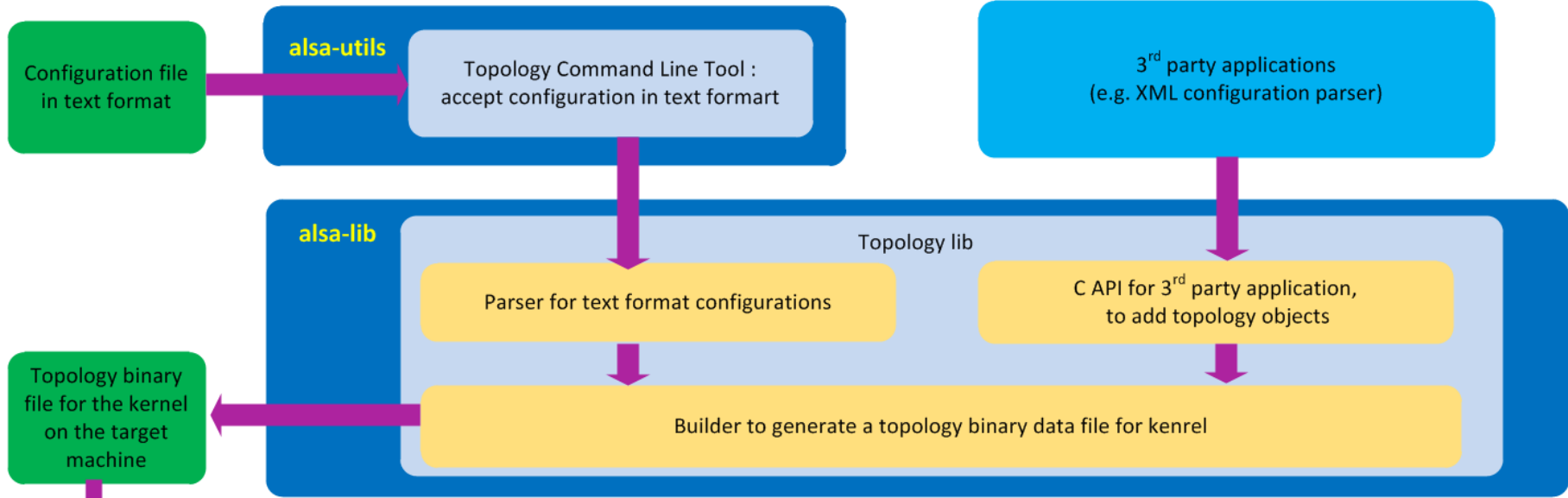


# ASoC Topology Status

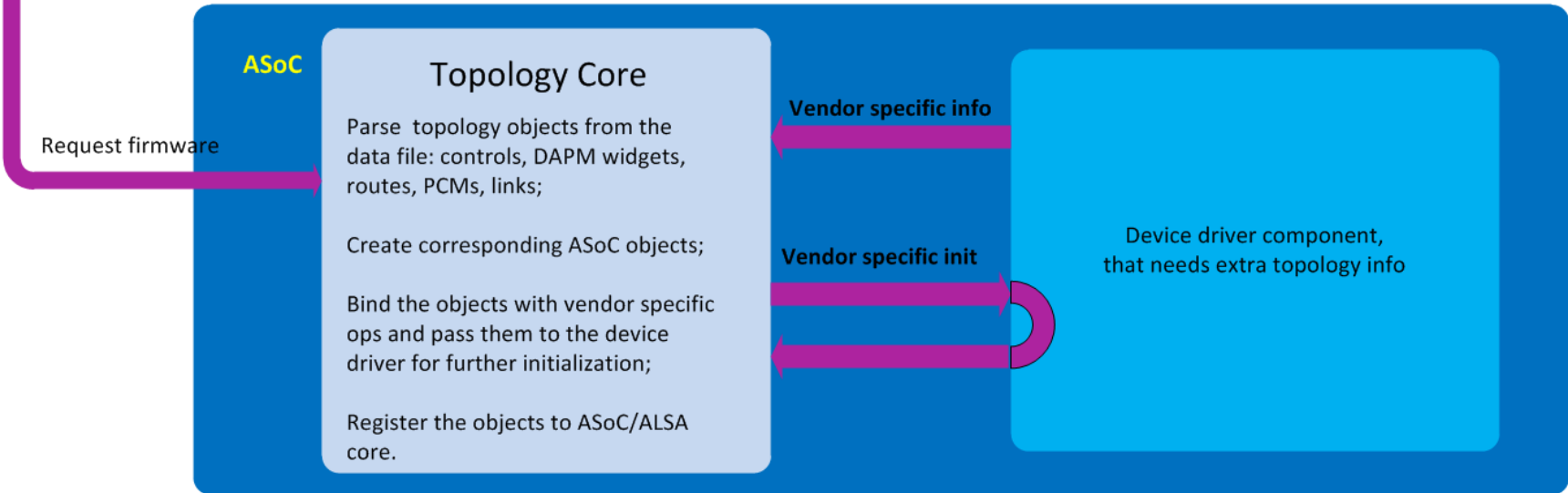
- Mengdong Lin, October 8, 2015

User Space

# Topology Architecture



Kernel



- **Supported features:**  
Controls, DAPM widgets, DAPM routes.
- **Features in progress:**
  - **PCM**  
FE DAIs & DAI links can be totally created from topology;
  - **BE links**  
Topology can configure PCM data properties of existing BE links defined by the machine driver.
  - **Codec<->Codec Links**  
Topology can configure existing CC links defined by the machine driver (e.g. codec to modem link), or create new CC links (e.g. internal DSP link).

# Changes to ASoC core

- **Implement the PCM runtimes and DAI links in a list**  
PCMs and FE DAI links can be added and deleted at runtime to reflect DSP topology. And the machine driver can still register DAI links as an array as before.
- **Export API to add/remove DAI & DAI links.**
- **SoC card can have auxiliary components**  
Machine drivers can specify one or more auxiliary components with topology info. And the ASoC core will find and probe the auxiliary components. Then when these components are probed, topology info will be loaded. And the ASoC core will find new DAI & DAI links.

# Opens

- Visualization GUI

The topology kernel core can convert ABI to kernel structs. We would need code to do the opposite so that the ABI could be read via sysfs. Helpful for customization based on existing driver code.

- Security: How to protect the topology data file?  
Sign this file for OEM release?  
How to let SKL HW check the signature?