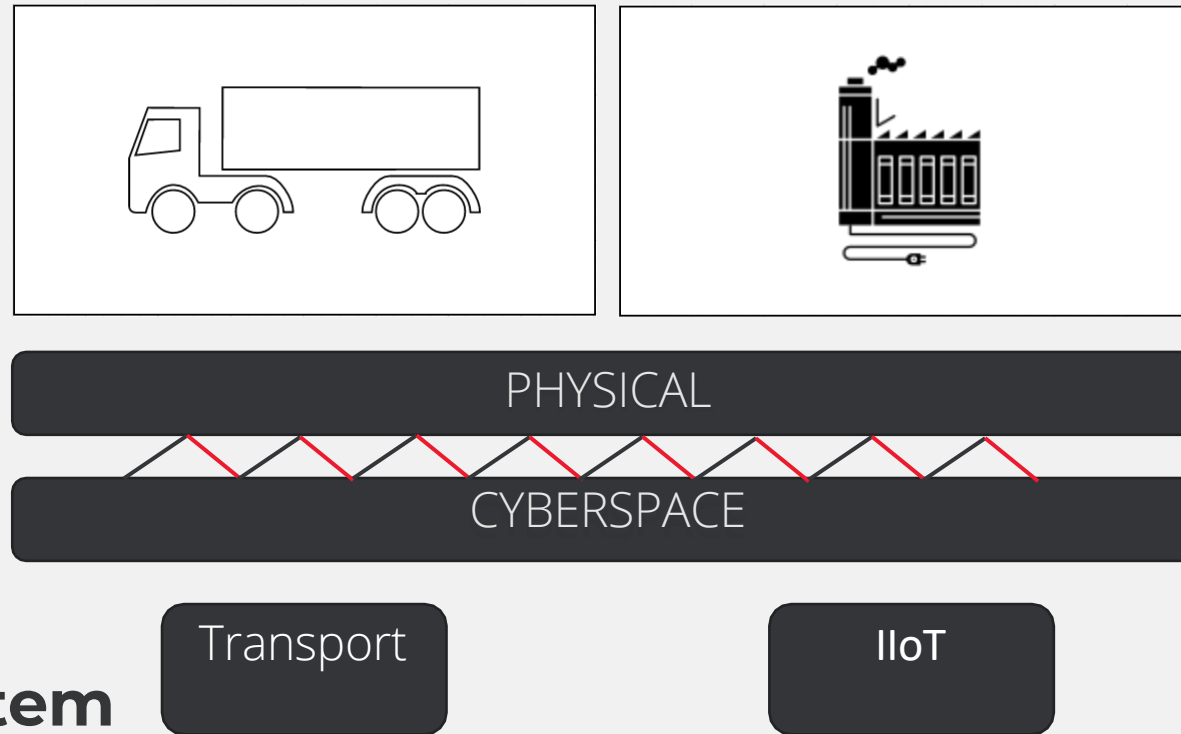


Converged Security



Converged Security Overview



Cyber Physical System

Interconnection of physical and software

Mechanism controlled by an algorithm

Similar to embedded and IoT (think connectivity), but to a greater degree

Smart Grid, autonomous automobile, digital (autonomous) aviation

Converged Security Overview

Example: Attacks from one domain to another

A gap in control anomaly detection allows a cyber attack to halt energy production, resulting in loss of power, potential physical loss of life (medical, transport), theft (security systems)

A gap in access controls allows a commercial printing services allows attackers to compromise kiosk and access to internal networks

Converged Security Overview



Security functions operating separately
Management lack visibility and oversight
Possible counterproductive decision making
Decision making alerting process potentially interrupted

Risks

Typically:

