

Closing Comments

Day 2, Session 3
July 2006
Quanta JustPlay Seminar

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Contents

- Higher-level O2S
 - Adoption
 - Contexts
 - Planner as Abstraction
- Current and Future JustPlay

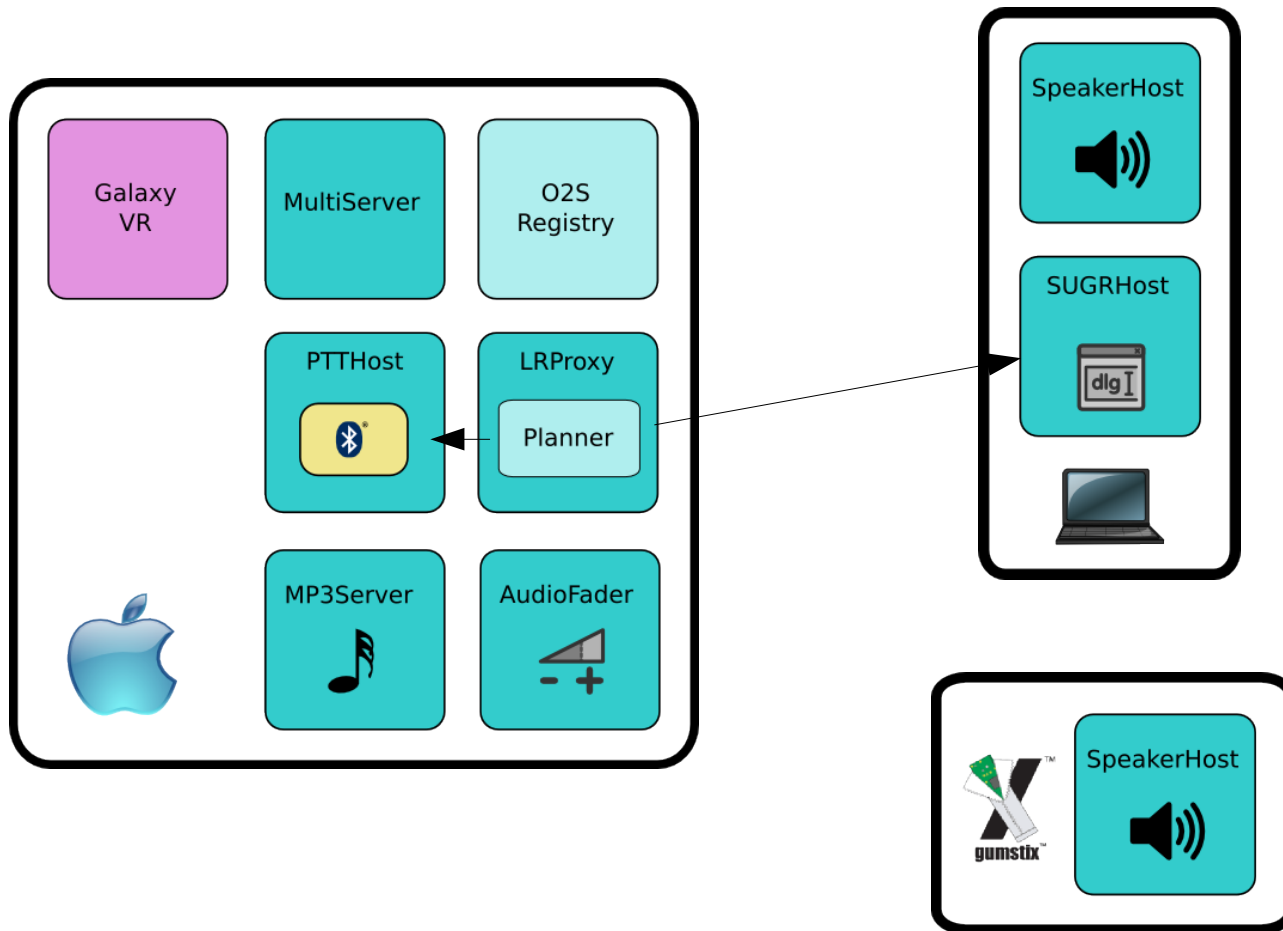
Higher-level O2S

- NPOPs provide a circuit diagram view of the world.
 - Who owns what resources?
 - How are user preferences accounted for?
- Dealing with NPOPs can still be tedious
 - Repeated actions for hot swapping, etc
 - Automate with the Planner

Adoption

- In O2S, an Entity may be adopted by at most one other Entity.
 - Parent Entity assumes absolute control of the Entities it has adopted
 - It may “lend” adopted Entities to other Entities, or forward requests for them.
- Proxies adopt the Resources they need absolute control over.

