CIAS

Cyber Threat Protector

RULEBOOK

Cyber Threat Protector

Introduction

In Cyber Threat Protector (CTP), the goal is to build your network as quickly as possible so you can gain more points than your opponent. While you are doing this, you have to remember to defend your network because your opponent is going to try and disrupt your systems while building their network. For every attack there is a defense. For every defense there is an attack to get around it. The player with the most complete set of security defenses will be the one who is able to protect their critical systems and emerge victorious.

TABLE OF CONTENTS

Preparation

A. You will need to have paper and pencil, or some other way to keep track of scores.

B. A single Cyber Threat Protector deck is needed for two players.

Game Objectives

A. The first player to obtain 20 points at the end of a round is the winner. If both players reach 20 points at the end of a round, play continues until the tie is broken.

B. If players have no cards to draw from the deck, then they must shuffle the shared discard pile and use it as the new draw pile.

C. Points are calculated at the end of each round. The total score cannot go below zero (0) points.

CTD Card Types

Asset Cards

These are your primary cards to build your network. They represent the physical assets you would encounter in a business, organization, or at home. This is how you gain points.

Event Cards

These cards represent various forces that can happen to your network and not the player playing the card. These Event cards are the only cards removed immediately after being played, as signified by their color.
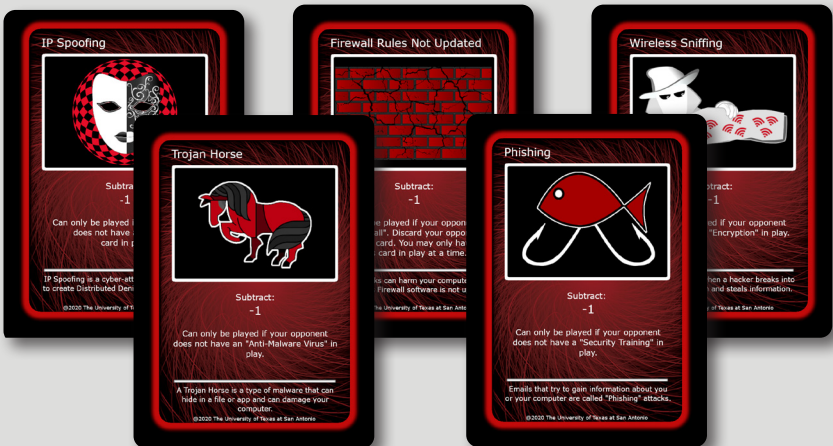

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Defense Cards

These cards are used to protect your network just as you would at home or in an organization. Defenses must be kept up to date. Failure to do so could have significant consequences for your network. Defense cards will prevent different types of attacks from harming your systems.

Security Training

Blocks:
Password Cracked
Phishing

Removes:
Password Cracked
Phishing

You may only have 1 of this card in at a time.

Security Training teaches you how to protect yourself.

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Anti-Malware

Blocks:
I Love You Virus
Trojan Horse

Removes:
I Love You Virus
Trojan Horse
Firewall Rules Not Updated

You may only have 1 of this card in play at a time.

Anti-Malware is software that helps protect your computer from Malware cyber-attacks.

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Encryption

Blocks:
Wireless Sniffing
Poor Encryption Key

Removes:
Wireless Sniffing
Poor Encryption Key

You may only have 1 of this card in play at a time.

Encryption is a code that stops hackers from reading your messages and information.

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Firewall

Blocks:
Denial of Service
Spoofing/Hacking

Removes:
Firewall Rules Not Updated
Denial of Service
Advanced Persistent Denial

You may only have 1 of this card in play at a time.

Firewall software protects your computer from cyber-attacks.

