



# Cyber 2.0<sup>i</sup>

THE Chaos of NAC





Total defense against the **spread** of all  
cyber-attacks  
including **new and unknown** ones  
within and outside the organizational network

Only authorized computers will  
be able to communicate with  
each other

Wh  
at  
Do  
o

# The Problem

Unauthorized, unprotected, contaminated and non supervised device can connect to the network



## Examples of attacks in 2020



## WE COMBINES SEVERAL CAPABILITIES



# NAC (Network Access Control)

- Ensures that **only authorized** computers/devices inside and outside the organization will be able to **communicate** with each other
- All **others**, which are not authorized/unknown, will be **blocked**
- **Proven** technology (Hacker challenges)
- Based on a **Mathematical Chaos Engine**





# Cyber 2.0's NAC advantages

- 1. Does not require the replacement of current network hardware**
- 2. Does not require port authentication or complex configuration**
- 3. Provides forensic capabilities of all network traffic**
- 4. Installation is simple and easy**
- 5. Allows deployment through the cloud**

**Cyber 2.0**

2022 Winner  
THE NATIONAL  
CYBER AWARDS®



# The Chaos Model

**The Cyber World**

**Cyber 2.0**

**is based on  
biological models**

**is based on  
mathematical chaos model**

that are vulnerable to attacks  
by systems using similar models  
(hence where the terminology virus  
and anti-virus comes from)

**that cannot be breached**  
(Not even by us)

Cyber 2.0 is protected by 9 patents



[Video](#)

# More Advantages

- Complete solution for Working From Home (**WFH**)  
*We block malicious software on the computer at home from spreading across the organization*
- One solution for both **IT & OT** systems
- Continuous Risk Assessment  
first one within 14 days
- Reduction of the total cost of cyber defense  
(instead of all irrelevant defense systems)





# Challenging all Hackers

## \$100,000 Hacker Challenge Goes Unclaimed at Tech

Cyber 2.0, an Israeli cybersecurity company with offices in Atlanta, offered a cash prize to anyone who could access a single file from its protected server.

