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Hire Cybersecurity Expert

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Train employees

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3

Power Station

2

Power Substation

2

Power Substation

2

Power Substation

1

Lesser Power Substation

1

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Control and Safety Implemented Together

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Control and safety features are implemented into the same hardware. Safety is now vulnerable.

Alarm Suppression

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A local software misconfiguration or vulnerability is used to gain access and the alarm functionality of the system is suppressed.

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Compliance is Enough

-1 $3

(Instant) -1! Compliance does not equal complete security but your people believe it does. You drove a car with a valid driver's license at the proper speed limit. You still had an accident.

Authentication Provides Confidentiality

-1 $3

(Instant) -1! Access and privacy are two separate things. You were logged in but your data was still stolen over that unencrypted wi-fi.

Change Password

Make users choose a new and stronger password. Counters phishing and vulnerable field device vulnerabilities.

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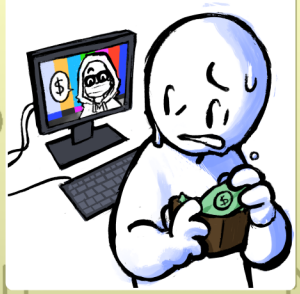
Pay Ransom



You pay the ransom. Roll dice and if you get a 19 or 20 you get all your data back. If you get greater than a 10 you get some data back and take a -1 damage to your facility. Lose all points for the attack if you get a 10 or below. Note that 80% of companies that pay the ransom are attacked a second time in the future.

Restart and Patch

System is restarted and patched. Roll a die to determine if the specialized ICS patch actually works for your facility. Failure is rolling a 1 or 2. Can fix Alarm Suppression, virus checking software installation, Brute Force I/O, or Service Modification Malware. Failure means the attack happens.

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Send a repair technician to fix anything physical including brute force attacks, mechanical breakdowns, and offline facilities.

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Run analytics on user/system behavior to notice and then stop an outsider from accessing networks. Stops access from phishing and vulnerable field devices.

HALT

Cancels any instant action. Somebody was on the ball today.

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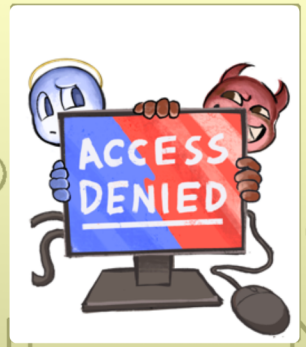

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Wrong IP

Attacker uses the wrong IP for a relay switch open command and nothing happens. Fixes Brute Force I/O and happened during 2016 Ukraine Power Grid Attack.

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Patch Siemens Relay Exploit

+1

+1 to station. Patch Siemens mechanical relay exploit (stops any relay issues on that station).

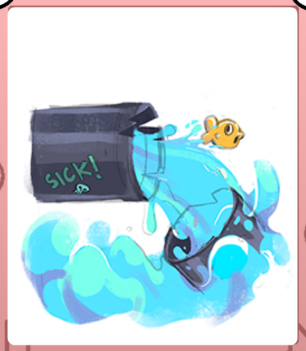
Physically Reset Devices

Physically reset devices in a facility. Used for Brute Force I/O and Stations that are not working. Can only be used on stations with the Siemens mechancial relay exploit patched or else station explodes (-5 pt) and life is lost.

Sewage Dumped

-1

$3



(Used on Water Only) Brute Force I/O attack sent false messages via radio network using a stolen machine to disable alarm reporting and corrupt a water pump system to run incorrectly. Can't be played on a station with upgraded SCADA access authentication.

Mechanical Breakdown

-2

$4

(Used on Water Only) Pump sewerage station stopped through mechanical error after equipment fails after being used incorrectly due to cyber attacks. Fixed through repair.

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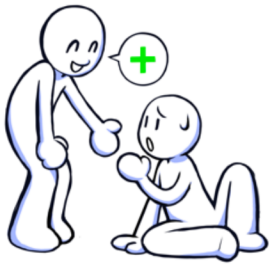

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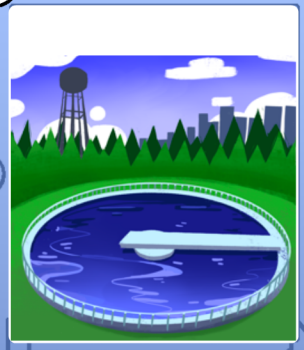

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IT and ICS Security are the Same

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$3

(Instant) -1! They're different! IT business security prioritizes confidentiality and ICS security prioritizes safety, integrity, and availability. ICS devices are also commonly real time systems that may be up to 25-years old.

Insignificant Target

-1

$3

(Instant) -1! It was too insignificant to be a target and wasn't worth attacking, but attackers found it anyway.

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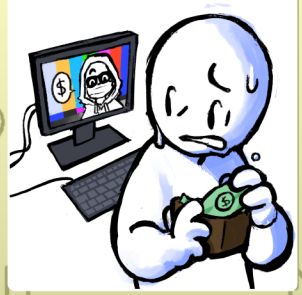

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Upgrade SCADA Access Authentication

1

+1 to station. Upgrade access authentication for SCADA (supervisory control and data acquisition) radio network so previous employees can no longer use it.

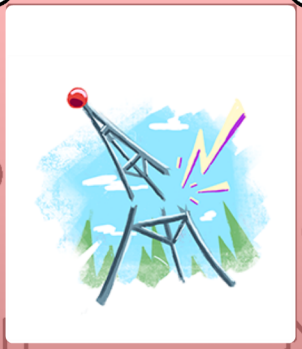
Upgrade Control System

Upgrade control system and information integrity to not accept outside/false messages that could be sent by attackers. Stops Brute Force I/O Attacks and Alarm Suppression.

Denial of Service Exploit Shutdown

-2

$4



(Used on Power Only) Shutdown of power relay due to denial of service exploit for Siemens device vulnerability. Causes loss of station and operator life if power turned on before fixed. Fixable with Siemens Exploit patch or if it's the wrong IP.

Power Fluctuation

-1

$3

(Used on Power Only) Remote commands toggle circuit breakers in a rapid open-close-open pattern causing power fluctuations in a brute force I/O attack. Happened during 2016 Ukraine Power Grid Attack.

Emergency Action Plan

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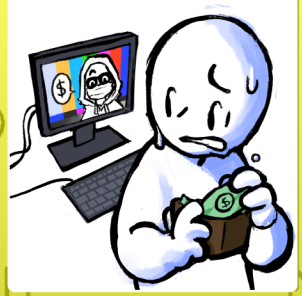

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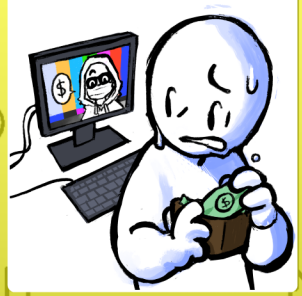

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