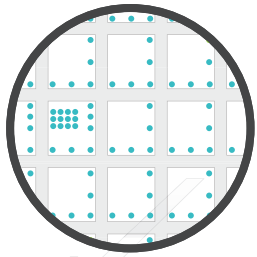


What is Essence 2.0?

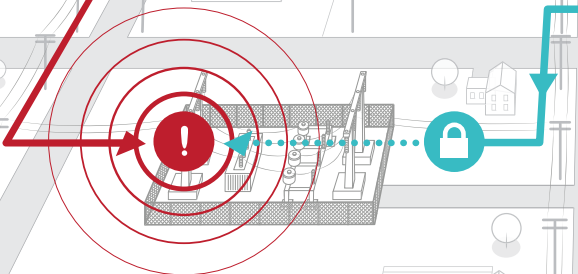
With more and more connected technologies being deployed to monitor and maintain the electric grid, the need for strong cybersecurity on the operations technology side has grown exponentially. Essence 2.0 is a co-op-created cyber-defense tool that can quickly identify system anomalies, notify administrators of suspicious activity and report potential cyberattacks to other utilities. Here's an explanation of how it works.



1 The Essence algorithm learns what a grid's "normal" state is. Hardware sensors send near-constant data about the system's status.

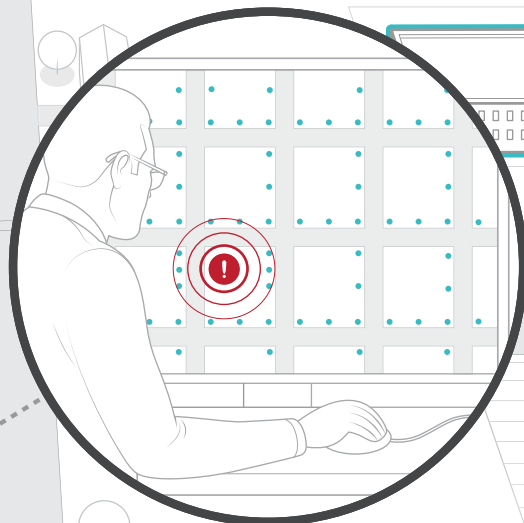


2 A hacker, who could be anywhere in the world, exploits a vulnerability in a connected grid device and gains access to the utility's OT network.



3 Essence software instantly recognizes the activity as "out of the ordinary" and sends an alert to a system administrator.

4 The administrator reviews the anomaly data, determines there has been an intrusion and locks out the unknown user.



5 An alert about the attack is quickly sent to other utilities, and information is relayed to E-ISAC, an industry/government cybersecurity collaboration group.

