

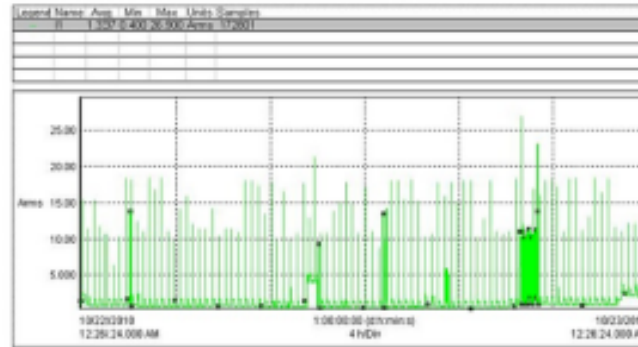
Multi-Layer Approaches for Securing Enhanced AMI Networks against Traffic Analysis Attacks



Tennessee
TECH

Challenge:

- Meters send power consumption data only when the consumption changes.
- A new privacy problem that cannot be resolved using encryption schemes.

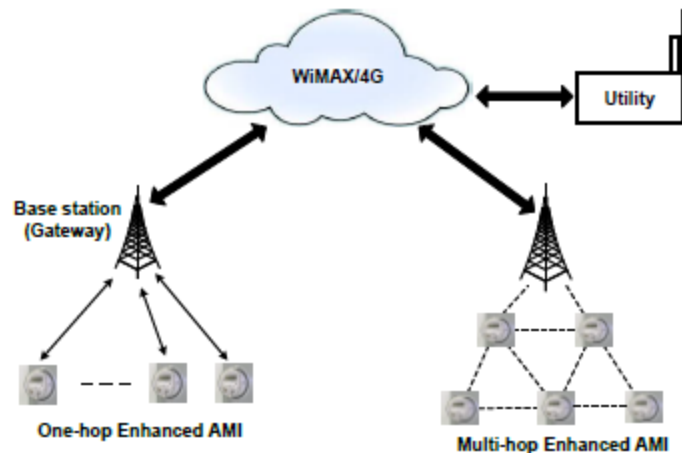


Scientific Impact:

- Studying traffic analysis problem from multiple layers.
- Define appropriate metrics for assessing the AMI vulnerability

Solution:

- Multi-layer anti-traffic analysis schemes, quantitative metrics to assess the privacy provided by the schemes, and provide guidelines for balancing privacy and overhead.



Broader Impact:

- contribute to research on the smart grid, as well as computer system security and privacy.
- The proposed research can be leveraged by the designers of other networks
- A new graduate course