

**Where should the Line be drawn between  
kernel and user space?**

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# Criticality

- Function is necessary to boot the kernel
- Can't simply make kernel depend on arbitrary user space components for first boot.
- Example of this is SCSI scanning
- Current requirement is Expediency: The kernel must boot and run without tightly bound user space components.

# Performance

- Some things need to be in-kernel for performance reasons
  - Drivers could run in user space (ndiswrapper, UIO)
  - But it can be inefficient
- However, must be careful ... Microsoft pulled the whole of windowing into the kernel on this argument.
- Current ongoing debate over SCSI target mode.

# Policy

- Philosophically (and by hard experience) policy belongs in user space.
- This is a hard requirement: The kernel only implements policy
- Best example is udev vs devfs.