Personal Command Module
- Plan B -

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The Problem

“Users still do not have a shell that accompanies them everywhere and that permits them control their activities and the computing elements in their surroundings.”
Objetives

- Provide a shell that
  - accompanies the user everywhere,
  - permits the user control his/her activities, and
  - the pervasive computing elements found nearby.
Scenario
Other Solutions

- **Server-based systems**: assumption that high bandwidth network connectivity between the client and the server is available.
  - *InfoPad, ParcTab, VNC y Roma*.

- **Mobile solutions**: storage devices relying on nearby computing infrastructures that need to be physically connected to operate.
  - *Disk-on-key, iPod, Pockey, Personal Server*.

- **“SmartHomes” and “SmartOffices”**: middleware infrastructures limited to those smart spaces.
  - *Centaurus, Interactive Workspaces, Active Spaces, Aura*.
Our Solution: PCM

- Can be executed in a small computing device carried by the user.
- Supports distribution, dynamicity, and disconnected operations.

Based on:
- Activity
- Session
- /cmd
PCM Architecture I

- **User Interface:**
  - Control for user’s activities and sessions.
  - Input modules: voice, gesture.

- **System Interface:**
  - Announces
  - User tickets
  - User location
  - User ids
Conclusions

- Control *centralized* at the user.
- Execution *distributed* through available resources.
- *Dynamicity*: changing activity components.
- *Disconnected* operations: establishing relationships between activity components.
Future Work

- Modifications to Plan 9 kernel.
- Implementation of /cmd for Plan 9.
- Implementation of PCM service for Plan 9.
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