

Global Platform Management by Using Synchronous Device Drivers in μ -Kernel-based Systems

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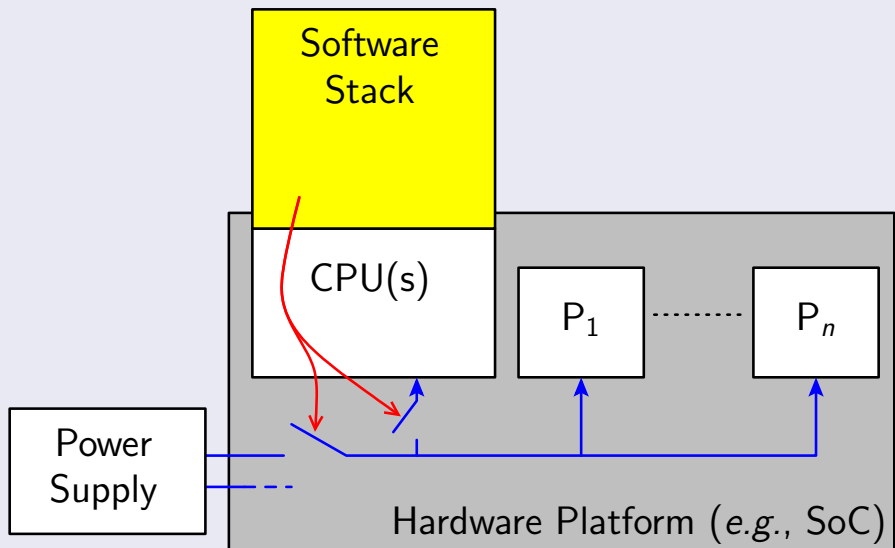
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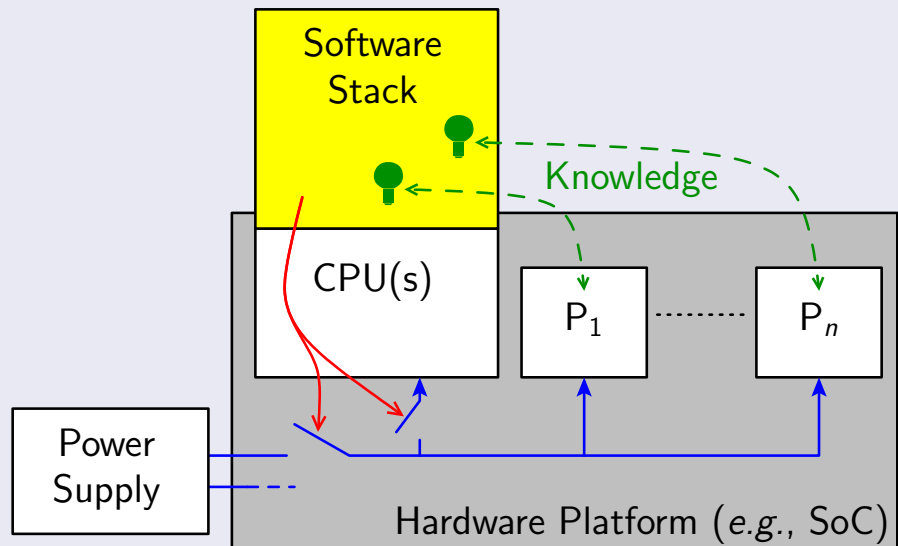
Global Platform Management: Typical Use Case