Physical world: Potentially to get caught and spotted

Digital World: Easy to blend in with noise

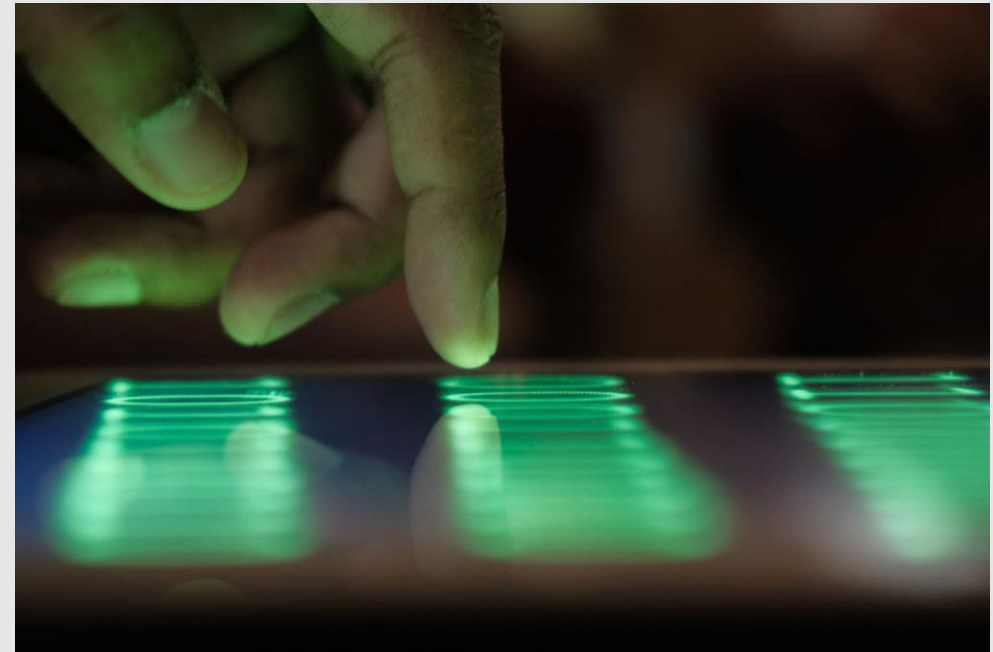
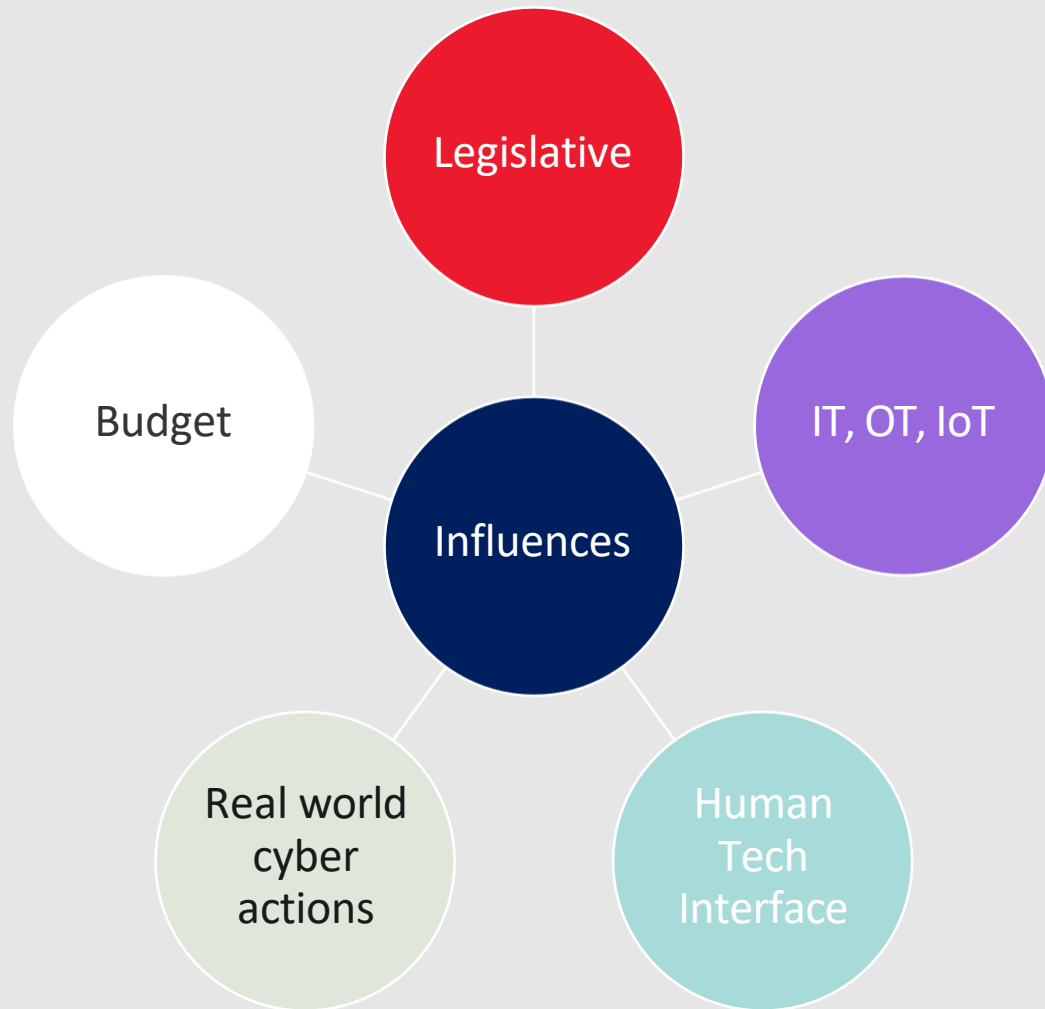
Biggest threat type: Insiders

Converged:

Physical + Digital: Better blend of controls

Biggest threat type: Insiders

Influences



Maturity

**Domestically, maturity is low
US maturity is higher, leading
the trend**

**Requires a re-shift of attitudes
and large organisational change**



Case Study

Internet connected fish tank:

thermometer connected to PC
used to access internal casino
network



Source: <https://www.hackread.com/hackers-casinos-fish-tank-smart-thermometer-hack/>