• 4 years

• 5,500 hackers

• \$ 100,000 Reward

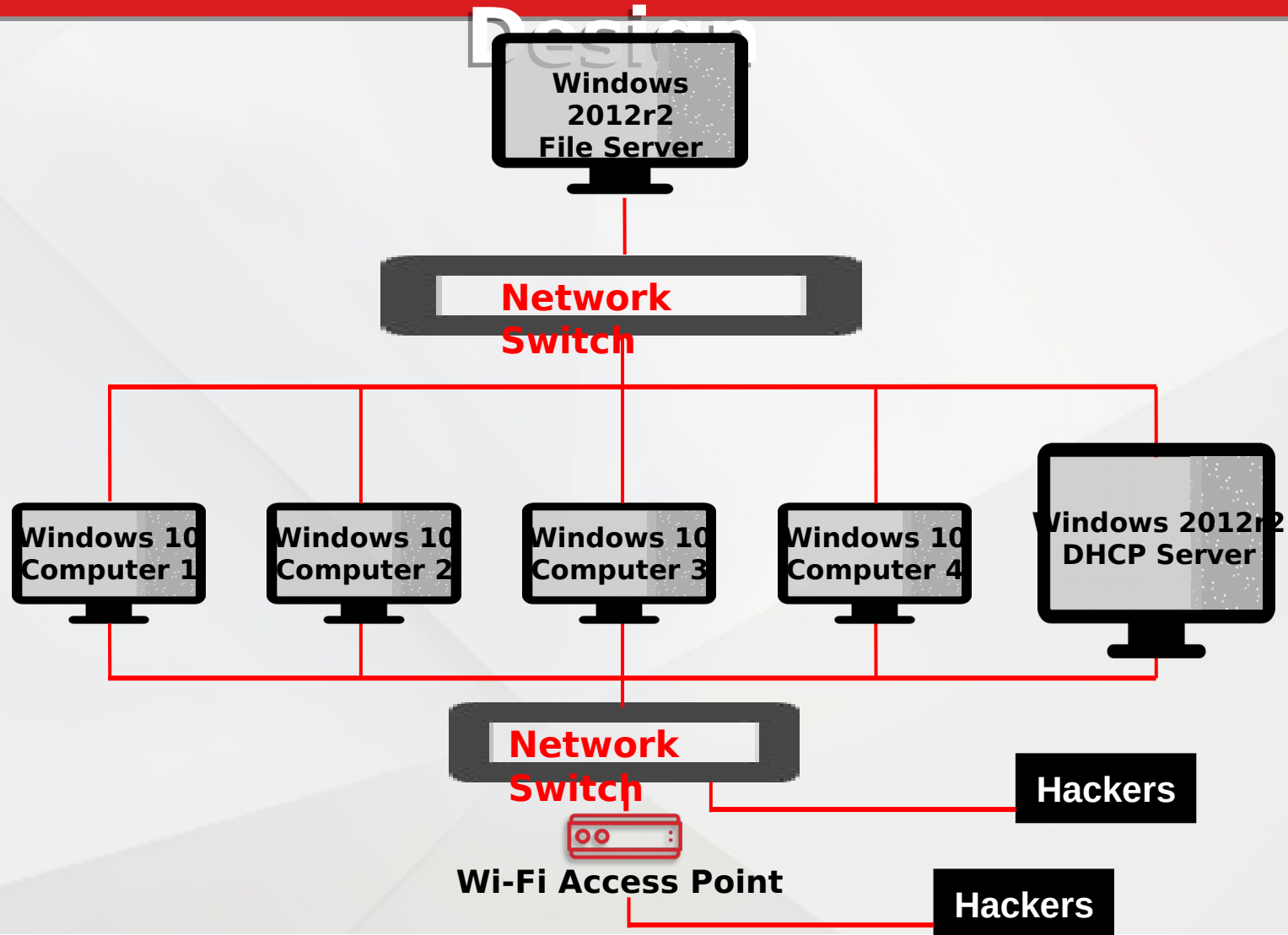


**They all failed**

## All hackers in the Cyber 2.0 International Hackers Challenge fail