The Suspend Blockers Case



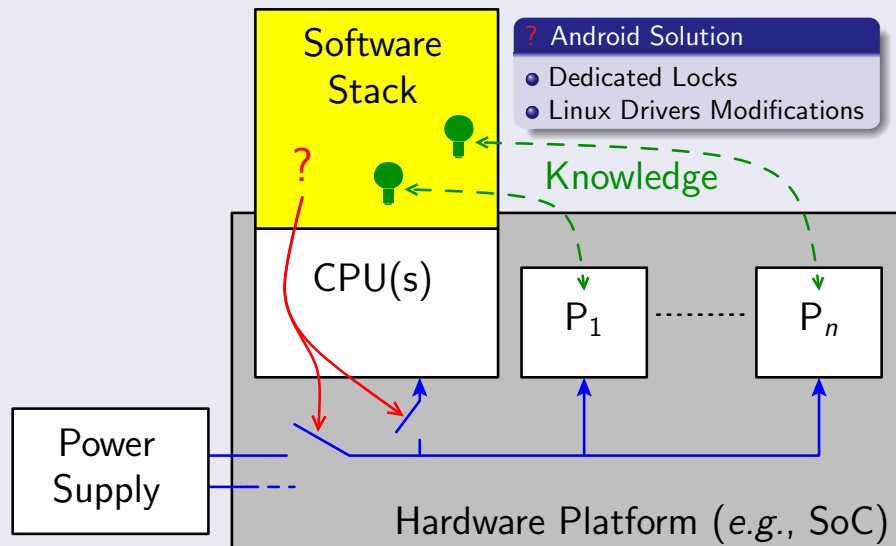
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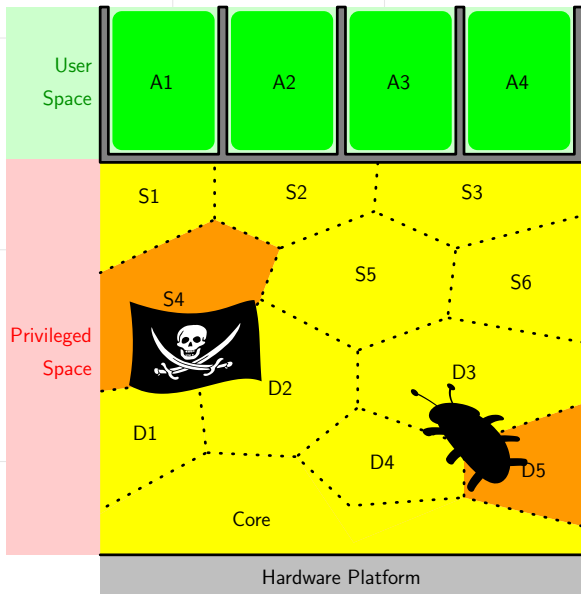


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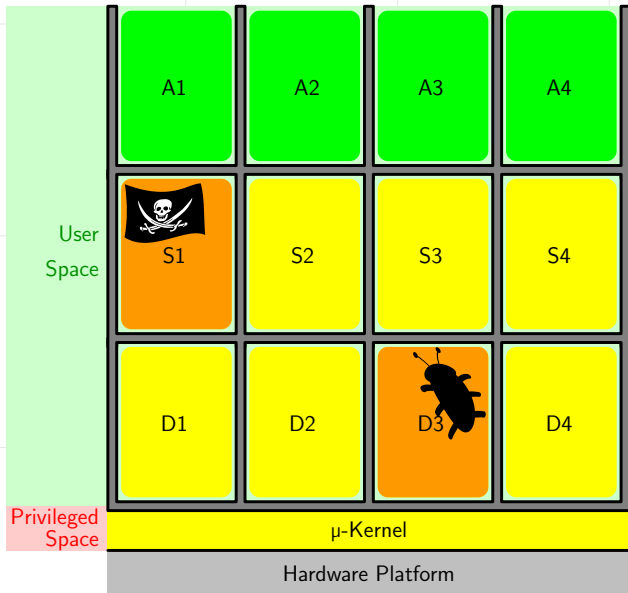


Monolithic Kernel Systems



- Hardware Isolation
 - *User Task-level*
- “Huge” Amount of Privileged Code
- Examples: Linux, Windows’ Kernel

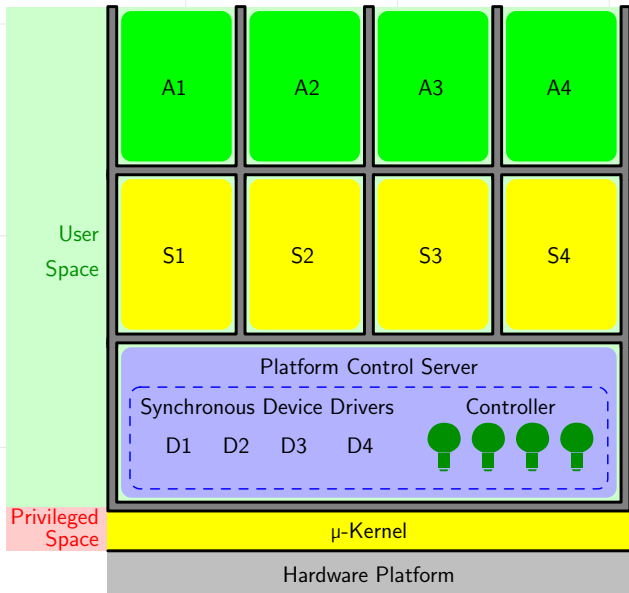
μ -Kernel Systems



- Hardware Isolation
 - Server-level
- Neat Design
 - Architecture
 - Protocols
- “Small” Amount of Privileged Code
- Examples: Mach, L4

Proposal: Platform Control Server

(Extension of our Idea for Global Resource Control in Embedded Operating Systems)



- Neat Design

⇒ *Consistent View of the Global State*

- Possibly One Controller Making Decisions

Thank You!