**Supporting Mobile Agents**

Abstract

Mobile agents are programs that can move through a network under their own control mi grating from host to host and interacting with other agents and resources on each. We argue that these mobile autonomous agents have the potential to provide a convenient client and robust programming paradigm for distributed applications particularly when partially connected computers are involved Partially connected computers include mobile computers such as laptops and personal digital assistants as well as modem connected home computers all of which are often disconnected from the network In this paper we describe the design and implementation of our mobile agent system Agent TCL and the specific features that support mobile computers and disconnected operation. These features include network sensing tools and a docking system that allows an agent to transparently move between mobile computers regardless of when the computers connect to the network.

**Summary**

We have constructed a system for supporting mobile computing with mobile agents. We argue that mobile agents allow a range of adaptive, flexible applications in distributed heterogeneous systems with non-permanent network connections. We describe our experiences with using this system and identify a few operating system extensions that would enable eclient reliable and simple mobile computing support through mobile agents.