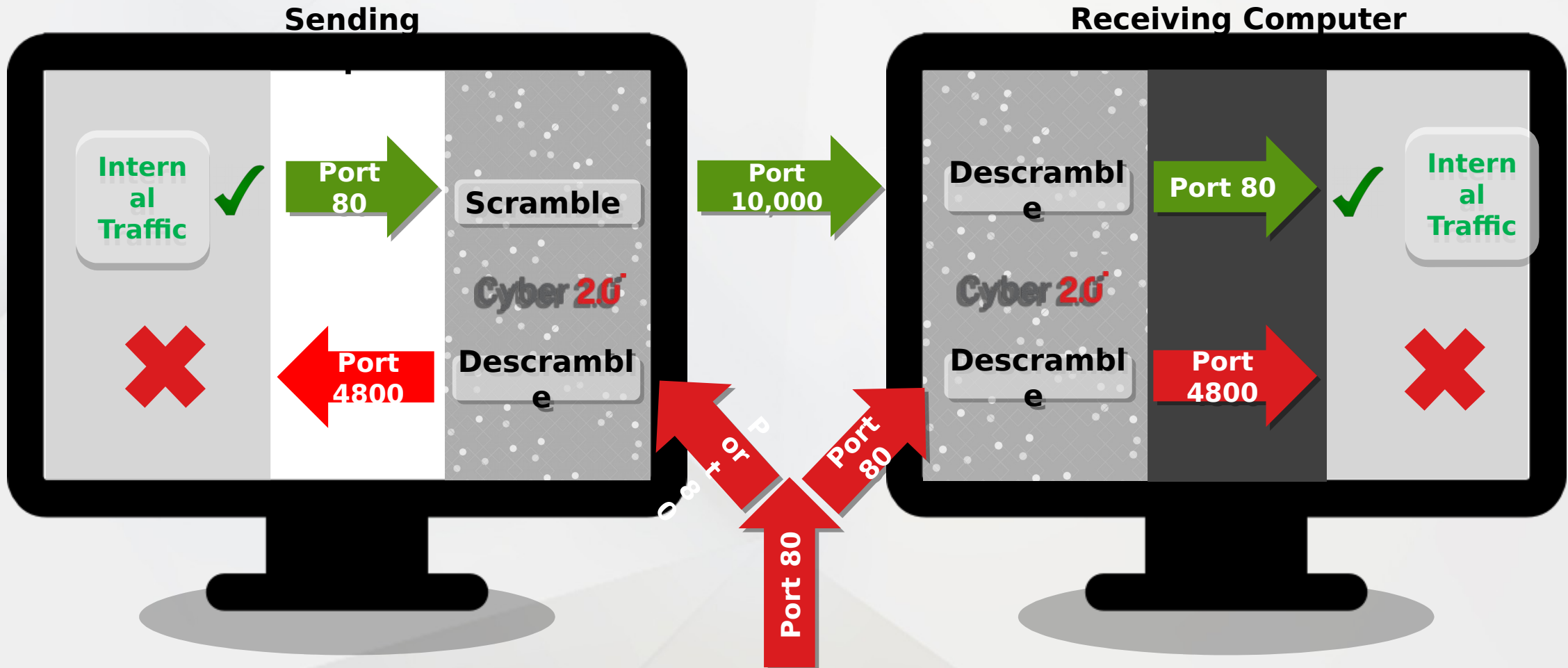
With no winner, the NIS 10,000 prize was instead donated to the charity group the "Good Guys Association." However, it will not be the last such challenge.

