HYDRA: The Kernel of a Multiprocessor Operating System

## introduction

Two goals: 1) effective utilization of hardware resources; 2) facilitate the construction of such systems;

\*\*kernel\*\* - set of facilities

## philosophy

* multiprocessor environment
* Separation of mechanism and policy
* Integration of the design with implementation methods
* Rejection of strict hierarchical layering
* Protection
* Reliability

## overview structure

Three types of objects: 1) procedure; 2) local name space; 3) process —》 the execution mechanism

## the protection mechanism

Goal: provide a set of concepts and facilities on which a highly secure system may be built

HYDRA provides a protection mechanism for the application of operations (procedures) to instances of resources (objects).

object(name, type, representation(capability, data))

[so capability is just like pointer?]

Right lists: kernel rights && auxiliary rights(type-dependent)

Protection mechanism achieved by objects, capability, CALL and RETURN

## path walks and the walk right

I think its just like the array index

## systems and subsystems

## an example of two pages(omg)