



ICS/OT CYBERSECURITY

YEAR IN REVIEW 2022

LESSONS LEARNED

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WHAT IS THE YEAR IN REVIEW?

Sixth year running!



LESSONS LEARNED FROM CUSTOMER ENGAGEMENTS

Limited or No Network Visibility

80% OF SERVICE
ENGAGEMENTS IN
2022 HAD
LIMITED TO NO
VISIBILITY INTO
THEIR ICS
ENVIRONMENT

86%

2021

90%

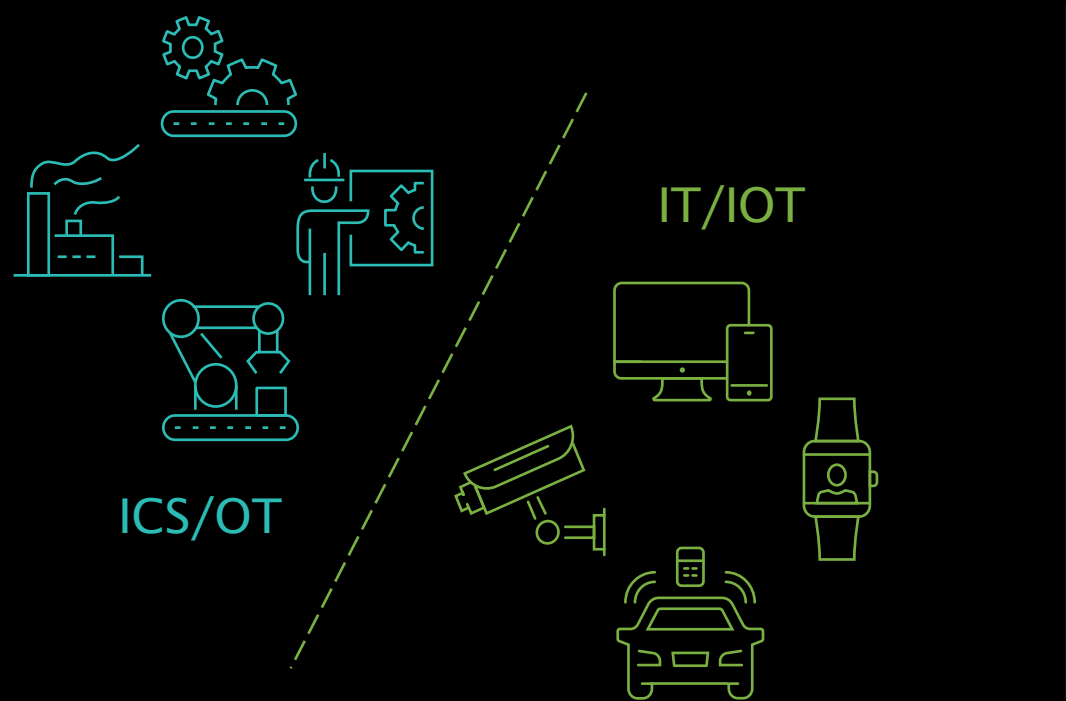
2020

81%

2019