# The Hackers Challenge Network

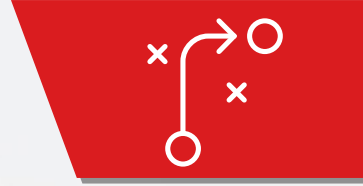


# NAC based on - Chaos Mathematical Engine

Ports between protected node are chaos scrambled



External traffic is not scrambled



1. Unauthorized device



2. ARP poisoning/spoofing attacks



3. Man in the middle

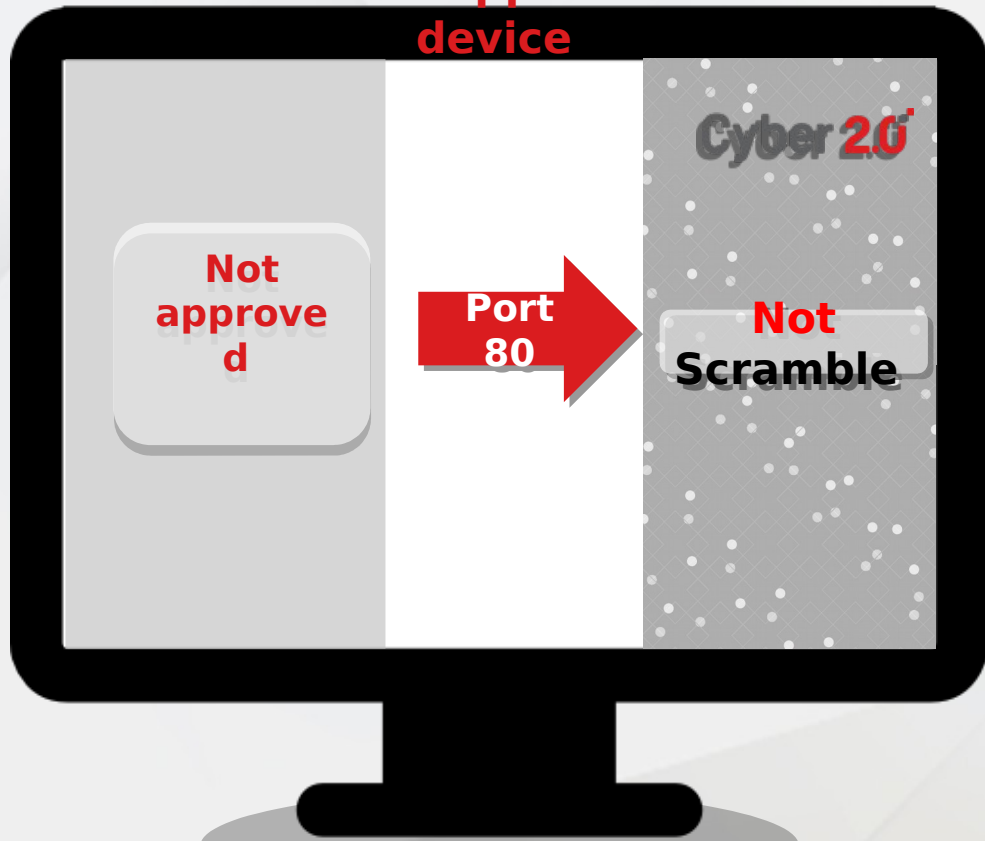
**Any attempt to connect to a network protected by cyber 2.0 NAC will fail**