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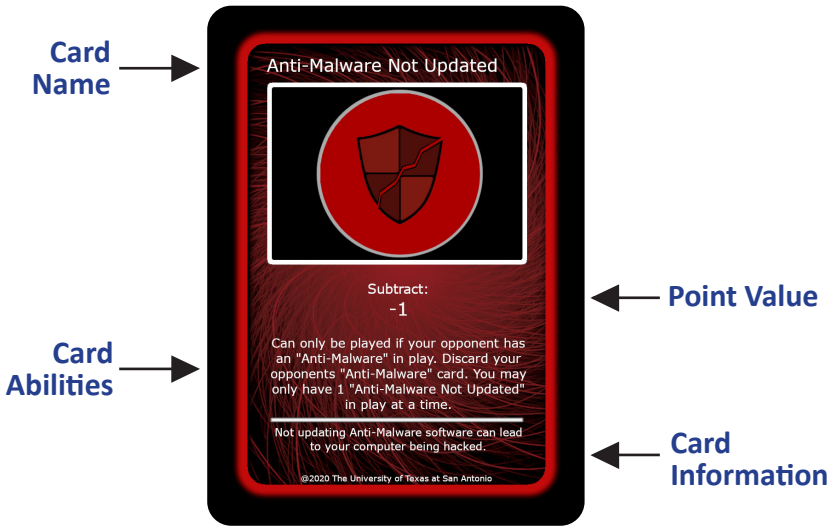
Attack Cards

These cards represent the various evil forces that exist on the Internet today and not the player playing the card. Attack cards will reduce your opponent's points. Note: Defense cards may protect against these attack cards; some Attack cards remove Defenses.

IP Spoofing

Subtract:
-1

Can only be played if your opponent does not have a [...] card in p[...]

IP Spoofing is a cyber-att[...] to create Distributed Deni[...]

©2020 The University of T[...]

Firewall Rules Not Updated

Subtract:
-1

[...]e played if your opponent [...]all". Discard your oppo[...] card. You may only ha[...] card in play at a time.

[...]ks can harm your compute[...] Firewall software is not u[...]

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Wireless Sniffing

Subtract:
-1

[...]ed if your opponent [...] "Encryption" in play.

[...]hen a hacker breaks into [...] and steals information.

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Trojan Horse

Subtract:
-1

Subtract:
-1

Can only be played if your opponent does not have an "Anti-Malware Virus" in play.

A Trojan Horse is a type of malware that can hide in a file or app and can damage your computer.

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Phishing

Subtract:
-1

Subtract:
-1

Can only be played if your opponent does not have a "Security Training" in play.

Emails that try to gain information about you or your computer are called "Phishing" attacks.

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Anatomy of a Card

Cyber Threat Protector cards vary in the information displayed. Some cards will list the names of other cards that it can remove from play; others will block cards from being played and some will have unique effects. Make sure to read the Card Abilities! A description of information found on a typical playing card:

Card Name →

Point Value ←

Card Abilities →

Card Information ←

Card contents:

Anti-Malware Not Updated

Subtract:
-1

Can only be played if your opponent has an "Anti-Malware" in play. Discard your opponents "Anti-Malware" card. You may only have 1 "Anti-Malware Not Updated" in play at a time.

Not updating Anti-Malware software can lead to your computer being hacked.

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Game Setup & Notes

A. Shuffle the cards. Once the deck is shuffled, both players will decide who will be player one. Then both players draw five (5) cards.

B: After a player has taken their turn, they will discard remaining cards in their hand and draw five (5) new cards *before* their opponent plays any cards.

C. Asset Cards do not need to be in play in order to play Defense/Attack cards. Some cards require other cards to be in play before being played. Some cards can only be used when specific cards are *not* in play. Some cards will not be allowed to have multiple in play.

Attacks ▶

Defenses ▶

▼ *Assets*

Suggested Layout for Cards During Play
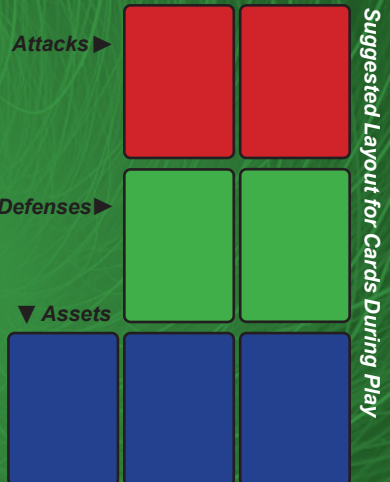
A Player's Turn

Step 1

Player One will review the cards in their hand and choose four (4) cards they want to play. This is the *only time* that up to four cards are played. *Each round after this, both players can only select up to three (3) cards to play.*

▲ Player Two's Hand

Draw Pile ▶ Cyber Threat Protector

▼ Player One's Hand

Step 2

Player One puts the IP Spoofing card into play. This counts towards the limit of four cards that can be played by Player One during their first turn.

▼ Player One's Hand

A Player's Turn *(continued)*

Step 3

Player One puts an Anti-malware card into play. This is the second of four cards that they can play.