LESSONS LEARNED FROM CUSTOMER ENGAGEMENTS

Poor Security Perimeters



50% of SERVICE ENGAGEMENTS IN 2022 IDENTIFIED ISSUES WITH NETWORK SEGEMENTATION

77%
2021

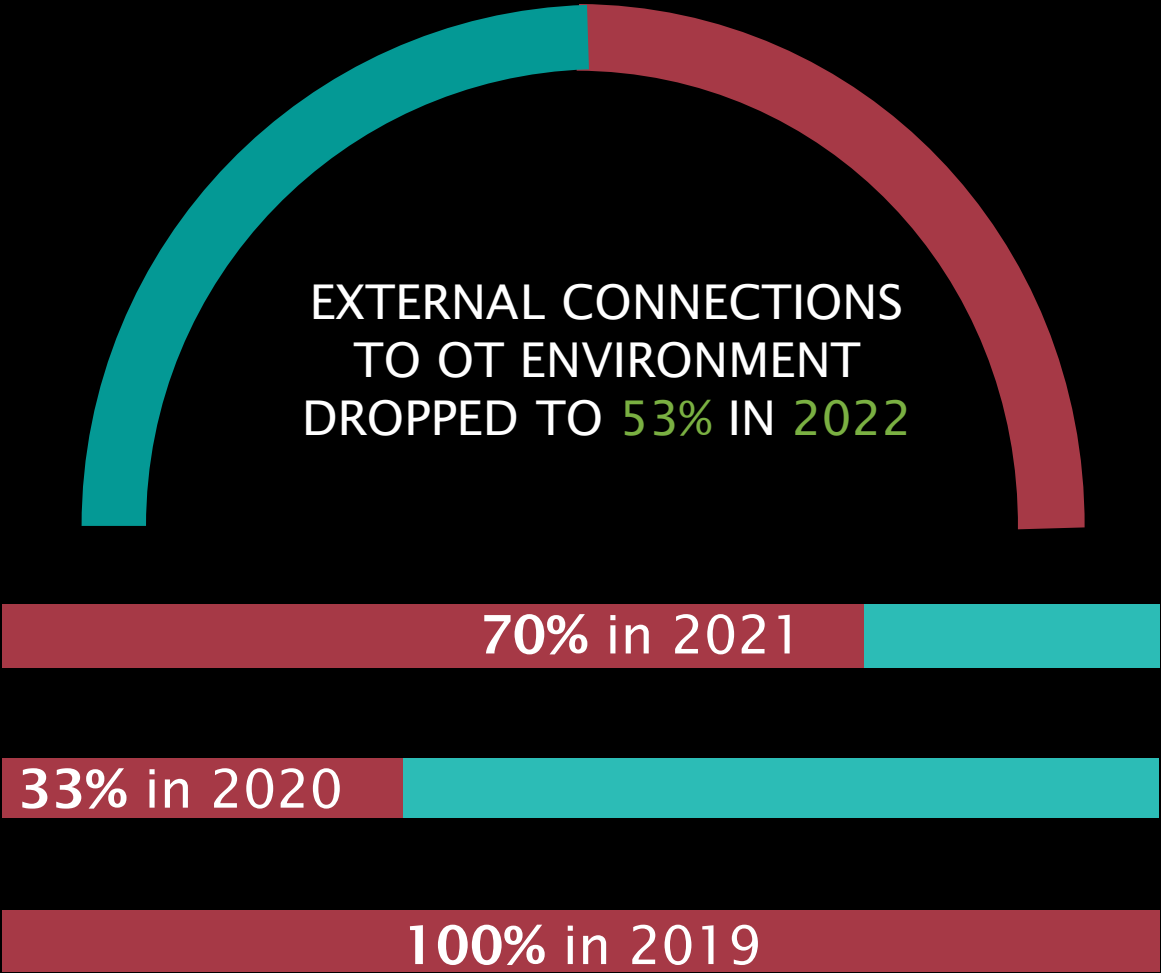
88%
2020

71%
2019

LESSONS LEARNED FROM CUSTOMER ENGAGEMENTS

External Connections to OT Environments

AN EXTERNAL CONNECTION IS ANY INTERNET PROTOCOL (IP) AND / OR ASSET THAT COMMUNICATED BEYOND A PRE-DEFINED SECURITY PERIMETER