# Unauthorized device. 1

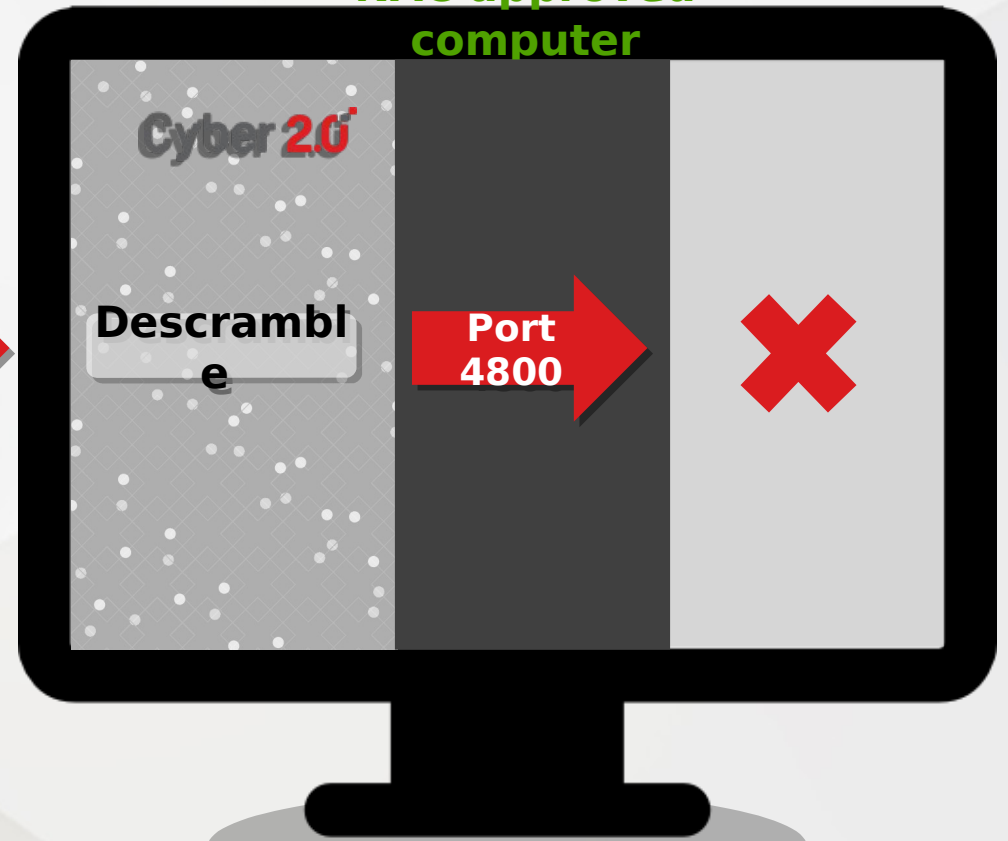
Not approved devices



Not approve  
device



NAC approved  
computer



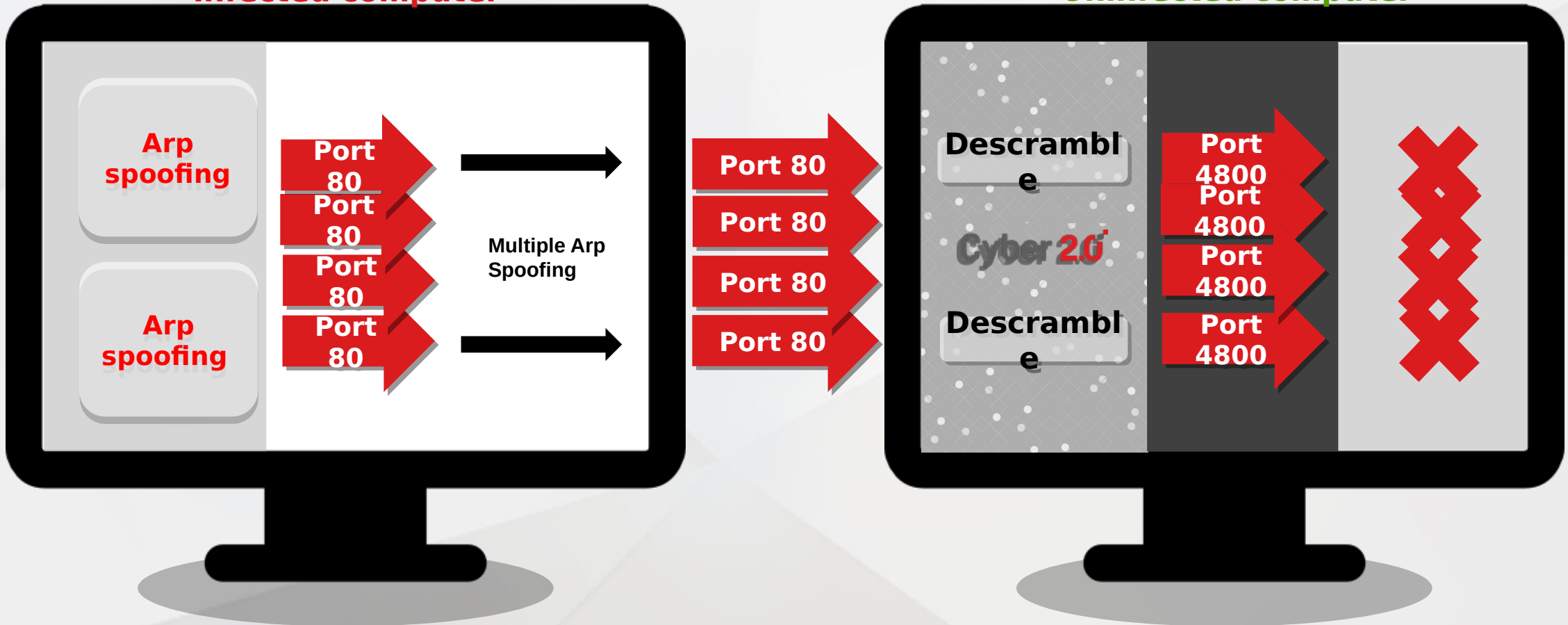
# ARP poisoning/spoofing 2.0 attacks



Attempts to use arp to bypass NAC will fail

