Controlling Network Threats

When network operators need to determine if a network has been compromised, they typically find themselves without enough information. Recognizing a need to obtain further information, a new technology has been developed at Worcester Polytechnic Institute (WPI) called Panopticon. Panopticon helps network operators determine if there is a potential threat and is the first of its kind to be directly installed onto a computer that communicates directly with a network. First, the software works to recognize a potential threat. It proactively provides details, such as the application requesting access to the network, to allow network operators the opportunity to allow or deny the computer’s request. It is the first to allow centralized, organization-wide monitoring of network traffic without requiring significant networking upgrades. This new technology replaces the current method that network operators use to guess where a network request is coming from. As a benefit of Panopticon, network operators are able to have a more detailed understanding of exactly what happens on their network along with why it is happening. Additionally, network operators will be able to develop a profile for the typical network traffic. Panopticon can benefit the highly in-demand cybersecurity market by working with any Internet-connected organization such as enterprise organizations to improve security. It also can be used to secure industrial control devices and embedded devices of all types.