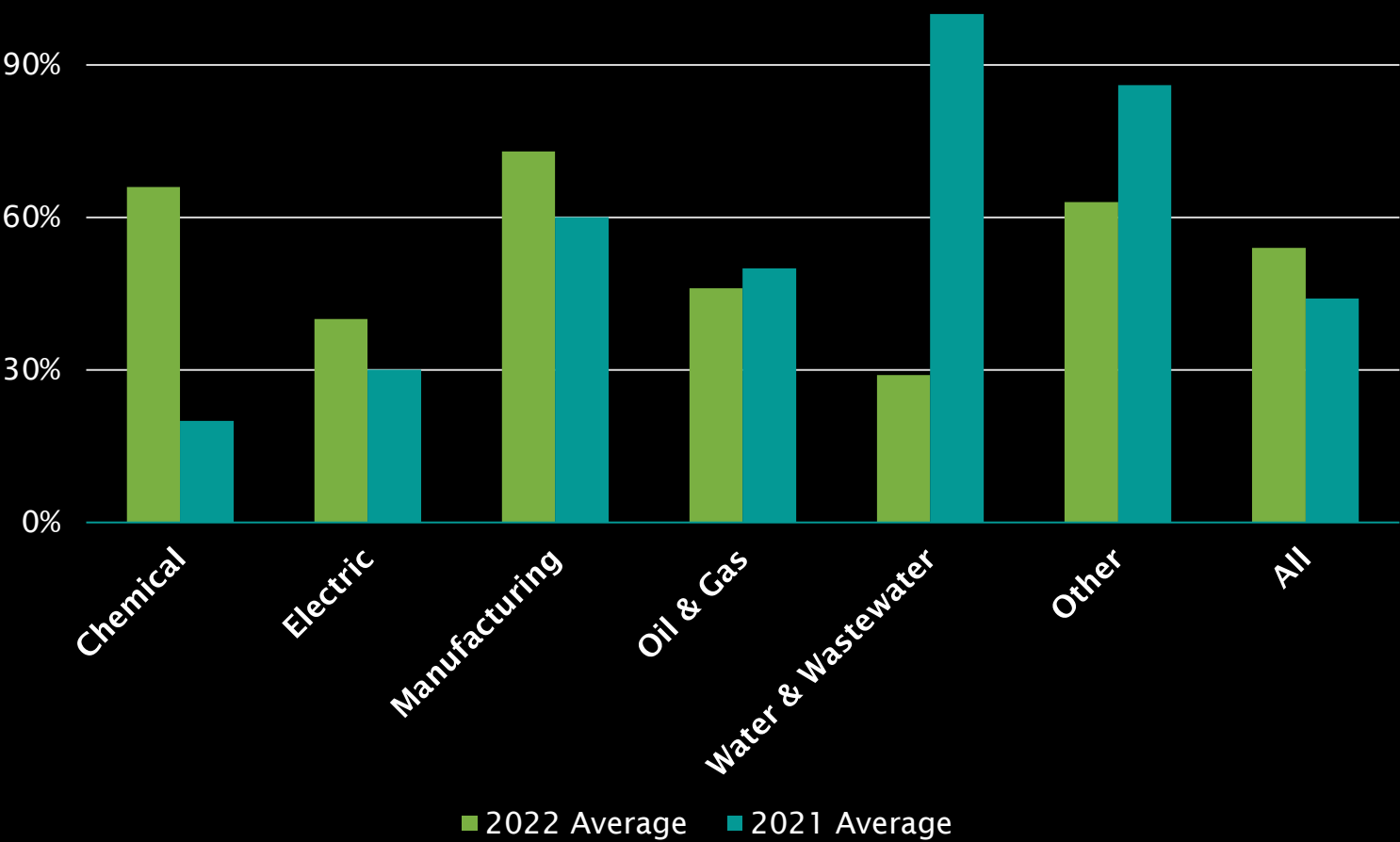
LESSONS LEARNED FROM CUSTOMER ENGAGEMENTS

Shared Credentials

IN 2022, 54% OF SERVICE ENGAGEMENTS INCLUDED FINDINGS RELATED TO SHARED CREDENTIALS

SHARED CREDENTIALS HAS REMAINED A CONSISTENT TREND OVER THE PAST 4 YEARS, STAYING AROUND 50%

2021-2022 Average By Industry



INDUSTRY REGULATIONS

REGULATION CHANGES HAD A POSITIVE IMPACT



TSA released Pipeline-2021-02C in July 2022 shifting from a prescriptive, compliance-based standard to a functional, performance-based standard

