Artsmesh- An Incremental Development in Telematic Art Alan B. Tyson II¹, Scott Deal¹, Kenneth Fields² ¹Department of Music and Arts Technology, Purdue School of Engineering and Technology; ²Central Conservatory of Music, China

Within the past two decades, telematic art has pushed technological boundaries and created opportunities for artists to collaborate in ways that were not once possible. For example, Auksalaq, a telematic opera created by Scott Deal, DMA, in 2011, incorporates both JackTrip Audio and ConferenceXP Video. Some social media platforms such as Skype and Google Hangouts have also integrated audio and video within their interfaces in order to explore these possibilities; however, there are limitations that some practices have failed to address such as compressed (lossy) formats of audio and/or video. Similarly, other barriers such as high latency and minimal navigation control have often made network music performance (NMP) a limited experience and not an equal alternative to traditional, real-time performance. The purpose of this project is to help test a beta prototype of Artsmesh, a protocol that integrates high quality audio and video for live peer-to-peer (P2P) NMP. Artsmesh contains fourteen panels that are customizable to fit a wide range of network setups. It also incorporates Internet Protocol version 6 (IPv6), Open Sound Control (OSC), Jacktrip, ffmpeg, Youtube, along with other features, making it the ideal choice for artists that have focused/professional needs. The ability for Artsmesh to precisely route high quality audio also makes it a preferable option for recording and mixing engineers who participate in telematic collaborations. Artsmesh is a step forward for creating an environment that integrates necessary features for an optimal NMP platform.