Infected computer

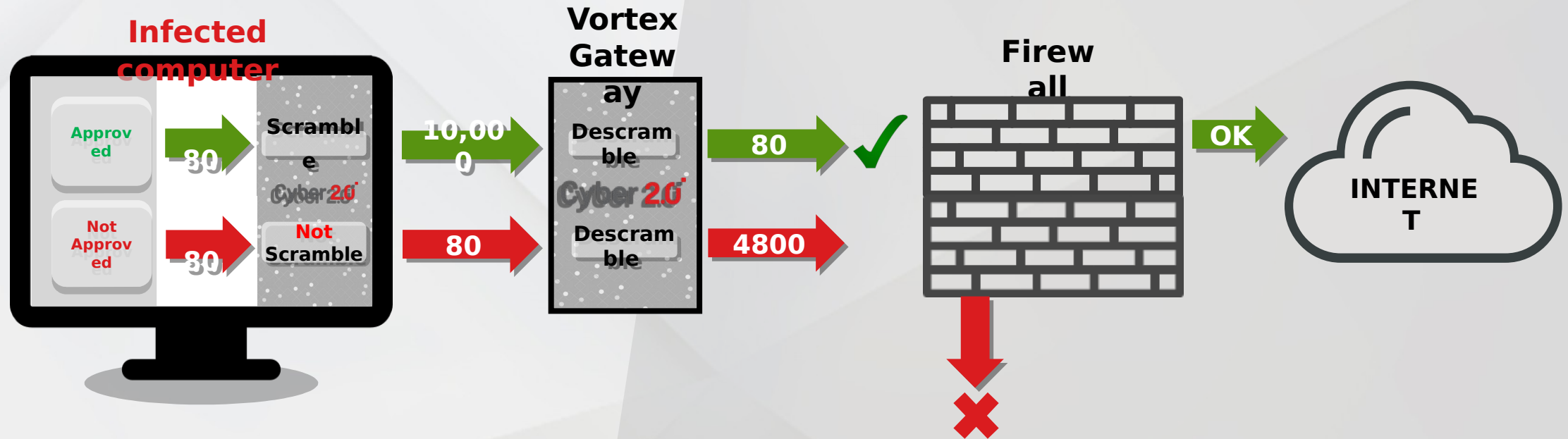
Uninfected computer



# Vortex Gateway for Firewall



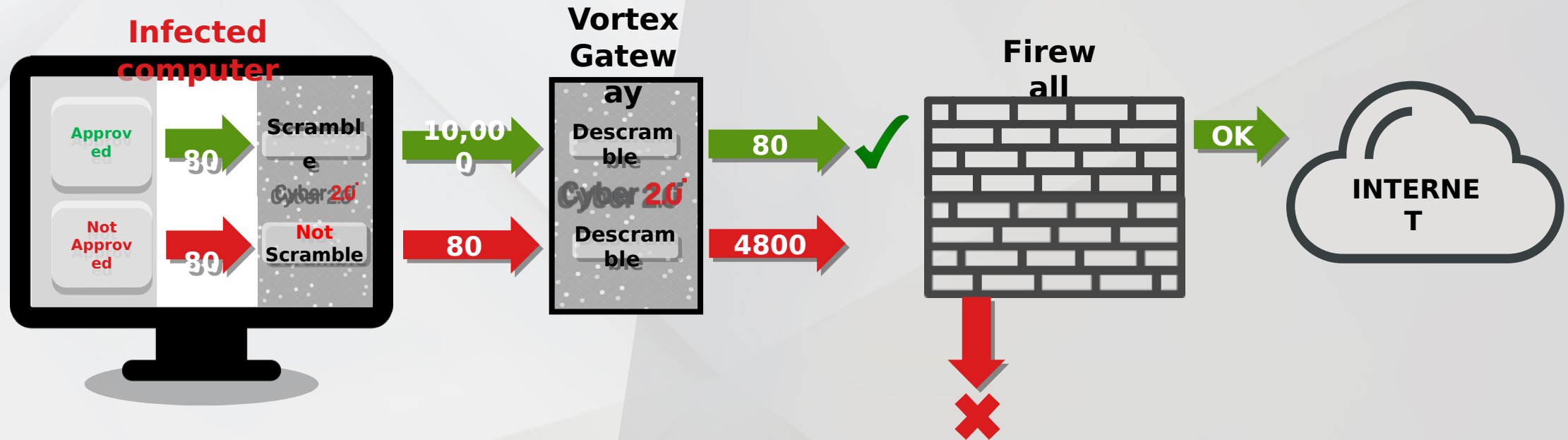
A dedicated Gateway is deployed between the network and Firewall / various unsupported network devices