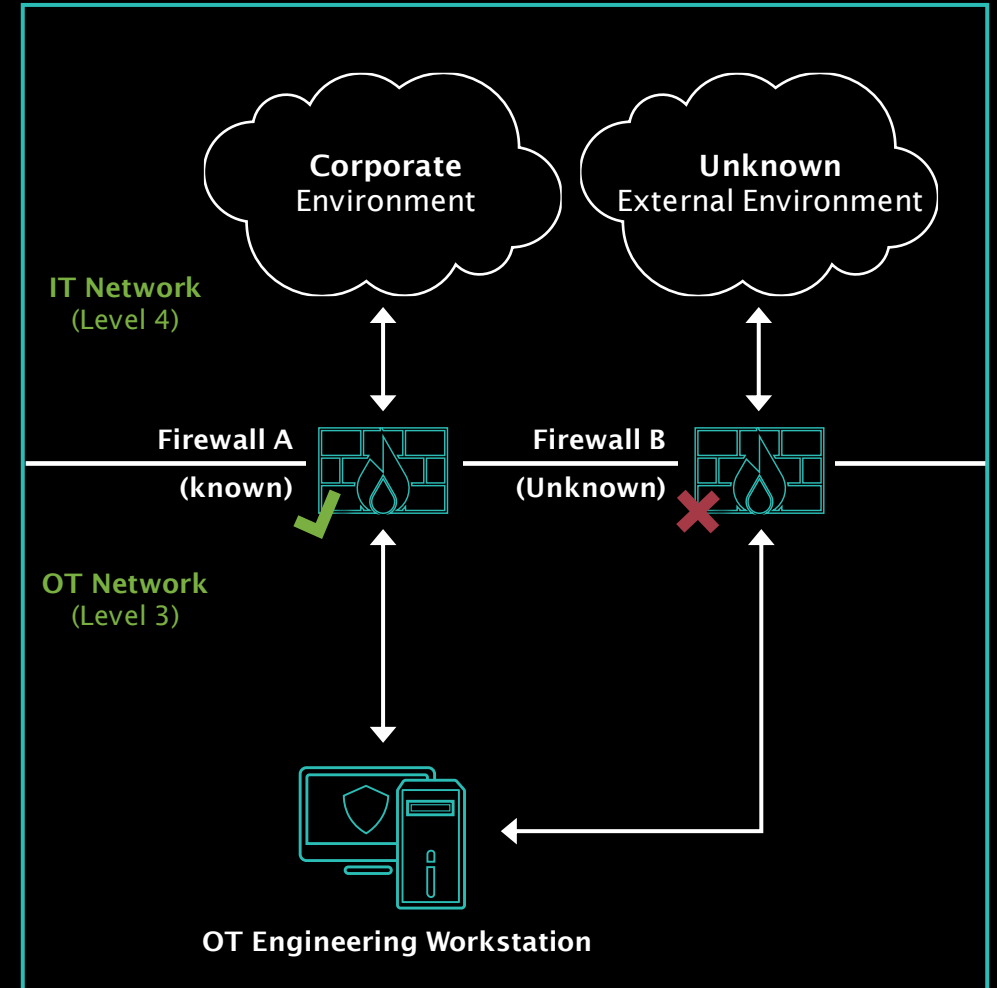


SD-1580/82 was released for rail infrastructure in October 2022 using the SD 2021-02C as a foundation. Rail Operators identified to comply with this directive delivered Cybersecurity Implementation Plans for approval in February 2023

RAIL INFRASTRUCTURE CASE STUDY

TAKING STEPS TO BUILD A SECURE OT ENVIRONMENT

- PCAP analysis during AR showed OT engineering workstation communicating externally with known IOC IP address
- Network Pen Test identified 'known' and 'unknown' external communications
- Client used IR plan to determine findings presented unacceptable risk, and hardened OT workstation as a result

