Brian Temple, Computer Science and Mathematics

Year in School: Senior
Hometown: Sedalia, MO
Faculty Mentor: Dr. Wenjun Zeng, Computer Science
Funding Source: College of Engineering Undergraduate Research Option

Conference XP and classroom Presenter: Multicasting

Michael Mayes, Brian Temple, & Wenjun Zeng

Classroom Presenter is an open source research project from the University of Washington that allows for a collaboration of resources and information in lectures and meetings by using slides, whiteboards, questions, and voting features. Classroom Presenter's current implementation of wireless multicast creates significant delay and is currently slower than using wireless unicast. In order for Classroom Presenter to become usable in an interactive lecture hall environment, it must first be able to provide multicast capabilities to allow the user count to scale up to a typical lecture size without slowdown. Errors must be detected and corrected in a timely manner along with the broadcast of data taking place in almost real time. When this is accomplished, the wireless network will be able to utilize multicast to achieve the scalability required with no adverse effect to the performance to the end users. The goal is to improve Classroom Presenter using software development techniques that will allow it to efficiently run via multicast without noticeable delay.

This project was completed to fulfill a Capstone requirement.