▼ Player One's Hand

Step 4

Player One puts a Desktop Computer card into play. This is the last card that they can play. While player one had the option of playing up to four cards, the remaining two (2) cards in player one's hand require the opponent to have cards on their field that can be attacked, so they cannot be played.

▼ Player One's Hand

PLAYER ONE

Step 5

Player One then ends their turn. They will now discard their last two cards into a new pile, face up, called the Discard pile. They proceed to draw five new cards from the draw pile, and their turn ends.

▼ Player One's Hand

▲ Discard Pile

▲ Draw Pile
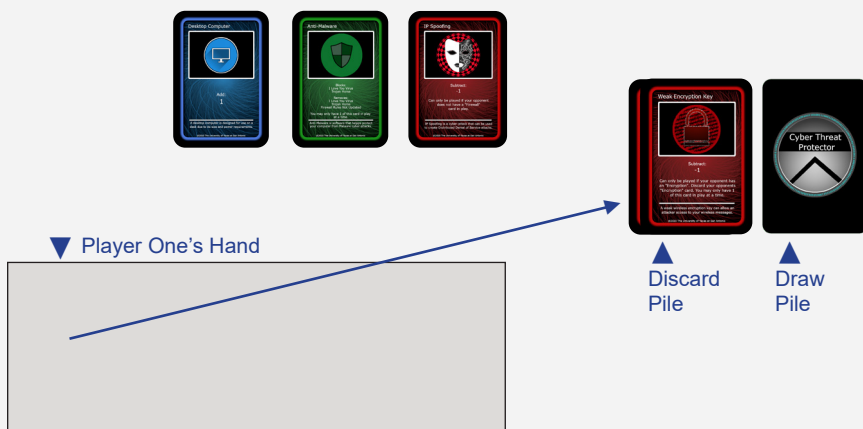
Step 6

It is now Player Two's turn.

◀ Player Two's Hand

▼ Player One's Hand: New Cards from Draw Pile

▲ Discard Pile

▲ Draw Pile

A Player's Turn *(continued)*

Step 7

Player Two may play up to three (3 cards) in their hand. Player Two uses their Anti-malware Not Updated card and targets Player One's Anti-malware defense card.

◀ Player Two's Hand

Player One's Cards ▶

Step 8

Per the effect of the Anti-malware Not Updated card, Player One's Anti-malware is discarded. The Anti-malware Not Updated card remains on the field.

◀ Player Two's Hand

▲ Discard Pile
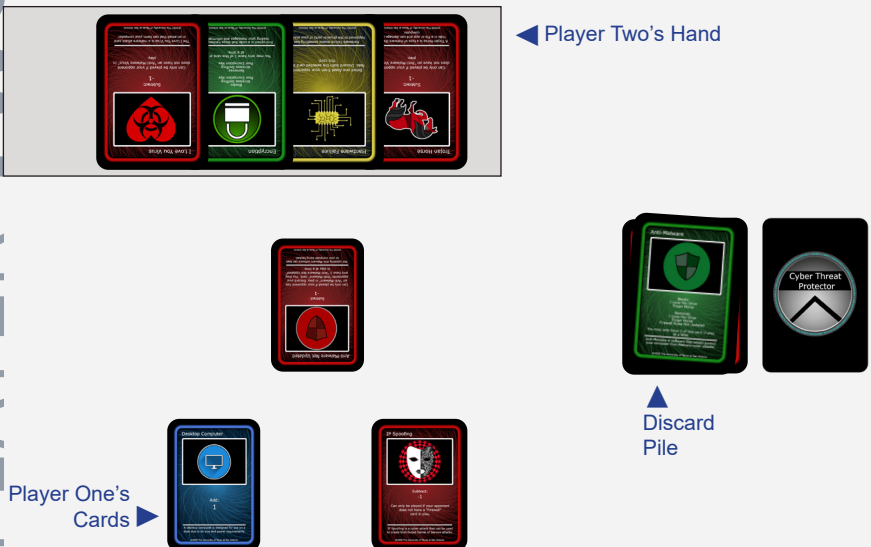
Player One's Cards ▶

PLAYER TWO

Step 9

Player Two puts an I Love You Virus card into play (which was not usable when Player One had Anti-malware in play). This counts toward their three-card limit.

◀ Player Two's Hand

Player One's Cards ▶

Step 10

Player Two puts a Hardware Failure into play. This is the last card they can play for this turn.