# Vortex Gateway for Firewall

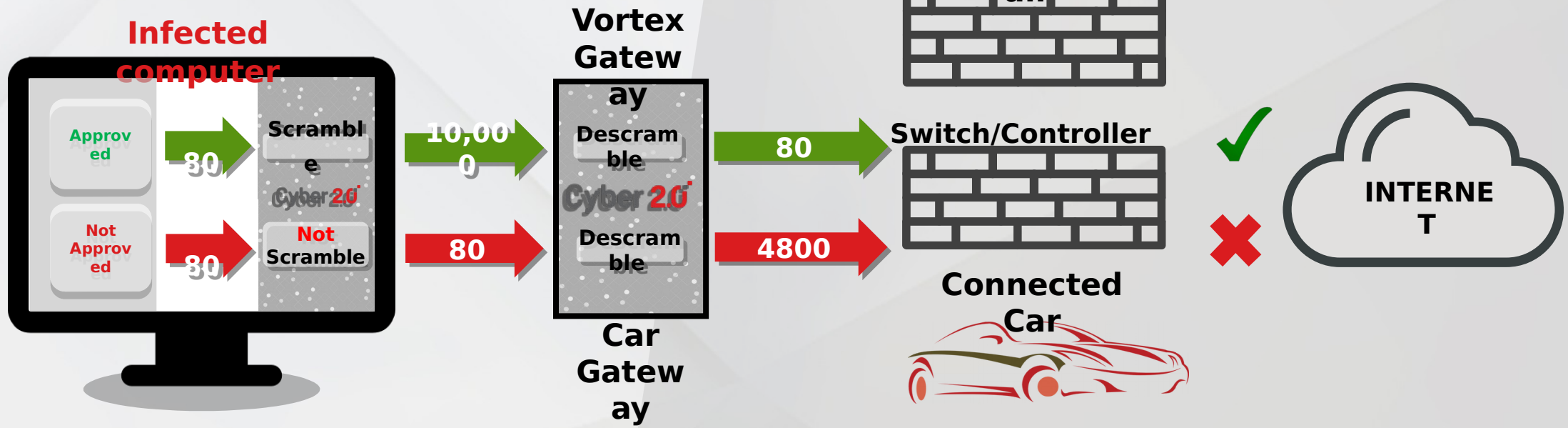


A dedicated Gateway is deployed between the network and Firewall / various unsupported network devices





# Vortex Gateway for the OT and Cars World



# Simple Installation



**An Agent will be installed at any endpoint, connected to cloud service or internal server**



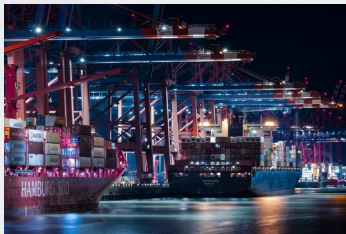
**Starting in Monitor Mode and then moving to Defense Mode**



**The system interfaces with your organization's existing systems, without the need for any additions or modifications**

# Among our Customers

**Ports:** The Israeli largest port. POC in Barcelona,



**Water Systems:** The National water company of Israel+ 60% of the regional water systems



**Army:** The Israeli Navy



**Industries, corporates**



**Hospitals:** The largest hospital in Israel+ 18 hospitals in India



**Airports:** POC in Kentucky USA



**security industries:** The largest producer of engines for aircrafts



**Power and electricity companies**



## Contact Us



[www.cyber20.com](http://www.cyber20.com)



[info@cyber20.com](mailto:info@cyber20.com)



[+972-77-5438441](tel:+972775438441)



Cyber 2.0

# Appen

# dix



## WFH

- Employees **WFH** are **exposed** to cyber attacks
- A **secured line** to the company does **not solve** this problem
- An **infected** employee's **computer** with Cyber 2.0 installed keeps working **normally**
- Cyber 2.0 will **prevent malicious** software and cyber-attacks **from spreading** in the organizational network
- Cyber 2.0 also **protects** employees from home in organizations that **have not installed a secure line** at all



# The Patents

- 📌 Unique Scrambling System- chaos engine (**approved** US 9,838,368, US 10,313,318)
- 📌 Unique Server Support System (**approved** US 9,794,277, US 9,985,981, US 10,333,956)
- Reverse Tracking Technology System (**approved** US 10,616,231)
- Creating multiple Vlans without the use of hardware (**approved** US 10,397,196)
- Unique Gateway System (submitted)
- Reverse Chaos for employees who work at home (submitted)
- 📌 Rendering Reverse Engineering ineffective (in process)
- 📌 Automatic creation of dynamic lists (in process)
- 📌 Chaos SSL (in process)



# Our System

