

CYBER SECURITY

Cyber Security risk of O&G in Kuwait
(OT perspective)

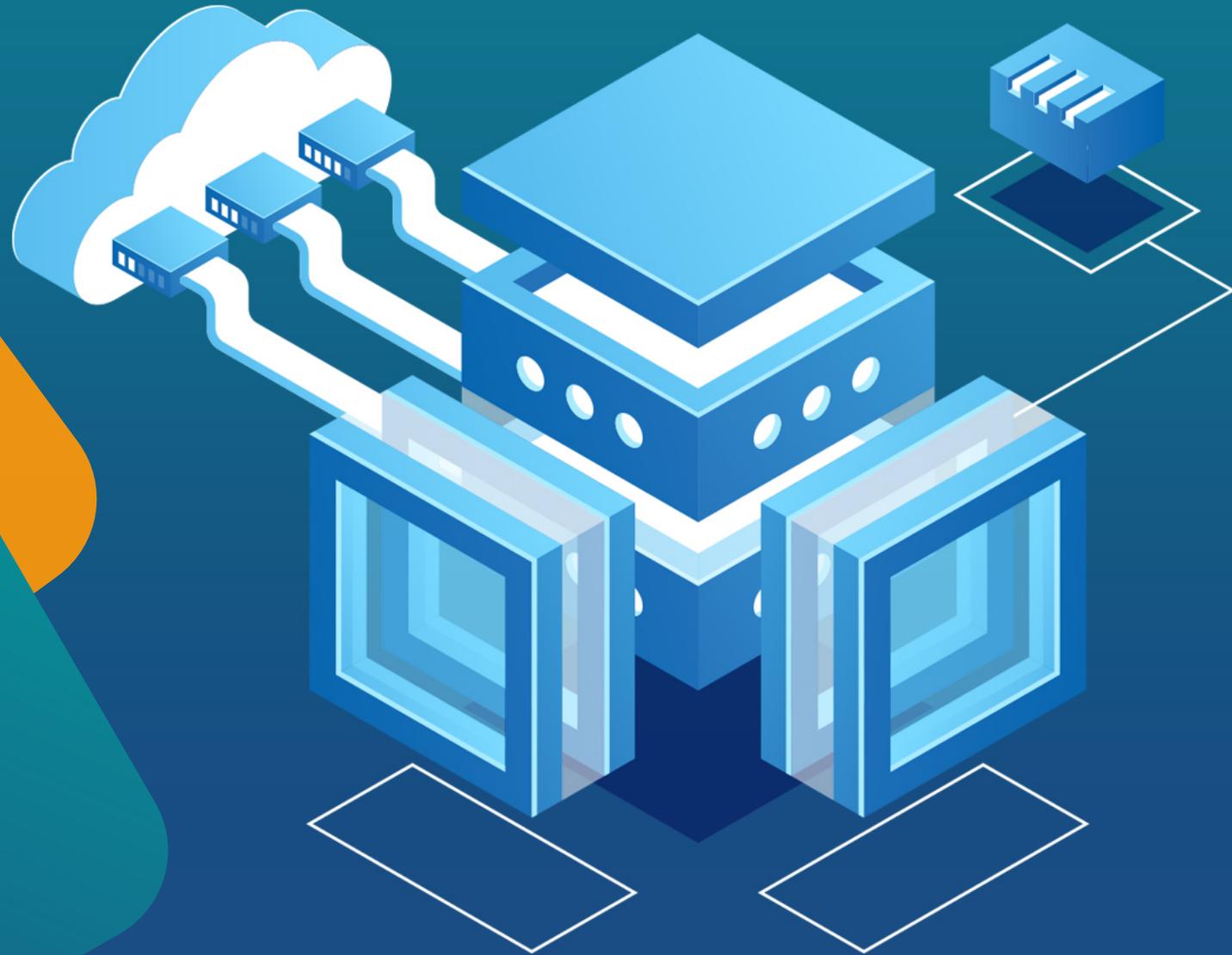
By
Ahmad Safar



AGENDA

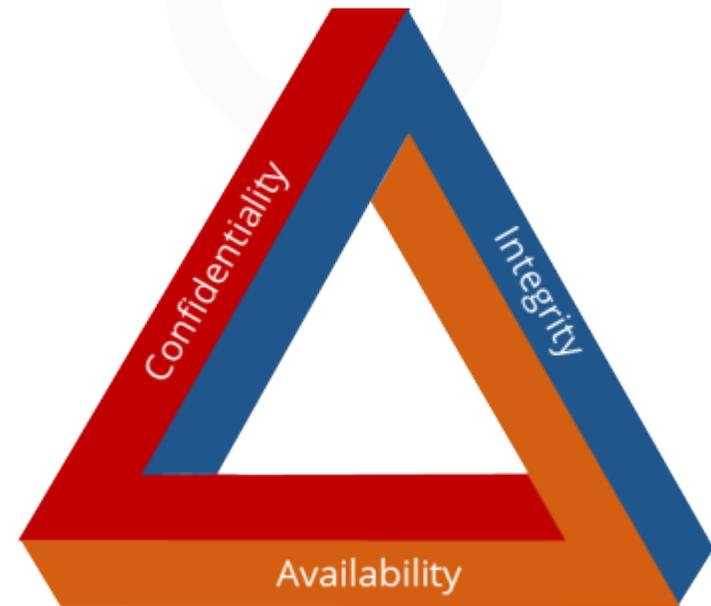


1. What is Cyber Attack?
2. Cyber Security Factors
3. IOT
4. What is OT?
5. Cyber Security Risks
6. Cyber Security weak chain.