◀ Player Two's Hand

Player One's Cards ▶

A Player's Turn *(continued)*

Step 11

Player One will remove one asset from their field. In this case, the asset being removed is the Desktop Computer, because of the Hardware Failure. Both cards, Desktop Computer and Hardware Failure, will be sent to the discard pile immediately. Gold Event cards are immediatly removed after they are played.

Player Two's Hand

Player One's Cards

Discard Pile

Step 12

Player Two will now discard their remaining cards to the shared discard pile face up and draw a new set of five cards.

Player Two's Cards

Player One's Cards

Discard Pile

Draw Pile

PLAYER TWO

Step 13

The round has ended, and it is time to update the players' scores. Asset cards enable the player to gain points; however, Attack cards remove points played by the opponent. *Note: Score cannot go below zero points.*

◄ Player Two's Hand: New Cards from Draw Pile

◄ Player Two's Cards
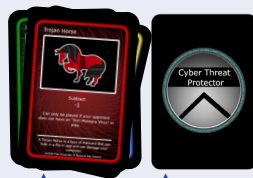
Player One's Cards ►

▲ Discard Pile

▲ Draw Pile

◄ Player One's Hand: New Cards from Draw Pile

Step 14

The score at the end of the first round is: zero points for Player One; zero points for Player Two. Remember, even in a situation where the final score each round is a negative number, the score tallied will not go below zero.

◄ 0 Pts for Player Two

Note: There are no Asset Cards in play to gain points, and only Attack Cards that remove one (1) point each.

0 Pts for Player One ►

End of a Round

A. A round consists of one turn for each player.

B. Each player will add the points gained from their asset cards in play and subtract the points from their opponent's attack cards in play. The scores for this round will be added to each player's total score. The total score, however, will not be allowed to go below 0 points.

C. In the images below, the active player would gain 1 Point from the Desktop Computer, 1 Point from the ISP Connection and 1 Point from the Laptop Computer.

D. Since the opponent played two attacks, those points will count against the points gained.

E. For this turn, the active player is awarded 1 Point. This score is then added to the player's total score.

F: Add or subtract points gained or lost after each round, until a player reaches 20 points or higher.

◀ Opponent's Attacks

▼ Active Player's Assets

Thank You to Our Sponsors

The Center for Infrastructure Assurance & Security (CIAS) at The University of Texas at San Antonio is committed to providing classroom sets of Cyber Threat Protector at no cost to elementary school educators. We would like to take this opportunity to thank our CIAS K-12 Cybersecurity Program **Presenting Sponsor Booz Allen Hamilton, Titanium Sponsor Crowdstrike** and other supporters for their role in helping this program continue to grow.

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CIAS Marketplace

The CIAS online marketplace is a one-stop shopping experience that enables players to purchase additional Cyber Threat card games and accessories. Below is a snapshot of various products available at **CIASMarketplace.com**.

Wall Poster ▶

▼ Game Mat

Get to Know the Cyber Protectors

Apollo

"Apollo" was named after the Greek/Spartan god Apollo, known for his interest in medicine and helping those in need– especially in defense against threats.

Both Apollo and Artemis protected those around them. Cyber Threat Protectors can be inspired by these two characters to also defend their personal devices and information against cyber threats today.

Fun Fact #1

Researchers with the American Academy of Neurology associated playing card games, crafting or playing computer games with a 20 percent drop in the risk of developing cognitive impairment. So, playing games improve's one's ability to think critically!

~ *betteraging.com*

Artemis

"Artemis" was named after the Greek/Spartan goddess, and twin sister to Apollo. She was famous for her desire to protect children.

DID YOU KNOW?
NASA was also inspired to name one of their programs after Artemis. The NASA Artemis program is a robotic and human Moon exploration program led by the United States' National Aeronautics and Space Administration, along with three international partners.

Fun Fact #2

In the United States, 53 percent of kids have a smartphone by the age of 11. The number of children owning a smartphone increases to nearly all children between the ages of 13 and 18. This means everyone, including children, need to be responsible for cybersecurity!

~ statista.com

CIAS Launcher (Digital Games)

Did you know?

You can access several computer games on PC and Windows-based computers, which are designed for grades 3 and up, through one download. These games are hosted on the "CIAS Launcher". Depending on the game, young learners can build a computer network to mine for cryptocurrency, or gain an introduction into cryptography!

