

Microkernel

Context

Developing several applications that use similar APIs on top of the same core functionality.

Solution

Encapsulate fundamental platform services in a *microkernel*:

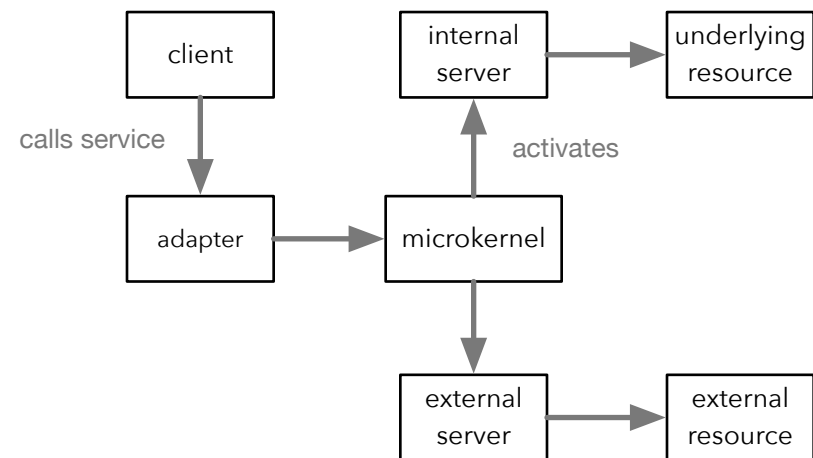
- Mediates communication between services
- Manages systemwide resources
- Offers APIs to access its functionality

Internal servers provide core functions, but outside the process space of the microkernel

External servers provide functionality to clients. Clients locate external servers via the microkernel.

Forces

- Application must cope with continuous hardware and software evolution.
- Applications must support different but similar application platforms.
- Platform should be portable, extensible, and adaptable to allow integration of new technology.



Discussion: What does this look like at datacenter scale?