

Mobile agents

EEL 5937 Multi Agent Systems

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Lotzi Bölöni

Mobile agents

- **Mobile agents are autonomous programs which move through a network and maintain their identity through this move.**
- **This is a stronger concept than “code mobility” such as Java applets, or client-side Javascript.**
- **Many agent systems were implemented with support for mobility.**
 - **And for many researchers, agents == mobile agents**

Motivation for mobility (cont'd)

- **Mobile agents can provide better support for mobile clients.**
 - Reduction of network traffic
 - Asynchronous interaction (good in case of intermittent connection)
 - Remote searching and filtering
- **Mobile agents facilitate semantic information retrieval.**
 - Move one step above simple keyword based search.
- **Mobile agents facilitate real-time interaction with a server**
 - Eg. space probes, real time control of a machine tool
- **Mobile agent based transactions avoid the need to preserve process state in clients and servers**
 - Instead, the process state is carried in an agent