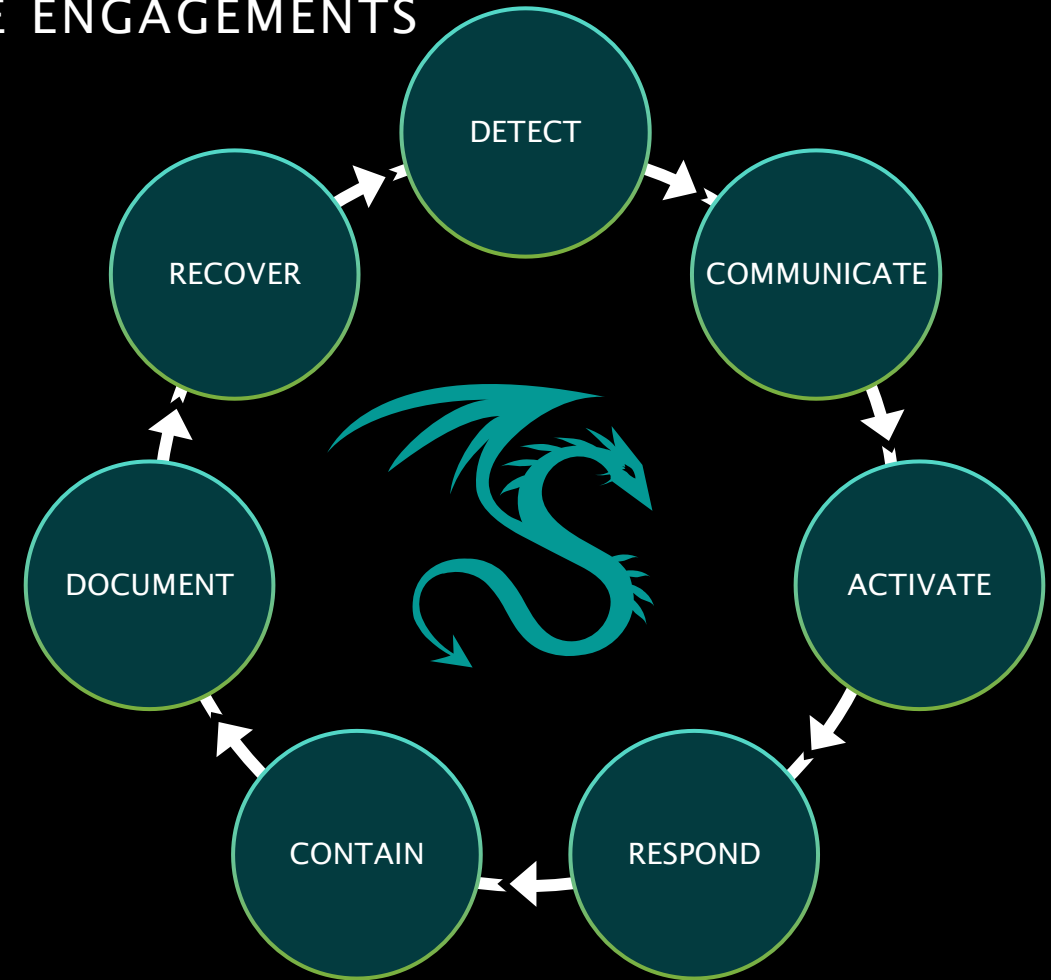


INCIDENT RESPONSE (IR) READINESS

300% INCREASE IN DRAGOS TABLETOP EXERCISE ENGAGEMENTS

Tabletop Exercises

- Best way to test & refine IR plan
- Demonstrate how a realistic attack may occur in your OT environment
- Participants practice how they would respond using their current IR plans
- Evaluations are based on core capabilities for ICS/OT cybersecurity



CORE CAPABILITIES FOR INCIDENT
RESPONSE READINESS

RECOMMENDATIONS

SANS

5

THE FIVE
ICS CYBER
SECURITY
CRITICAL
CONTROLS

01

ICS Incident Response Plan

02

Defensible Architecture

03

ICS Network Monitoring Visibility

04

Secure Remote Access

05

Risk-based Vulnerability Management



Q U E S T I O N S A N D A N S W E R S

THANK YOU



To download a copy of the
2022 Year In Review Report, visit:
www.dragos.com/year-in-review/