ISEConf: A management tool for the ISEAGE Environment to allow users to create a custom mock internet for testbed research

Abstract:

            The ISEAGE (Internet-Scale Event and Attack Generation Environment) has grown and changed since it was originally created. ISEAGE was the original testbed environment that was developed on physical hardware. Since virtualization has become more widely available ISEAGE has shifted into a distributable environment that anyone working in the academic filed can download and use for free, this environment is known as ISERink. This paper details the improvements that I have made while working with Dr.  Jacobson to add to the core of the ISERink environment. The improvements are intended to help the ISERink environment be more customizable by upgrading the config file format to a more human readable format, creating an application to automatically create config files that could be easily expandable in the future, and adding features such as visualization of the networks to help the end user of the environment. These features are planned to be released with ISERink v2 in the fall 2017.