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6.111 Project Abstract

Field-Programmable Gate Array Telephony

With a wide array of applications ranging from telecommunications to distributed computing, networking has greatly enhanced our ability to share information and resources. For this project, we plan to use standard networking design principles to share data between many Field-Programmable Gate Arrays (FPGAs) running in parallel. Specifically, we shall implement a secure, fast, and reliable method of packet transfer between FPGAs through a shared channel. The functionality of this method shall be validated through the development of a telephony system equipped with features such as Call Blocking, Call Forwarding, Call Waiting, Caller ID, Conference Call, and Voicemail.