The CIAS Launcher is free to download! To access your copy of the games, visit **https://cias.utsa.edu/k-12/cybersecurity-games/.**

Games Found via the CIAS Launcher:

CyBear's Network Defense:
Build a computer network to mine for cryptocurrency and use this money to expand and secure your network. Grades 3 and up.

CyBear's Computer Adventure:
Players will gain actionable advice for safer computing in the real world. Grades 3 and up.

Project Cipher:
Players are introduced to the concept of cryptography by learning techniques to hide (encrypt) or discover (decrypt) information by encoding and decoding messages with ciphers. Grades 4 and up.
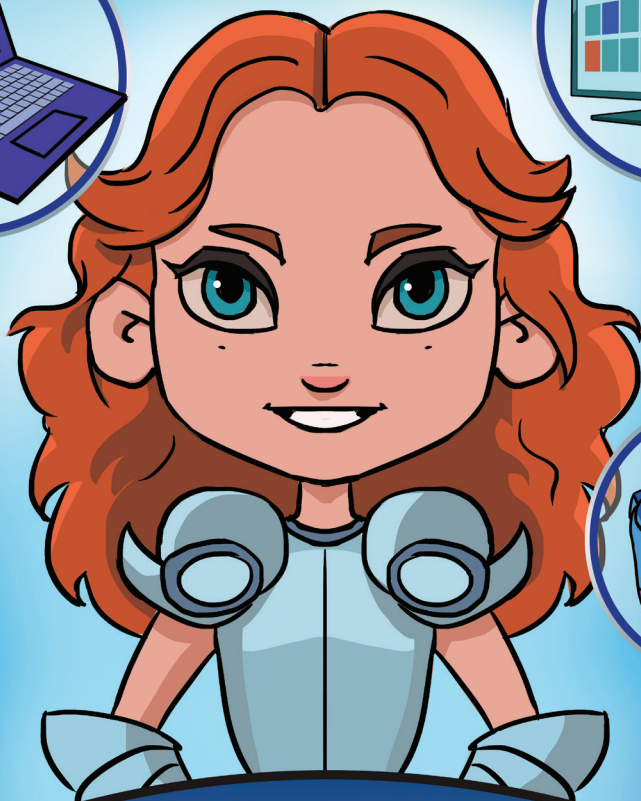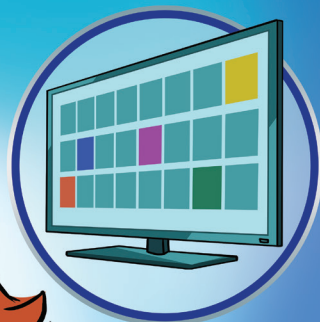
Cyber Threat Defender: Digital:
A video game simulation of the tabletop collectible card game. Grades 6 and up.

How to Download the CIAS Launcher to Windows-based Devices

Go to **cias.utsa.edu/k-12/cybersecurity-games/** and select the "Get the Launcher" orange button. The CIAS Launcher will download as a Zip file. Move the CIAS Launcher's zip file to your desktop and extract it. If not prompted, right click and extract the zip file. Once the zip file is extracted, it will appear as a folder on your desktop. You can open the folder and double click/run the CIAS Launcher application file to open the Launcher.

About the CIAS (Gaming)

The Center for Infrastructure Assurance & Security (CIAS) at The University of Texas at San Antonio (UTSA) is committed to creating a culture of cybersecurity through educational gaming programs. The CIAS conducts research into effective ways to introduce students to cybersecurity principles.

The CIAS' Cyber Threat Protector game is designed for students in grades 3-5 to introduce cybersecurity terminology and defense strategies. Other cyber-related games include the popular Cyber Threat Defender®: The Collectible Card Game, Cyber Threat Guardian, and Project Cipher. For more information, visit **CIAS.UTSA.edu.**

We'd Love Your Support!

By sponsoring Cyber Threat Protector, you are helping elementary students nationwide learn the basics of cybersecurity in a fun and engaging game that will prepare them for their future in cybersecurity!

For more information, please visit **CIASGaming.com.**

Note to Security Professionals

In developing this game, we recognize that we have taken some liberties with how things actually work. We have attempted to keep true to the spirit of computer security, but for playability reasons have slightly modified how things might actually work in reality. We believe, however, that the game is close enough that individuals playing the game will be able to gain some understanding of basic computer security concepts.