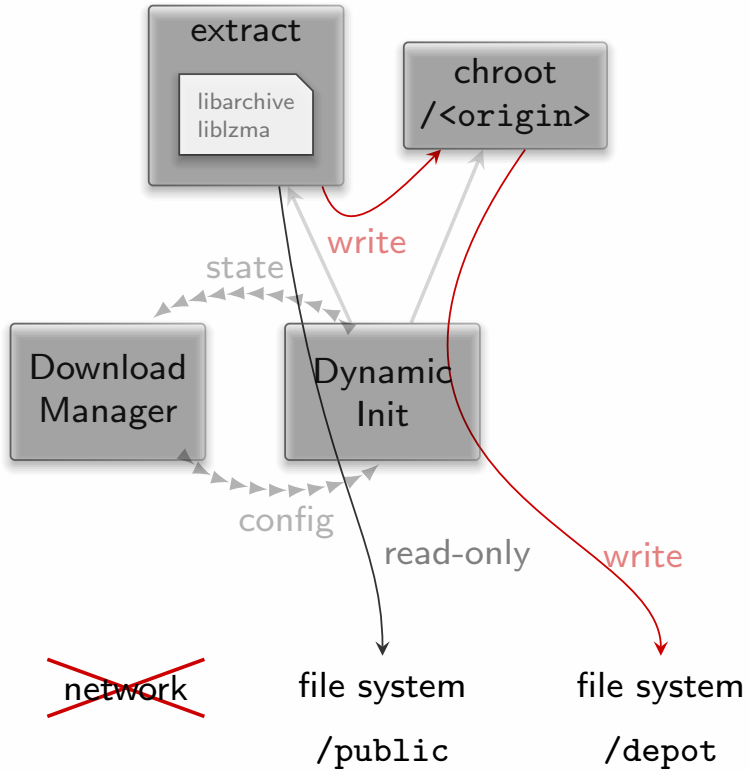

Deploying installed software

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Road Map for 2018

Sculpt for Early Adopters (EA)

→ *18.02 (end of February)*

Sculpt for The Curious (TC)

→ *18.05 (end of May)*

Sculpt by Visual Composition (VC)

→ *18.08 (end of August)*

Sculpt as a Community Experience (CE)

→ *18.11 (end of the year)*

Details at `https://genode.org/about/road-map`

Thank you

Genode OS Framework

`https://genode.org`

Genode Labs GmbH

`https://www.genode-labs.com`

Source code at GitHub

`https://github.com/genodelabs/genode`