- Deliberate exploitation of computer systems and networks.
- The use of malicious code to alter computer systems.
- Unauthorized compromising of data leading to cybercrimes.

What is Cyber Attack ?



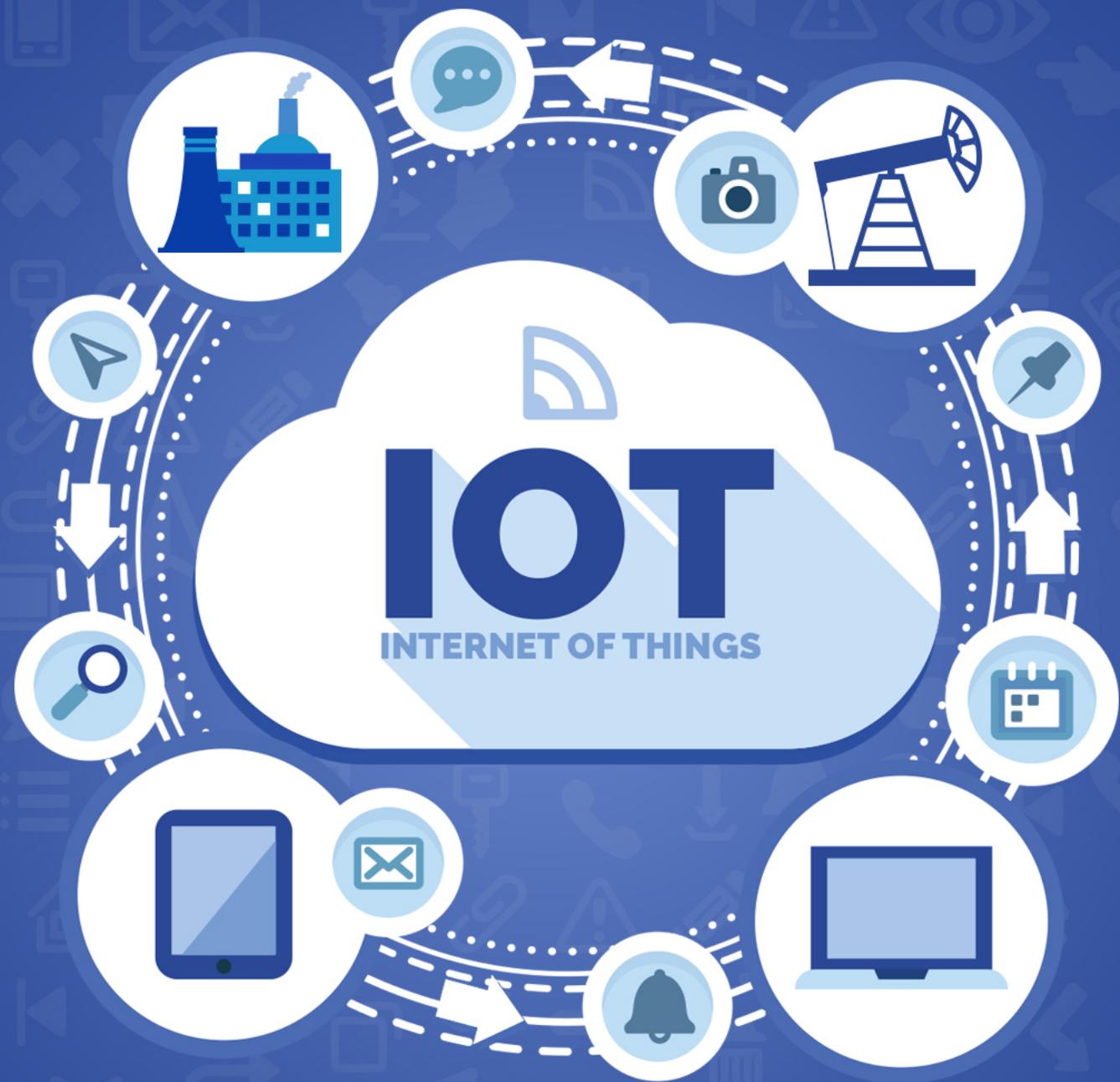
Cyber Security



Cyber Security depends on
Three Factors:



IoT



What Is Operational Technology (OT)?



