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Building a Wireless Broadband Infrastructure to Support Maritime Applications

Problem: Air2Access is planning to build a wireless broadband network infrastructure along a local river to help expand its maritime solutions offerings. This infrastructure effort will be used to understand what it takes to deploy and operate a large scale broadband wireless maritime network. Air2Access plans to partner with industry leaders to undertake an intensive test of wireless technology, applications and its business case in the maritime environment.

Goal: The goal of the project is to improve boat and barge traffic flows, security and emergency response along the river, and will serve as the foundation for Air2Access's future commercial offerings platform. This IPRO team will focus on both the wireless network infrastructure design and the initial set of maritime applications.

Outcome: The applications team has developed and researched four 'use-case scenarios' which determined potential solutions to some of the problems that Air2Access has identified. In addition, the infrastructure team has developed a broadband network design to offer complete coverage along the first two mile stretch of the river. This design includes two towers, ten radios, and several point-tilt-zoom and infrared cameras strategically placed for maximum coverage and efficient bandwidth usage. All together, this offering would allow Air2Access to provide a seamless wireless network that can facilitate high bandwidth applications for users and stakeholders a the Calumet River.

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