Heimdall: USB Mass Storage Devices Threat Evaluation Using an Embedded System

Zlatanov, Ivan (School: National Trade and Banking High School)

The Universal Serial Bus is a serial communication standard that is implemented in most of the computer-like devices in the world. Despite its acceptance, government and private entities have partially or fully banned devices that enforce the USB communication interface in their facilities. These security measures are in result of the increased USB cyberattacks. This paper explores and assess detection methods, developed for such attacks. By creating a low cost testing device we are able to perform threat evaluation on potentially malicious USB mass storage devices without the risk of compromising or destroying real computer systems.

Awards Won: