

A Cost Effective Solution to Help Meet CIP-014

Continuously Analyze Substation Surroundings without Human Action

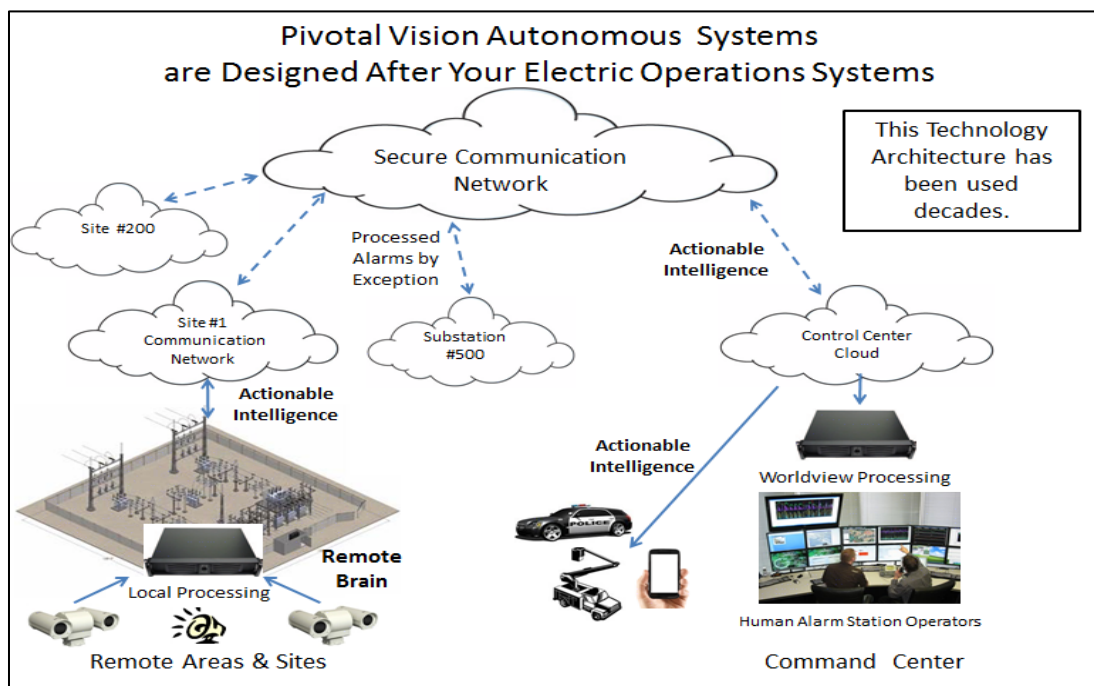
Real time continuous analysis of each critical site is the only way to truly protect your critical sites and meet the CIP-014 requirements to **deter, detect, delay, assess, communicate and respond to potential physical threats and vulnerabilities**. It is physically impossible and cost prohibitive to achieve that goal with humans acting alone using traditional security practices and equipment.

Electric & Gas Utilities have used **Autonomous Systems** for decades to manage electric & gas operations in the form of SCADA, EMS, DMS and protective relay systems that analyze field conditions in real time and present results to human control center operators.

Autonomous technology refers to self-directed machines & systems that work independent of humans to conduct analysis and act on their own.

Intelligent Systems overcome traditional security process & equipment deficiencies:

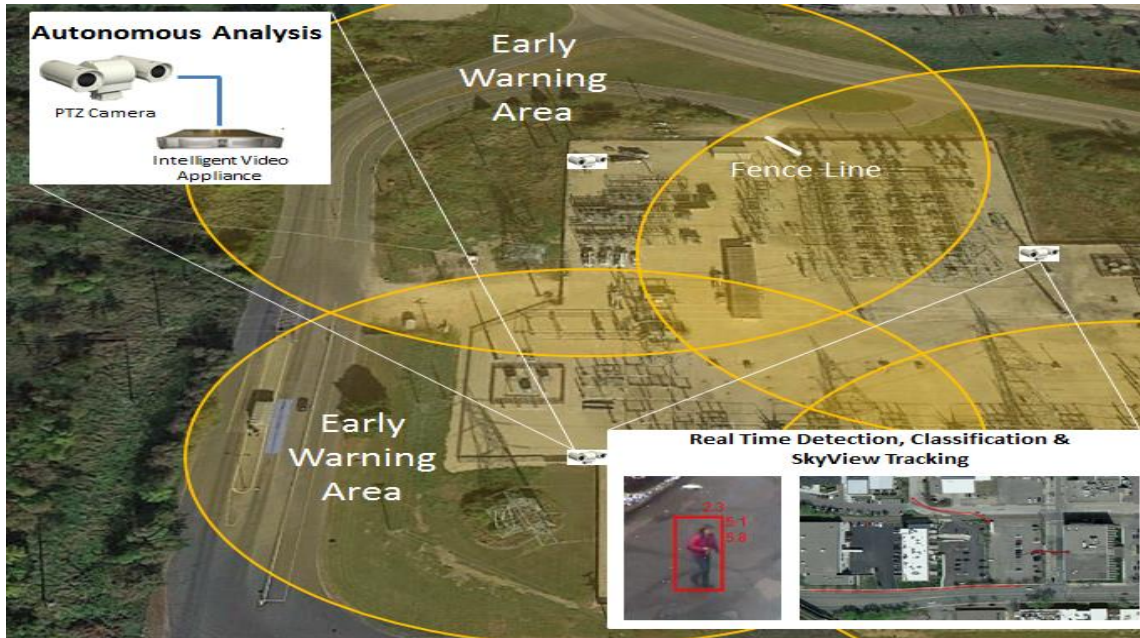
- TIME is critical to detect, assess, communicate and take action. After the fact video review is too late.
- HUMAN ATTENTION SPAN – It is physically impossible for a person to manually watch multiple camera views on a 24/7/365 basis without human errors of missing intrusion events.
- FALSE ALARMS FROM THE FIELD – Traditional NON-Intelligent, simple automated motion detection have plagued traditional security. The false alarm prone system eventually is turned off.



PIVOTAL VISION

autonomous surveillance solutions

Pivotal Vision Autonomous Systems go beyond automation. They conduct analysis by combining REAL TIME data inputs including GPS locational information to produce Actionable Intelligence.



The Pivotal Vision Autonomous Intelligent System Provides these REAL TIME Capabilities:

- All sensors & cameras are tied together geospatially to conduct 3D continuous analysis of each site and its surroundings. The system tells all cameras/sensors where the objects are currently located and will provide the real time plotted path of each intruder on a Google map.
- When rotating PTZ cameras are used, the system autonomously performs analysis of large areas as it directs them to scan for intruders. It will autonomously lock on to and begin tracking objects both outside the fence and inside if they breach the fence protected area.
- The probability to **deter, delay, assess, communicate and respond** is increased dramatically by detecting and validating threats outside the fence in the early warning areas shown above.
- Alarms for **potential physical threats** are identified for vehicles that slow down below a certain speed to conduct pre-intrusion drive by reconnaissance. Long distance detection of up to a mile can be used for isolated sites with open approach areas.
- The system can **deter, delay and respond to potential physical threats** by initiating scare tactics such as lights and sirens after it has validated intrusions in threat detection zones.
- **Assess, communicate and respond** is dramatically faster with an intelligent system as analysis is done simultaneously and independently at each remote site. On-site analysis is done by the system and the results are presented by exception to Alarm Station Operators for final **assessment** so they can focus on response rather than sorting out what has happened.