Adoption



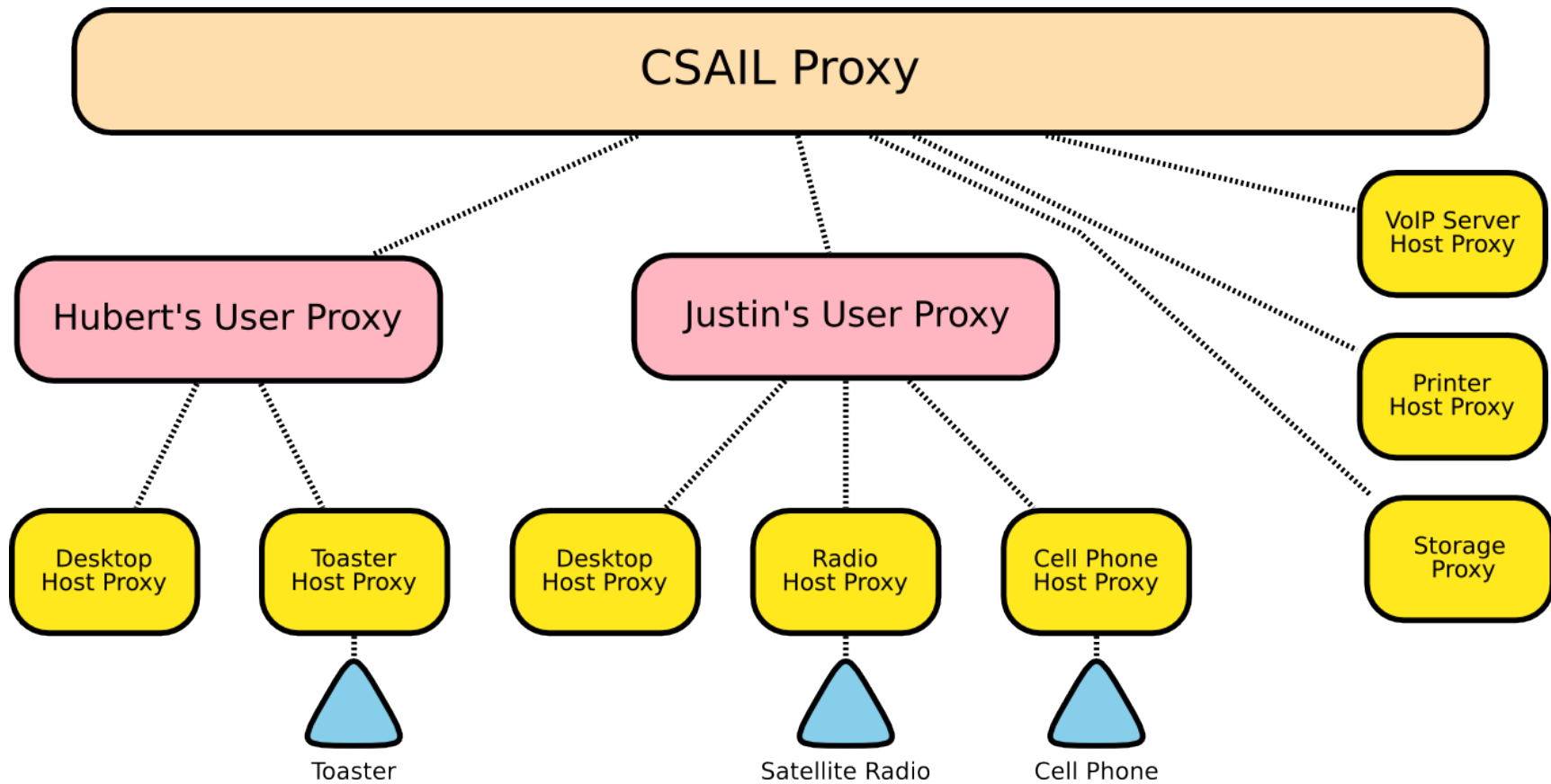
Adoption

- Currently, Adoption is only advisory
 - Other Entities can take control of adopted Entities, but they shouldn't.
- All un-adopted Entities can be adopted by other Entities
 - O2S does not arbitrate adoption conflicts

Contexts

- Contexts provide a hierarchical way of managing preferences.
 - provide a “satisfy(goal)” method
 - Doesn't need to use a Planner
 - If a Context does not have a way to satisfy the request, it can forward the request to a higher-level Context
- Each context can provide its own implementation of the “satisfy()” method

Contexts



Planner

- The Planner provides an alternative way of abstracting your application.
 - Leave discovery and health monitoring to Techniques.
 - Techniques are just “recipes” – abstract common connection patterns as abstract Techniques.

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Current and Future JustPlay

- JustPlay is developing on a variety of fronts
 - NPOP
 - Planning
 - Higher-level O2S

Component Support

- SVN HEAD has support for components and NPOP-level hotswapping.
 - compose a new NPOP out of two existing NPOPs
 - provide a true “circuit diagram” approach to streaming media
- The Planner can take advantage of Components with new Techniques.

Better Multimedia Support

- Cross-platform Audio Support (PyPortAudio)
- UDP Connectors for streams that can tolerate packet loss
 - New framework for Connector type selection
 - Source-incompatible change
- Native GUI Support

Planner Improvements

- New Architecture for Preferences
 - Still under development
 - Allow users to alter their preferences without modifying Techniques.
- Open Research Question
 - How to interpret voice commands as preferences.

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General Improvements

- Native Windows Support
- Binary Installers for Mac and Windows
- Performance Increases
 - 25X for NPOP remote calls
 - Significant speedups in Event Handling and Connectors