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Wireless Mesh Networks and Software Defined Networks

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Networking and communication technologies are areas constantly changing as researchers and engineers strive to increase speeds and improve reliability as more and more devices are becoming Internet enabled and connectivity is expected by consumers at nearly all times. Two technologies that show promise to provide improvement for communications are wireless mesh networks (WMN) and software defined networks (SDN). WMNs allow extending wireless networks beyond traditional limitations of physical wired infrastructure. SDN seeks to provide centralized control of network nodes through the use of protocols to implement network changes on distributed infrastructure as directed by centralized management policy and direction. While both WMN and SDN provide unique promise for improved communication in certain scenarios, there has been little work combining the two technologies in a laboratory testbed. This discussion will focus on current work to implement WMN and SDN together and provide quantitative measurement of network performance across the test network.