GLOBAL LABORATORY FOR ENERGY ASSET MANAGEMENT AND MANUFACTURING

# INTEL/MCAFEE SECURITY FABRIC AND ENTERPRISE SECURITY MANAGER

## R&D PROJECT

### INDUSTRY PARTNERS:

- Texas Tech University
- Group NIRE
- Intel/McAfee

### PROJECT TERM:

- Commissioned Fall 2013

### INDUSTRY PROBLEM:

- Incorporate and validate the effectiveness of enhanced security protection mechanisms in a synchrophasor network.
- Employ a hardware/firmware solution that provides exceptional security for applications, and does not require that the applications be modified.
- Provide a new commercial solution for protecting key assets in the electric industry.

### SOLUTION:

- The testing accomplished its goal and did identify a few vulnerabilities, most of which were due to configuration issues. As a result, Intel/McAfee has corrected those identified Security Fabric vulnerabilities, making it an even more viable cyber security protection solution and commercial offering, not only for protecting synchrophasor systems, but also any critical utility infrastructure.
- Validates that the phasor data stream can be successfully secured from cyber-attack while still delivering timely phasor data to the "virtual ISO's" wide-area monitoring and visualization system.
- Incorporates the following enhanced security protection mechanisms in the synchrophasor network:
  - Cyber-attack detection and remediation
  - Intrusion detection using protocol whitelisting
  - Secure encryption communications operating efficiently at all levels
  - Audit logging and real-time correlation
  - Upgrades for devices already operating in the field

**Information referenced from Center for the Commercialization of Electric Technologies*