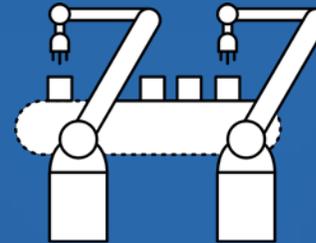
Supervisory control and data acquisition (SCADA)



Telematics



Robotics



Manufacturing execution systems (MES)



Distributed control systems (DCS)



Facilities management/building automation systems

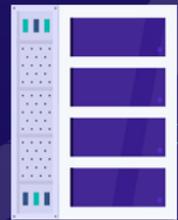
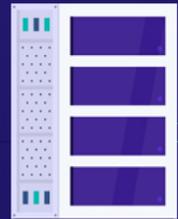
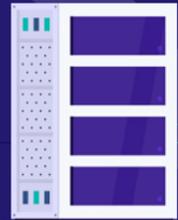


Process control networks (PCN)

Process Level

Bay Level

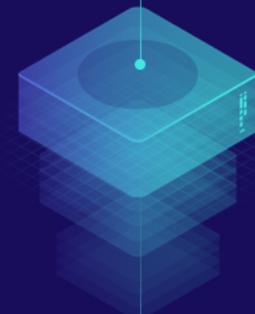
Station Level



Internet



Firewall



Business Network

Firewall



RISKS



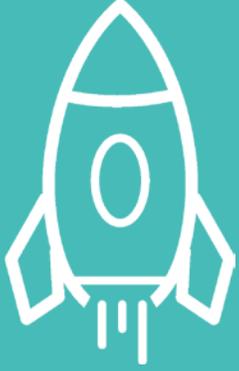
Skills



Connectivity



Design & Function Differences



Fast Deployment



Outsourcing



Regulation



Complexity

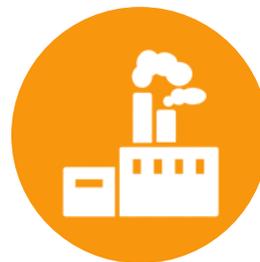
Security Types



OT Endpoint Security



OT Network Segmentation



OT Network Monitoring &
Visibility



OT Security Services

Human Factor

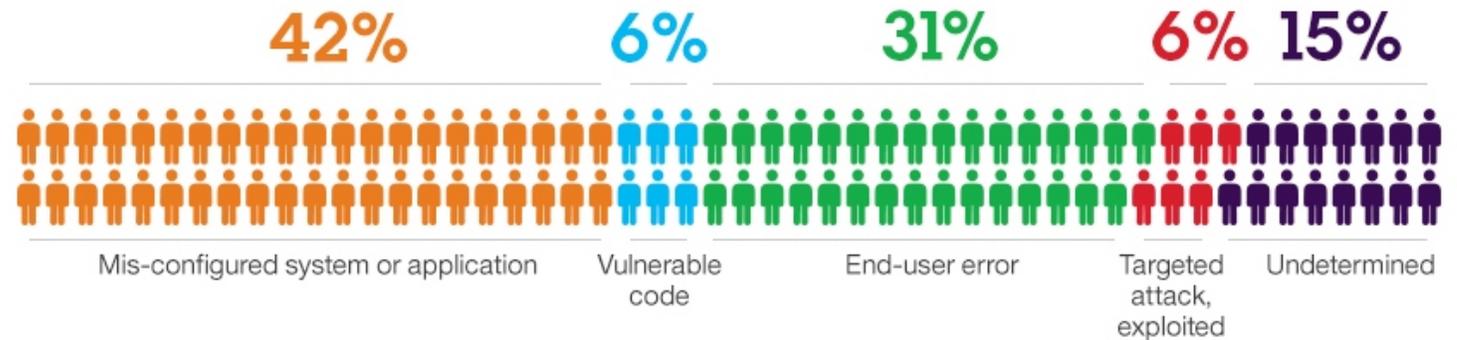
Most security breaches occur as the result of human intent or error.

(IBM Corp., July, 2013)



The Human Factor: *How Breaches Occur*

Many elements can contribute to the vulnerability of your organization, however none is more prevalent than the human factor, **which accounts for approximately 80%.**



Human Factor

The three categories of human error behavior are:



- **Skill-based Errors**
- **Rule-based Errors**
- **Knowledge-based Errors**



Summary



OTRisks are highly demanding
and unavoidable without
Human Resources resilience.



**THANK
YOU**